

Drainage Plan BRENTWOOD SOUTH 2ND ADDITION Wichita, Sedgwick County, Kansas

$D_a = 1.5$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.50$
 $C_{100} = 0.76$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 2.9$ cfs
 $Q_{100} = 8.4$ cfs

$D_a = 1.8$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.28$
 $C_{100} = 0.63$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 1.9$ cfs
 $Q_{100} = 5.4$ cfs

$D_a = 1.5$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.50$
 $C_{100} = 0.76$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 2.9$ cfs
 $Q_{100} = 8.4$ cfs

$D_a = 2.3$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.28$
 $C_{100} = 0.63$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 2.5$ cfs
 $Q_{100} = 10.7$ cfs

OFFSITE AREA
 $D_a = 9.9$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.68$
 $C_{100} = 0.80$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 25.7$ cfs
 $Q_{100} = 58.3$ cfs

NOTE: CULVERT TO BE RE-ALIGNED THROUGH BERM TO ALIGN WITH THE DRAINAGE EASEMENT ALONG WEST LINE.

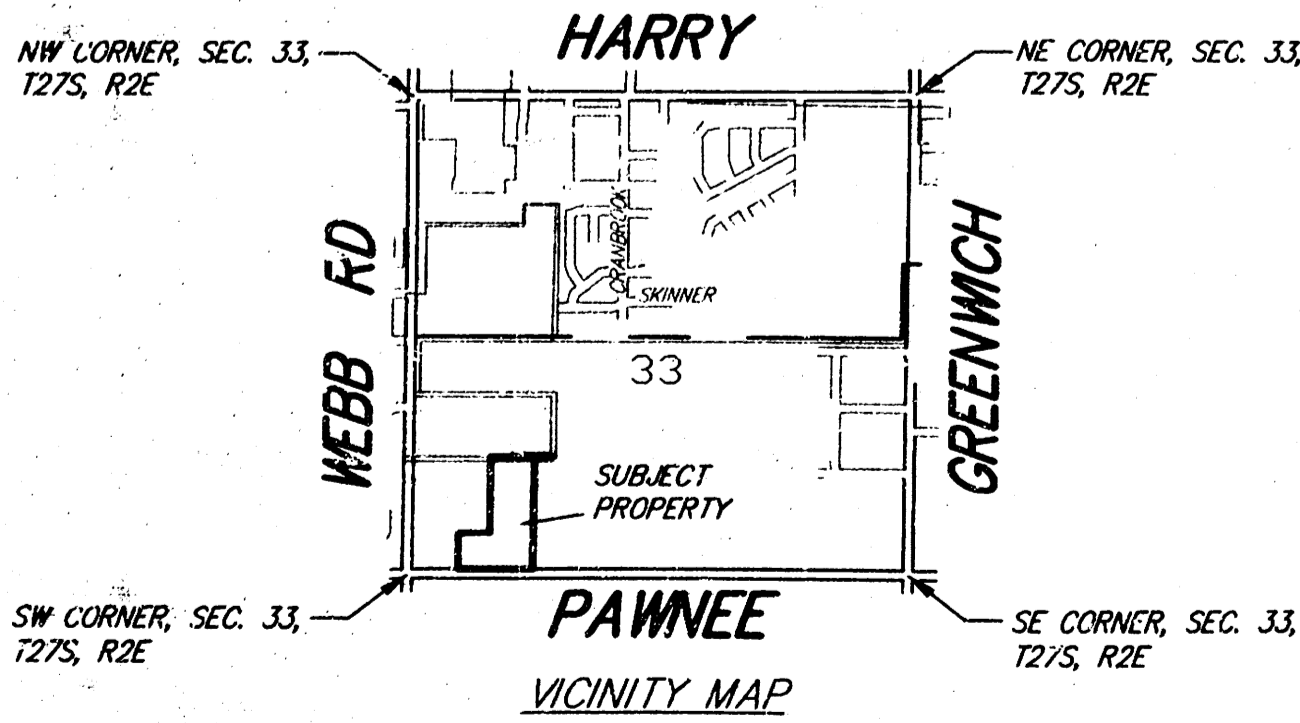
OFFSITE AREA TO WEST (THROUGH ROAD DITCH)
 $D_a = 7.0$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.69$
 $C_{100} = 0.80$
 $I_2 = 4.56$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 22.0$ cfs
 $Q_{100} = 41.2$ cfs

NOTE: A TEMPORARY DRAINAGE EASEMENT ACROSS LOT 1, BLOCK A SHALL BE PROVIDED WITH THE PLAN, TO EXPIRE UPON DEVELOPMENT OF LOT 1, BLOCK A.

$D_a = 5.7$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.69$
 $C_{100} = 0.80$
 $I_2 = 4.56$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 17.9$ cfs
 $Q_{100} = 33.6$ cfs

$D_a = 1.2$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.28$
 $C_{100} = 0.63$
 $I_2 = 3.83$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 1.3$ cfs
 $Q_{100} = 5.6$ cfs

OFFSITE AREA TO EAST (THROUGH ROAD DITCH)
 $D_a = 1.3$ Acres
 $T_c = 15$ Minutes
 $C_2 = 0.50$
 $C_{100} = 0.76$
 $I_2 = 4.56$ "/hr.
 $I_{100} = 7.37$ "/hr.
 $Q_2 = 3.0$ cfs
 $Q_{100} = 7.3$ cfs



REGRADE NORTH DITCH AT 0.60% 5.0' BOTTOM AS INDICATED

UNDETAINED FULLY DEVELOPED 100 YEAR RUNOFF TO THE CULVERT UNDER PAWNEE = 140.4 CFS. WITH A HEADWATER DEPTH OF 4.5 FEET, THE 54" RCP CAN PASS 105 CFS (1 FOOT OF FREEBOARD BELOW ROADWAY SURFACE). THE COUNTY YARD 100 YEAR DISCHARGE WILL BE NATURALLY DETAINED BY THE BERM, FORMING A POND NORTH OF THE BERM. DETENTION ON LOT 1 IN THE FORM OF PARKING LOT STORAGE SHOULD BE IMPLEMENTED UPON DEVELOPMENT OF LOT 1. ALSO, THE COMMERCIAL PROPERTY TO THE WEST SHOULD IMPLEMENT PARKING LOT STORAGE UPON DEVELOPMENT OF THAT LAND.

LEGAL DESCRIPTION:
 That part of the SW 1/4 of Sec. 33, T27S, R2E of the 6th P.M., Sedgwick County, Kansas, described as beginning at the northwest corner of Lot 25, Block 2, Brentwood South Addition, Wichita, Sedgwick County, Kansas; thence S89°58'00"W, 345.64 feet; thence S00°00'00"W, 889.75 feet; thence S89°58'00"W, 319.15 feet; thence S00°00'00"W, 432.51 feet; thence N89°34'35"E, 688.70 feet; thence N00°10'10"W, 1317.70 feet to the place of beginning, EXCEPT the South 40.00 feet for right of way.

OWNER:
 Brentwood Development, Inc.
 527 N. Forestview
 Wichita, Kansas 67235

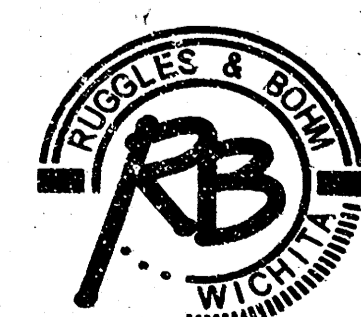
Attn: Steve Miller
 Ph. (316) 259-2377

DATE OF TOPOGRAPHY:
 AUGUST 6, 2003

BENCH MARK: COW BENCHMARK AT THE SOUTHEAST CORNER OF THE INTERSECTION OF GRANBROOK AND SKINNER ELEV.=1334.02 (M.S.L.)

ON SITE BENCHMARK: R.R. SPIKE ON EAST FACE OF POWER POLE 1,215 FEET EAST AND 40 FEET NORTH OF THE S.W. CORNER, SEC. 33, T27S, R2E ELEV.=1388.99 (M.S.L.)

DWG FILE: 2438P (Drainage Plan.dwg)
 PROJECT NO: 2438P
 FEB 5, 2004



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