



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 14, 1982

Armstrong Engineering, Inc.
2709 A Pan American NE
Albuquerque, New Mexico 87107

REF: PHOENIX PARK OFFICE BUILDING - 2700 San Pedro N.E.

Dear John:

The as-built grading and drainage plan with calculations submitted January 7, 1982 is approved. Please advise your client that they can pick up their green tag in this office at their convenience.

Sincerely,

Fred J. Aguirre
Civil Engineer/Hydrology

FJA/el

cc: Drainage File
Reading File

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7400

AS-BUILT DRAINAGE REPORT
FOR
PHOENIX PARK OFFICE BUILDING
2700 SAN PEDRO N.E.
ALBUQUERQUE, NEW MEXICO



ARMSTRONG ENGINEERING, INC.
2709 A PAN AMERICAN NE
ALBUQUERQUE, NEW MEXICO
PHONE (505)345-2133

JANUARY 1982

APPROVED FOR DRAINAGE

1-14-82

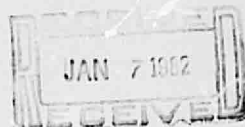
DATE

SIGNATURE

TITLE

ADVISE DRAINAGE INSPECTOR
WHEN GRADING IS COMPLETED

CERTIFIED BY *Engineer*



DISCUSSION:

This project has been constructed and field checked by this office. This report is intended to show compliance with the interim drainage guidelines.

The curbs on this project were constructed close to the grades shown on the original grading plan, but the pavement grades were off enough that the pond volume is smaller than that shown on the plan or in the original report.

This report will show that the pond volume, as it exists, is adequate to restrict the flow to the 5 year undeveloped rate during a 100 year storm through the use of a simple routing technique I (inflow) - O (outflow) - ΔS (change in storage).

SITE DATA:

Drainage Area = 0.6308 Acres = 27,479 ft²

Before Construction Coefficient of run-off = 0.5

Landscaped Area = 3255 ft²

Landscape Coefficient of run-off = 0.25

Pavement and Roof Area = 24,224 ft²

Pavement and Roof Coefficient of run-off = 0.9

Developed Composite Coefficient of run-off = 0.82

POSITIVE DISCHARGE:

Positive discharge is provided through two weirs 1.91 ft. wide.

$$Q_{\text{weir}} = (0.577)(1.91)(2)d^{1.5} = 2.2 d^{1.5}$$

See enclosed graph of pond volume and discharge plotted against water elevation.

POND EMERGENCY SPILLWAY:

This was covered in the original report and was constructed per plan. Therefore it will not be addressed in this report. Overflow elevation is approximately 5258.85 feet.

RAINFALL DATA:

Precipitation and intensity were taken from the NOAA Atlas 2, Volume IV and are shown on the enclosed graph.

POND VOLUME:

Volume in Parking Lot (as built) = 1200 ft³

Volume on Roof (as built) = 160 ft³

Total Pond Volume on site 1360 ft³

It can be seen from the routing that the maximum pond volume would have to be 1387 ft³, at 15 minutes into the storm. This would imply that the pond, as it exists, is 27 ft³ too small to fully contain the 100 year storm. This is less than 2% deficiency and is considered to be adequate.

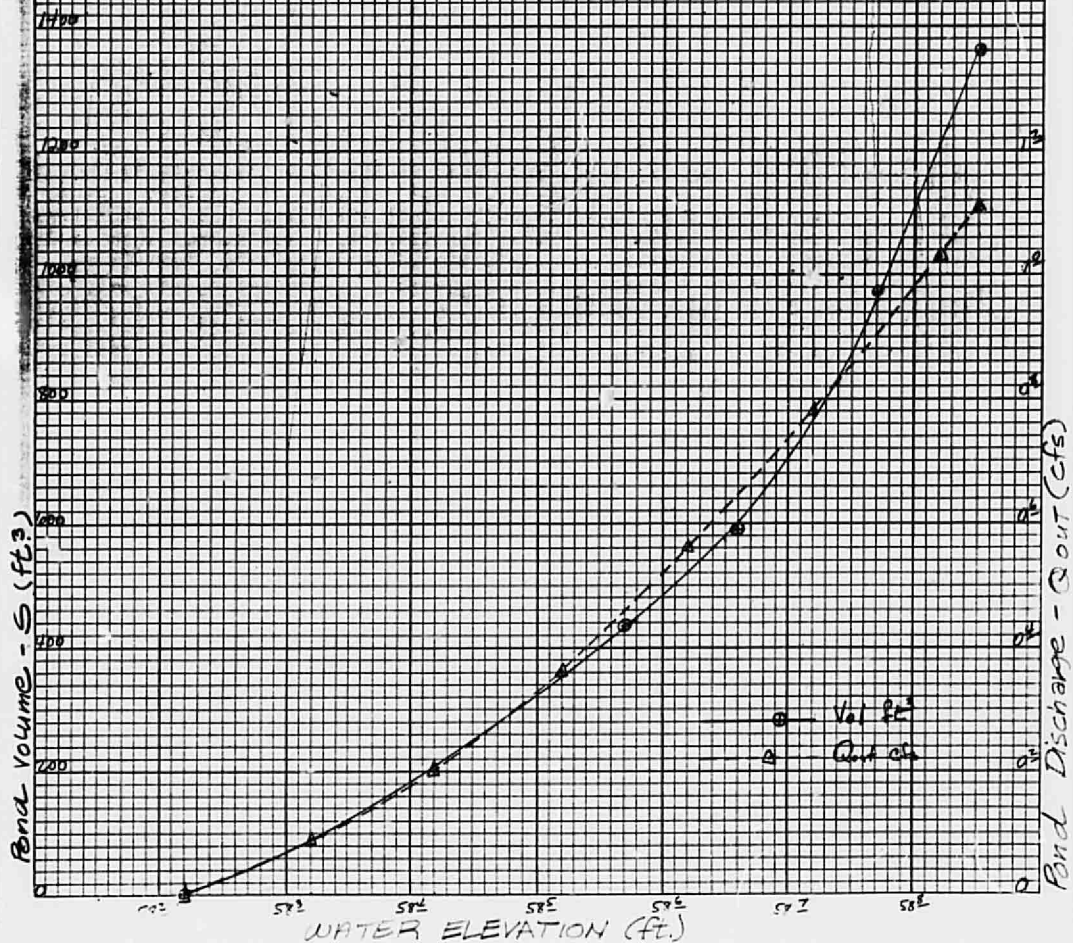
PHOENIX PARK OFFICE BUILDING

100 YEAR STORM ROUTED THROUGH POND

[illegible]

PHOENIX PARK OFFICE BUILDING

POND VOLUME & POND DISCHARGE VS.
WATER ELEVATION



ALBUQUERQUE RAINFALL
PRECIPITATION • INTENSITY
AT 5000 FEET ELEVATION
From NOAA ATLAS 2
VOL. IV - New Mexico

