CITY OF
Albuquerque

January 6, 1997

Martin J. Chávez, Mayor

Jim Kapuranis
JJK Group, Inc.
3636 Menaul NE
Suite 214
Albuquerque, NM 87110

RE: ANIMAL CLINIC (C19-D6B4). ENGINEER'S CERTIFICTION FOR CERTIFICATE OF OCCUPANCY PERMIT APPROVAL. ENGINEER'S CERTIFICATION STAMPED 12-28-96.

Dear Mr. Kapuranis:

Based on the information provided on your December 27, 1996 submittal, the above referenced project is approved for Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

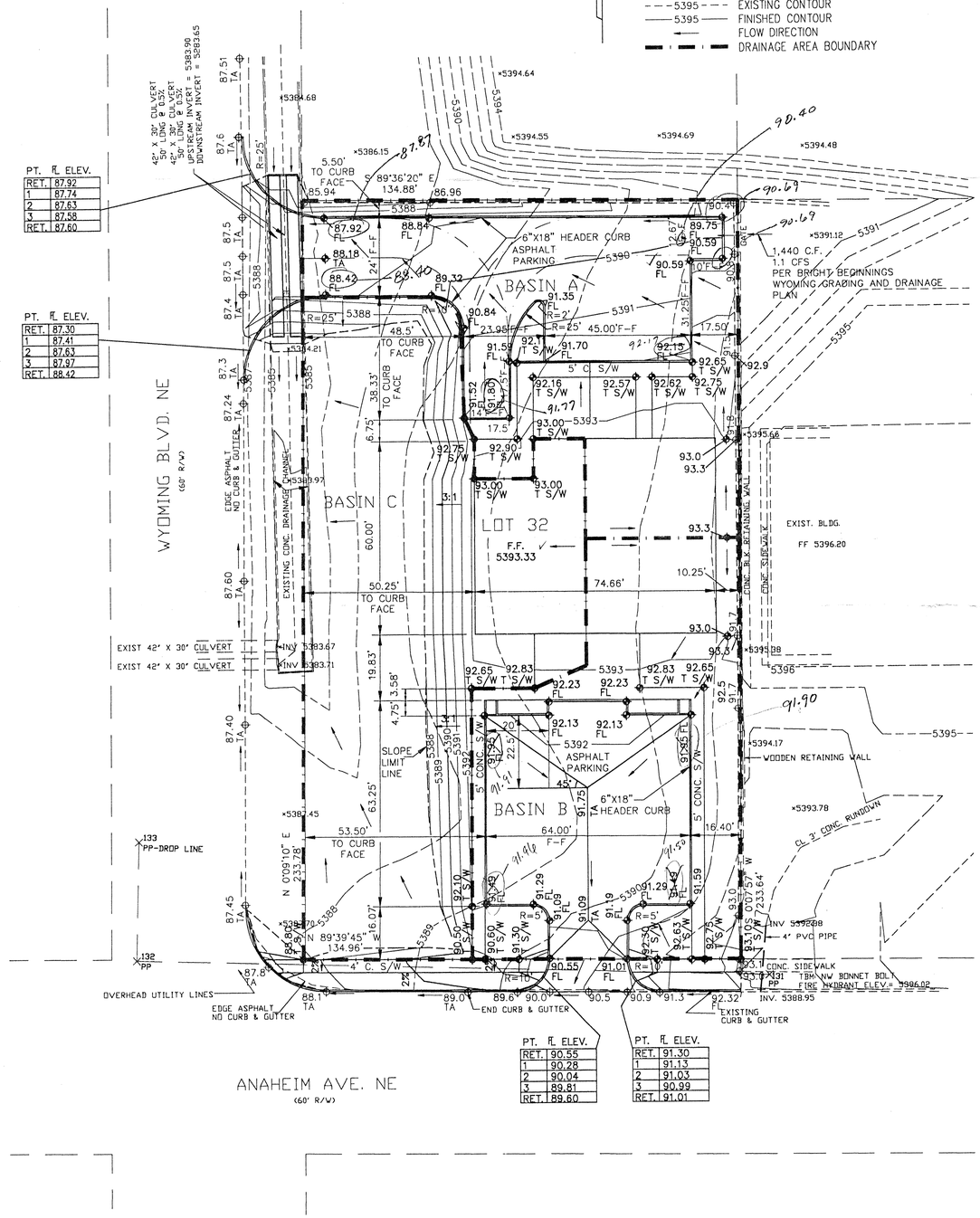
c: Andrew Garcia
File

GENERAL NOTES :

1. SEE SITE PLAN FOR ALL DIMENSIONS OF BUILDING LAYOUT THIS SHEET.
2. PAVING SUBGRADE AND BUILDING PAD AREAS SHALL BE COMPACTED AS DESCRIBED IN IN GENERAL NOTES OF PLANS.
3. ALL HYDROLOGY CALCULATIONS ARE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), VOLUME 2, DESIGN CRITERIA, SECTION 22.2 HYDROLOGY, JANUARY, 1993.

LEGEND :

5' C. S/W	5' WIDE, 4" THICK CONC. SIDEWALK
T S/W	TOP SIDEWALK ELEVATION
F.F.	FINISHED FLOOR
FL	CURB & GUTTER FLOWLINE
F-F	CURB FACE TO CURB FACE
87.5	EXISTING SPOT ELEVATION
87.55	FINISHED SPOT ELEVATION
5395	EXISTING CONTOUR
5395	FINISHED CONTOUR
	FLOW DIRECTION
	DRAINAGE AREA BOUNDARY



Grading Discussion

The exising condition of the site is unimproved. There is a retaining wall on the east side of the property, on the east lot. Grading of the site will involve importing material (apprwx. 27,000 c.y.) to the site to allow drainage from the south parking area to Anaheim Ave. The finished surface elevation on the downhill side of the retaining wall will be raised up to 1.5' from the imported material, improving the stability of the retaining wall. The north parking area is elevated accordingly to match the building elevation. The entrance drive to the north parking area is elevated to allow drainage structures to be built along Wyoming Boulevard, to allow drainage of the north parking area, and to minimize earthwork along the north property boundary.

Hydrology Discussion

The project site currently drains to the concrete channel at the west side of the property. This channel drains to the two culverts crossing Wyoming Boulevard. Additionally, offsite flows from the property to the east enter this project site through a gate at the north end of the concrete block retaining/privacy wall. The total area is 0.72 Ac. The site is in precipitation zone 3, and 100-yr, 6 hr. storm data is used for hydrology calculations.

The site has been divided into three drainage areas, Basin A, Basin B, and Basin C. Basin A includes the north parking area, landscaping, walks, and the northeast quarter of the roof area, draining out the entrance drive to Wyoming Boulevard. Basin B includes the south parking area, landscaping, walks, and the southeast quarter of the roof area, draining out the south entrance drive to Anaheim Ave, turning to north on Wyoming Boulevard, and flowing into the concrete channel. Basin C includes landscaping and the west half of the roof area, draining directly to the west concrete channel.

Calculations

Undeveloped :

Treatment C — Excess Precipitation = 1.29 in./Ac
0.72 Ac. — Peak Discharge = 3.45 cfs/Ac/

Volume
E = 1.29 in.
AT = 0.72 Ac.
V100 = (E/12)*AT = (1.29/12)*0.72 = 0.077 Ac.-Ft. = 3,355 C.F.

From east propery = 1,440 C.F.
TOTAL = 4,755 C.F.

Discharge
Q = QPA*AA = (3.45*0.72) = 2.48 cfs

From east property = 1.10 cfs
TOTAL = 3.58 cfs

Developed :

Treatment	Area(Ac) Basin A	Area(Ac) Basin B	Area(Ac) Basin C	Excess Precipitation	Peak Discharge
B	0.06	0.05	0.26	0.92	2.60
D	0.16	0.14	0.05	2.36 in/Ac	5.02 cfs/Ac
	Total Area = 0.72 Ac.				

Basin A
Volume
E = ((EB*AB)+(ED*AD))/AT = ((0.92*0.06)+(2.36*0.16))/0.22 = 1.97 in.
V100 = (E/12)*AT = (1.97/12)*0.22 = 0.036 Ac-Ft = 1,570 C.F.
Peak Discharge
QP = (QB*AB)+(QD*AD) = (2.60*0.06)+(5.02*0.16) = 0.96 cfs

Basin B
Volume
E = ((EB*AB)+(ED*AD))/AT = ((0.92*0.05)+(2.36*0.14))/0.19 = 1.98 in.
V100 = (E/12)*AT = (1.98/12)*0.19 = 0.031 Ac-Ft = 1,370 C.F.
Peak Discharge
QP = (QB*AB)+(QD*AD) = (2.60*0.05)+(5.02*0.14) = 0.83 cfs

Basin C
Volume
E = ((EB*AB)+(ED*AD))/AT = ((0.92*0.26)+(2.36*0.05))/0.31 = 1.15 in.
V100 = (E/12)*AT = (1.15/12)*0.31 = 0.030 Ac-Ft = 1,310 C.F.
Peak Discharge
QP = (QB+AB)+(AD*AD) = (2.60*0.26)+(5.02*0.05) = 0.93 cfs

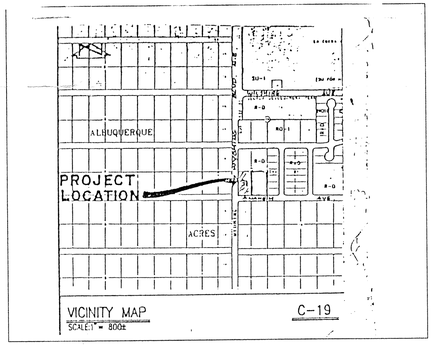
Summary

	V100	Q100	
Basin A	1,440 C.F.	1.10 cfs	fron lot 32 (east prop)
	1,570 C.F.	0.96 cfs	
Subtotal	3,010 C.F.	2.06 cfs	
Basin B	1,370 C.F.	0.83 cfs	
Basin C	1,310 C.F.	0.93 cfs	
Total	5,690 C.F.	3.82 cfs	

Comparison
Q100DEV - Q100EXIST = 3.82-2.48 = 1.34 cfs increase from development

BENCH MARK

TBM NW BONNET BOLT ON FIRE HYDRANT AT SE CORNER OF SITE.
ELEV. 5396.02



LEGAL DESCRIPTION :

LOT 32, BLOCK 17, TRACT 2, UNIT 3, NORTH ALBUQUERQUE ACRES.

THE GRADING AND DRAINAGE IMPROVEMENTS WAS CONSTRUCTED IN SUBSTAINTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN.

JIM J. KAPURANIS NEW MEXICO 10263 REGISTERED PROFESSIONAL ENGINEER 12/28/96

JIM J. KAPURANIS NEW MEXICO 10263 REGISTERED PROFESSIONAL ENGINEER 10/10/96

JJK GROUP, INC.
Engineering and Construction
3636 Menaul NE Suite 214
Albuquerque, NM 87110

PROJECT NAME: ANIMAL CLINIC
ALBUQUERQUE, NM

SHEET TITLE: GRADING AND DRAINAGE PLAN

DESIGNED:	JJK
DRAWN:	GM
CHECKED:	GM
DATE:	6-19-96
PLOT SCALE:	1"=20'
JOB NO:	15795
COMP. FILE:	PLANREV
REVISIONS	
DATE:	BY:
10/10/96	JJK

D1

SHEET 1 OF 1 SHEETS