HYDROLOGY L15/D18 4 PLEX CLAYTON HEIGHTS

L15 / D18

4 PLEX

CLAYTON HEIGHTS

1 PLAN

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

August 27, 1985

Clifford Anderson
Scanlon & Associates, Inc.
8008 Pennsylvania Circle NE
Albuquerque, NM 87109

REF: 4 PLEX ON LOT 15, BLOCK 14 CLAYTON HEIGHTS SUBDIVISION (L15-D18)
ENGINEER'S STAMP DATED 8/14/85

Dear Mr. Anderson:

Based on the information provided on your August 14, 1985 resubmittal, the above referenced drainage plan is approved.

Please attach a copy of this approved plan within the City construction sets before Hydrology will sign-off for building permit approval.

If I can be of further assistance, please feel free to call me at 766-7644.

Sincerely,

Carlos A. Montoya, P.E.
City/County Flood Plain Admin.

CAM: BJM:mrk

City of Albuquerque

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City/County Flood Plain Admin.

CAM: BJM:mrk

DRAINAGE INFORMATION SHEET

PROJECT TITLE: 4PLEX ZONE ATLAS/DRNG. FILE #: L-15/D18

LEGAL DESCRIPTION: LOT 15; BLOCK 14; CLAYTON HEIGHTS SUBDIVISION

CITY ADDRESS: 1812 BUENA VISTA SE,

ENGINEERING FIRM: SCANLON & ASSOCIATES CONTACT: CLIFF ANDERSON

ADDRESS: 8008 PENNSYLVANIA NE B110 PHONE: 265-6941

OWNER: BOB OSTHOFF CONTACT:

ADDRESS: 39 WESTLAKE DR. UE PHONE: 292-5383

ARCHITECT: RICK BENNETT CONTACT: RICK BENNETT

ADDRESS: 3803 RIVERVIEW N.W. PHONE: 831-3950

SURVEYOR: SCANLON & ASSOCIATES CONTACT: CLIFF ANDERSON

ADDRESS: 8008 PENNSYLVANIA NE PHONE: 265-6941

CONTRACTOR: DOWNUM'S UBC CONTACT: FRED DOWNUM

ADDRESS: 1405 SNOWDROP NE PHONE: 299-1059

RECEIVED
AUG 14 1985
HYDROLOGY SECTION

PRE-DESIGN MEETING:

X YES
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ. NO. _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
X DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
X BUILDING PERMIT APPROVAL
___ FOUNDATION PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: AUG 14, 1985

BY: Fred Downum

6

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

August 8, 1985

Clifford E. Anderson
Scanlon & Assoc. Inc.
8008 Pennsylvania Circle NE
Albuqueruqe, NM 87109

REF: 4 PLEX ON LOT 15 BLOCK 14 CLAYTON HEIGHTS SUBD.

L415/D18

Dear Mr. Anderson:

A preliminary review of your submittal for Building Permit approval has shown that the following information is lacking for this section to begin the review process.

Information Needed

1. On-site flows - quantification, discharge locations and/or treatment for undeveloped condition also.

Plan Drawing

1. Bench Mark description/location.
2. TBM location.
3. Finished floor elevation with complete MSL designation.
4. Erosion Control Plan
5. Indicate name of street adjacent to proposed site.
6. Elevation of property line must be at least .33' above adjacent top of curb.

Please provide this information so that we may process your request as expediently as possible.

Cordially,

/Bernie J. Montoya

City Design/Hydrology Section

cl

DRAINAGE INFORMATION SHEET

PROJECT TITLE: 4 plex- lot 15 Block 4 *ZONE ATLAS/DRNG. FILE #:* L-15 / D18

LEGAL DESCRIPTION: Lot 15, Block 14 Clayton Heights Subdivision

CITY ADDRESS:

ENGINEERING FIRM: Scanlon & Associates, Inc. *CONTACT:* Clifford E. Anderson

ADDRESS: 8008 Pennsylvania Circle NE *PHONE:* 265-6941

OWNER: Bob Osthoff *CONTACT:*

ADDRESS 39 West Lake Drive NE *PHONE:*

ARCHITECT: Rick Bennett *CONTACT:*

ADDRESS: 3803 Riverview NW *PHONE:*

SURVEYOR: *CONTACT:*

ADDRESS: *PHONE:*

CONTRACTOR: Fred Downum *CONTACT:*

ADDRESS: 1405 Snowdrop NE *PHONE:*

RECEIVED
AUG 02 1985
HYDROLOGY SECTION

PRE-DESIGN MEETING:

X *YES*

____ *NO*

X *COPY OF CONFERENCE RECAP SHEET PROVIDED*

DRB NO.

EPC NO.

PROJECT NO.

TYPE OF SUBMITTAL:

____ *DRAINAGE REPORT*

X *DRAINAGE PLAN*

____ *CONCEPTUAL GRADING & DRAIN. PLAN*

____ *GRADING PLAN*

____ *EROSION CONTROL PLAN*

____ *ENGINEER'S CERTIFICATION*

CHECK TYPE OF APPROVAL SOUGHT:

____ *SKETCH PLAT APPROVAL*

____ *PRELIMINARY PLAT APPROVAL*

____ *SITE DEVELOPMENT PLAN APPROVAL*

____ *FINAL PLAT APPROVAL*

X *BUILDING PERMIT APPROVAL*

____ *FOUNDATION PERMIT APPROVAL*

____ *CERTIFICATE OF OCCUPANCY APPROVAL*

____ *ROUGH GRADING PERMIT APPROVAL*

____ *GRADING/PAVING PERMIT APPROVAL*

OTHER ____ *(SPECIFY)*

DATE SUBMITTED: August 1, 1985

BY: Clifford E. Anderson

Clifford E. Anderson
PE & LS No. 6472

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

PRE-DESIGN CONFERENCE RECAP

HYDROLOGY SECTION PROJECT NO.: L 15 DATE: 7-18-85

PLANNING DIVISION NOS. EPC: _____ DRB: _____

SUBJECT: Four Plex Project

LEGAL DESCRIP.: Lot 15 Block 14 Clayton Hts. SUBD.

APPROVAL REQUESTED

_____ PRELIMINARY PLAT _____ FINAL PLAT
_____ SITE DEVELOPMENT PLAN X BUILDING PERMIT
_____ ROUGH GRADING

	WHO:	REPRESENTING:
ATTENDANCE:	Cliff Audrcan	_____
	Carlos A Montoya	_____
	_____	_____
	_____	_____

_____ Conceptual Drainage Plan/Report required for Preliminary Plat and/or Site Development Plan sign-off.

X Approved Drainage Plan/Report required for Final Plat and/or Building Permit sign-off.

_____ Subdivision Improvements Agreement or Financial Security required.

FINDINGS: ① Drainage plan per DPM ② Free discharge Due to - ⓐ Dwnstream Rio Grande Channel ⓑ minimum impact ⓒ No flooding downstream ③ Off-site flow (approx 0.6 Ac) must be passed thru s.to.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED:	Carlos A Montoya	SIGNED:	Cliff Audrcan
TITLE:	_____	TITLE:	Vice President Sales
DATE:	7-18-85	DATE:	7-18-85

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

C. Anderson
July, 1985

4-Plex - Lot 15 Block 14 Clayton Heights Subd.

UPSTREAM RUNOFF (AREA A-1)

AREA = 0.627 Ac
% IMPERVIOUS = 75% - Assumed
Existing condition is undeveloped.
SCS Soil Group = B (MVA soil) & A (C_o soil)
Use B for design
Rational Method "C" factor = 0.73 (DPM Plate 22.2C-1)

$$T_c = 0.0078\ L^{0.77}/S^{0.385} = 0.0078\ L^{1.155}/\Delta H^{0.385}$$

$L = 230'$ $\Delta H = 11.0^{FT}$

$T_c = 0.0078 \times 230^{1.155}/11^{0.385} = 1.7^{MIN}$ ∴ USE 10^{MIN}

100 year - 6 HOUR RAINFALL = 2.3^{IN}

$I = 2.3^{IN} \times 6.84 \times 10^{min^{-0.51}} = 4.86^{IN/HR}$

$Q_{100} = CIA = 0.73 \times 4.86 \times 0.627 = 2.2\,cfs$

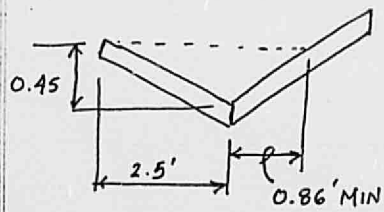
Onsite Runoff

Area = 0.193 Ac $C = 0.90$ $I = 4.86^{IN/HR}$

$Q_{100} = CIA = 0.90 \times 4.86 \times 0.193 = 0.6\,cfs$

C. Anderson
July, 1985

Capacity of Concrete channel at North Property Line



$A = \frac{1}{2}(0.45)(3.36) = 0.756^{\text{SQFT}}$

$R = A/WP = \frac{0.756^{\text{SQFT}}}{3.48^{\text{FT}}} = 0.217^{\text{FT}}$

n (CONC. CHANNEL) $= 0.014$

S = slope (min) $= 0.011^{\text{ft}}/_{\text{ft}}$

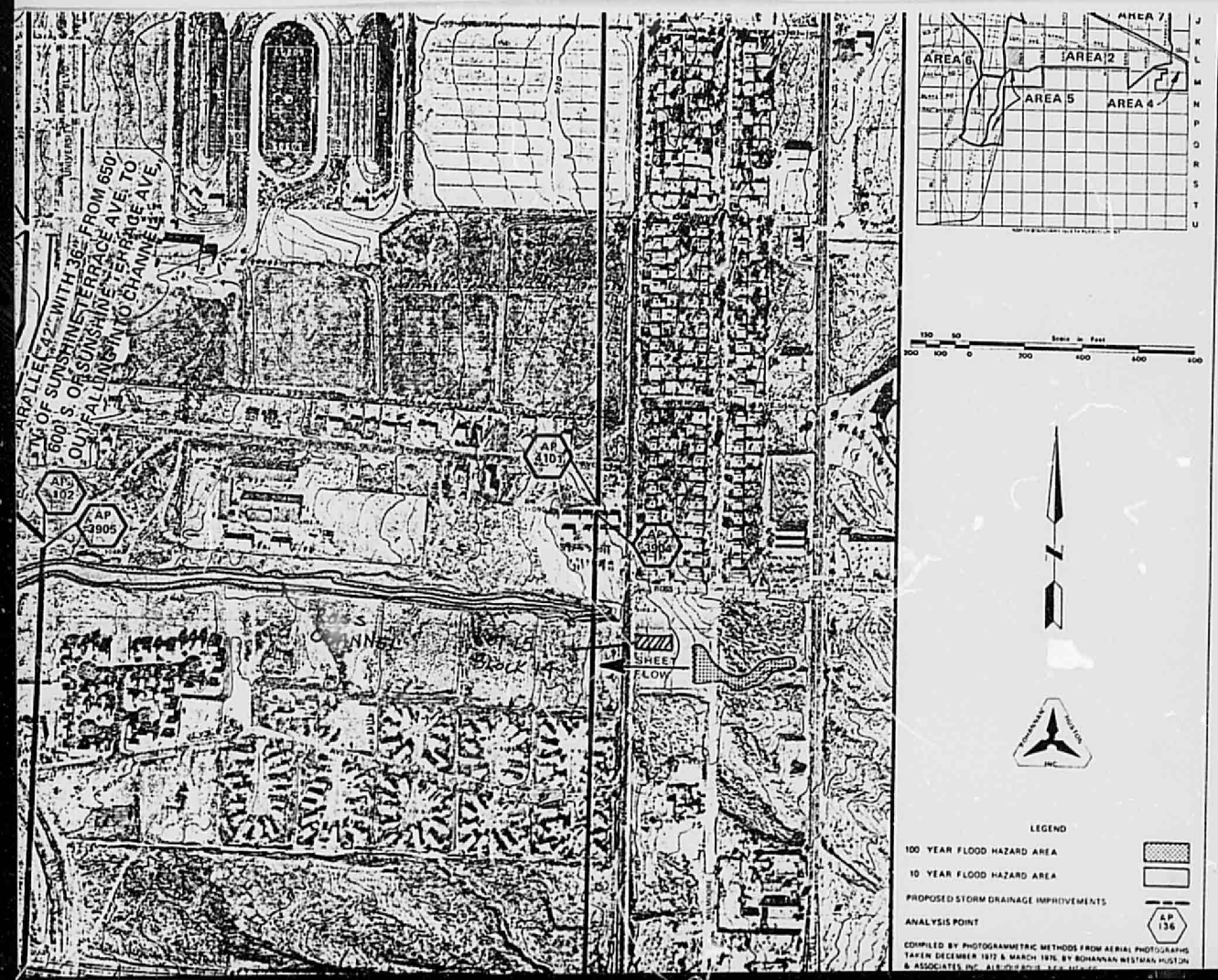
from Manning's Equation

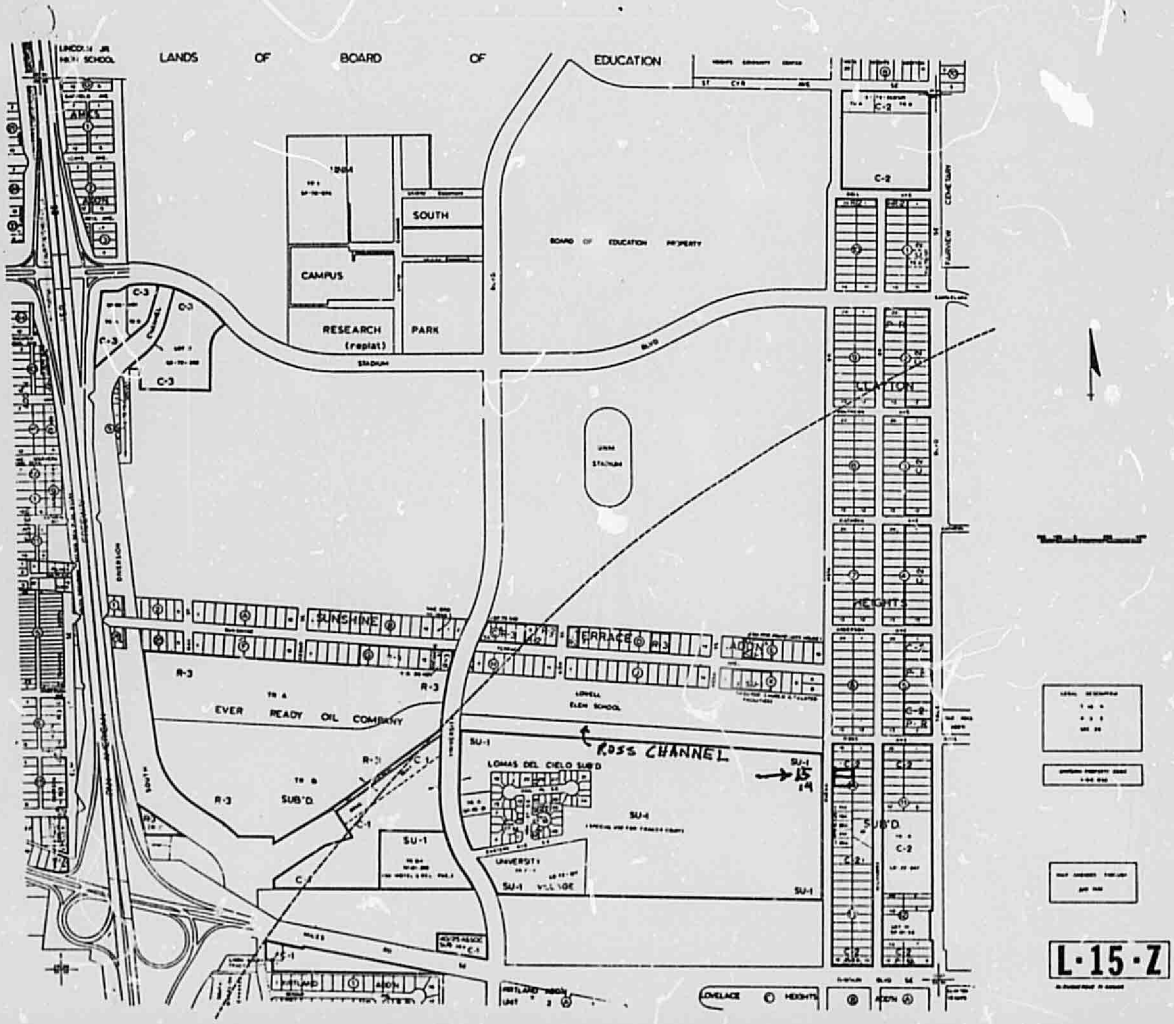
$$Q = \frac{1.486}{n} A R^{2/3} S^{1/2}$$

$$= \frac{1.486}{0.014} \times 0.756 \times 0.217^{2/3} \times 0.011^{1/2} = 3.04 \text{ cfs}$$

3.04 cfs < 2.4 cfs MAX CHANNEL FLOW

∴ OK


AREA 7
AREA 6
AREA 2
AREA 5
AREA 4
CYPRESS
Scale in Feet
150 100 50 0 200 400 600 800
AP 3902
AP 3903
AP 3904
AP 3905
AP 3907
SHEET FLOW
LEGEND
100 YEAR FLOOD HAZARD AREA
10 YEAR FLOOD HAZARD AREA
PROPOSED STORM DRAINAGE IMPROVEMENTS
ANALYSIS POINT
AP 136
COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHS TAKEN DECEMBER 1972 & MARCH 1976, BY BOHANNAN WESTMAN HUSTON & ASSOCIATES, INC.



L-15-Z

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

SCANLON & ASSOCIATES
CONSULTING ENGINEERS
8008 Pennsylvania Circle NE
Albuquerque, New Mexico 87110
(505) 265-6941

Project 4-Plex Lot 15 Blo.k 4
Location Lot 15 Block 4 Clayton Heights Subd
Job No. 85125 Date 8/12/85
By C. Jaramillo Sheet 1 of 1

COMPUTATION OF UNDEVELOPED CONDITIONS

UPSTREAM RUNOFF (AREA A-1 -offsite)

AREA = 0.627 Ac SCS "B" Soil

RATIONAL METHOD "C" FACTOR = 0.34

T_c = 1.7 MIN UNDEVELOPED
∴ USE 10 MIN

RECEIVED
AUG 14 1985
HYDROLOGY SECTION

100 YEAR - 6 HOUR RAINFALL = 2.3 IN

$I = 2.3^{IN} \times 6.84 \times 10^{-0.51} = 4.86^{IN/HR}$

$Q_{100\ (EXIST\ OFFSITE)} = 0.34 \times 4.86 \times .627 = 1.04$ cfs

ONSITE RUNOFF - UNDEVELOPED CONDITIONS

AREA = 0.143 Ac C = 0.34 $I = 4.86^{IN/HR}$

$Q_{100} = 0.34 \times 4.86 \times 0.143 = 0.236$ cfs

UNDEVELOPED FLOW GOES TO Buena Vista Dr.
ALONG WEST PROPERTY LINE
- SHEET FLOW & MINOR DRAIN SWALES.

SCANLON & ASSOCIATES
8008 Pennsylvania Circle NE
Albuquerque, New Mexico 87110
(505) 265-6941

Project 4-Plex Lot 15 Blk 4
Location Lot 15 Block 4 Clayton Heights Subd
Job No. 8512.5 Date 8/12/85
By C. Anderson Sheet 1 of 1

COMPUTATION OF UNDEVELOPED CONDITIONS

UPSTREAM RUNOFF (AREA A-1 -offsite)

AREA = 0.627 Ac SCS "B" SOIL

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