WILLIAM L. BAUGHMAN, L.S.
JOHN E. LUNDBLADE, L.S.
R. BRENT WOOTEN, P.E.

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

DRAINAGE REPORT
THE PARK 2ND ADDITION
WICHITA, KANSAS
FEBRUARY 2, 1987

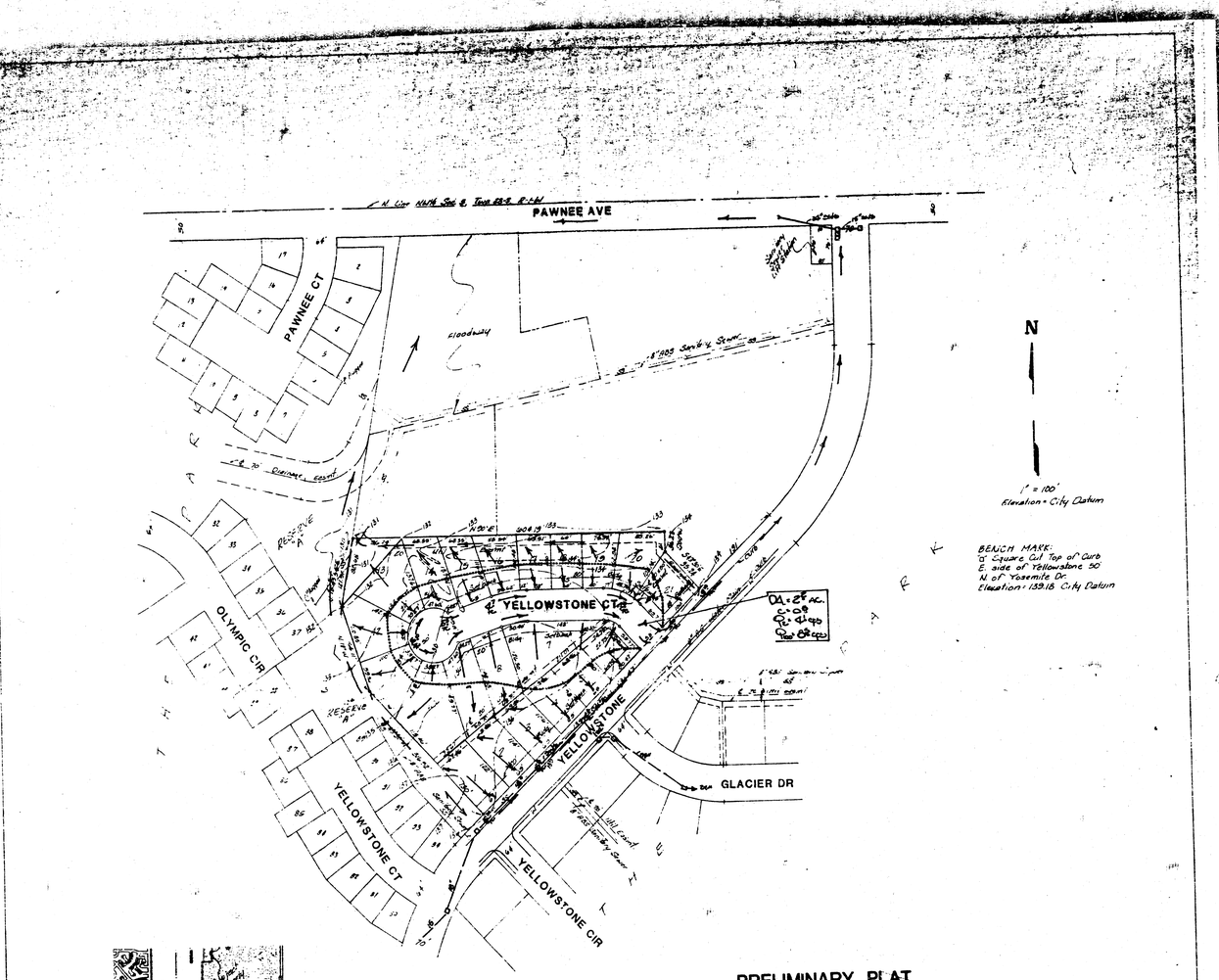
The proposed lots in "The Park 2nd Addition" will be residential with a runoff factor (c) of 0.5. Yellowstone Court will drain to the east to Yellowstone which is a collector. Yellowstone drains north to Pawnee and discharges storm water run-off into existing inlets and pipe at Pawnee as indicated.

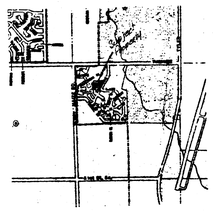
Approximately 2.2 acres, when developed, will be drained to Yellowstone which will generate 4.1 CFS from the two year storm and 8.5 CFS from the 100 year storm. The collector pavement is required to keep a minimum of 12' of dry pavement surface during the storm. Using this criteria, the 12' dry pavement width allows up to 5.5 inches of gutter flow for storm water runoff to be carried in. The slope of the collector street is at a minimum of 0.50 percent grade which will allow up to 8.7 CFS per gutter at a depth of 5.5 inches at the flow line. (See attached charts.) From these calculations, the collector street is adequate to convey the run-off from the plat to the storm sewer at Pawnee.

The area to the north of this plat is developed into townhomes with the majority of the area draining to the west and north. The capacity of the storm sewer at Pawnee which will receive this run-off has been checked and is sufficiently sized to convey the runoff amount anticipated from these areas.

Other areas of this plat will drain, when developed, as indicated. The backs of most of the lots in the Cul-De-Sac will be graded to drain west and north into the floodway area which drains further north across Pawnee and eventually into the Cowskin Creek.

Other areas of lots adjacent to Yellowstone will drain to Yellowstone as indicated. The majority of this runoff will be discharged into the existing storm sewer which follows Glacier Drive to the east. The back lot areas of this plat will be graded as necessary in order for run-off from the development to be conveyed thru the reserve areas and into the floodway.





PRELIMINARY PLAT

PART OF LOT 1, BLOCK 1, THE PARK AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.

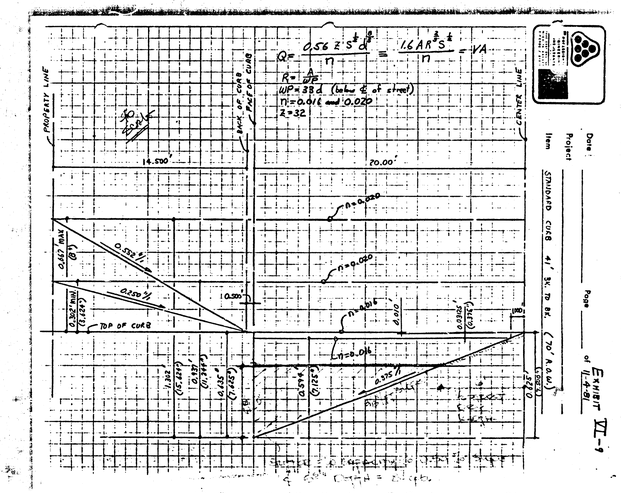
THE PARK 2ND ADDITION

OWNER: A-K CORPORATION

DRAINAGE PLAN 2.2.87

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211

87 MAR 85



STANDARD CURB 41' BK. TO BK. (70' R.O.W.)

Depth in @ Curb ft	S = 0.0032 Q (cfs)	S = 0.0032 V ft/sec	S = 0.0050 Q	S = 0.0050 V	S = 0.0075 Q	S = 0.0075 V	S = 0.0100 Q	S = 0.0100 V
0.5	0.0117	0.420	0.015	0.525	0.018	0.643	0.021	0.743
1.0	0.0739	0.666	0.0924	0.833	0.113	1.019	0.131	1.179
1.5	0.2180	0.873	0.2725	1.091	0.334	1.336	0.386	1.545
2.0	0.4720	1.058	0.5900	1.323	0.722	1.619	0.835	1.873
2.5	0.8480	1.225	1.060	1.531	1.297	1.874	1.501	2.168
3.0	1.3850	1.385	1.7313	1.731	2.119	2.119	2.451	2.451
3.5	2.096	1.536	2.6200	1.920	3.207	2.350	3.710	2.719
4.0	2.975	1.677	3.719	2.096	4.552	2.566	5.266	2.968
4.5	4.085	1.815	5.106	2.269	6.250	2.777	7.230	3.213
5.0	5.420	1.949	6.775	2.436	8.293	2.982	9.593	3.450
5.5	6.961	2.079	8.701	2.593	10.650	3.173	12.321	3.671
6.0	8.800	2.199	11.000	2.749	13.469	3.364	15.576	3.892
6.5	10.909	2.320	13.636	2.900	16.691	3.550	19.309	4.106
7.0	13.249	2.436	16.561	3.045	20.271	3.727	23.451	4.312
7.125	13.926	2.467	17.408	3.084	21.302	3.774	24.649	4.367
7.50	15.953	2.552	19.941	3.190	24.408	3.905	28.237	4.517
7.625	17.436	3.135	34.295	3.999	41.977	4.797	48.562	5.549
11.244	37.911	2.523	46.764	3.154	57.239	3.860	66.217	4.466
12.424	44.015	3.569	111.356	4.461	136.300	5.461	157.680	6.317

Date
Project
Item
Page
of
EXHIBIT VI-8