HYDROLOGY L14/D5 CNE PLAN

L 14-D5

1 PLAN

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE December 9, 1982 REF. NO. _____

TO: Departments Involved with Plan Review for Office of Senior Affairs' John Marshall Senior Center Expansion

FROM: Ginger Grossetete

SUBJECT: Pre-Design Planning Meeting for Above-Referenced Project

We wish to convene a meeting to review the John Marshall Senior Center expansion on Thursday, December 16, 1982. The meeting will be held in the conference room of the Senior Multi-Service Center, 714 7th Street, S.W. at 10:00 a.m. that day.

Attached please find the Pre-Design Input Form, comments on which must be completed by you in time for the meeting on the 16th.

123456789

12345678

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE December 16, 1982 REF. NO._____

TO: Ginger Grossetete, Operations Manager, Senior Affairs Office

FROM: Brian G. Burnett, Civil Engineer/Hydrology BGB

SUBJECT: JOHN MARSHALL SENIOR CENTER EXPANSION

Comments of this office for the referenced expansion are:

1. Since the downstream infrastructure is over-taxed during major rainstorm events, runoff from the John Marshall expansion must not adversely affect the system. Therefore, detention storage for the surface runoff must be provided. The feasibility of different ponding approaches will be evaluated after the design constraints for the expansion have been established.

2. Based on our current staffing and work load, this office will not be able to provide the drainage plan for the site. We will, however, provide technical support during the planning and construction of the project. We recommend that a consultant be selected to prepare a drainage plan for the site.

3. Enclosed is a copy from the Master Drainage Study showing the project site and surrounding area. Also included are construction drawings for paving and storm sewer which were prepared several years ago. These maybe helpful in your planning efforts.

BGB/tsl

Enclosures

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

L14 - D5

March 31, 1983

Mr. Jacob Vigil
Vigil Engineering
2932 Ortiz Dr. N.E.
Albuquerque, N.M. 87110

RE: JOHN MARSHALL ELEMENTARY SCHOOL ADDITION DRAINAGE PLAN

Dear Jack:

I have several comments regarding the referenced drainage plan:

1. I concur with your assessment that the addition will not adversely impact the downstream system. However, is there anyway for the runoff to be routed into the system. Maybe a sidewalk culvert would be a solution. What are your thoughts on this?

2. Prior to release of a building permit, the plan should be updated per the checklist contained on pages 106-109 of Chapter 22, Development Process Manual. Key items include #22 (p.108), #23H (p.108), #24F (p.109), and #24I (p.109).

If you have any questions please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

Jacob A. Vigil
Consulting Engineers

Vigil Engineering
2932 Ortiz Dr. N. E.
Albuquerque, NM 87110
Phone: (505) 881-2455

March 1, 1983

Dyer/McClernon Architects
1401 5th Street, N.W.
Albuquerque, New Mexico 87102

Dear Mr. McClernon,

Transmitted herewith is the drainage report entitled,"John Marshall Elementary School Addition," dated March 1983. The recommendations in this report are in accordance with the requirements of the City of Albuquerque and the Albuquerque Metropolitan Arroya Flood Control Authority.

Thank you for the opportunity to participate in the design of this project.

Respectfully submitted,

Jacob A. Vigil

Jacob A. Vigil, P.E.

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JOHN MARSHALL ELEMENTARY
SCHOOL ADDITION

I. PURPOSE. The purpose of this report is to formulate a comprehensive drainage handling plan for the proposed site which plan must meet the drainage requirements and guidelines eatablished by the City of Albuquerque and the Albuquerque Metropolitan Arroya Flood Control Authority.

II. SCOPE. This report is limited to runoff originating within the development and its impact on existing offsite drainage structures or systems adjacent to the development.

III. LOCATION. The site is located at the northeast corner of Walter Street S.E. and Dan Street S.E., previously known as the John Marshall Elementary School. The site is part of Block 35, of the Eastern Addition, City of Albuquerque, Zone Atlas Map L-14.

IV. EXISTING DRAINAGE. The area for the proposed addition slopes from east to west with and average slope of 1.3% or less. The school site is not in a flood hazard area and the average coefficient of runoff from the area occupied by the new addition is approximately 0.50.

V. PROPOSED DEVELOPMENT. The proposed development consists of a 1,600 square foot building addition on the west side of John Marshall Elementary School Building. The drainage pattern has not been altered and the coefficient of runoff has increased from 0.50 to 0.95. The runoff from the multipurpose room and the new addition does not exceed 0.26 cfs for the 100 year storm. The increased volume of runoff due to the new addition is 135 cubic feet for a 100 year-6 hour duration storm. This excess will be stored by the landscaping infront of the addition.

VI. CONCLUSIONS AND RECOMMENDATIONS. On the basis of this report, the property can be developed as proposed without any major impact to to existing offsite drainage facilities. The drainage from the proposed addition combined with the runoff from the existing multipurpose room does not exceed 0.26 cfs. The additional landscaping reduces the quantity of runoff and neither the peak nor volume is increased.

REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
JACQUE A. NOEL

JOHN MARSHALL SENIOR CENTER
DYER/MCCLEERNON

JAMES A. VIGIL
FEBRUARY 24, 1998
SHT. 1 OF 1

1. DRAINAGE AREA DETERMINATIONS:

MULTI PURPOSE RM: $\frac{55' \times 33'}{2 \text{ (HALF CONTRIBUTING TO WEST)}} = 908 \text{ FT}^2$

NEW ADDITION: $(72' \times 21') + (12' \times 7') = 1596 \text{ FT}^2$

2. INCREASED RUNOFF FROM THE SITE DUE TO THE ADDITION:

PRESENT "C" FACTOR: 0.50
"C" FACTOR FOR ROOF: 0.95

6 HOUR RAINFALL = 2.25"
$I = 2.25 \times 6.84 \times 10^{-0.51}$
$= 4.75''/\text{HR}.$

$$Q = (0.95 - 0.50)\frac{(4.75)(1596)}{43,560}$$

$= 0.08 \text{ CFS}$ INCREASE IN PEAK FOR ADDITION ONLY

$$\text{VOL} = (0.95 - 0.50)\frac{(2.25)}{12}(1596 \text{ FT}^2) = 135 \text{ FT}^3 \quad \text{(FOR ADDITION ONLY)}$$

3. DETERMINE COMBINED RUNOFF FROM MULTI PURPOSE ROOM AND ADDITION:

$$Q = \frac{(0.95)(4.75)(1596 + 908)}{43,560}$$

$= 0.26 \text{ CFS}$

$$\text{VOL} = (0.95)\left(\frac{2.25}{12}\right)(1596 + 908)$$

$= 446$ CUBIC FEET.

PROVIDE STORAGE FOR 135 FT^3 MINIMUM
PREFERABLY 446 FT^3

VOLUME OF POND = 275 FT^3 O.K.