Preliminary Plat

SUBDIVISION REPORT

SUBDIVISION COMMITTEE
METROPOLITAN AREA
PLANNING COMMISSION

S/D NO. 78-111 Name CRESTVIEW COUNTRY CLUB ESTATES-East Meadows 2nd Addition
Date Application Rec'd. 10-17-78 Preliminary Approval
Scheduled S/D Meeting 2-22-79

DESCRIPTION

General Location 1/2 mile south of 13th St., on west side of 143rd St.East

Owner Crestview Development Corporation, c/o James F. Haugen
Surveyor/Engineer Reiss and Goodness Engineers
Address 2160 W. 21st Street, Wichita, Ks. 67204 Phone 832-0213

1. Gross Acreage of Plat 20 acres
2. Number of Lots:
   Residential 35
   Commercial
   Industrial
   Other
   Total Number of Lots 35
3. Minimum Lot Frontage 100 ft.
4. Minimum Lot Area 14,500 square ft.
5. Existing Zoning R-1
6. Proposed Zoning AA

7. Lineal Feet of New Streets:
   a. 64 R/W 2,735 ft.
   b. R/W ft.
   c. R/W ft.
   d. R/W ft.
   e. R/W ft.
   TOTAL ft.
8. Sidewalk adjacent to all streets? yes X no

9. Public Water Supply Yes (Yes-No), Name City of Wichta
10. Public Sanitary Sewers Yes (Yes-No), Name Crestview Improvement District
11. Health Department Approval (where applicable) (Yes-No)
12. City of Wichita : Three-Mile Area X

STAFF COMMENTS:

A. Approval of the plat shall be subject to the approval of the associated zone case SCZ-0418 "R-1" to "AA".

B. "Springdale Court" should be relabeled as 9th Street Circle, as recommended by the Department of Public Works.

C. It is recommended that the 40' fire lane easement to Lot 28 be platted as part of that lot; and that a 25' front yard setback be provided adjacent to Lots 27 and 29 on Lot 28.

D. The applicant shall submit covenants or a Homeowners Association agreement which shall provide for the maintenance of Reserve A and which shall assure that no obstructions such as fences, etc., will be permitted in the pedestrian easements.

E. The applicant shall guarantee the construction of sidewalks on both sides of all the cul-de-sac streets and along the west side of North Springdale Drive and within each of the sidewalks easements. It should be noted, however, that sidewalks have been waived on all other additions in this section.

F. The applicant shall guarantee the paving of all the streets to City of Wichita standards.

G. The applicant shall guarantee the installation of sanitary sewers to serve each lot.

H. The applicant shall guarantee the installation of a public water supply to serve each lot.

I. All utilities shall be installed underground.

J. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.

K. Requirements for a final plat (see pages 20-25, Part 4, Article 5 of the MAPC Subdivision Regulations).

Final plat

SUBDIVISION REPORT

SUBDIVISION COMMITTEE
METROPOLITAN AREA
PLANNING COMMISSION

S/D NO. 78-111 Name Crestview Country Club Estates-East Meadows 2nd Addition
Date Application Rec'd. 10-17-78 Preliminary Approval 2-22-79
Scheduled S/D Meeting 3-22-79

DESCRIPTION

General Location 1/2 mile south of 13th St., on west side of 143rd St. East

Owner Crestview Development Corp., c/o James Haugen
Surveyor/Engineer Reiss and Goodness Engineers
Address 2160 W. 21st, 67204 Phone 832-0213

1. Gross Acreage of Plat 20 acres
2. Number of Lots:
   - Residential 34
   - Commercial
   - Industrial
   - Other
   - Total Number of Lots 34
3. Minimum Lot Frontage 40 ft.
4. Minimum Lot Area 13,127 sq ft.
5. Existing Zoning R-1
6. Proposed Zoning AA
7. Lineal Feet of New Streets:
   - a. 64 R/W 2,735 ft.
   - b. R/W ft.
   - c. R/W ft.
   - d. R/W ft.
   - e. R/W ft.
   - TOTAL ft.
8. Sidewalk adjacent to all streets? yes X no
9. Public Water Supply Yes (Yes-No), Name City of Wichita
10. Public Sanitary Sewers Yes (Yes-No), Name Crestview Imp. Dist.
11. Health Department Approval (where applicable) (Yes-No)
12. City of Wichita : Three-Mile Area X

STAFF COMMENTS:

A. Approval of the plat shall be subject to the approval of the associated zone case SCZ-0418, "R-1" to "AA".

B. At the applicant's request, the following street name changes may be indicated on the final plat tracing: Tipperary Circle to Shannon Circle; Sharon Circle to Tipperary Circle.

C. The applicant shall submit covenants or a Homeowners' Association which shall provide for the maintenance of Reserve A and which shall assure that no obstructions, such as fences, etc., will be permitted in the pedestrian easements.

D. The applicant shall guarantee the installation of a public water supply to serve each lot.

E. The applicant shall guarantee through the Crestivew Improvement District the paving of all streets to City of Wichita standards.

F. The applicant shall guarantee through the Crestview Improvement District the installation of sanitary sewers to serve each lot.

G. Recording of the plat within 30 days after approval by the Board of City Commissioners.

6-5-79

East Meadows 2nd Addn.
Final Storm Sewer Design

D.A. 5.52 Ac to Donegal Circle L = 1125 = 0.21

F = 37 - 28 = 9'

$$T_c = \left(\frac{11.9 \times 0.213^3}{9}\right)^{0.385} = .1866 \text{ HRS} = \cancel{11.2} \text{ MIN.}$$

Use 15 min

Why use different C?

$i_2 = \cancel{4.55}\ 4.06$

$i_{100} = \cancel{10.07}\ 8.98$

$Q_2 = 5.52 \times 0.4 \times \cancel{4.55}\ 4.06 = 10.0$ cfs

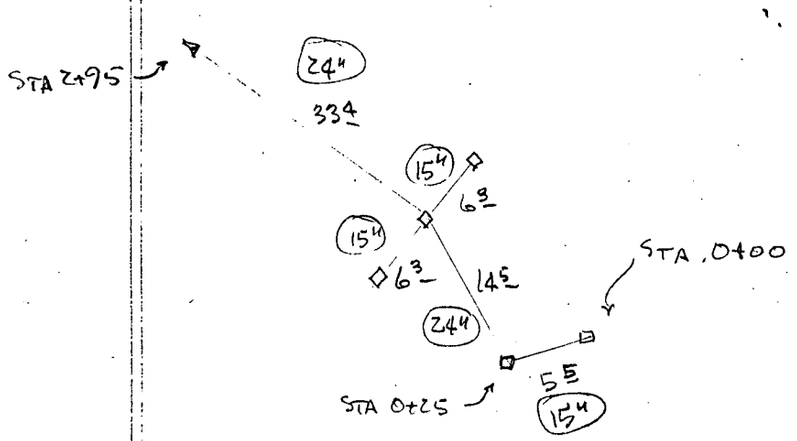
$Q_{100} = 5.52 \times 0.6 \times \cancel{10.07}\ 8.98 = 33.4$ cfs

Size Pipe and Inlets for Q_{100}

Sta.	Pipe	Req'd Q	Slope	Capacity	Velocity	
0+00						
0+25	15"	5.5 cfs	0.7%	5.4 cfs	4.474 fps	
0+67	24"	13.5 cfs	0.4%	14.3 cfs	4.62 fps	
2+95	24"	33.4 cfs	4.08% too steep?	~~47.0~~ 45.7 cfs	14.96 fps	33.4 cfs 71% Full Flow

Outlet velocity 1.07% full v = 16.00 fps @ 33.4 cfs

Line No.	Pipe	Req'd Q	Slope	Capacity	Velocity
# 2	15"	6.3 cfs	1.5%	~~8.0~~ 7.9 cfs	6.50 fps
# 3	15"	6.3 cfs	1.5%	~~8.0~~ 7.9 cfs	6.50 fps



Flow Distribution

D.A = 9.12 Ac. TO S. END NORTH SPRINGDALE DRIVE

$L = 2220' = 0.42$ mi. $E = 40 - 19.5 = 20.5'$

$$T_c = \left(\frac{11.9 \times 0.42^3}{20.5}\right)^{0.385} = 0.30 \text{ HR} = 18 \text{ MIN.}$$

$i_2 = 3.78$

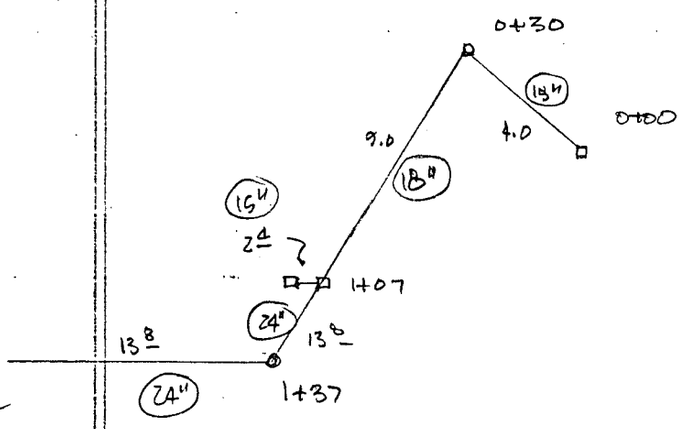
$i_{100} = 8.37$

$Q_2 = 9.12 \times 0.4 \times 3.78 = 13.8$ cfs

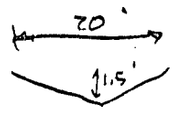
$Q_{100} = 9.12 \times 0.6 \times 8.37 = 45.8$ cfs

SIZE PIPE FOR 2YR. STORM – PROVIDE SWALE FOR 100YR

STA.	PIPE	REQ'D Q	SLOPE	CAPACITY	VELOCITY
0+00	–	–			
0+30	15"	4 cfs	0.4%	4 cfs ✓	3.25 fps
1+07	18"	9.0 cfs	0.7%	8.8 cfs ✓	5.09 fps
1+37	24"	13.8 cfs	0.4%	14.3 cfs ✓	4.46 fps
2+82	24"	13.8 cfs	0.4%	14.3 cfs ✓	4.46 fps
LINE #5	15"	24 cfs	0.4%	4 cfs ✓	3.25 fps



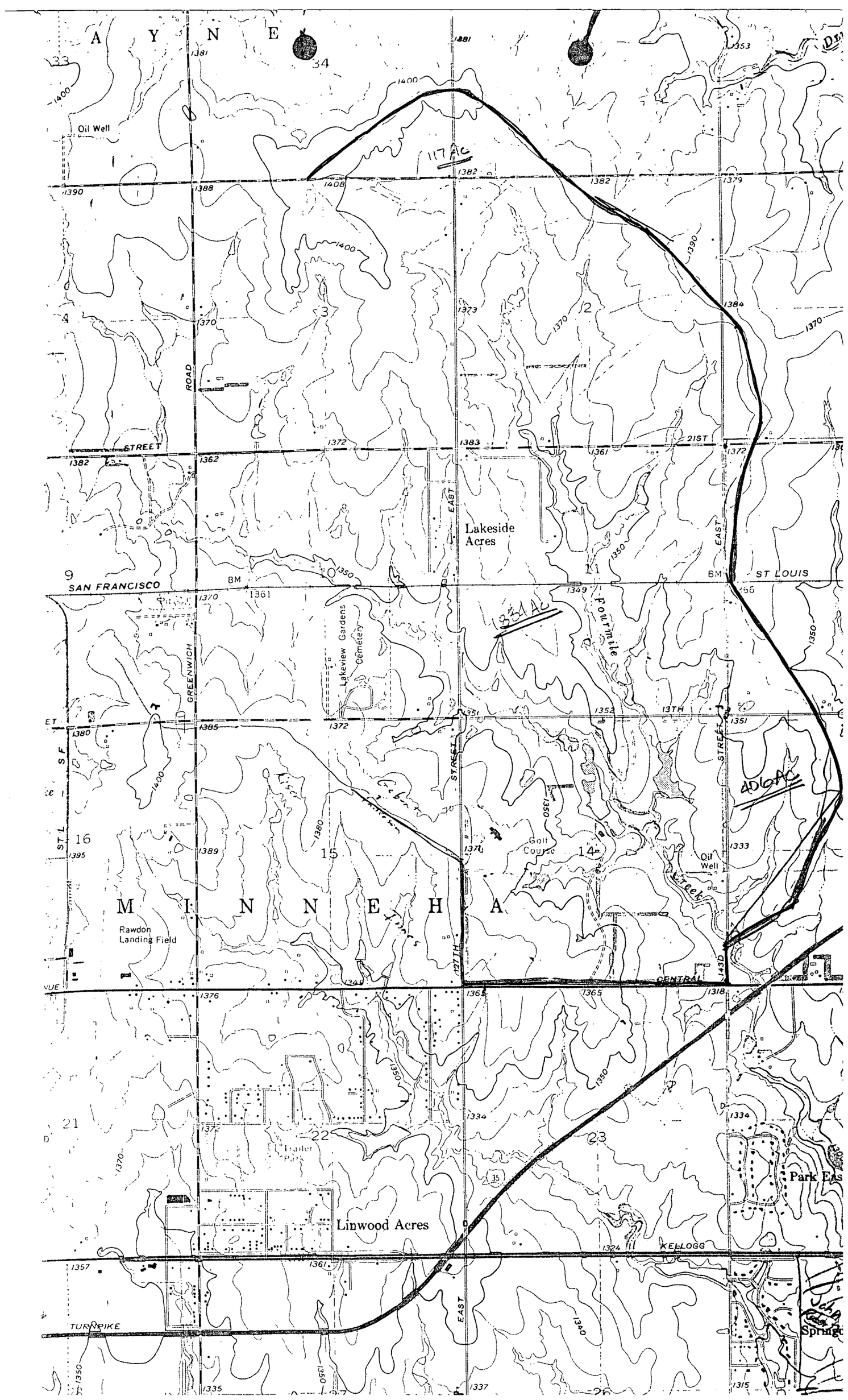
FLOW DISTRIBUTION

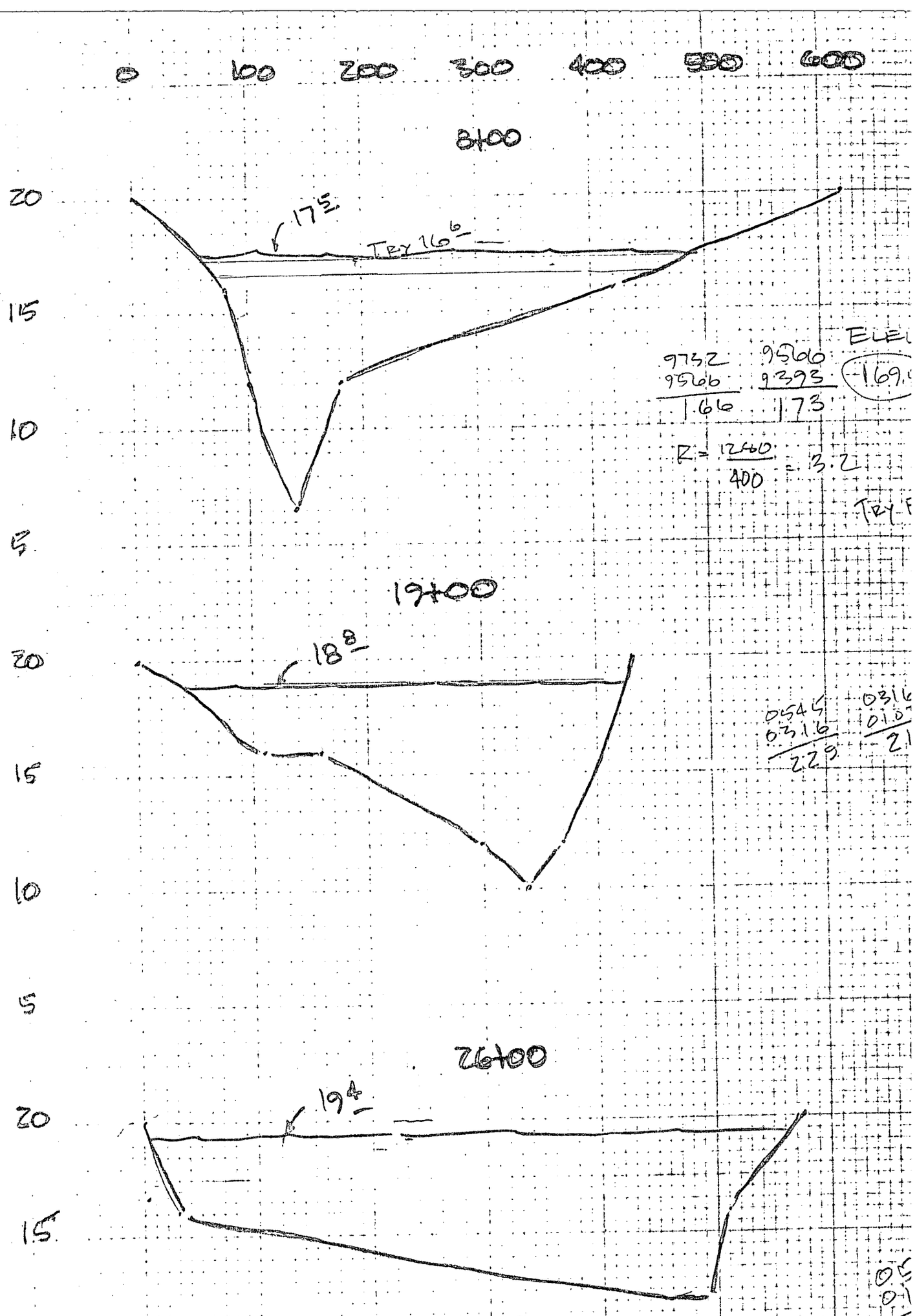


"V" SWALE $a = 15$ s.f. $R = \frac{15}{20.2} = .74$ $n = .035$

$$Q = 15 \quad \frac{1.486}{.035} \quad .74^{2/3} \quad .005^{1/2} = 36.8 \text{ cfs}$$ OK. ✓

$45.8 - 13.8 = 32.0$ cfs REQ'D ✓


A Y N E
M I N N E H A
Oil Well
Lakeside Acres
Linwood Acres
Rawdon Landing Field
Lakeview Gardens Cemetery
Golf Course
Trailer Park
Oil Well
Fourmile Creek
Cedar Creek
117 Ac
354 Ac
406 Ac
SAN FRANCISCO
ST LOUIS
CENTRAL
KELLOGG
TURNPIKE
GREENWICH
ROAD
EAST
STREET
21ST
13TH
12TH
BM
Park Ea
Spring



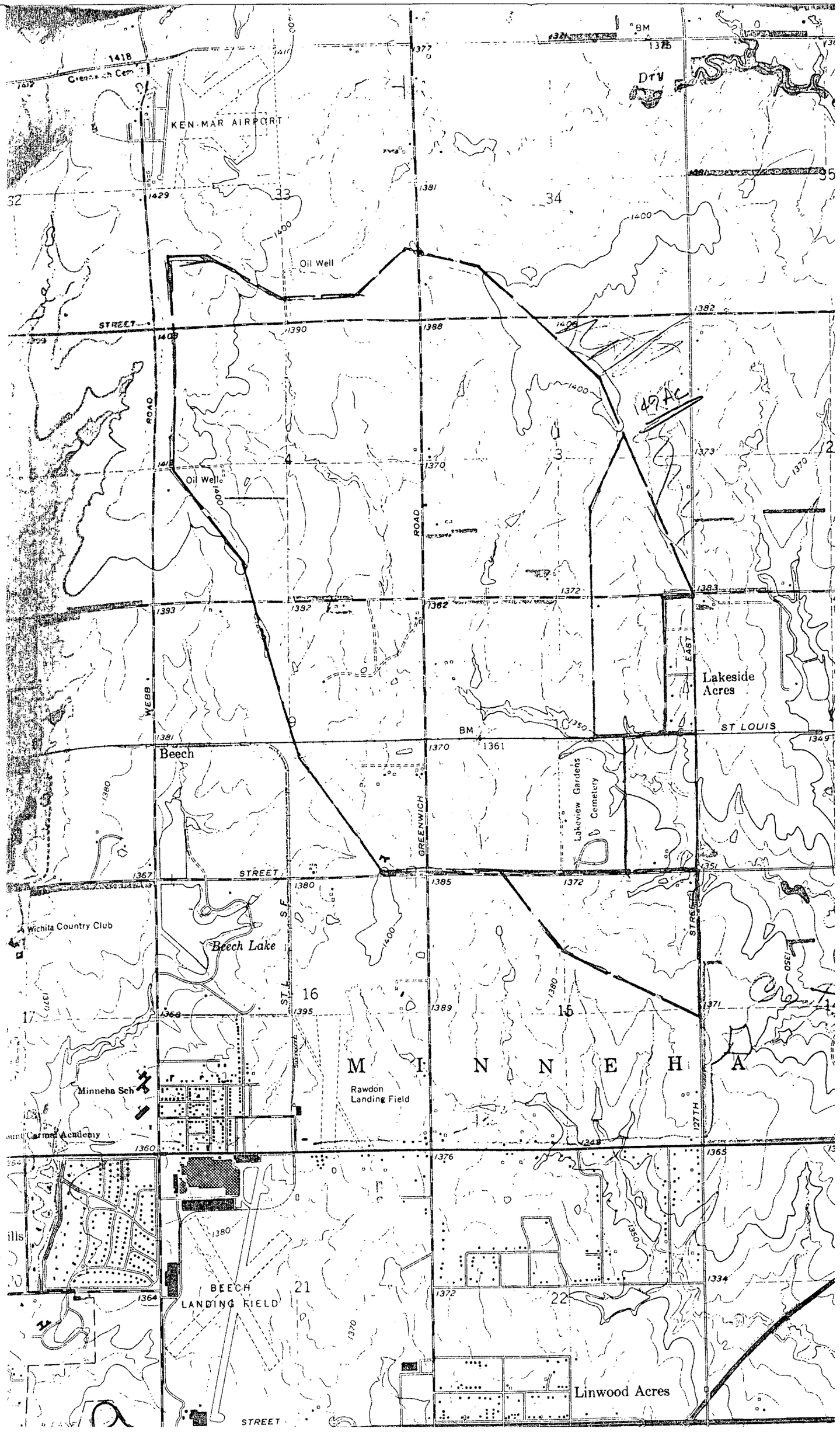
9752 9566 ELE
9566 9393 169.
.186 .173

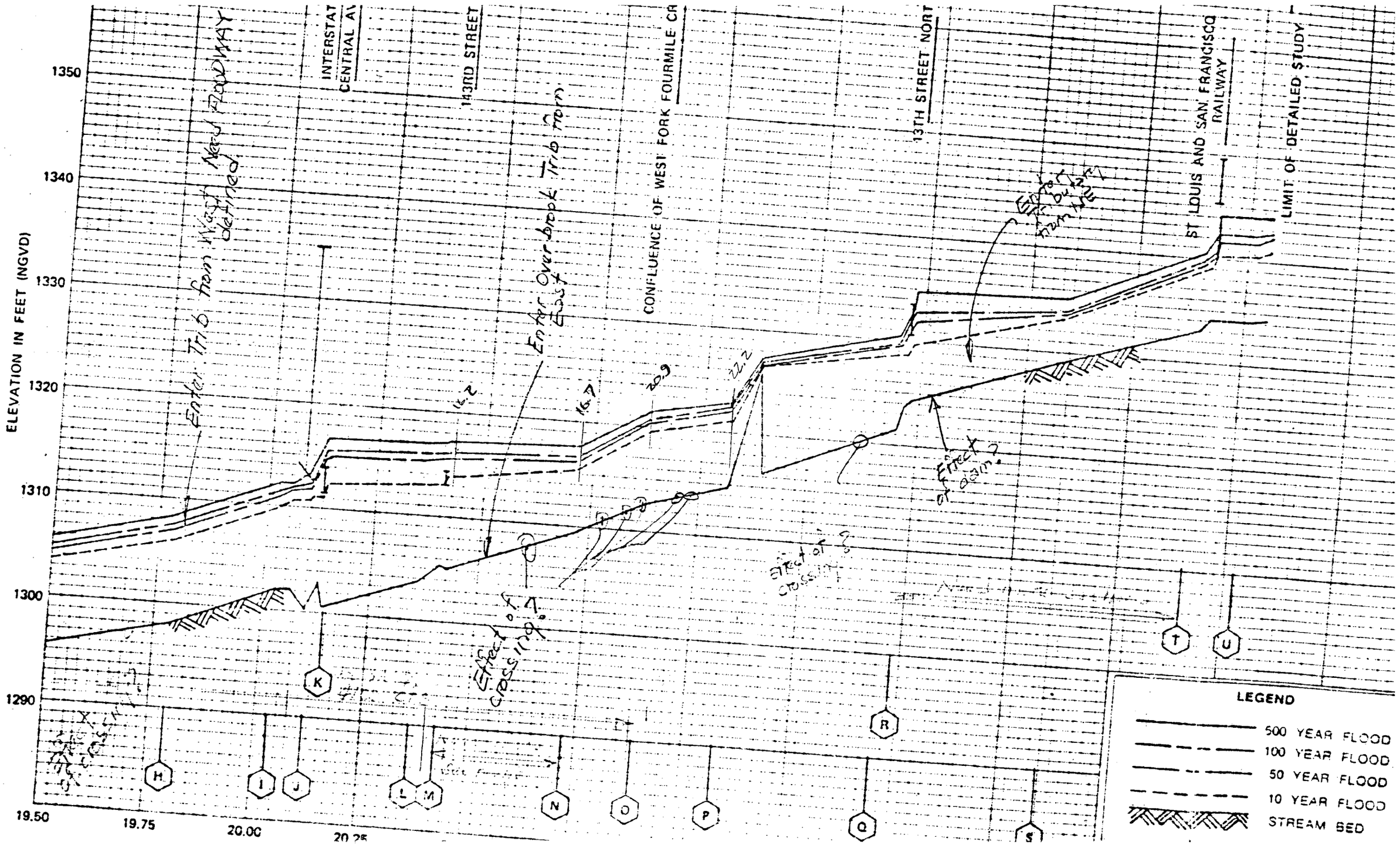
R = 1260/400 = 3.2

Top F

0545 0316
0316 010
229 2

X-SEC FROM AERIAL PHOTO


KEN-MAR AIRPORT
Oil Well
Oil Well
STREET
ROAD
WEBB
ROAD
EAST
Lakeside Acres
ST LOUIS
Beech
GREENWICH
Lakeview Gardens Cemetery
STREET
Wichita Country Club
Beech Lake
S.E.
ST. L
STREET
127TH
M I N N E H A
Minneha Sch
Rawdon Landing Field
BEECH LANDING FIELD
Linwood Acres
STREET
149 Ac
Dry
BM
BM


ELEVATION IN FEET (NGVD)
1350
1340
1330
1320
1310
1300
1290
19.50
19.75
20.00
20.25
INTERSTATE
CENTRAL AV
143RD STREET
CONFLUENCE OF WEST FORK FOURMILE CR
13TH STREET NORT
ST LOUIS AND SAN FRANCISCO
RAILWAY
LIMIT OF DETAILED STUDY
Enter Trib from West
Enter Overbank Flow
Effect of Crossing
Effect of Crossing
Effect of Crossing
162
167
209
222
H
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J
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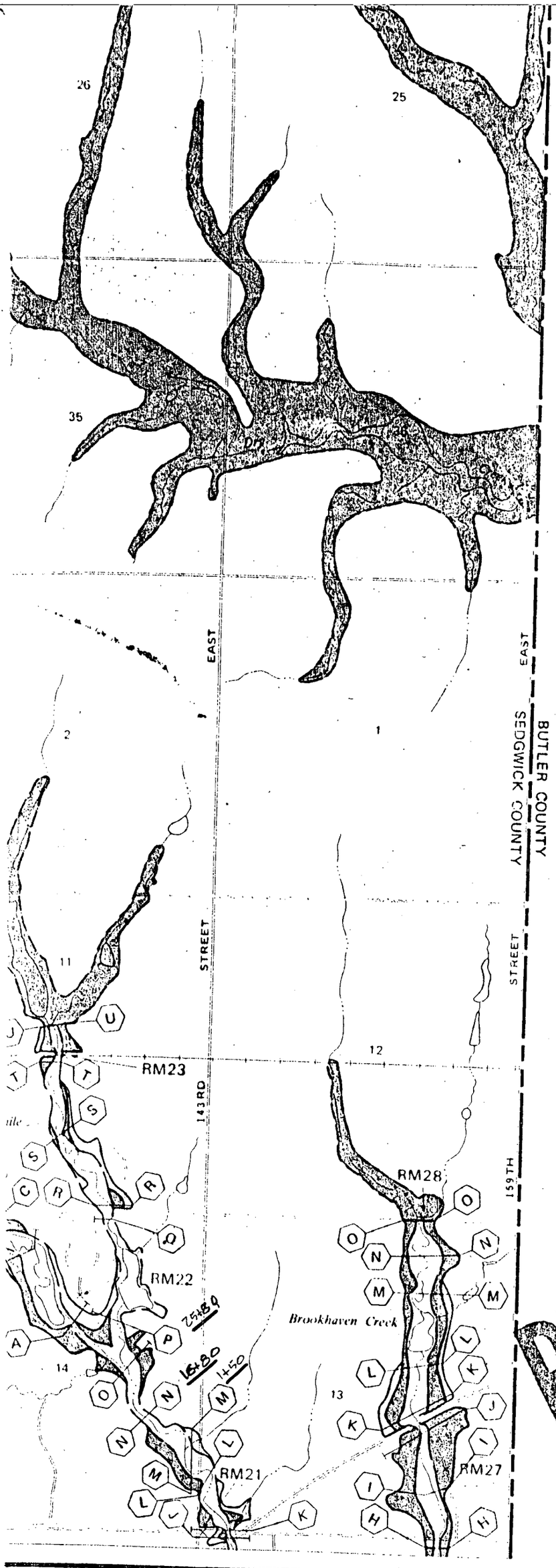
U
LEGEND
500 YEAR FLOOD
100 YEAR FLOOD
50 YEAR FLOOD
10 YEAR FLOOD
STREAM BED



APPROXI

2000

NATIONAL FI

FLOOD BOUN

COUNTY (
SEDGWI
KANSAS
(UNINCOR

COMMUNITY-P
200321 01

PAGE 15

PRELIMINAR

EFFECTIVE

U.S. DEPARTM
AND URBAN D
FEDERAL INSUR

FOLD

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY (NGVD)	DIFFERENCE
FOURMILE CREEK							
M	20.42	480	2780	1.5	1316.7	1316.2	0.5
N	20.71	207	876	4.7	1317.2	1316.7	0.5
O	20.88	345	1275	3.2	1321.2	1320.9	0.3
P	21.07	150	654	2.5	1322.7	1322.2	0.5
Q	21.45	140	598	2.7	1329.6	1329.6	0.0
R	21.48	253	1166	1.4	1332.9	1332.9	0.0
S	21.84	132	392	4.2	1333.9	1333.6	0.3
T	22.15	79	280	5.8	1340.1	1339.5	0.6
U	22.27	166	691	2.4	1342.7	1342.5	0.2
BROOKHAVEN CREEK							
A	0.49	285[2]	1111	2.6	1294.0	1293.0	1.0
B	0.78	178	733	3.9	1296.8	1296.0	0.8
C	0.87	225	1246	2.3	1300.1	1300.1	0.0
D	1.12	274	1669	1.7	1303.5	1302.5	1.0
E	1.54	225	1203	2.4	1305.3	1304.3	1.0
F	1.65	141	464	6.1	1308.4	1307.8	0.6
G	1.89	159	987	2.9	1313.6	1312.9	0.7
H	2.02	79	565	5.0	1315.2	1314.3	0.9
I	2.21	389	3062	0.9	1320.9	1320.9	0.0
J	2.40	141	885	2.5	1321.0	1321.0	0.0
K	2.46	528	3916	0.6	1325.5	1325.1	0.4
L	2.62	326	1956	1.1	1325.6	1325.2	0.4
M	2.91	290	1175	1.9	1329.3	1328.9	0.4
N	3.06	585	1649	1.3	1329.7	1329.2	0.5
O	3.22	162	352	6.3	1331.5	1331.0	0.5

[1]MILES ABOVE MOUTH
[2]THIS WIDTH EXTENDS BEYOND COUNTY BOUNDARY

TABLE

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

COUNTY OF SEDGWICK, KS

FLOODWAY DATA

OVERBROOK ADDN.
MAX WTR LEVEL AT CENTRAL 100YR STORM

Q_{100} = 4716 RATIONAL METHOD
Q_{100} = 5879 USGS METHOD
Q_{100} = 6795 FEMA-H

Q_{100} AVERAGE = 5797 cfs USE 5800 cfs

TRY W.L. @ 1315.5 & CENTRAL 1314.0 @ CULV

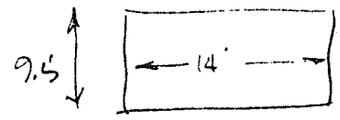
WIER FLOW OVER CENTRAL

L = 470' @ 1315.5 AVE DEPTH 0.75'

$H = 0.5\left(\frac{Q}{L}\right)^{2/3} .75 = 0.5\left(\frac{Q}{470}\right)^{2/3}$ Q = 860 cfs

5800 - 860 = 4940 cfs THRU RCBC WITH 1315.5W

RCBC



3 OPENING

a = 399 p = 141 $R = \frac{399}{141} = 2.83$ n = 012

$V = \frac{Q}{A} = \frac{4940}{399} = 12.4$ fps

$H_V = \frac{12.4^2}{64.4} = 2.39'$

$H_e = 0.5 \times 2.87 = 1.19'$

$H_f = \left(\frac{29 \cdot 0.012^2 \cdot 36}{2.83^{1.33}}\right)(2.39') = 0.09$

W.L. 1315.5 @ CEN
w/5800 cfs DISCHARG

$D_c = .315\left(\frac{4940}{36}\right)^{2/3} = 8.38$

$TW = \frac{D + D_c}{2} = \frac{9.5 + 8.38}{2} = 8.94'$

Q 4940 W.L. 1315.11

TRIAL #2

WIER FLOW @ 1316.0

L = 540 @ 1316.0 AVE DEPTH 12"

$H = 0.5\left(\frac{Q}{L}\right)^{2/3}$ $1.0 = 0.5\left(\frac{Q}{540}\right)^{2/3}$ $Q = 1550$ cfs

5800 - 1550 = 4250 cfs THRU RCBC WITH 1316 W.L.

$\frac{Q}{S} = \frac{4250}{36} = 118$ HW INLET CONTROL = $\frac{11.9+11.5}{2} = 11.7'$

1301.72 + 11.7 = 1313.4

$V = \frac{Q}{A} = \frac{4250}{399} = 10.65$ fps

$H_V = \frac{10.65^2}{64.4} = 1.76'$

$H_e = 0.5 \times 1.76 = 0.88'$

$H_f = \left(\frac{29 \cdot .012^2 \cdot 36}{2.93^{1.33}}\right) 1.76 = 0.07'$

$D_c = .315\left(\frac{4250}{36}\right)^{2/3} = 7.58'$

$TW = \frac{D + D_c}{2} = \frac{9.5+7.58}{2} = 4.54'$ CRITICAL DEPTH CONTRO

W.L. 1313.75

$Q = 925$ $S = .002'/FT.$ FROM USGS. $P = 142$ $R = \frac{925}{142} = 6.5$

$Q = 925\ \frac{1.486}{035}\ 6.5^{2/3}\ .002^{1/2} = 6117$ cfs

USE 10' FOR TW DEPTH

CULVERT CAPACITY COMPUTATIONS

PROJECT NO. SU 0177
COUNTY SEDGWICK
LOCATION OVERBROOK ADDN.
DRAINAGE STRUCTURE NO. @ CENTRAL

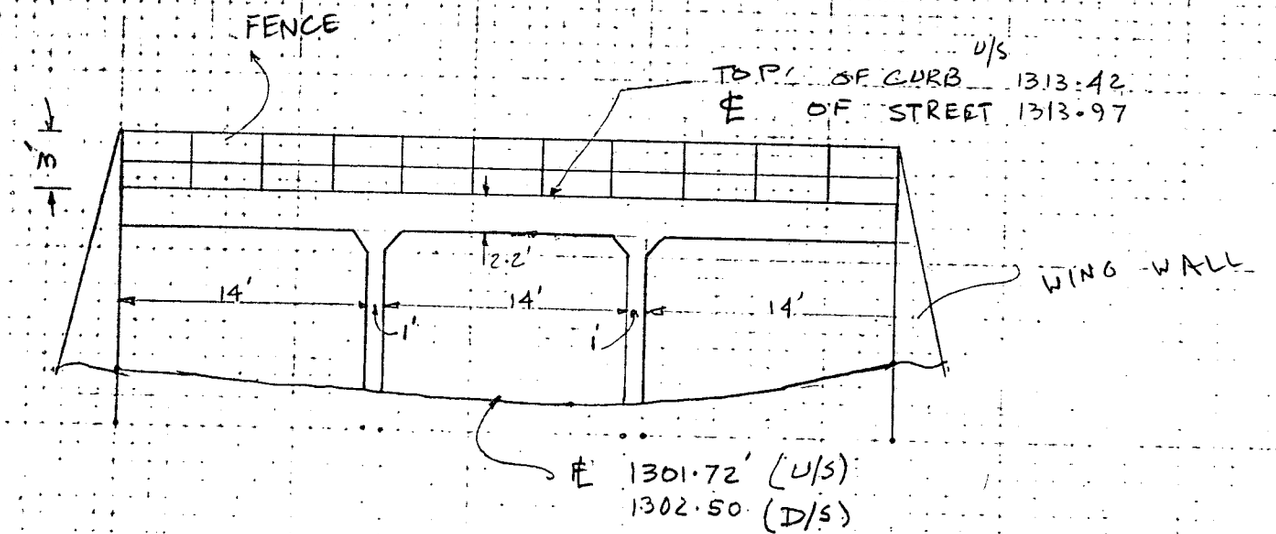
SIZE 3 OPENING 14 x 9.5 RCBC
TYPE BARREL —
TYPE INLET 45° WING
LENGTH 36 FT.

E_1 (UPSTREAM) = 1301.72
E_2 (DOWNSTREAM) = 1302.50
E_3 (WIER CREST) = 1314.00

DRAINAGE AREA = 4716 Ac
DRAINAGE AREA NO. = 1
AHW ELEVATION = —

DISCHARGE Q IN cfs (ACRE-INCHES/HR)	UNIT DISCHARGE q IN INCHES q = Q/A	INLET CONTROL		OUTLET CONTROL				WIER CONTROL		MAXIMUM HW ELEVATION (CONTROLLING)
		HW	HW ELEVATION E_1 + HW	TW	H_f	H_{e+v}	HW ELEVATION E_2 + TW + H_f + H_{e+v}	HW	HW ELEVATION E_3 + HW	
Q_{100} = 5800 cfs										
Q_{WIER} = 860 cfs										
Q_{RCBC} = 4940 cfs										
		14.75	1316.47	8.94	0.09	3.58	1315.11	1.5	1315.50	1316.47
TRY WITH WIER FLOW @ 1316.0										
Q_{WIER} = 1550 cfs										
Q_{RCBC} = 4250 cfs										
		11.7	1313.42	10.0	.07	2.64	1315.21	2.0	1316.00	1316.00
							USE 1316.0 AS MAX		W.L. @ CENTRAL	

Figure 3C-5-2-4-A



CULVERT ON CENTRAL

500 ~~FEET~~ EAST OF INTERSECTION OF CENTRAL & 143RD

SCALE 1" = 10'

K-6.78

OVERBROOK ADDN. DRAINAGE TO RCBC ACROSS CENTER

TEST AREA 4" SQ 1169.3d AC 1" = 2000' SCALE

5157 4080 (1082)
4080 2993
1077 1087

D.A.

1245 9078
9078 4540 3472.5 4716 AC
3457 3188

FALL 1422
1302
120

$T_c = \left(\frac{11.9 \ 4.41^3}{120}\right)^{0.385} = 2.29$ HRS

RATIONAL METHOD

C = 0.5 WHEN FULLY DEVELOPED

$i_2 = 0.8$ $Q = 4716 \times 0.5 \times 0.8 = 1886$ cfs
$i_{10} = 1.4$ $Q = 4716 \times 0.5 \times 1.4 = 3301$ cfs
$i_{25} = 1.6$ $Q = 4716 \times 0.5 \times 1.6 = 3773$ cfs
$i_{50} = 1.8$ $Q = 4716 \times 0.5 \times 1.8 = 4244$ cfs
$i_{100} = 2.0$ $Q = 4716 \times 0.5 \times 2.0 = 4716$ cfs

USGS METHOD RAINFALL = 3.55" IN 24 HRS D.A. = 7.37 SQ.

$Q_2 = .707 (7.37)^{.548} 3.55^{4.752} = 870$ cfs
$Q_{10} = 9.92 (7.37)^{.525} 3.55^{3.591} = 2678$ cfs
$Q_{25} = 25.6 (7.37)^{.524} 3.55^{3.127} = 3931$ cfs
$Q_{50} = 47.6 (7.37)^{.525} 3.55^{2.621} = 4944$ cfs
$Q_{100} = 83.6 (7.37)^{.524} 3.55^{2.529} = 5879$ cfs

OVERBROOK ADDN. 1-6-77 FENL-H METHOD

D.A. = 4716 AC LENGTH = 23,300 FT. MAP = 30"

RETURN INTERVAL ANNUAL	a	MAP^a	b	L^b	C_x	s	X_{CR}	Z_{CR}	Q_P	RETURN INTERVAL PARTIAL DURATION
2	2.32	2673	-.793	.000 344	.440	.210	.404	.41	782	
10	1.47	148	-.841	.000 212	42.1	.210	1.321	.41	2554	
25	1.16	51.7	-.849	.000195	205	.212	2.067	.41	3996	
50	.955	25.7	-.856	.000178	600	.207	2.745	.41	5307	
100	.770	13.7	-.862	.000171	1500	.208	3.51	.41	6795	

Y_{c2} Z_{cc} A

WICHITA—SEDGWICK COUNTY
W-SC
METROPOLITAN AREA PLANNING DEPARTMENT
CITY HALL — TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4561

Reiss and Goodness Engineers
2160 W. 21st Street
Wichita, Kansas 67204

Re: S/D 78-111 - Final plat of Crestview Country Club Estates-East Meadows 2nd Addition

Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission, March 22, 1979, the above captioned plat was considered. The action of the Committee was to recommend that this plat be approved subject to:

A. The minimum pad elevation in the plattor's text shall indicated on the face of the plat.

B. Approval of the plat shall be subject to the approval of the associated zone case SCZ-0418, "R-1" to "AA".

C. At the applicant's request, the following street name changes may be indicated on the final plat tracing: Tipperary Circle to Shannon Circle; Sharon Circle to Tipperary Circle.

D. The applicant shall submit covenants or a Homeowners' Association which shall provide for the maintenance of Reserve A and which shall assure that no obstructions, such as fences, etc., will be permitted in the pedestrian easements.

E. The applicant shall guarantee the installation of a public water supply to serve each lot.

F. The applicant shall guarantee through the Crestivew Improvement District the paving of all streets to City of Wichita standards.

G. The applicant shall guarantee through the Crestview Improvement District the installation of sanitary sewers to serve each lot.

H. The applicant shall submit by separate instrument a 20 ft. utility easement adjacent to the west line of the plat and likewise adjacent to the north line of the plat if there is no existing easement at that location.

I. The applicant shall request annexation of subject property to the City of Wichita.

J. The applicant's engineer shall submit his final hydrology calculations to the Flood Control Office for review and shall guarantee any drainage improvements required by the platting of this property.

K. The easement for drainage and utilities between Lots 26 and 27 needs to be wider and the applicants engineer shall contact the City Engineer regarding this matter. The widened easement shall be indicated on the final plat tracing.

L. Recording of the plat within 30 days after approval by the Board of City Commissioners.

Enclosed with the applicant's copy of this letter is a list of the five methods which have been adopted as being acceptable for guaranteeing improvements required in the approval of plats. Forms for the bond and irrevocable letter of credit are available from this office.

The enclosed "marked" copy of the final plat is for your information and files.

This matter will be forwarded to the Planning Commission for its consideration on Thursday, March 29, 1979, at 1:30 p.m. If you have any questions regarding this matter, please call.

Sincerely,

CLN

Curtis L. Newby
Junior Planner

CLN:bh

cc: Crestview Dev. Corp., 536 S. Main, 67202 - Atten: James F. Haugen
Dean Sellers, Assistant City Engineer

WICHITA—SEDGWICK COUNTY
W-SC
METROPOLITAN AREA PLANNING DEPARTMENT
CITY HALL — TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4561

Reiss and Goodness Engineers
2160 W. 21st Street
Wichita, Kansas 67204

Re: S/D 78-111 - Crestview Country Club Estates - East Meadows 2nd Addition

Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission, February 22, 1979, the above captioned plat was considered. The action of the Committee was to approve the preliminary and authorize preparation of the final plat, subject to the following:

A. Approval of the plat shall be subject to the approval of the associated zone case SCZ-0418 "R-1" to "AA".

B. Springdale Court shall be relabeled as "Donegal Circle" on the final plat.

C. Additional easements as indicated on the "marked" copy of the preliminary plat furnished to the applicant's engineer shall be shown on the final plat.

D. It is recommended that the 40' fire lane easements to Lot 28 be platted as part of that lot; and that a 25' front yard setback be provided adjacent to Lots 27 and 29 on Lot 28.

E. The applicant shall submit covenants or a Homeowners Association agreement which shall provide for the maintenance of Reserve A and which shall assure that no obstructions such as fences, etc., will be permitted in the pedestrian easements.

F. The applicant shall guarantee the construction of sidewalks on both sides of all the cul-de-sac streets and along the west side of North Springdale Drive and within each of the sidewalk easements. It should be noted, however, that sidewalks have been waived on all other additions in this section.

G. The applicant shall guarantee the paving of all the streets to City of Wichita standards.

H. The applicant shall guarantee the installation of sanitary sewers to serve each lot.

I. The applicant shall guarantee the installation of a public water supply to serve each lot.

J. All utilities shall be installed underground.

K. Requirements for a final plat (see pages 20-25, Part 4, Article 5 of the MAPC Subdivision Regulations).

Enclosed herewith is the "marked" copy of the preliminary plat for your information and files.

If you should have any questions concerning this matter, please call.

Sincerely,

Curtis L. Newby

Curtis L. Newby
Junior Planner

CLN:bh

cc: Crestview Development Corporation - 536 S. Main, 67202
Dean Sellers, Assistant City Engineer

Flood Control Maintenance October 26, 1978

Louise Olivarez, Jr. Planner, MAPD

Max Greene

- Review of Sketch Plats:
  Bridgewood Addn. to Crestview Country Club Estates,
  East Meadows 2nd Addn. to Crestview Country Club Estates and
  Lee Cox Addn.

I have reviewed subject plats and have the following comments:

1) Bridgewood Addn. to Crestview Country Club Estates
   a. On all dams the Floodway should encompass the Flood Plain.
   b. Need hydrologic information on the dams and spillway data.
   c. Minimum pad along Floodway should be 3' above computed water surfaces.
   d. In the southeast corner of the plat, need a Floodway delineated for the existing pond.
   e. Need storage pond to store excess runoff.

2) East Meadows Second Addn. to Crestview Country Club Estates
   a. Need storage pond to store excess runoff and drainage plan where you plan to bring water off the plat.

3) Lee Cox Addn.
   a. Need to address problems of pipelines thru the area.
   b. Need drainage plan for the area.
   c. Consider storage pond to store excess runoff.
   d. Outlet is structure thru levee about 1/2 mile east of plat.

I trust this is sufficient information to allow processing of the plats. If you have any questions, please advise.

Max Greene,
Flood Control Engineer
Flood Control Maintenance

MG/glm

cc: G. H. Wilton
Yash Desai
Brent Remsberg/County

Bridgewood Addn. to Crestview Country Club Est.
East Meadows 2nd Addn. to Crestview Country Club Est.
Lee Cox Addn. Plat Files

(1)

EAST MEADOWS 2ND ADDN: 1-16-79.
BRIDGE CAPACITY AT 143RD

$Q = 5800$ cfs $a = 332$ S.F. $V = \frac{5800}{332} = 17.5$ f

ENTRANCE LOSS $ke = 0.4$

$He = \frac{17.5^2}{2g} \cdot ke = 1.9'$

FRICTION LOSS

WETTED PERIMETER	64' CONC	50' EARTH
$n = .012$ CONC	$\times 84 =$	1.008
$n = .035$ EARTH	$\times 50$	1.750
		2.758

$n = .020$ COMPOS

$R = \frac{a}{p} = \frac{332}{134} = 2.48$ $L = 44'$ ASSUMED

$H_f = \frac{29 \cdot .020^2 \cdot 44}{2.48^{1.33}} \cdot \frac{17.5^2}{64.4} = 0.72$

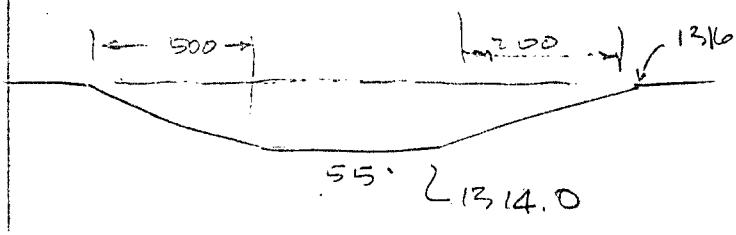
VELOCITY HEAD

$H_v = \frac{v^2}{2g} = \frac{17.5^2}{64.4} = 4.76$

(2)

BRIDGE CAPACITY @ 1316.2 W.S. ELEV.

WIER FLOW OVER 1432 RD



L = 755 AVG DEPTH = 55 @ 2.2 121

700 @ 0.95 665

$H = 0.5 \left(\frac{Q}{L}\right)^{2/3}$

$1.04 = .5 \left(\frac{Q}{755}\right)^{2/3}$ $Q = 2300$ cfs

$\frac{786}{755} = 1.0$

$Q_{THRU\ BRIDGE} = 5900 - 2300 = 3600$ cfs

$V = \frac{3600}{332} = 10.8$ fps TW = 14.3

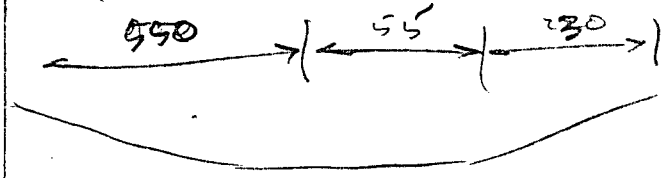
$He = \frac{10.8^2}{2g} \cdot 0.4 = 0.7'$

$H_f = \frac{29.020^2 .44}{2.46^{1.33}} \cdot \frac{0.4^2}{2g} = 0.5$

$H_v = \frac{10.8^2}{64.4} = 1.8'$

$HW = 14.3 + 1.4 + 0.5 + 0.7 = 17.3$

TRY BRIDGE CAPICITY @ W.S. ELEV. 165



$L = 835$ AVG. DEPTH 55 @ 2.5' 137.5
780 @ 1.25 975

$1.33 = 0.5\left(\frac{Q}{835}\right)^{2/3}$ $Q = 3600$ cfs $\frac{1112.5'}{835} = 1.33$

Q THRU BRIDGE $5800 - 3600 = 2200$ cfs

$V = \frac{2200}{332} = 6.62$ fps TW = 14.0

$H_c = \frac{6.62^2}{2g} \cdot .04 = 0.27$

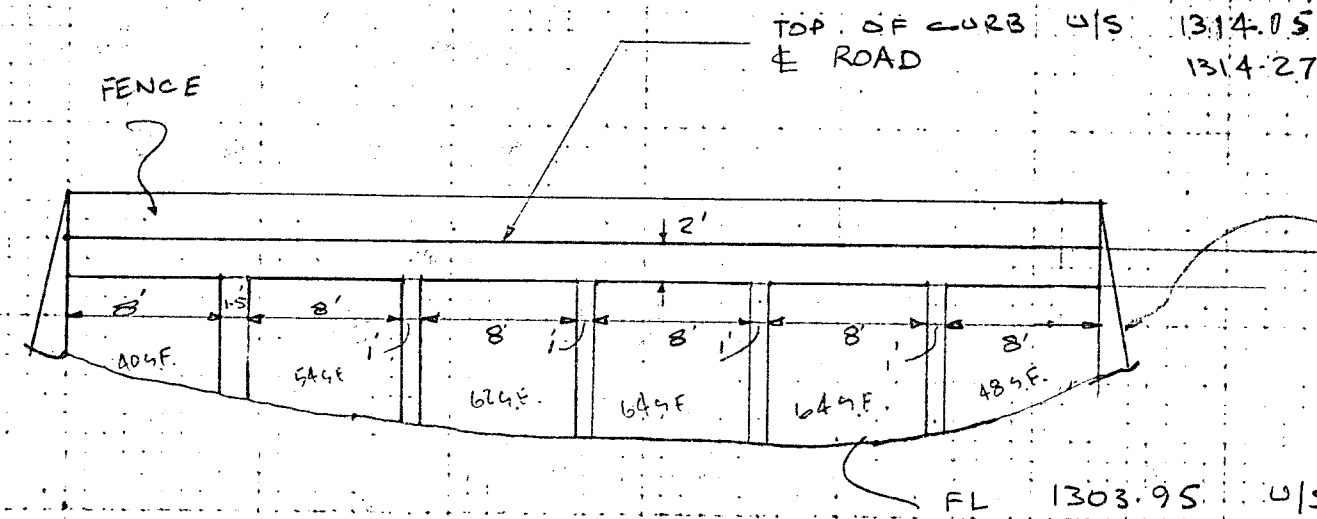
$H_f = \frac{29 \cdot .020^2 \cdot 44}{2.48^{1.33}} \cdot \frac{6.62^2}{2g} = 0.10$

$H_v = \frac{6.62^2}{2g} = 0.66$

$HW = 14.0 + 0.27 + 0.10 + 0.66 = 15.05$

W.S. ELEV. @ CULVERT WILL BE BETWEEN 16' AND 16.5'

USE 16.5'



CULVERT AT 143 RD STREET

950' NORTH OF INTERSECTION OF CENTRAL & 143 RD

SCALE 1" = 10'

BACKWATER COMPUTATION WORK SHEET

Project: EAST MEADOWS 7TH ADDN.

BEG. @ 143RD ELEV. 1316.5

Page 1 of 1

Computed by: K.H.L. **Date** 1-16-79

Checked by: _____ **Date** _____

Q = 5800 cfs n = .035 c = 42.46

Alle or Sec. No.	Reach Length	Est. W.S. Elev.	Area	2/3 r	S1/2 = 0.01 Q1	S1/2 = 0.01 Q1	S	Mean S	hf	V	Q	V²Q	hv	hv Diff.	H	Comp. Elev.	
0+00													.68			1316.5	
8+00	800	1316.6	1280	2.17	0.92	1180.2	.00241	.00241	1.93	4.57	5400		.32	.36		1318.8	
8+00	800	1316.0	1382	2.41	1.02	1925.8	.00091	.00045	.36								
8+00	800	1317.0	1400	2.27	0.96	1342.4	.00176	.00088	.70								
8+00	800	1317.3	1560	2.32	0.99	1544.4	.00141	.00071	.57	3.72	5603		.21	.46	1.03	1317.5	✓
19+00	1100	1319.0	11667	2.90	1.112	1833.7	.0010	.0012	1.32	3.48	5401		.19	.02	134	1318.8	✓
26+00	700	1319.3	2731	2.84	1.21	3304.5	.00031	.00065	.46	2.12	5790		.07	.12	.58	1319.4	✓

$V = Cr^{2/3}S^{1/2}$ $C = \frac{1.486}{n}$ $S = (0.01\frac{Q}{Q1})^2$ $V = V1\frac{Q}{Q1}$ $h_v = \frac{V^2Q}{64.40}$ $H = h_v$ Diff. $+ h_f$

SWT Form 49-C
Rev 18 Dec 61