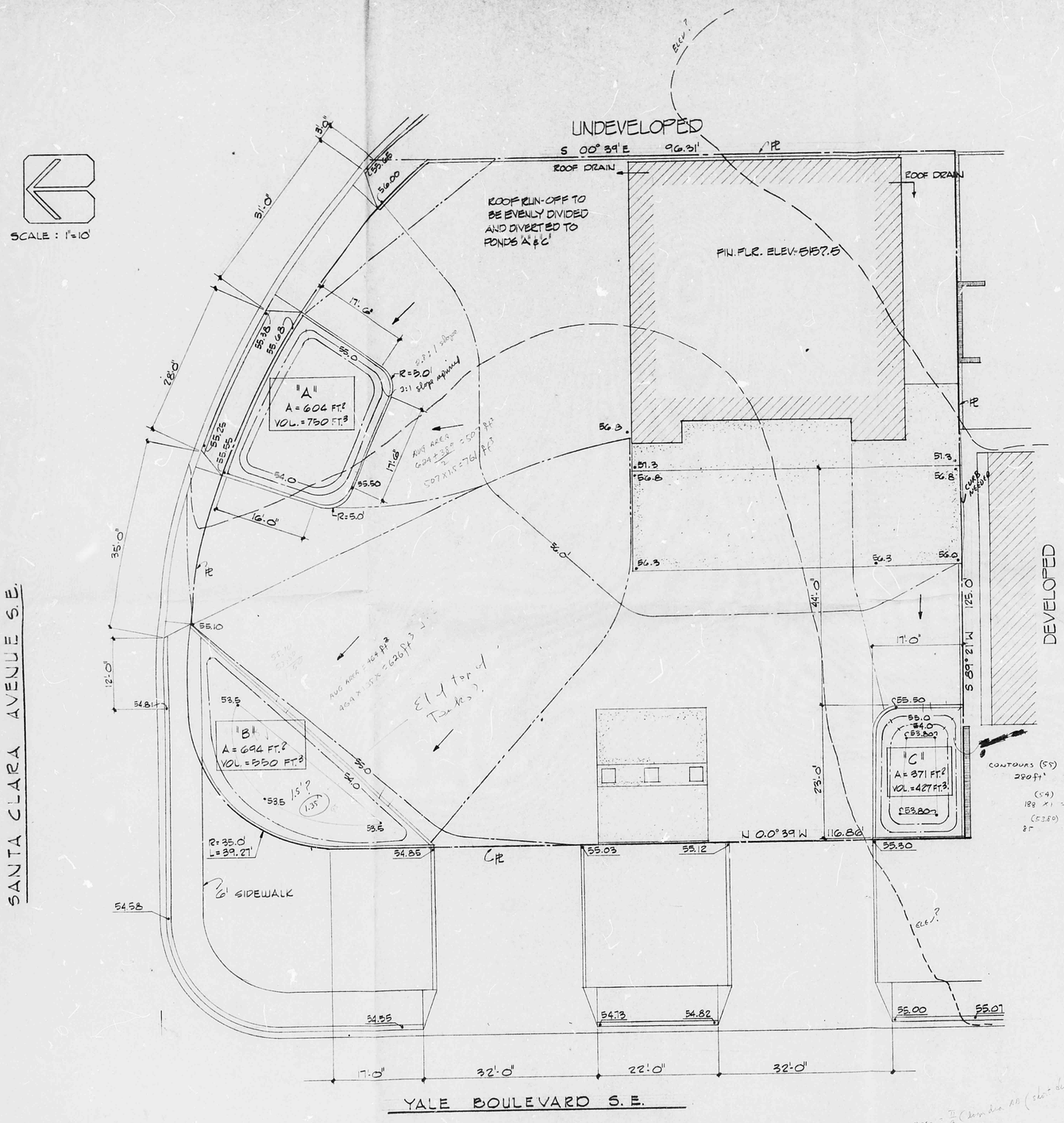
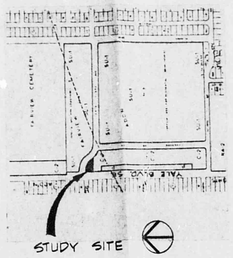
HYDROLOGY

L16/D16
TWO PLANS





Lot 4 - Redivision of Tracts 1 & 2
Fariview Addtion
Yale Boulevard and Santa Clara Ave. S.E.
Zone Classification C-2
Zone Atlas Sheet L-16-Z
Area = .372 Acres = 15204 ft.^{2}
Required Ponding Volume = 1,520 ft.^{3}

_____ Existing Contours

_____ Proposed Contours

_____ Boundaries of Contributing Areas

Pond "A"

Area $= \frac{265 + 32}{2}(22) - 2(\pi)\frac{25}{4} = 604$ ft.^{2}

Vol. $= \frac{(16.5)(24) + 604}{2}(1.5) = 750$ ft.^{3}

Contributing Runoff = Roof + Parking Lot + Pond
$= 1269(.95)\frac{2.95}{12} - 2577(.95)\frac{(2.95)}{12} + 609\frac{(2.95)}{12} = 1047$

∴ Total Volume of Pond will be utilized.

Pond "B"

Area $= \frac{(20 + 56)}{2}18 + 684$ ft.^{2}

Vol. $= \left[\left[\frac{18 + 49}{2}\right]15 + 684\right] \div 2\Big]1.5 = 550$ ft.^{3}

Contributing Runoff = Parking Lot + Pond
$= 2948(.95)\frac{(2.95)}{12} + 684\frac{(2.95)}{12} = 865$ ft.^{3}

∴ Total Volume of Pond will be utilized.

Pond "C"

Area $= 17(23) - \frac{\pi(5)^2}{4} = 371$ ft.^{2}

Vol. $= \frac{11(18) + 371}{2}(1.5) = 427$ ft.^{3}

Contributing Runoff = Roof + Parking Lot + Pond
$= 1269(.95)\frac{(2.95)}{12} + 982(.95)\frac{(2.95)}{12} + 371\frac{(2.95)}{12} = 616$ ft.^{3}

∴ Total Volume of Pond will be utilized
Total Ponding Volume Available = 1727 ft.^{3} > 1520 ft.^{3} ∴ ok

The study site is located in the Southeast Heights area of Albuquerque. This site is not adjacent to any natural or artificial water courses and is not in the 100-year flood plain. Surrounding areas are almost completely developed with the site itself being undeveloped. Drainage on the adjacent properties is directed to the surrounding streets which provide drainage from the site. No upstream runoff drains through the property. The proposed grading will provide positive drainage to holding ponds which contain sufficient volumes to store increased runoff due to development. As shown in the above calculations each pond will have sufficient contributing areas to fully utilize the availabe volumes. Erosion and siltation on the site will be minimal due to the extent of development.

It is our opinion that if developed as proposed on this study, the site will not be susceptible to flooding from on-site or upstream runoff and will not increase the threat of flooding to downstream areas.

Victor J Chavez
Victor J. Chavez, NMPE License No. 5713

By my calcs.
TOTAL PONDING
761 + 626 + 229 = 1616 ft^3
REQUIRED
15204 ft^2 (TOTAL AREA) x .1 = 1520 ft^3
(OF IMPROVEMENTS REQUIRED ONLY)
∴ PONDING ADEQUATE

Revision Mark	Date

Bohle Engineering Corporation
CONSULTING ENGINEERS

Victor J Chavez 10/8/78
Date

7-11 YALE BOULEVARD S.E. & SANTA CLARA AVENUE S.E. DRAINAGE STUDY

Designed by: V.J.C.
Drawn by: E.C.G.
Checked by: J.F.B.

VICTOR J CHAVEZ STATE OF NEW MEXICO NO. 5713 REGISTERED PROFESSIONAL ENGINEER

Job Number: B10-100-01
Sheet No. 1 OF 1

L16/D16 (2)

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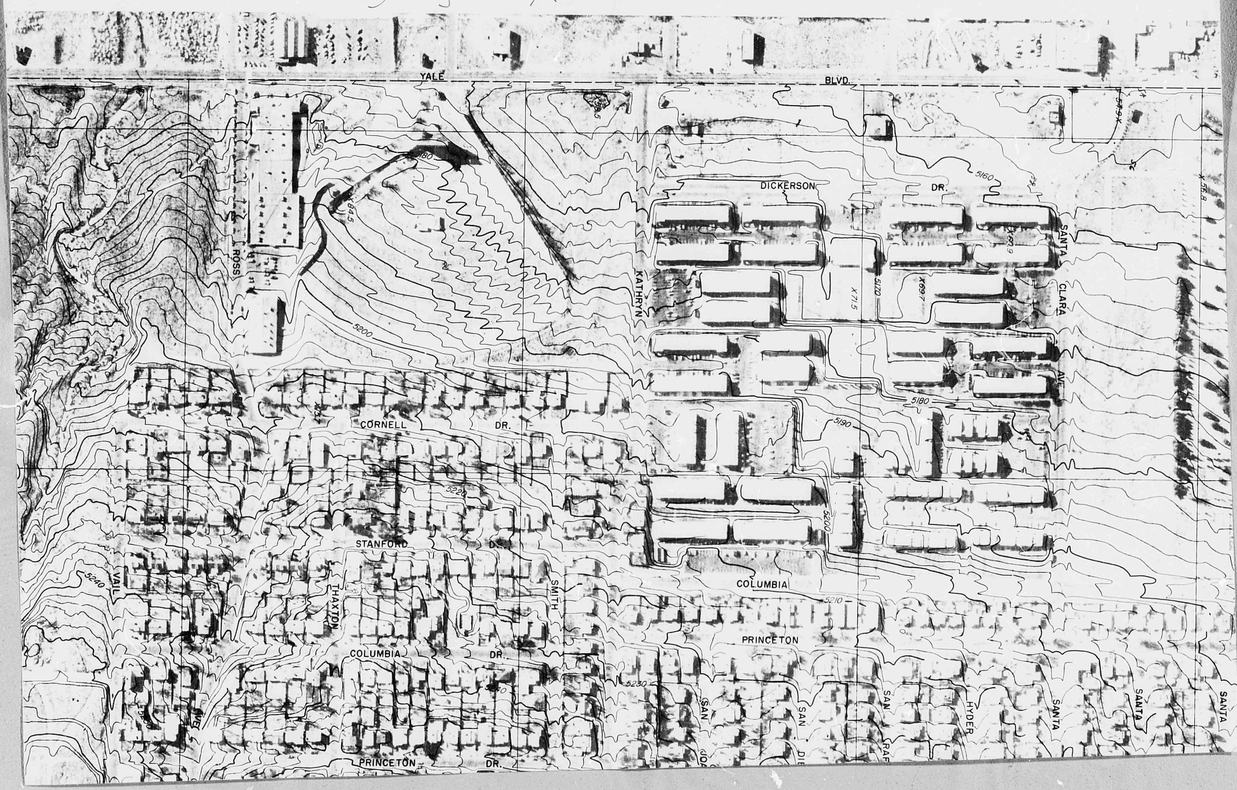
Yale & Santa Clara