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DRAINAGE REPORT

FOR

ALBUQUERQUE FEDERAL SAVINGS AND LOAN ASSOC

JUAN TABO BLVD NE AND CONSTITUTION AVE N E

ALBUQUERQUE, NEW MEXICO

PREPARED FOR:

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ALBUQUERQUE, NEW MEXICO

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GENERAL:

This drainage report consists of a hydrologic study of a probable 100-year storm affecting this proposed development on the Northwest corner of the Juan Tabo Boulevard and Constitution Avenue intersection.

LOCATION AND DESCRIPTION:

The property under study is a parcel of land zoned commercial (C-1) and contains approximately (0.88) acres. It is located at the Northwest corner of the intersection of Juan Tabo Boulevard Northeast and Constitution Avenue Northeast. This property is more particularly described as Lot 58, Block 4 of Vista Belmonte Subdivision; and is bordered by undeveloped land on the North - Tract F - and on the East by Juan Tabo Boulevard Northeast and the South by Constitution Avenue Northeast, and on the West by single residential lots.

The existing terrain for this parcel slopes to the Southwest at about 6 per cent grade.

PROPOSED DEVELOPMENT:

This parcel of land is to be developed into a branch office building for the Albuquerque Federal Savings and Loan office in Albuquerque, New Mexico. It will be graded, paved and landscaped to retain storm water, generated by this development on the property. Ponds within the landscaped areas have been located to retain the runoff on the subject property.

PROPOSED DRAINAGE PLANS:

In order to control the on-site drainage developed by this proposed development, the area has been designed with limiting grades in order to reduce runoff velocities.

The drainage has been divided into two (2) drainage areas to prevent concentration of runoff at only one point. Each of the drainage areas will drain into two ponds and in case of overflow will drain out at different locations as can be seen on the drainage plans attached herewith. Area's One runoff will drain to the South portion of this development where two ponds are located to intercept that portion of the runoff.

Area's Two runoff will drain to the West initially and then to the Southwest corner of this parcel.

Offsite runoff which drains from North to South will continue to drain the the South by means of a drain swale between the existing block walls and the new retaining wall located on the most westerly portion of this parcel.

The offsite runoff is very small and only a small percentage will flow into this subject parcel.

DISCUSSION OF METHOD:

Development of this area will be controlled by the guidelines set forth in the recent Resolution of the Albuquerque Metropolitan Arroyo Flood Control Authority and the City of Albuquerque.

The amount of storm water is computed by using a 100-year storm, this being a storm consisting of 100-year 6 hours precipitation as shown by the rainfall frequency Maps for New Mexico, June 1967, published by the Special Studies Branch, Office of Hydrology, United States Weather Bureau.

The pond area was calculated so that the volume of water ponded would exceed the increased volume runoff resulting from the development.

ON-SITE DRAINAGE CALCULATIONS

The 100-year 6 hour precipitation factor for this area is 2.8 inches.

The area is 0.88 acres = 38,480 square feet.

Volume of runoff before development, allowing 65% perculation:

$\frac{2.8}{12}$ X 38,480 sq. ft. X 0.35 = 3,142 cu. ft.

Volume of runoff after development:

Landscaped areas (grassed and rock gravel)

$\frac{2.8}{12}$ X 25% X 38,480 sq. ft. X 0.35 = 786 cu. ft.

Paved areas (driveways, building, parking lots)

$\frac{2.8}{12}$ X 28,860 sq. ft. X 1.0 = 6,734 cu. ft.

Runoff after development = 7,520 cu. ft.

Runoff before development = 3,142 cu. ft.

Runoff to be retained on-site and ponded = 4,378 cu. ft.

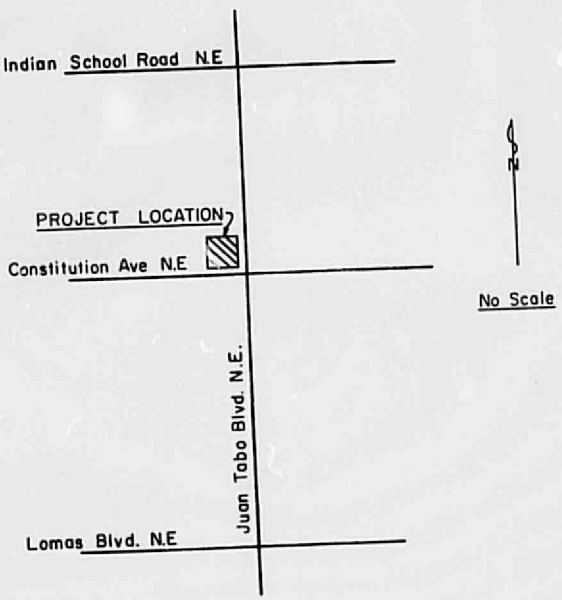
Capacity of ponding area "1" 1,517 cu. ft.

Capacity of ponding area "2" =2968 cu. ft.

1. Total ponding capacity = 4485 cu. ft.
2. Required ponding capacity = 4378 cu. ft.
3. Excess ponding capacity = 107 cu. ft.

SUMMARY:

It is recommended that this development be approved since the computations show that the proposed design is adequate to satisfactorily handle a 100-year storm.



LOCATION MAP