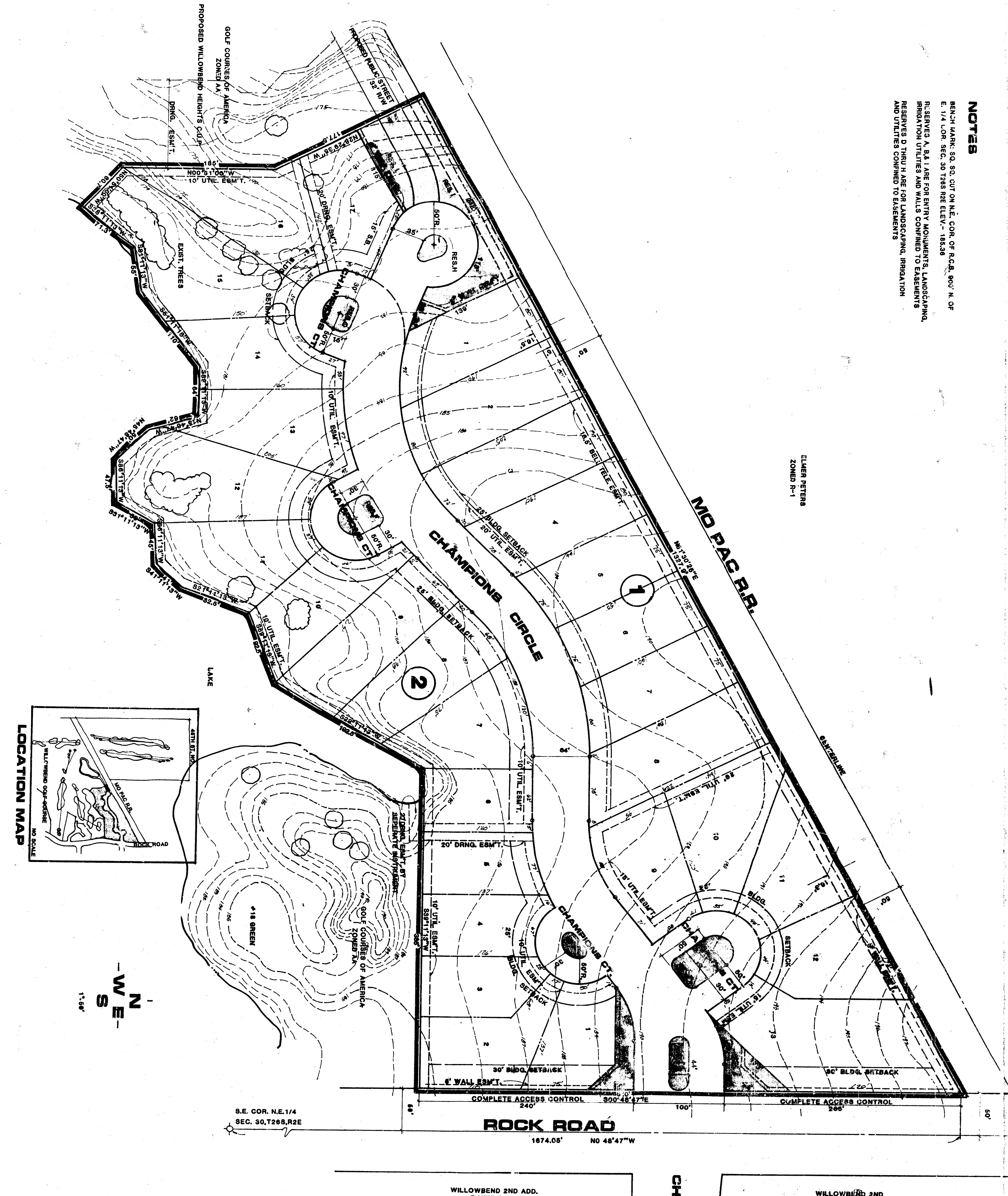


PRELIMINARY PLAT

WILLOWBEND 5TH

OWNER: GOLF COURSES OF AMERICA, 4110 N. TARA CIRCLE WICHITA, KANSAS 67226

sheet | project: WILLOWBEND 5TH ADDITION | sheet title: PRELIMINARY PLAT | date JUNE 15,1987 | rev. JUNE 19, 1987

of

BILL G. YUNG DESIGN
4912 E. 29TH STREET NORTH, WICHITA, KS 67220 316-683-5567

MID-KANSAS ENGINEERING CONSULTANTS, P.A.
1609 S.W. 37th STREET
TOPEKA, KANSAS 66611

CONFIRMATION MEMO

PROJECT: East Fork of Chisholm Creek (Willowbend Heights)
PROJECT NO.: ______ DATE: 9/29/87
TO: Chris Breitenstein
FROM: John White
REF: Summary of Hydraulic Review

This memo is written to summarize the findings of our hydraulic review of the East Fork of Chisholm Creek in Wichita, Kansas. Our study began north of 37th Street and extended to the downstream end of the Missouri Pacific Railroad. Attached is a copy of the flood boundary map for the study area.

Hydraulic analysis was completed using the HEC2 computer program. Cross section data for input was taken from field surveys. Starting elevations and 100 year flows were taken from the FEMA report dated May 15, 1986.

Two water surface profiles were developed for review. The first profile considered existing conditions. For an existing condition, the "n" factor used was relatively low. With these "n" factors, the calculated profile was similar but higher than that presented in the FEMA report. These elevations are outlined in the attached table.

The discrepancies in the two profiles were considered acceptable because of potential variances that would be expected in the methods of gathering cross section data.

The profile for the improved conditions considered an improved channel for the first 800 feet downstream of the Missouri Pacific Railroad. The improved channel will have a 52 foot flat bottom with near vertical limestone rock walls up 5 feet to a flat bench on each side. The bench will be 15 feet wide with 1:2 side slopes. The model assumed that low areas along the channel were filled to an elevation above the maximum high water.

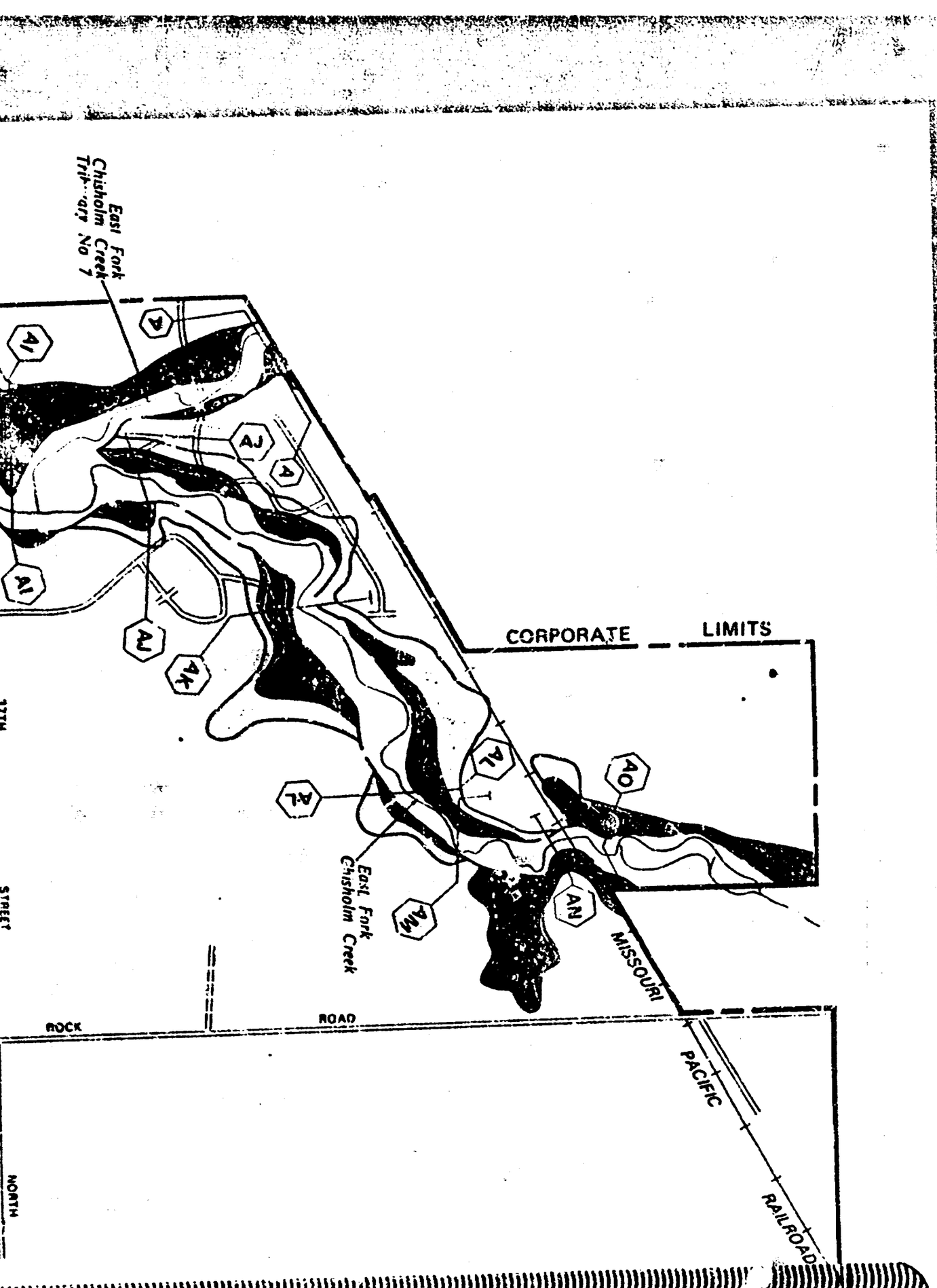
The improved channel profile indicates a reduction of about 0.5 feet in

---

EAST FORK CHISHOLM CREEK
Wichita, Kansas

MKEC Station	FEMA Section	FEMA 100 Year	MKEC 100 Year Existing	MKEC 100 Year Improved
50+00	AK	1364.1	1364.10	1364.10
55+50			1364.58	1364.58
60+00			1365.04	1365.04
64+00			1365.91	1365.91
68+00	AL	1366.2	1366.38	1366.38
70+00			1366.75	1366.75
72+00			1366.56	1366.86
75+00	AM	1367.3	1367.84	1367.04
80+00(1)	AN	1368.1	1368.91	1367.63

(1) Downstream of Missouri Pacific Railroad



NATIONAL FLOOD INSURANCE PROGRAM

FLOODWAY
FLOOD BOUNDARY AND FLOODWAY MAP

CITY OF WICHITA, KANSAS
SEDGWICK COUNTY

PANEL 15 OF 40
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER

WATER SURFACE PROFILES
VERSION OF NOVEMBER 1976
UPDATED MAY 1984
IBM-PC-XT VERSION AUGUST 1985
RUN DATE 09-10-87 TIME 09:21:40

U.S. ARMY CORPS OF ENGINEERS
THE HYDROLOGIC ENGINEERING CENTER
609 SECOND STREET, SUITE D
DAVIS, CALIFORNIA 95616
(916) 440-2105 (FTS) 448-2105

09-10-87 09:21:41

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985

T1 WILLOWBEND HEIGHTS, WICHITA KANSAS
T2 PROPOSED CHANNEL IMPROVEMENTS
T3 100 YEAR FLOW

THIS RUN EXECUTED 09-10-87

PAGE 1

WICHITA

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 264-4501

October 1, 1987

Mr. Charles A. Lindsey, Chief
Federal Emergency Management Agency
Federal Insurance Administration
Office of Risk Assessment
Technical Operations Division
500 C Street, SW, Room 422
Washington, D.C. 20472

Subject: Conditional Letter of Map Revision

Dear Mr. Lindsey:

This letter is to acknowledge review and concurrence with the hydraulic study performed by Mid-Kansas Engineering Consultants, P.A., on a portion of the East Fork of Chisholm Creek.

Sincerely,

Chris J. Breitenstein, P.E.
Civil Engineer III

CJB:gr

cc: Willowbend Heights Plat File

MID-KANSAS ENGINEERING CONSULTANTS PA
(913) 266-6462
1609 S.W. 37TH
TOPEKA, KANSAS 66611

October 14, 1987

Re: Conditional Letter of Map Revision
East Fork of Chisholm Creek, Wichita, KS

Mr. Charles A. Lindsey, Chief
Federal Emergency Management Agency
500 C Street, SW, Room 422
Washington, D.C. 20472

Dear Mr. Lindsey,

We are submitting the following information for your review for the above referenced project;

1. Memo from Mid-Kansas Engineering Consultants to Mr. Chris Breitenstein outlining hydraulic calculations. Attachments to the memo include HEC-2 print-out.
2. Letter from Mr. Chris Breitenstein to your office acknowledging his concurrence with study.

We appreciate your consideration of this information. If additional information is needed, please feel free to contact this office.

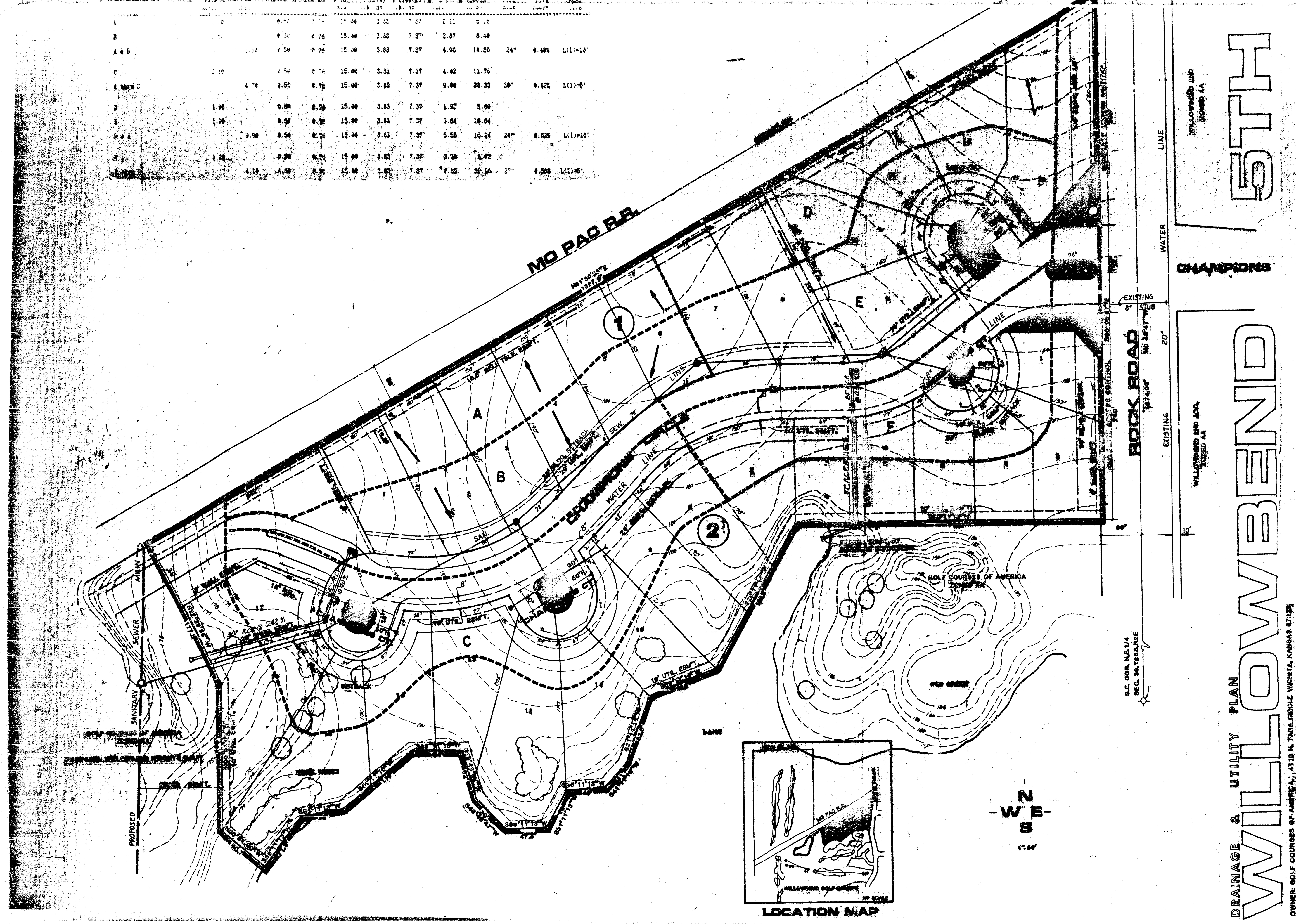
Very truly yours,
MID-KANSAS ENGINEERING CONSULTANTS, PA

John W. White, P.E.

JWW:ak

Enclosures

cc: Chris Breitenstein, City of Wichita
Ken Bengtson, MKEC, Wichita



DRAINAGE & UTILITY PLAN
WILLOWBEND 5TH

OWNER: GOLF COURSES OF AMERICA, 4110 N. TARA CIRCLE WICHITA, KANSAS 67226

BILL G. YUNG

date JUNE 16, 1987

sheet title

* WATER SURFACE PROFILES
* VERSION OF NOVEMBER 1976
* UPDATED MAY 1984
* IBM-PC-XT VERSION AUGUST 1985
* RUN DATE 09-29-87 TIME 08:25:33

* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105

HEC-2

*SECNO 80.000

80.00	7.41	1368.91	.00	.00	1369.46	.55	1.10	.01	1365.60
3250.	1215.	2002.	33.	303.	289.	13.	53.	14.	1366.30

55.500	3250.00	1364.58	.00	.48	.00	194.89	550.00
60.000	3250.00	1365.04	.00	.46	.00	251.30	450.00
64.000	3250.00	1365.91	.00	.88	.00	299.38	400.00
68.000	3250.00	1366.38	.00	.46	.00	269.84	400.00
70.000	3250.00	1366.75	.00	.37	.00	262.90	200.00
72.000	3250.00	1366.56	.00	-.19	.00	96.00	200.00
75.000	3250.00	1367.84	.00	1.28	.00	164.25	300.00
80.000	3250.00	1368.91	.00	1.07	.00	196.64	500.00

1 09-29-87 08:25:32 PAGE 7

SUMMARY OF ERRORS AND SPECIAL NOTES

1 09-29-87 08:26:00 PAGE