

LONGHORN CONSTRUCTION SERVICES, INC.

L
C (505) 884-2865
S

3124 Indiana N.E.
Albuquerque, New Mexico 87110
April 14, 1995

FAX 884-2921

John P. Curtin, P.E.
Civil Engineer/Hydrology
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Drainage Plan for two(2) Apartment Units on
Cornell SE (K-16/D46)

Dear Mr. Curtin:

Responding to your correspondence of 4/11/95, we address the comments on the above referenced drainage plan as follows:

(1) The bench mark used to obtain the elevations onsite is the City of Albuquerque Reference Mark RM54 (elevation 5161.70) as shown on panel 29 of 50 - Community panel No. 3500020029 C - Flood insurance rate map. This bench mark is located at the corner of Central Avenue and Yale Blvd. This information has been put on the site plan. All spot elevations on the plan has been referenced to the mean sea level elevation obtained from this bench mark.

(2) Contours and spot elevations extending 25' beyond the property lines were not obtained due to the following:

(a) The area is virtually flat and the elevations obtained along the edges of our property are indicative of the elevations out to 25'-0 beyond the property lines. The overall slope of the area is less than one-half of a percent to the south.

(b) The work on the site will not affect the adjacent private properties, and the increase in peak discharge to Cornell street and/or the alley are insignificant (see attached calculations).

(3) The site is not in any designated flood hazard zone (see zerox of location from panel 29 of FIRM).

(4) No off-site flow enters the site.

(5) Downstream capacity will not be affected since the proposed development causes only an insignificant increase in run off (i.e. 0.51 gal. per sec. to street and 0.126 gal. per sec. to alley - see attached calculations).

(6) The alley drains south to Coal Avenue and is unimproved. Any run off to the alley stays within the alley until it reaches the street.

(7) The run off from this site does not drain into adjacent private property.

(8) The change in peak discharge for a 100 year storm - 6 hour event was calculated and the results indicate an insignificant change will result due to the improvements. A summary of the results are as follows (see calculations attached).

Page 1.

APR 17 1995
HYDRO

Longhorn Construction Services, Inc.

April 14, 1995

Re: Drainage Plan for (2) Apt. Units on Cornell SE

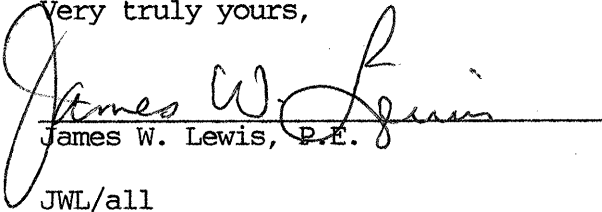
Page 2.

Change in Peak discharge to Cornell Street equals 0.068328 CFS equals
0.51 Gal/Sec.

Change in Peak discharge to alley equals 0.016848 cfs equals 0.126 Gal/Sec.

We hope this information will be adequate to address your concerns.

Very truly yours,


James W. Lewis, P.E.

JWL/all

LONGHORN CONSTRUCTION SERVICES, INC.

L
C (505) 884-2865
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3124 Indiana N.E.
Albuquerque, New Mexico 87110

FAX 884-2921

November 20, 1995

City of Albuquerque
P.O. Box 1293
Albuquerque, N.M. 87103

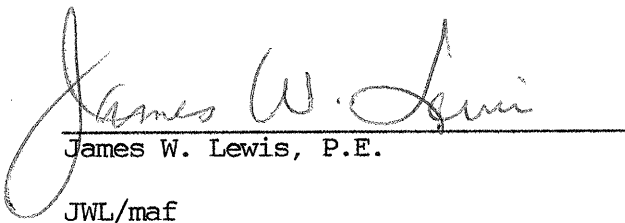
Att: John P. Curtin P.E. - City Hydrology
Civil Engineer/Hydrologer
Re: Drainage Plan for two Apartments @
313 Cornell SE (K-16/D46)
Received April 17, 1995 for Building
Permit - Plan accepted per correspondence
of 4/19/95

Dear Mr. Curtin,

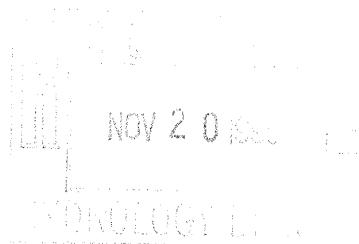
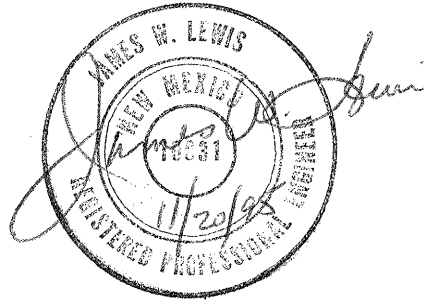
Based on our survey of the as-built grading and drainage for this site (see attached Grading and Drainage Plan, revised 4/14/95 with as-built elevations and Engineers signed stamp dated 11/17/95), please allow this correspondence and attached site plan, to serve as the Engineer's certification of grading and drainage per DPM checklist, and required installation substantially as designed and approved.

Please advise if City Hydrology needs further information to be able to release the Certificate of Occupancy on this project.

Very truly yours,
Longhorn Construction Services, Inc.


James W. Lewis, P.E.
JWL/maf

cc file





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 28, 1995

**James W. Lewis, PE
Longhorn Construction Ser Inc
3124 Indiana NE
Albuquerque, NM 87110**

**RE: ENGINEER'S CERTIFICATION FOR TWO APARTMENTS ON CORNELL SE
RECEIVED NOVEMBER 20, 1995 FOR CERTIFICATE OF OCCUPANCY
ENGINEER'S STAMP DATED 11/17/95 (K-16/D46)**

Dear Mr. Lewis:

Based on the information included in the submittal referenced above, City Hydrology accepts the Engineer's Certification of grading & drainage for Certificate of Occupancy. Contact Vicki Chavez at Code Administration to obtain the Certificate of Occupancy for 313 Cornell SE.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

**John P. Curtin, P.E.
Civil Engineer/Hydrology**

c: Andrew Garcia

Two(2) Apartment Units @ 313 Cornell SE Change in Peak Discharge

James W. Smith
4/14/95

This site is located in Zone 2 between the Rio Grande River and San Mateo Street, Albuquerque N.M.. The Changes to be made on site (total site is a lot 50' wide x 142' deep running from Cornell Street to the alley between Cornell and Harvard) include the addition of two(2) apartments (Roof footprint - $42 \times 25^5 = 1075 \text{ S.F.} / 43560 = 0.0247^{\text{Ac}}$ and the paving of parking Areas as follows:
off Cornell St. $(20 \times 30 + 10 \times 23.2 = 832 \text{ S.F.} / 43560 = 0.0191 \text{ Ac.}$
and @ Alley $(17 \times 26.5 = 450.5 + 20 = 470.5 \div 43560 = 0.0108 \text{ Ac.}$

We calculate the Peak Discharge Change for a 100 yr. Storm - 6 hour event defined by the NOAA Atlas 2, Precipitation - Frequency Atlas of the Western United States, Vol IV - New Mexico

Run off to Cornell (Peak Discharge Change)

Roof Area - 0.0247 Acres Change from Treatment C to Treatment D

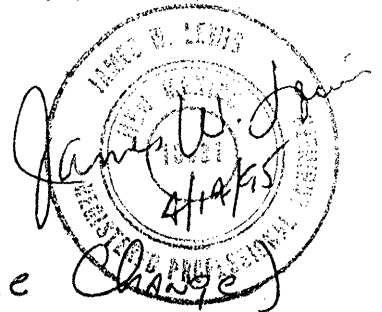
Paved Area - 0.0191 Acres Change from Treatment C to Treatment D

for 100 year Storm - from Table A-9

$$\begin{aligned} Q_p &= \Delta C_{\text{Roof}} I A + \Delta C_{\text{Parking}} I A \\ &= (4.70 - 3.14)(0.0247 \text{ Acres} + 0.0191 \text{ Acres}) \\ &= (1.56)(0.0438) = 0.068328 \text{ CFS/Acre} \\ &= 0.51 \text{ gallons/second} = 30.6 \text{ gal/min} \end{aligned}$$

APR 17 1995

Two 2) Apartments Units C 313 Cornell SE



Run off to Alley (Peak Discharge Change)

Paved Area - 0.0108 Acres Changed from Treatment C to Treatment D

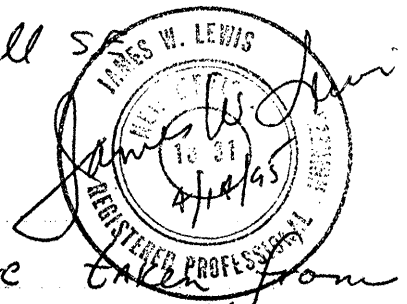
$$\begin{aligned} Q_p \text{ Change} &= AC I A \\ &= (4.70^{1.5} - 3.14) (0.0108) = 0.016848 \text{ cfs} \\ &= 0.126 \text{ gallons per second} \\ &= 7.56 \text{ gallons/minute} \end{aligned}$$

The Peak discharge change in runoff over the entire areas to be altered is insignificant (i.e. 0.51 gallons/second = 30.6 gallons per minute to the street (Cornell))

and 0.126 gallons/second = 7.56 gallons/minute to the alley

- The site is not in a designated flood hazard zone
- No off site flow enters the site
- No runoff from this site enters adjacent sites
- The alley drains south to COAL Avenue
- The runoff increase to the street (Cornell) and/or to the alley is insignificant to affect the downstream capacity of the existing system.

Two Apartment Units @ 313 Cornell St



The elevations on site are taken from and referenced to the City of Albuquerque (ACS) Reference Mark RM54 (elevation 5161.70) being a standard brass tablet, Stamped 6-K16 1974 ACS, set in a concrete block in the ground, located at the intersection of Central Avenue and Yale Boulevard, SE 45.5' east of the centerline of Yale Boulevard and 24.3' South of the centerline of the westbound lane of Central Avenue. We have referenced all elevations to mean sea level.

Contours and spot elevations extending a minimum of 25'-0" beyond property lines have not been obtained due to the following:

(1) The adjacent properties to the North and South are private properties that are not affected by these improvements on this property and would require approval of the adjacent property owners to allow survey work on their properties.

(2) The street (Cornell) and the alley both drain south, but the increase in runoff is insignificant to affect any drainage characteristics. The street slopes less than 1% as does the alley (approximately 3.75 inches in 50').

