

DRAINAGE PLAN ERNEST JORDAN ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

LEGAL DESCRIPTION:

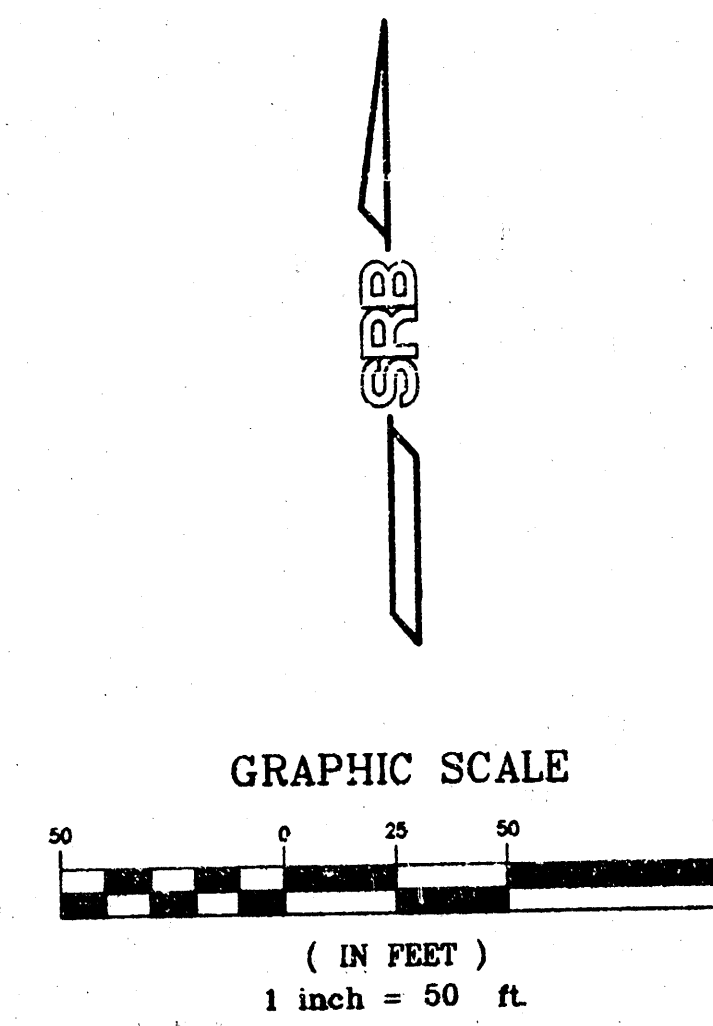
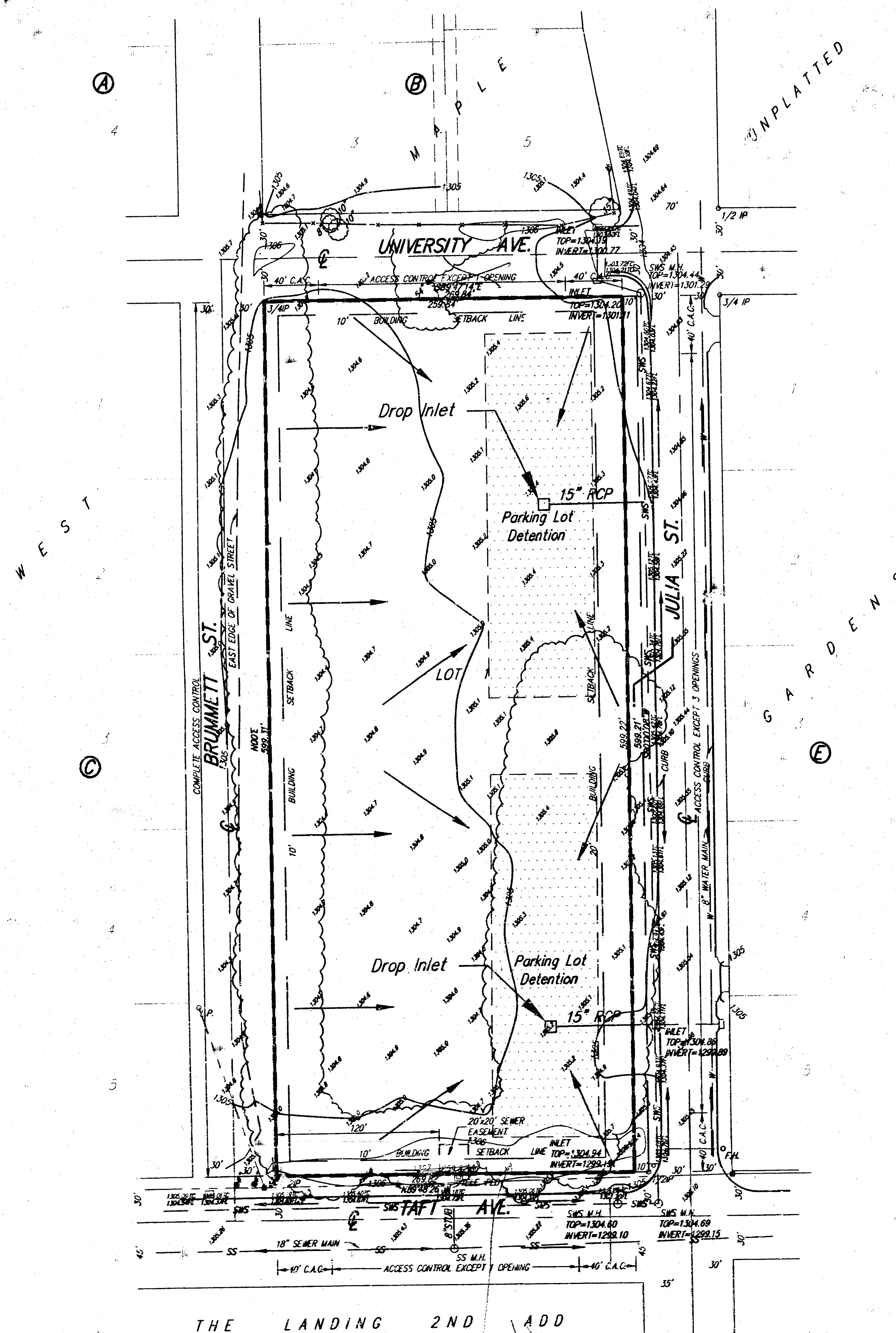
Lots 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, Block D, West Maple Gardens,
Sedgwick County, Kansas.

OWNER:

Ernest A. Jordan, Sr., Trustee
of the Doris I. Jordan Trust and of the Ernest A. Jordan, Sr. Trust
32 Friendship Lane
Newton, Kansas 67114

Ph. (316) 283-4079

GROSS AREA:
161,696.86 Sq. Ft.±
3.71 Acres±



BENCH MARK: CITY OF WICHITA STD DISC
30.6' S & 52.3' W. OF CENTERLINE INTERSECTION
DOUGAN ROAD & TAFT AVE.
ELEV.=1306.40 NGVD

- LEGEND**
- G = GAS MAIN
 - W = WATER MAIN
 - SS = SANITARY SEWER
 - SMS = STORM WATER SEWER
 - UGE = UNDER GROUND ELECTRIC
 - UGT = UNDER GROUND TELEPHONE
 - TELE. PED. TELEPHONE PEDESTAL
 - E.B. ELECTRIC BOX
 - G.M. GAS METER
 - W.M. WATER METER
 - W.V. WATER VALVE
 - F.H. FIRE HYDRANT
 - M.H. MONITOR HELL
 - C.O. CLEAN OUT
 - L.P. LIGHT POLE
 - P.P. POWER POLE
 - H.L.P. HIGH LINE POLE
 - A. GUY ANCHOR
 - S. SIGN
 - G.P. GUARD POST
 - SMS M.H. STORM WATER SEWER MANHOLE
 - SS M.H. SANITARY SEWER MANHOLE

EXISTING

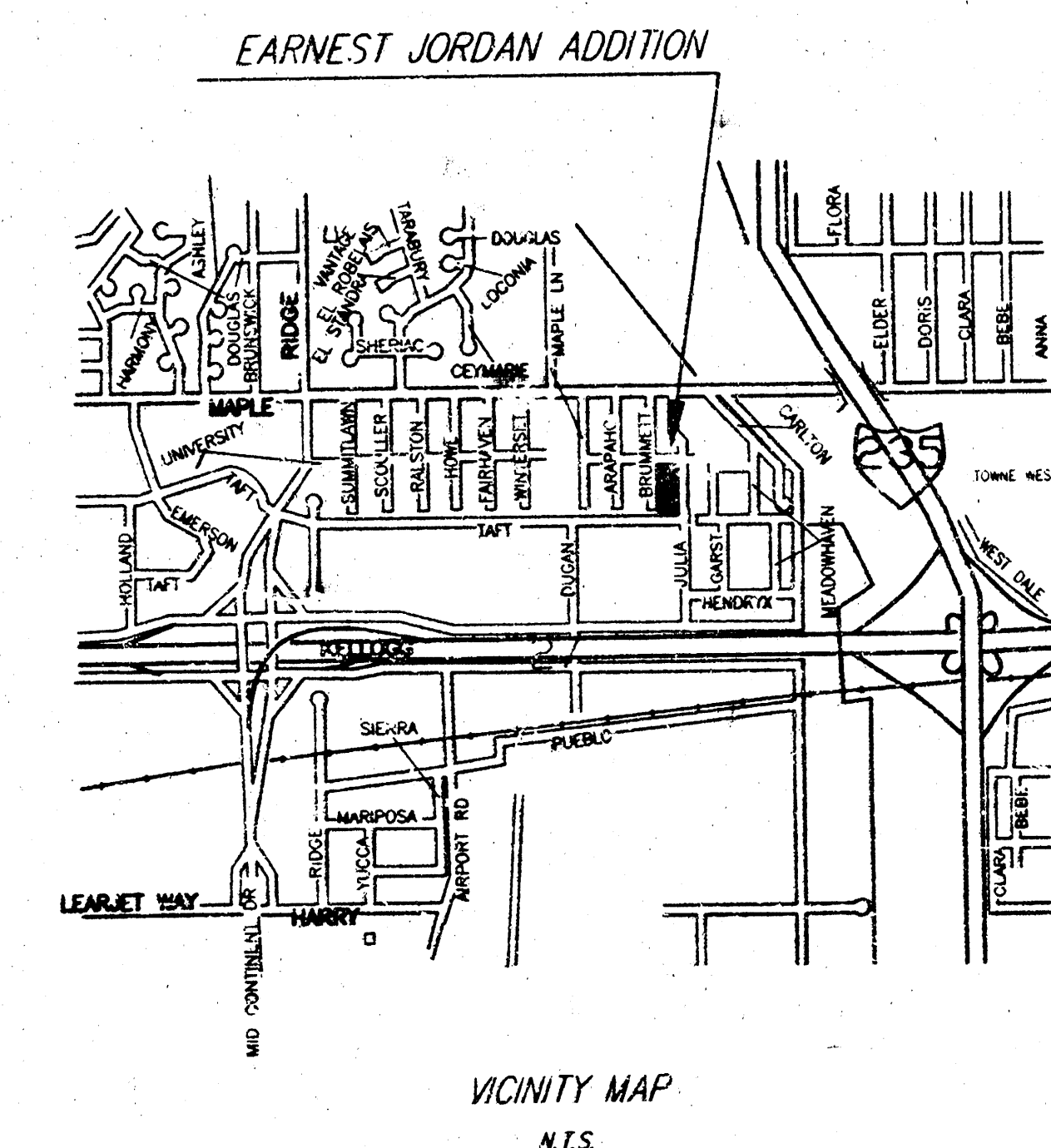
Drainage Area = 3.58 Ac.
Hydrologic Soil Type "B"
 $T_c = 15$ min.
 $C_s = 0.18$
 $C_{100} = 0.37$
 $I_s = 4.56$ in.
 $I_{100} = 7.37$ in.
 $Q_s = 2.9$ cfs
 $Q_{100} = 9.8$ cfs

PROPOSED

Drainage Area = 3.58 Ac.
Hydrologic Soil Type "B"
 $T_c = 15$ min.
 $C_s = 0.69$
 $C_{100} = 0.80$
 $I_s = 4.56$ in.
 $I_{100} = 7.37$ in.
 $Q_s = 11.3$ cfs
 $Q_{100} = 21.1$ cfs

DETENTION REQUIRED

Storage Volume = $(Q_{100} - Q_{all})(T_c)(0.5)(60 \text{ sec/min})(K)$
 $Q_{100} = 21.1$ cfs
 $T_c = 15$ min.
 $Q_{all} = 9.8$ cfs
 $T_c = 15$ min.
 $K = 1.5$
 $SV = (21.1 - 9.8)(15)(0.5)(60)(1.5)$
 $SV = 22,883 \text{ cu-ft}$
 $SV = 0.53 \text{ ac-ft}$



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SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

Oct. 2, 2001