8 PLEX

K19-D28

1 PLAN

INFORMATION SHEET

PROJECT TITLE 8 plex TYPE OF SUBMITTAL Grading Plan

ZONE ATLAS PAGE NO. K-19 CITY ADDRESS 501 & 507 Vermont NE

LEGAL DESCRIPTION Lot 48 and B Block 37

ENGINEERING FIRM Engineering Assoc. CONTACT August E Mosimann

ADDRESS 1801 Lomas NW PHONE 242-7522

OWNER Smaldone Dair CONTACT

ADDRESS 2255 Munn Rd PHONE 877-4996

ARCHITECT CONTACT

ADDRESS PHONE

SURVEYOR CONTACT

ADDRESS PHONE

CONTRACTOR Row Builders CONTACT

ADDRESS PHONE 8774996

DATE SUBMITTED

BY

Use this Information Sheet when submitting the following:

Drainage report or plan, conceptual grading and drainage plan, engineer's certification plan, erosion plan and grading plan. Provide the information applicable to your submittal.

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

November 29, 1982

Mr. August F. Mosimann, PE
1801 Lomas Blvd. NW
Albuquerque, New Mexico 87104

Ref: Vermont Street Drainage Report
K19-D28

Dear Mr. Mosimann:

The Hydrology Section has commenced review of your proposed drainage and grading plan. The following is a list of our requirements and requests for further analysis of your proposed plan.

1.) A completed information sheet (See DPM Volume II, Page 103). At this time, I am not certain of the exact location of this site.
2.) Calculations showing on-site undeveloped and developed flowrates, the points of discharge for the developed and undeveloped flows.
3.) Since you are proposing a "free discharge" situation, then the calculations of the adequacy of the existing storm sewer is required.
4.) Since there appears to be a line between the middle of the development, a drainage easement must be recorded with the northerly lot.
5.) A reference bench mark is required.

Please address the previous comments to allow me to continue analysis of your report.

Sincerely,

Andre Houle, PE
Civil Engineer/Hydrology

AH/el

cc: Drainage File
Reading File

James Innis
August F. Mosimann

engineering associates, inc.

1840
Lomas Boulevard, N E
Albuquerque, N. M.
87106
(505) 242-7522

January 21, 1983

Mr. Andre Houle
City of Albuquerque
P O Box 1293
Albuquerque, New Mexico 87103

Re: Townhouses on Vermont St. (City File # K19-D28)

Dear Andre,

This letter is a reply to your comments included in the Nov. 29, 1982 letter you sent us pertaining to the above referenced project.

Item 1.) The contractor has completed an information sheet and will supply you a copy ✓

Items 2 and 3.) Both of these items have been addressed in the attached drainage report

Item 4.) The grading plan has been revised so that runoff from one lot does not cross the other before it reaches Vermont St. ✓

Item 5.) The top of the curb at the line dividing the two lots has an elevation of 5366.42 and will be used as a temporary bench mark.

Sincerely,

August F. Mosimann

August F. Mosimann for
Engineering Associates, Inc.

AFM/js

Architectural Structural
Civil Structural
Site Analysis
Drainage Studies
Computer Applications

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

February 2, 1983

Mr. August F. Mosimann
Engineering Associates
1840 Lomas NE
Albuquerque, New Mexico 87106

Ref: 501 and 507 Vermont
K19-D28

Dear Mr. Mosimann:

The City Engineering Department hereby approves your grading and drainage plan (dated 2-1-83) for the aforementioned site. Attached is a red-marked up plan that I required in the building set to clarify for our inspector what the developed drainage pattern will be required for Certificate of Occupancy sign-off.

Please review my marked up plan to insure agreement with your 2-1-83 dated proposal; if I don't hear from you I will assume that my clarification notes are in agreement with your proposal.

Sincerely,

Andre Houle, PE
Civil Engineer/Hydrology

AH/el

cc: Drainage File
Reading File

Attachment

Drainage Report

for

Townhouses on Vermont

Jan 20, 1983

DESCRIPTION

The site is located at 501 Vermont N. E.(Legal Description Lots 48 and B, Block 37, Mesa Verde Addition). It consists of a small residence and several small outbuildings on unvegetated land.

EXISTING SITE STUDY

The existing site has approximately 1000 Sq. Ft. of existing buildings on otherwise undeveloped land. Existing flow is from the east towards the west accross the rear property line where it enters adjacent private property. When it leaves this property it enters Utah St. which carries it north to Marquette Ave. Marquetteconveys it west to a storm sewer at Dallas St.

The area is 17550 Sq. Ft.(0.403 Acres)
The impervious portion is 45%
The soil classification is "B", TgB
(Soil Survey Sheet 31)
The "C" factor is .57
(Plate 22.2 C-1)
The runoff length is 135 ft.
The slope is 1.5%
The Concentration time is .0078x(135^.77)/(.015^.385)=1.74 min
(10 min minimum)
The average velocity is 135/(10x60)=.23 ft/sec
The 100 year-6 hour precipitation amount is 2.4 in.
(Plate 22.2 D-1)
The 10 year-6 hour precipitation amount is 2.4x0.657=1.58 in.
(Plate 22.2 D-1)
The 100 year intensity is 2.15x2.4=5.16 in/hr.
The 10 year intensity is 2.15x1.58=3.40 in/hr.
The 100 year flow rate is Q=CxIxA=.57x5.16x0.403=1.19 cfs
The 10 year flow rate is Q=CxIxA=.57x3.4x0.403=1.78 cfs.
The 100 year volume is V=CxPxA=.57x2.4x17550/12=2001 cu. ft.
The 10 year volume is V=CxPxA=.57x1.58x17550/12=1317 cu ft.

OFFSITE FLOWS

No offsite flows effect the site. Up stream flows are intercepted by the west curb of Vermont street and routed North to Marquette Ave.

PROJECT DESCRIPTION

The project will consist of removing all the existing buildings. The site will be re-graded so that it will drain into Vermont St. Two townhouses will be constructed along with paved parking areas and landscaping.

ON-SITE FLOWS

The areas of the various items to be constructed are as follows:

Buildings	4600 Sq. Ft.
Paving	6100 Sq. Ft.
Sidewalks	928 Sq. Ft.
On-site Landscaping	6112 Sq. Ft.
City ROW Landscaping	450 Sq. Ft.

The area is 17750 Sq. Ft.(0.403 Acres)
The impervious portion is 66%
The soil classification is "B", TgB
(Soil Survey Sheet 31)
The "C" factor is .66
(Plate 22.2 C-1)
The runoff length is 135 ft.
The slope is 1.5%
The Concentration time is .0078x(135^.77)/(.015^.385)=1.74 min
(10 min minimum)
The average velocity is 135/(10x60)=.23 ft/sec
The 100 year-6 hour precipitation amount is 2.4 in.
(Plate 22.2 D-1)
The 10 year-6 hour precipitation amount is 2.4x0.657=1.58 in.
(Plate 22.2 D-1)
The 100 year intensity is 2.15x2.4=5.16 in/hr.
The 10 year intensity is 2.15x1.58=3.40 in/hr.
The 100 year flow rate is Q=CxIxA=.66x5.16x0.403=1.37 cfs
The 10 year flow rate is Q=CxIxA=.66x3.4x0.403=0.904 cfs.
The 100 year volume is V=CxPxA=.66x2.4x17750/12=2343 cu. ft.
The 10 year volume is V=CxPxA=.66x1.58x17750/12=1542 cu ft.

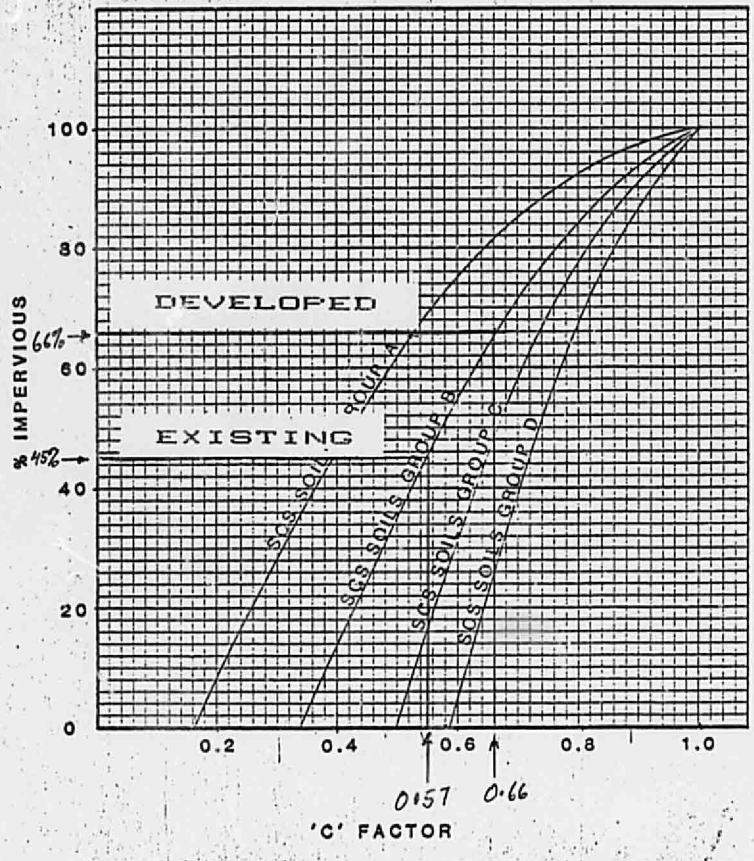
RECOMMENDATIONS

We recommend grading the site so that the runoff direction will be west to east and that the runoff will discharge freely into Vermont Ave. The flow direction in Vermont St. at this location is nprth to Marquette Ave. Marquette conveys the runoff west to Dallas St. where it enters the storm sewer system through drop inlets. Free discharge is recommended for the following reasons:

1. The additional runoff caused by the development is only 0.18 cfs.

2. The Master Drainage Study indicates no flood hazard areas between the site and the point where site runoff enters the storm sewer system.

3. The Inventory of Existing Storm Sewers indicates that the Dallas St. storm sewer is a 72 in. RCP with a capacity of 250 cfs and that the expected 100 year runoff in the line is 270 cfs.(8% over capacity) However, a future 84 in. RCP line is planned to run parallel to the existing 72 in. line. The new line will have a capacity of 350 cfs. Since the tributary area feeding these lines is almost completely developed we feel that the small 100 year flooding potential which currently exists will be alleviated.

DRAINAGE CRITERIA

DETERMINATION OF RATIONAL FORMULA 'C' FACTOR