

1975-1984

FSTC: Gale W. Rowe: Rent Study Data - Rent Determination
Methods

Fairhope

10517-a

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RESUME'
RENT DETERMINATION METHOD OF
FAIRHOPE SINGLE TAX
CORPORATION

R E S U M E

of the

Mathematical Rent Determination Method

Developed For

Fairhope Single Tax Corporation

Fairhope, Alabama

"A Single Tax Colony"

**Compiled and edited by R. Lucier Rockwell and Ruth E. Rockwell
1973 - Revised - 1974 - 1975**

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As an introduction to the development of mathematical rent determinations for collection of the site value of lands in an application of Single Tax theory it is apparent that the sale price of land as a measure of the true value should be studied carefully and cautiously as a basis for the determining of true rental values. As the proportion of the true rent is collected the sale value would decrease and if rent collection is based on the sale value then the amount to be collected would then be reduced again which in turn would cause the sale price to rise and thus an interminable see-saw would develop and the true rent would not be collected in any case. Consequently, once the system of rent collection on the value of the land is in effect sale value can no longer be used as a base for determining true rent.

In the case of Fairhope where only a portion of the land has site value rent collection, the remaining land being on the open market, the sale price plus the tax advantage inherent in site rent can safely be used for determining absolute values for these lands and then applied to the site rent lands.

It is frequently difficult to separate the capitalized rent and the value of the improvements on the land. This fact has been one of the major reasons for the development of this mathematical method of rent determination. It was felt that any errors could be more easily detected with the consistent, smooth valuations that come from the equation method of evaluation. In a small operation within the conventional tax system it is still somewhat of a problem to set the base level. It is even harder to arrive at a fair value when the persons involved in arriving at these judgment values are personally involved in businesses, as

lessees or in other activities that are affected by the results. It is only human to try to satisfy desires with the least effort and it takes an individual with a great deal of integrity to make a judgment to his own personal detriment, a quality that cannot always be counted on.

This problem becomes greater when rents are allowed to fall behind the collection of true rent and values rise sharply due to inflation and growth.

Such was the dilemma facing the Fairhope Single Tax Corporation in the middle of the 60's. All of the usable Colony lands had been leased and although much of it could be put to higher use the low level of rents, barely covering the taxes on both land and improvements in many cases, was not sufficient incentive to do other than hold the land for inferior uses in many cases and thus force the use of lands outside the Colony which contributed to sprawl on the outskirts and in general limited the effectiveness of the Corporation's objectives.

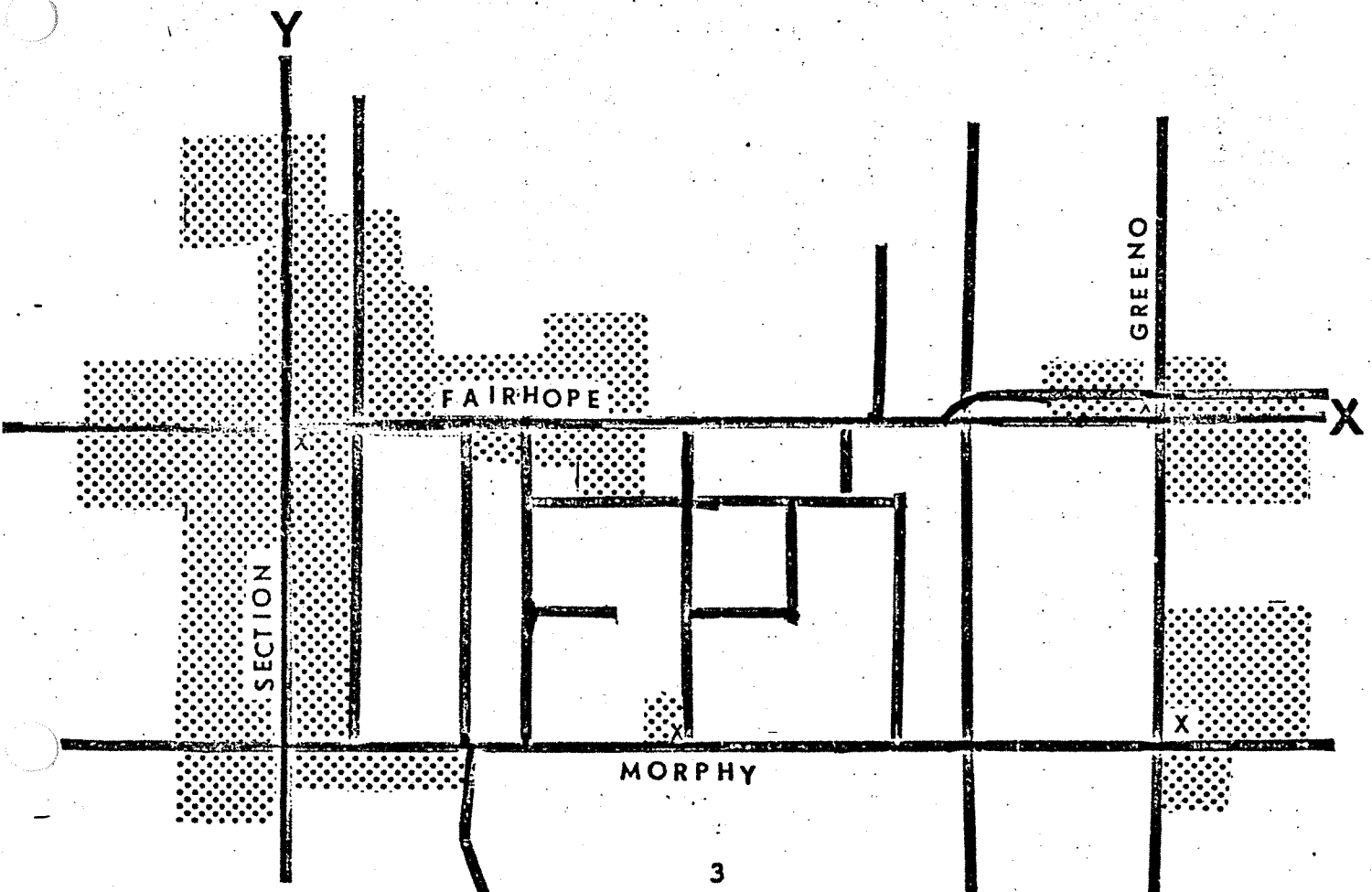
It was also recognized that frontage rates had gradually become out of balance by the continued application of percentage increases in rent charges. For example, lands on the fringes of the City were still being charged at a rate in keeping with land in the agricultural areas as a hangover from the time when it had been entirely rural, instead of suburban and business that the market demanded.

Being aware of the situation, Colony officers employed Dr. Arthur P. Becker of the University of Wisconsin, Milwaukee, and a member of TRED to assist the Fairhope Single Tax Corporation in determining absolute rental values which should be charged to lessees on a relative basis. The Somer's System of evaluation of each leasehold from these relative frontage rates had been used successfully since 1914 but no adequate method aside from considered opinion was used for the relative frontage rates and for setting the absolute level of the rent.

Dr. Becker's report mainly advised that there was no existing method completely applicable to the Corporation's particular needs but that generally, rent capitalized at a conservative interest rate of about six per cent should give the actual value of the land, and he recommended that means for determining this be worked out locally.

Following this a committee was appointed to study the situation and it set out to develop a method of arriving at these relative values or frontage rates in a mathematical and impersonal manner designed to eliminate the personal interest element in the evaluation.

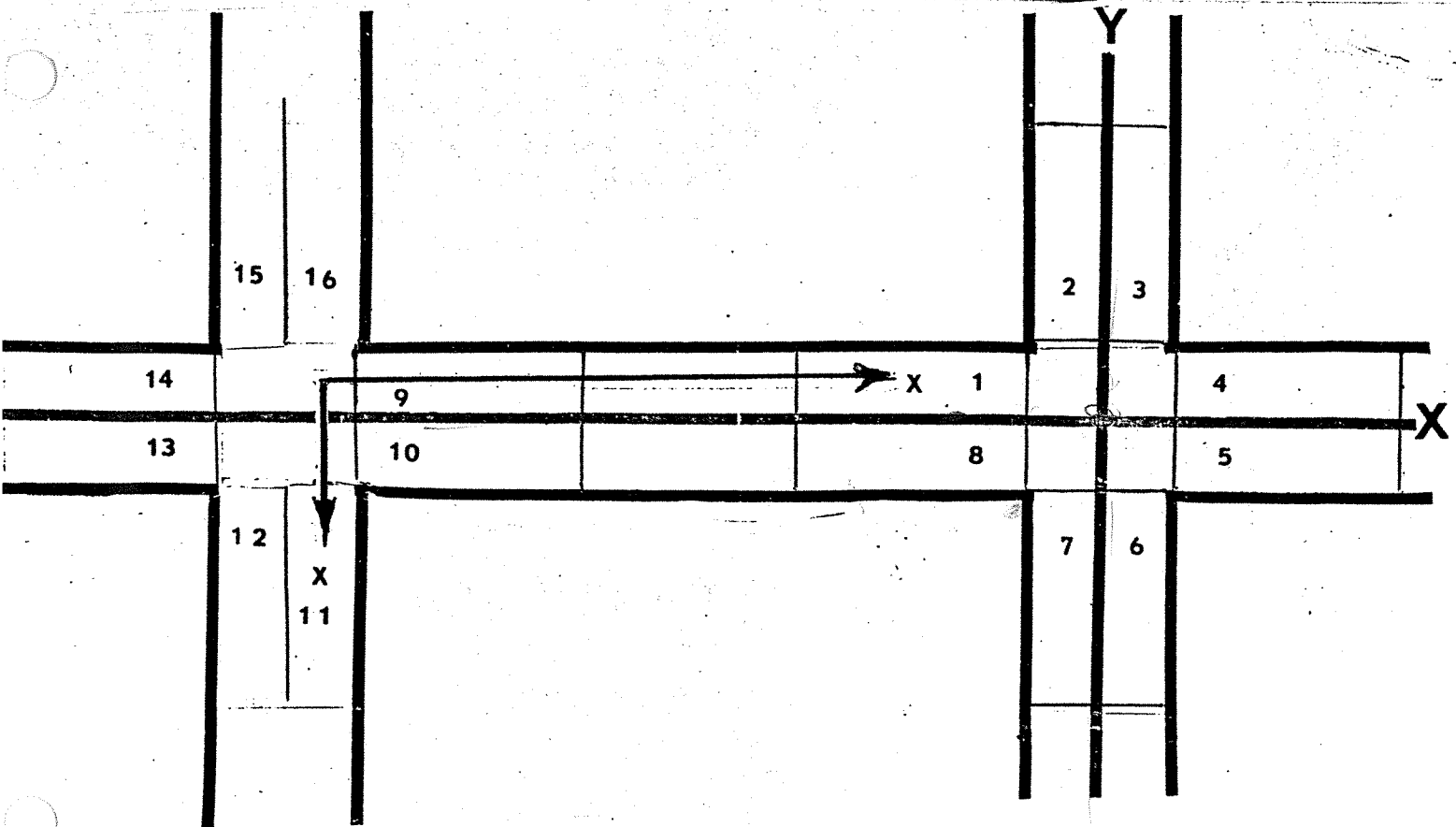
Since land value is created by the presence and activity of the people of the community (less mineral deposits, etc. in this case) the study was based on counts of people walking and cars passing on the streets. Counts were made on all faces of each corner in all of the commercially zoned areas of the city.



The foregoing is a simplified map of the commercial sections of the City, the shaded areas being the commercially zoned parts. Fairhope Ave. and Section St. are the X and Y coordinates of the system.

$$\text{VALUE} = \sum_{C=1}^{C=\text{NO. COUNTS}} \frac{\text{PEOPLE}_C + (\text{CARS}_C \times .04)}{[\text{ABS}(\underline{X_V} - \underline{X_C}) + \text{ABS}(\underline{Y_V} - \underline{Y_C})]^{1.3}}$$

The value of each count position is calculated by the summation of the effect as represented by the equation. The bottom side of the equation represents the distance between the point being evaluated and the point at which the count is taken as shown by the line from 11 to 1 below.



In this equation designations are as follows:

PEOPLE_C = Number of people entering count area in an average day

CARS_C = Number of cars passing count point

X_V = X coordinate point being valued

X_C = X coordinate of count point

Y_V = Y coordinate of point being valued

Y_C = Y coordinate of count point

Note: In the summation, when the count and value point are the same the value in the bracket is set at 30.

$$\text{FACTOR} = \frac{\text{HIGHEST VALUE}}{100}$$

After all points are evaluated a factor is found which will convert the highest value to 100%, and relate all other values proportionately.

$$\text{NEW VALUE} = \frac{\left(\frac{\text{OLD VALUE}}{\text{FACTOR}} + 2.0 \right)}{\left(\frac{2.0}{100} + 1.0 \right)}$$

This equation uses the factor thus found to convert the relative percentage values (the highest being 100%) and corrects for a value derived from outside influences from other cities.

For residential areas a mass value of each commercial block is found and its equivalent center of gravity is determined. This value is used in this equation to derive the relative frontage rates for the residential and urban lands.

$$VALUE = \sum_{B=1}^{B=NO. BLOCKS} \frac{MASS \ VALUE_B}{[ABS(X_B - X_V) + ABS(Y_B - Y_V)]^{0.95}}$$

Mass Value _B	=Mass value found from counts above for each block
X _B & Y _B	=Coordinates of mass of each block
X _V & Y _V	=Coordinates of point being valued

The value thus found is then corrected as follows: first this designated decimal part of the value is subtracted where the service is not available.

DEFECTS

GRADED STREET	.05
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PAVEMENT	.20
----------	-----

CURBS	.10
-------	-----

SIDEWALKS	.05
-----------	-----

WATER	.05
-------	-----

GAS	.05
-----	-----

ELECTRICITY	.15
-------------	-----

SEWER	.10
-------	-----

VIEW

BAY ACCESS	20
BAY VIEW	15
PARK VIEW	5
EXCELLENT	2
GOOD	1
AVERAGE	0
POOR	- 2
SLUM	- 3
FIRST BLOCK-COM.	- 1

The view factor is an adjustment, either negative or positive, where it varies from average as shown. Again a value is added for the outside cities influence.

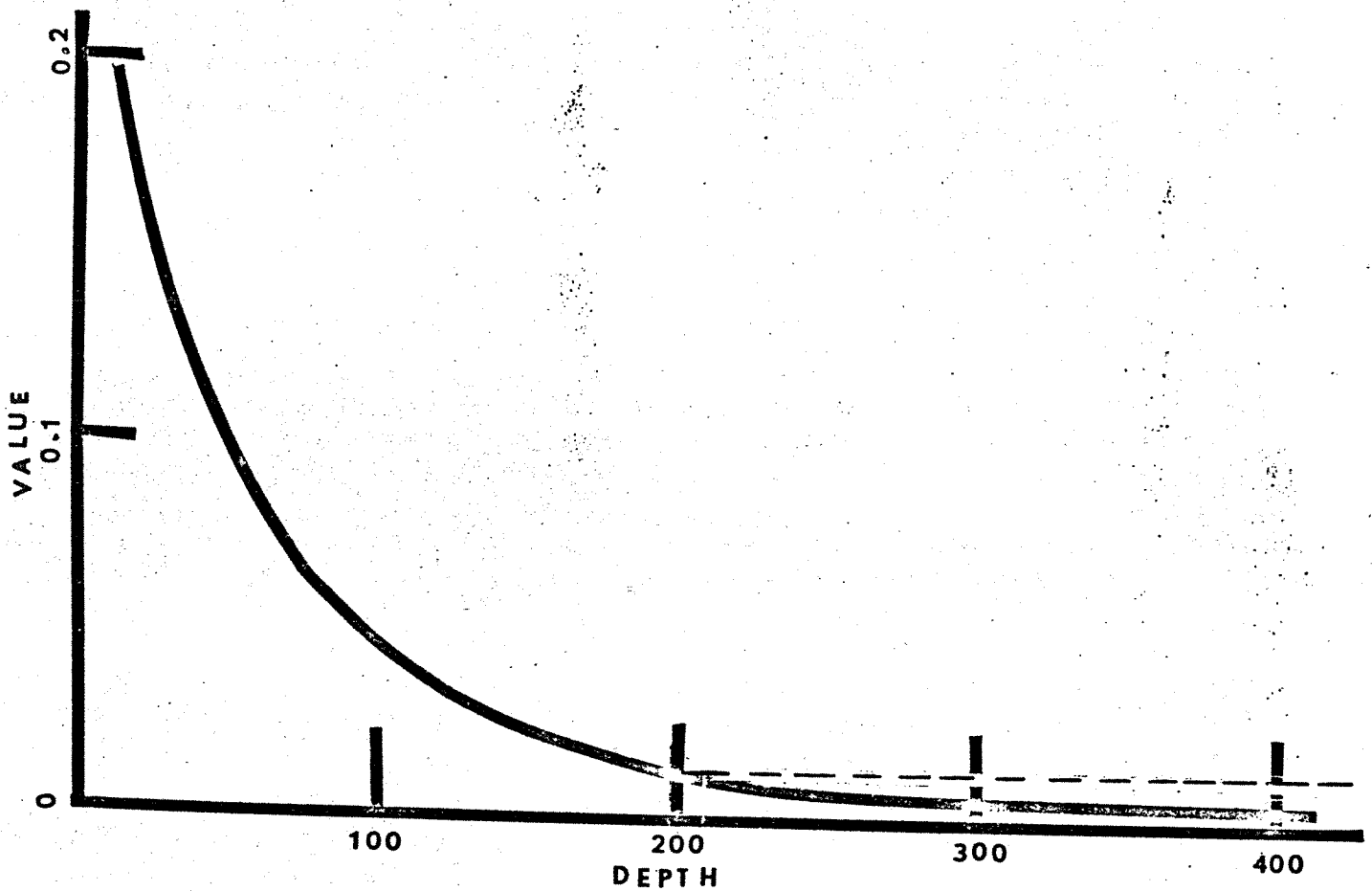
The basic frontage value for lands outside the city limits uses a different exponent than the 0.95 shown here and used in the residential equation, otherwise the method is the same.

VALUE

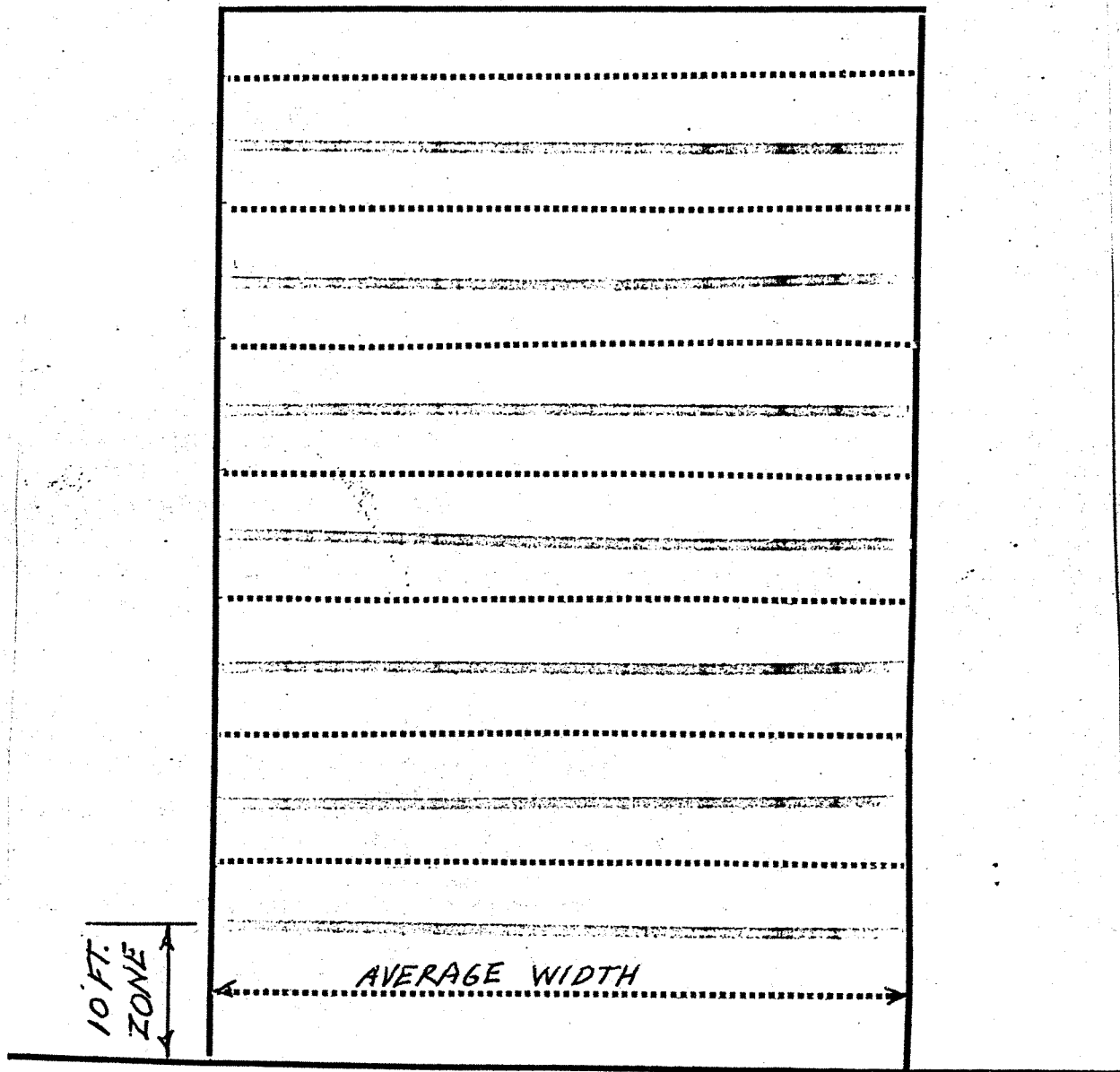
CITY LIMIT

DISTANCE FROM CENTER OF MASS

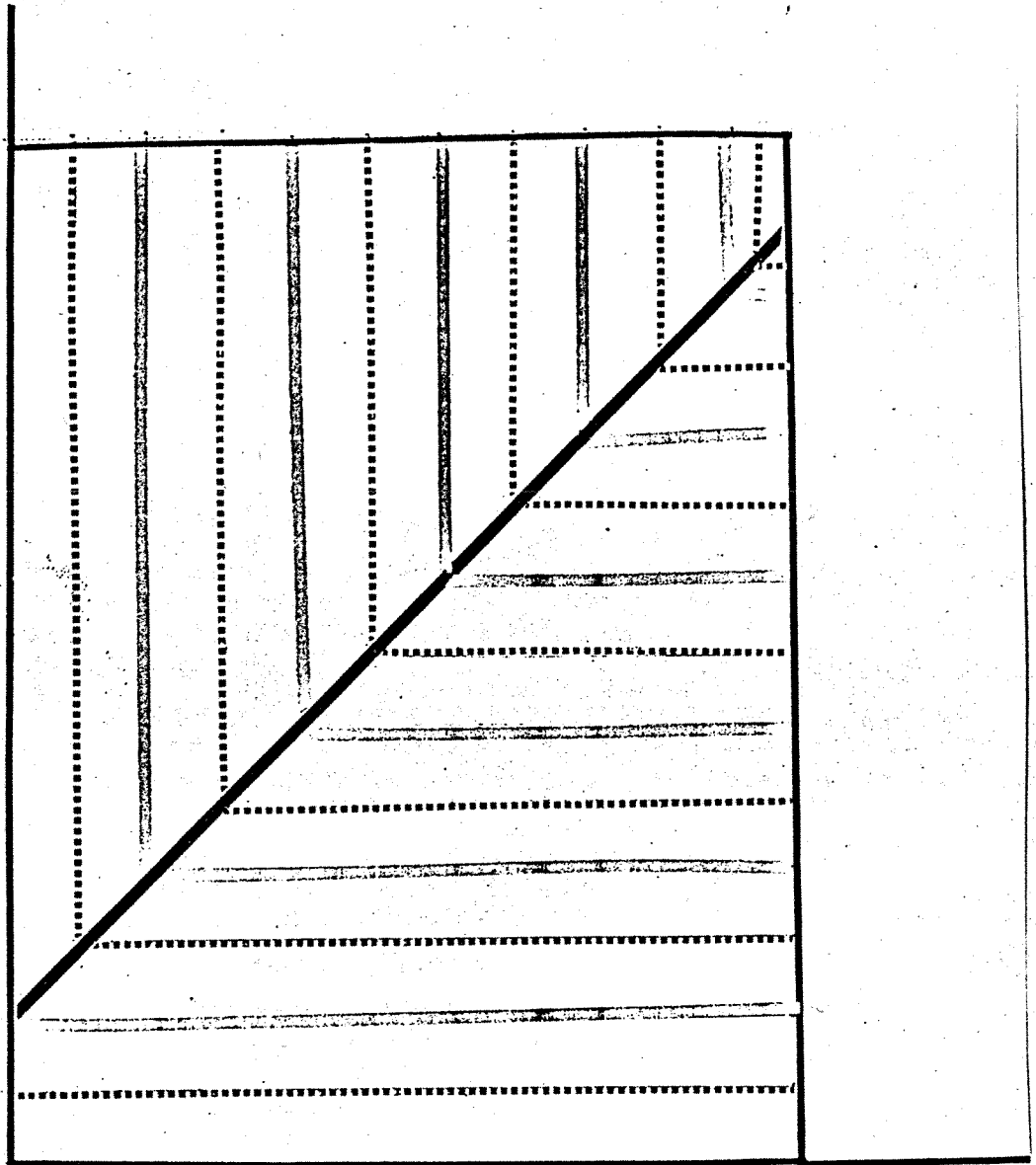
The effect of the two equations is here shown; the curve being residential area inside the city limits and the lower curve commencing at the city limits for the country lands.



This figure is of the Somer's System depth curve showing the relative value of land as the distance from the street increases. As can be seen, the curve flattens after it reaches a depth of about 200 feet and for convenience purposes is now used as a straight line in determining values of deep parcels of land.



The Somer's method of calculation of the value of a lot uses ten foot zones and by finding the average width of each zone and multiplying by the value of the zone per foot from the Somer's curve for each zone depth, an accumulated value for the lot is determined.



For corner lots where there is frontage on two streets, if the frontage rates are the same the corner angle is bisected and the lot is divided at the corner and each part of the lot is calculated separately. If the frontage rates are different the bisecting line is offset from the highest value to give approximately equal value on each side of the dividing line.

CORNER INFLUENCE SETBACKS FOR .50 FRONTAGE RATES

1.00 Zone Values

Corner	Feet	Corner	Feet
50/50	0	50/19	67
50/49	1	50/18	71
50/48	3	50/17	74
50/47	4	50/16	76
50/46	6	50/15	82
50/45	7	50/14	83
50/44	8	50/13	87
50/43	10	50/12	94
50/42	11	50/11	100
50/41	13	50/10	106
50/40	15	50/9	113
50/39	17	50/8	120
50/38	19	50/7	129
50/37	21	50/6	139
50/36	23	50/5	154
50/35	25	50/4	168
50/34	27	50/3	186
50/33	29	50/2	269
50/32	32	50/1	
50/31	34		
50/30	36		
50/29	38		
50/28	42		
50/27	44		
50/26	46		
50/25	49		
50/24	52		
50/23	55		
50/22	58		
50/21	61		
50/20	64		

1	.185	.185
2	.141	.326
3	.128	.454
4	.116	.570
5	.100	.670
6	.089	.759
7	.079	.838
8	.065	.903
9	.053	.956
10	.044	1.000
11	.040	1.040
12	.035	1.075
13	.030	1.105
14	.025	1.130
15	.020	1.150
16	.018	1.168
17	.016	1.184
18	.014	1.198
19	.012	1.210
20	.010	1.220
21	.010	1.230
22	.008	1.238
23	.008	1.246
24	.007	1.253
25	.007	1.260
26	.007	1.267
27	.007	1.274
28	.006	1.280
29	.006	1.286
30	.006	1.292
31	.006	1.298
32	.005	1.303
33	.006	1.309
34	.005	1.314
35	.005	1.319
36	.005	1.324
37	.005	1.329
38	.004	1.333
39	.005	1.338
40	.004	1.342

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Tables and values of the Somers System used for one foot of frontage to designated depth and for ratio of high frontage to low frontage to bisect angle.

Formula for rectangular inside lot is:

$$U \times DV \times F \times M = \$ \quad \text{or} \quad 100\% \times 100 \text{ ft. depth} \times 100 \text{ ft. width} \times 10.44 = \$1044.00$$

U = Units

DV = Depth Value

F = Front Feet

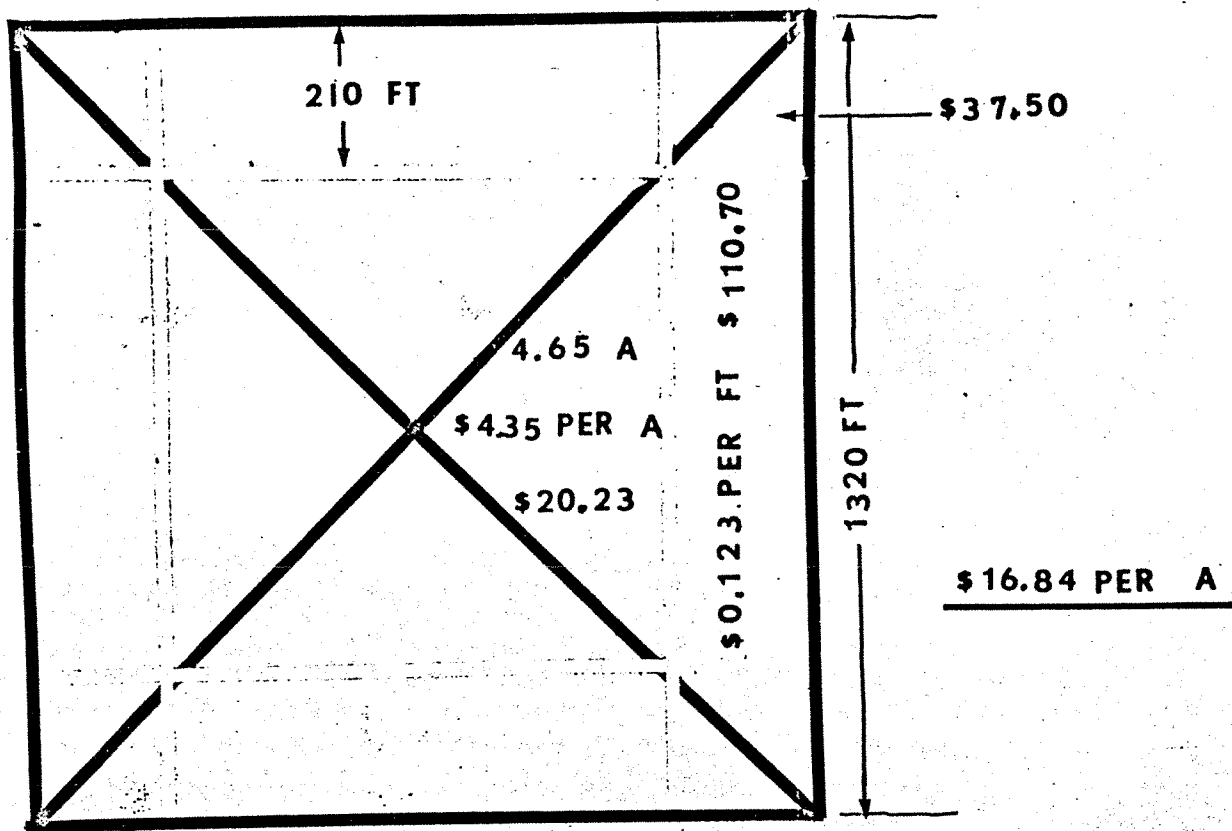
M = Multiplier or absolute value conversion

\$ = Dollars of Rent

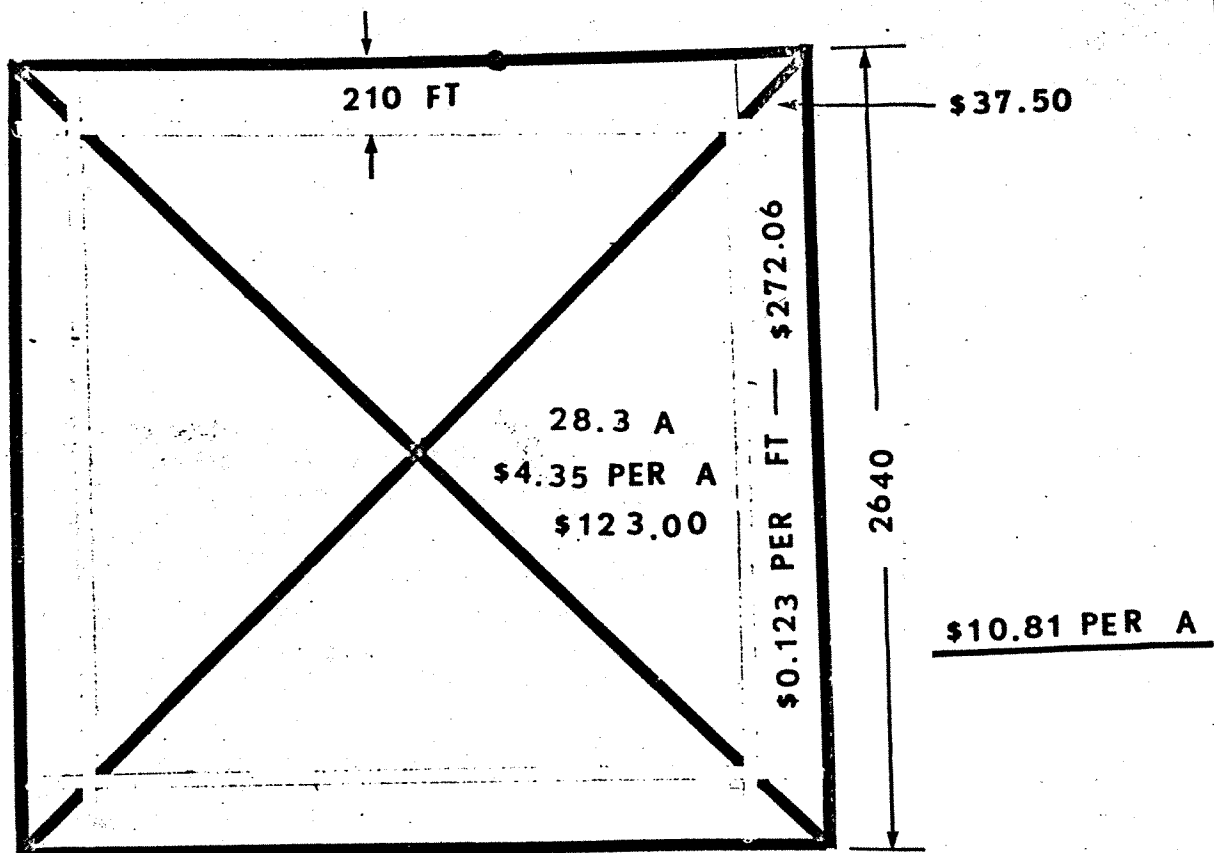
To determine mass values for each block:

A mass value for each block was found by adding the frontage value of each count position on the block and the coordinates of the point were found by adding each count position value times its coordinate and dividing the sum by the mass value to get the coordinate of the mass point.

There are a number of values in the equation which had to be adjusted many times to arrive at a value which fit known values from recent sales of bare land, these being car factor (.04), the exponent (1.3) in the first equation and the 2.0 in the new value equation.



This is a typical valuation of a quarter mile parcel of land with streets on all sides and a relative frontage rate of 1%.



This is the same situation but showing a half mile square parcel of land.

After all frontage values were found the rent was calculated by the Somer's method which is based on the frontage, the depth and width of the lot and its relation to the system as a whole in dollars.

Since no separation of leased and deeded property was made, it was easy to apply the data to deeded property to be used as a check for the absolute value in dollars of the rents according to the data available. This comparison was made in all available sites of unimproved land recently sold and in all but one the calculated value conformed to the sale value, the variant having in fact a much higher value but also reflecting unusual circumstances.

It will be noted that these calculations are rather complicated and protracted but can be worked and proven manually. The committee was fortunate to have access to a computer and a member of the committee well versed in analysis and programming techniques so that all of the calculations including the Somer's calculations are now handled by computer at a considerable saving of time and expense to the Fairhope Single Tax Corporation.

To summarize, the method of rent evaluation outlined here is relatively inexpensive, is based on fundamental premises, excludes the largest element of human bias, is easily and quickly brought up to date and can be applied to any size or type of situation in a community.

There is of course, some question as to the evaluation of outside influence and the absolute amount to be assigned here from other cities and industrial areas, the impact of variations in property taxes imposed and consequently the total absolute values of land, which need to be adjusted to be net of taxes. Relief from other taxes imposed on production and consumption from the rents collected serves only to increase rental

value of land in limited circumstances such as Fairhope but is nevertheless the proper use of such funds, just as the relief from property taxes now in effect does the same thing. Be that as it may, the rent determination method here presented is adaptable to such situations.

FAIRHOPE SINGLE TAX CORPORATION

ADMINISTERING

FAIRHOPE SINGLE TAX COLONY

OFFICERS:

DAPHNE B. ANDERSON, President
C. W. ARNOLD, Vice President
RUTH E. ROCKWELL, Secretary
M. O. BERGLIN, Treasurer

ESTABLISHED 1895

336-340 FAIRHOPE AVE.

FAIRHOPE, ALABAMA 36532

TELEPHONE (205) 928-8162

COUNCILMEN:

MARVIN NICHOLS
O. M. ROCKWELL
J. E. GASTON, Jr.
JOHN S. PARKER

October 30, 1976

Executive Council
Fairhope Single Tax Corporation
Fairhope, Alabama

Gentlemen:

Your Rent Study Committee met at 3:00 P. M. on this day with members R. Lucier Rockwell, Claude W. Arnold and Kenneth L. Rockwell and Secretary Ruth E. Rockwell in attendance. Absent was member John S. Parker. All members had been previously notified.

RE: DOWNTOWN PARKING RENTS

After a review of the total cost of the downtown parking lot (\$33,500.00), a comparative survey of rents in three areas graded according to relative benefits from the parking lot, allocation of percentages of the cost of the parking lot at 5% per year it was found that due to the Frontage Rates decreasing almost exactly according to the distance value of the parking lot and even % increase in rentals within the area indicated on the attached map would allocate the rent charges to benefits received.

It is therefore the recommendation of this committee that rents in this area be increased by 5% over all. (This increment varies with each leasehold from a high of \$57.90 per year on the Pitman leasehold where Bedsole & Gwin is located to \$4.65 per year on the Amon Gates leasehold where Neutzel's TV is located.)

It is felt this additional charge should be stated as a specific amount and based on 1976 rent charges.

The amount collected hereby would amortize 75% of the cost of the parking lot over the initial 15 year (5 years plus 5 years plus 5 years) of the lease contract with the City.

RE: ORCHARDS SUBDIVISION

This subdivision is now ready to be included in the regular program.

RE: GENERAL RENTS FOR 1977

The present state of rent charges reflects the result of the 1969 equalization program carried to its conclusion with (1) the adjustment of 1974 in the area of Greeno Road, (2) the abortive attempt to adjust the adjacent country lands accordingly resulting in the removal of 75% of this additional equalization effort, and (3) specific benefit type adjustments made from time to time.

Rent Study - Cont'd

Since no general adjustment for devaluation of the dollar since 1967 has taken place it seems appropriate to note the dollar devaluation since 1967 as follows:

Number of dollars required to give \$1.00 of 1967 value

1968	1.042
1969	1.098
1970	1.163
1971	1.213
1972	1.255
1973	1.331
1974	1.477
1975	No exact figures available at present

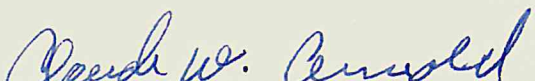
The above devaluation up to 1975 should reflect an adjustment of 47.7% or an increase in the multiplier from 10.44 to 15.42.

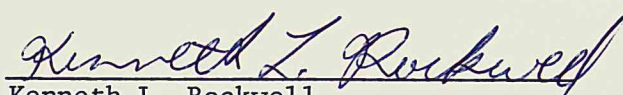
This committee feels that its function is to present information to the Council; that the Council is well aware of its obligation to "convert into the treasury of the Corporation. . . all values attaching to such lands, not arising from the efforts or expenditures of the lessees" (Constitution - Article VIII, Sec 2)

Therefore, this report is being presented as an informational document to which you may refer in making your decision on general rent levels. It should be noted that the above information does not include any further information on equalization, should such be indicated by future studies which have not yet been undertaken but which may be overdue.

Respectfully submitted,

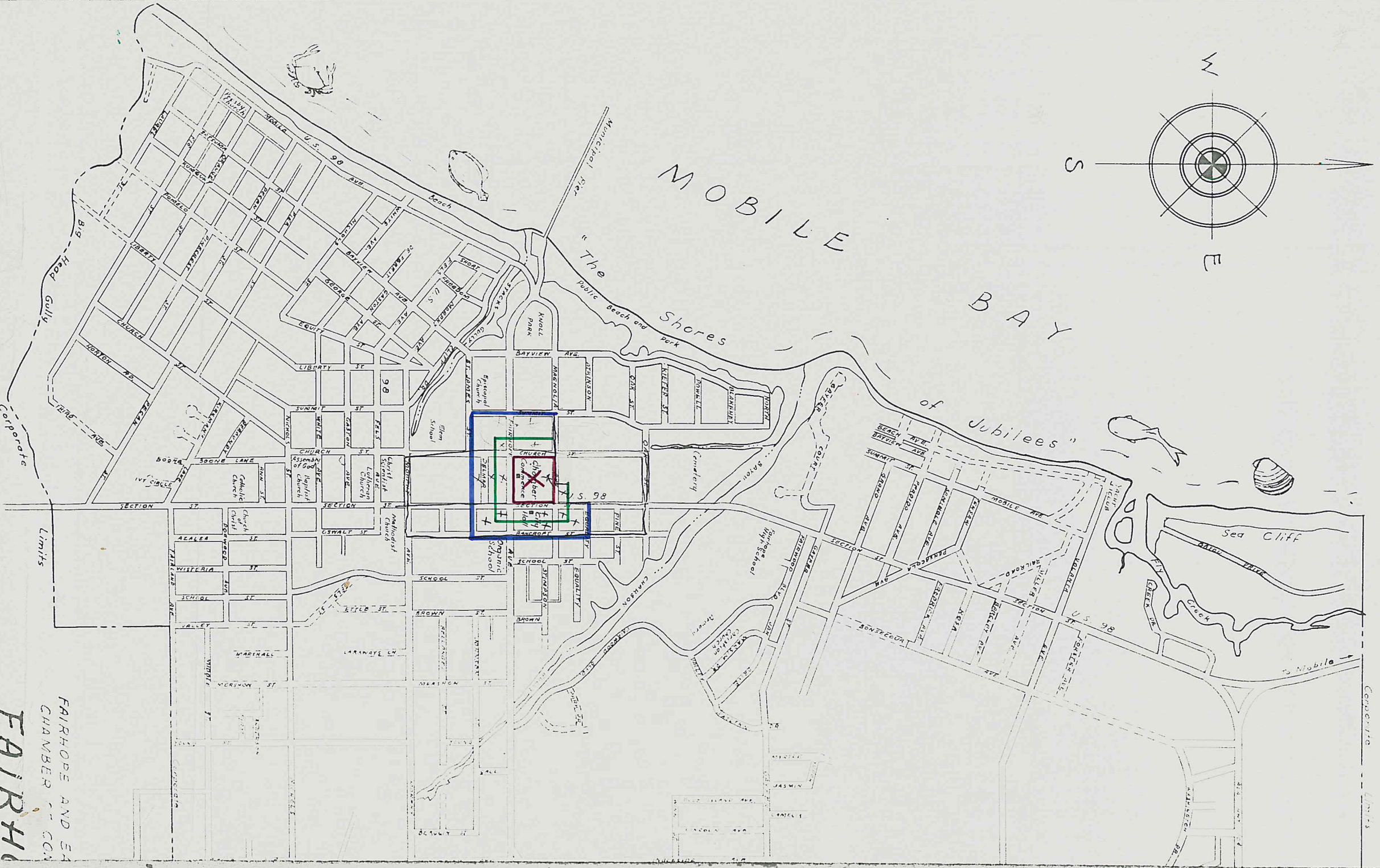
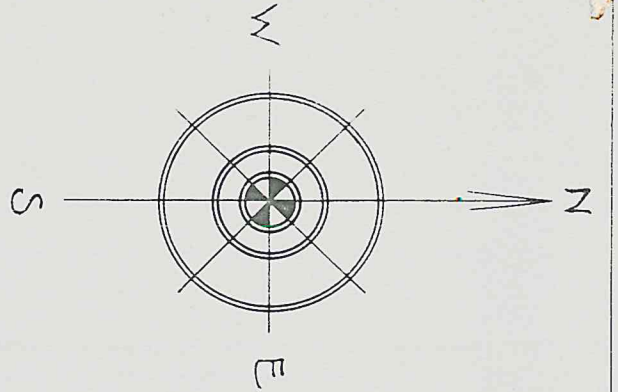

R. Lucier Rockwell


Claude W. Arnold


Kenneth L. Rockwell

John S. Parker

RLR/r



FAIRHOPE AND EAST
CHAMBER CO.

Drawn by D. Smith

1. The change has been made that the FSTC set up a standard of 200' x 200' for development lots in the country and that country lessees were encouraged to subdivide their leaseholds such that the outer (first) 200' strip would be for homes, and the inner would be continued as farmland.

~~the charge is true (it is not a documented policy)~~
I do not know if ~~it is a fact or not~~ but I do know that at the 200' depth in the Somers System the rate of change in the depth value is approximately zero. This fact was used to simplify computer processing. Instead of needing to establish a table of 150 or more entries, one with 21 entries could be used and the depth factor would increase by .01 for each 10 feet over 200 feet. It should be stressed this approach was used anywhere there might be a 200' plus leasehold - country or city.

This fact was also used to devise a method for manual calculation of rents for larger tracts ie. those with depths greater than 200 feet.

~~This~~ the "corner acre" (a 200' corner), the "front acre" (200' x 200' not a corner) and the "inner acre" (actual acreage beyond the 200 foot depth) were created.

2. Starting in 1970 the computer was used to determine frontage rates for all FSTC lands.

A combination of computer and manual computation was used to calculate the "FWD" part of the rent using the Frontage Rates dependent upon division or section. Existing breakout is:

Computer - Commercial, Division 1, 3, 4, Magnolia Beach, Golf Course, Misc.

17, Section 16 and 15 and Block 23, Div. 2.

Manual - Division 2 (except Blk. 23), Sections 22, 14, 11, 10, 2, 1, 27,

35 and Section 2 in Township 7.

The multiplier was applied manually until very recently.

~~Defect~~ ~~are~~ factors ~~were~~ applied manually.

Charges for alleys and parking lots are applied manually.

All is done without regard for member or non-member.

1982 Data

5/3/83

Sources of Revenue to Treasury after Lessee and Land Taxes.

City Homesteads	\$ 55,261	52%
Country Homesteads	20,997	20%
* Farms	18,470	17%
Country Rentals	7,138	7%
City Rentals	4,475	4%
Country Business	979	1%
City Business	(1,002)	-1%
	<u>\$106,318</u>	<u>100%</u>

Rent - Taxes - Net Revenue

By Category of Lessee (Net Revenue Sequence)

	Rent		Taxes		Net
City Homesteads	\$103,681 (33%)		\$48,420 (24%)		\$55,261 (52%)
Country Homesteads	31,518 (10%)		10,521 (5%)		20,997 (20%)
* Farms	20,791 (7%)		2,321 (1%)		18,470 (17%)
Country Rentals	10,877 (4%)		3,749 (2%)		7,138 (7%)
City Rentals	50,594 (16%)		46,119 (22%)		4,475 (4%)
Country Business	3,012 (1%)		2,033 (1%)		979 (1%)
City Business	90,012 (29%)		91,014 (45%)		(1,002) (-1%)
	<u>\$310,485 (100%)</u>		<u>\$204,167 (100%)</u>		<u>\$106,318 (100%)</u>

By Category of Lessee (Rent Sequence)

City Homestead	\$103,681 (33%)	\$48,420 (24%)	\$55,261 (52%)
City Business	90,012 (29%)	91,014 (45%)	(1,002) (-1%)
City Rental	50,594 (16%)	46,119 (22%)	4,475 (4%)
Country Rental HOME	31,518 (10%)	10,521 (5%)	20,997 (20%)
* Farms	20,791 (7%)	2,321 (1%)	18,470 (17%)
Country Rentals	10,877 (4%)	3,739 (2%)	7,138 (7%)
Country Business	3,012 (1%)	2,033 (1%)	979 (1%)

*Farms include those leaseholds of 10+ acres that do not have improvements of consequence.

A. COMMERCIAL PROGRAM

1. What it does: This program establishes the commercial frontage rates and also establishes a "mass" value for each commercial block.
2. Concept: The concept is that frontage rates relate to each other in some proportion determined by the size of the traffic counts and the distance between the count points (X,Y coordinates). The concept is analogous to the physical law which says that the influence of two or more charges have on each other is directly related to the strengths of the charges and inversely related to the square of the distance between the charges.
3. Inputs:
 - a. People count. This is the number of people passing a count point divided by the number count days, i.e. average daily count.
 - b. Car count. This is the same as the people count except that the number of cars is multiplied by a factor of .04.
 - c. X and Y Coordinates; This is the distance in feet measured along the X and Y axes from center of town to count point.
 - d. Roots: These are the powers that the denominator expressions are raised to dependent upon whether commercial, residential or country rates are being computed. For this program the commercial root used is 1.2
 - e. Other city influence: the numeral 2.
4. Program steps and Formulae:
 - a. The basic formula used is:

Relative Value=

$$\text{SUM} \frac{\text{PEOPLE COUNT} + \text{Car Count}}{((\text{Absolute Value}(\text{value point X}-\text{count point X}))^{1.2} + (\text{Abs Value Y}-\text{Count Y}))^{1.2}}$$

Each at which a count is recorded is computed in comparison to every other count point. So with 181 count point there are 180 computations made and summed to arrive at a total value for each count point. The total value is called 'raw value'.

The next step is to array all the values into a percentage array and to modify the values by the 'other city influence'. Thusly:

$$\text{NEW VALUE} = \frac{\frac{\text{old value}}{\text{highest value}} + 2}{\frac{2}{100} + 1}$$

The relative values thus obtained are then retained for use in computing commercial rents. They also go into the next step which computes the 'mass' value for each commercial block.

The mass value is the adjusted relative value for an entire block and is computed to be somewhere in the interior of the block. There are 44 commercial blocks used (some not FEBC), for instance Commercial Block 1 is the area bounded by Morphy, Section and Fels and includes the Shell convenience store and the Chevron Station.

The 'Mass' value for a block is the sum of all the relative values computed for the count points in the block. Or, MASS Value=

$$\text{Count Point 1 value} + \text{Count Point 2 Value} + \dots + \text{nth point value}$$

The Coordinates of the Mass value are computed thusly:

$$\text{X coordinate} = \frac{\text{value 1} \times \text{value 1 X} + \text{value 2} \times \text{value 2 X} \dots}{\text{MassValue}}$$

Y coordinate of the block Mass value is:

$$Y = \frac{\text{value point 1 times Y of point 1} + \dots + \text{value point nth times Y of nth point}}{\text{Mass Value of Block}}$$

The Mass Value and the X,Y coordinates for each block are then input to the Residential and Country frontage rate programs.

B. Residential and Country Frontage Rate Program.

1. This program computes the frontage rates for use in computing residential and country rents.

The basic concept that frontage rates are a function of traffic counts and distances between count points is continued with some modification and/or exception. While the commercial frontage values are a function solely of count and distances, the rates for residential and country at any point are related or determined by the commercial mass values and distances, the Bay Count and distance from the bay influence line plus modifications by views, defects and a city factor.

3. Inputs:

- a. Commercial Block Mass Values computed in Commercial program
- b. Commercial Block X and Y Coordinates computed in Commercial Program.
- c. View Factors which are manually(human) determined.
- d. Defects Factors which are manually determined.
- e. City Factor which is a constant (.5).
- f. Bay Count which is a constant value of 4500.
- g. X Bay which is the X axis measure ~~along Fairhope Ave~~ to the Bay influence line (the value is -4000 ft) *Along a line due west from center of Section + Fairhope ave*
- h. Slope of the Bay line which is -.432.
- i. Residential Root(power) is constant .85.
- j. Country Root(power) which is constant .9.
- k. X and Y coordinates for the Residential and Country Frontage points.

4. Program steps and Formulae:

The routines(formulas) for residential and country frontage rates are the same except for the root number (.85 residential, .9 Country).

The influence value of the commercial blocks on the rate points is computed as follows:

$$\text{Commercial Influence} = \frac{\sum \text{Mass Value}}{\text{Absolute(X of Commercial block - X of Rate point) + (Y of$$

(denominator cont.) Commercial Block - Y of rate point.

Since there are 44 Commercial blocks there are 44 computations summed.

There is a school count on the public schools. This is put in the program. The program is the same way as the Bay count. As well as for the sewer plants as a negative quantity.

Para 4 cont.

The influence value of the bay is computed by the following for each residential and country rate point.

$$\text{Bay Influence Value} = \frac{\text{Bay Count}}{(\text{Absolute Value}(X_2 - X))^{\text{root}}}$$

Where X_2 is the distance from the bay influence line to the rate point.

X is the x coordinate distance from the center of town.

Root is either .85 or .9

$X_2 = X \text{ Bay} + Y \text{ coordinate of rate point times } .432.$

There is one computation for each rate point.

The Bay influence Value is added to the Commercial Influence Value and the Sum is then modified by the following:

Rate = Sum of the values times defects plus view plus city factor.

Where defects is (1- sum of all defects)

C. Rent Program.

1. This program computes a non-monetary value for each leasehold. Non-monetary is the expression used because at no place in the computer programs is the 'multiplier' applied.
2. The program (except for the omission of the multiplier) follows the Somers concept that Frontage rate times the width times the depth factor yields a rental value.

3. Inputs are:

- a. Frontage Rates computed in the rate programs.
- b. Dimensions of lots and blocks in X,Y coordinate form including those points which provide for corner influence, setbacks and odd shapes.
- c. Depth factors table
- d. Leasehold identification.

4. Program Steps and Formulae:

The Steps are the same for commercial, residential and country leaseholds except that for commercial leaseholds the frontage rate varies for each foot of frontage while for residential and country the frontage rate remains constant across the width of the leasehold. The program computes the 'non-monetary' rent one lot at a time within each block. Also for any one lot the program breaks the lot down into one-foot widths, computes the value for each one foot of width and then sums all the computations for a total lot valuation. The rate for each front foot in a commercial block is computed thusly:

$$\frac{\text{beginning rate at corner} - \text{ending rate at next corner}}{\text{distance in feet between rate points}} = \text{Change amount.}$$

Then Beginning Rate ± 0 = rate for first foot.

Beginning rate $\pm$ Change amount = rate for next foot , .. and so on.

The 'change' amount for residential and country leaseholds is zero.

because rate don't change

Because the rates don't change in the residential and country enough to consider the change.

BUGERFIT LOT NO. 2

SEPT. 17, 1979

used

SECTION

ST FN OR

X1

Y1

X2

Y2

VALUE

FRONTAGE RATE %

9.00 -

0.00 -

0.00

0.0

0.0

0.7

622.5

0.078

0.7

622.5

152.9

622.9

22.365

TOTAL LOT VALUE

22.443

12,246.00
274.83967

274.83967
331.09824
605.93831

9-8-1979

SULLY - POPE

PCA

SEPT. 26. 1979

Wid pm

SECTION

ST FN OR

X1

Y1

X2

Y2

VALUE

FRONTAGE RATE % 40.00 - 1235.50 - 15.00

676.5 573.4 1168.6 81.4 141.584 X

1168.5 81.4 1202.2 0.0 2.922 X

FRONTAGE RATE % 15.00 - 0.00 - 0.00

0.0 0.0 33.7 81.4 2.721 X

33.7 81.4 67.4 0.0 2.721 X

42.4 0.0 60.1 17.7 -0.414 X

60.1 17.7 67.4 0.0 -0.172 X

FRONTAGE RATE % 10.00 - 1291.30 - 5.00

55.0 0.0 81.4 63.7 1.156 X

81.4 63.7 573.4 555.7? 55.448 X 2

573.4 555.7 628.0 555.7 6.564 X 2

628.0 622.3 1293.5 622.3 68.222 X

1291.3 0.0 1293.5 622.3 -0.141 X

TOTAL LOT VALUE 280.611

X 12,246.12

3032.40

BUTGEREIT - LOT NO. 1

SEPT. 17, 1979

used
7

SECTION ST FN OR	X1	Y1	X2	Y2	VALUE
---------------------	----	----	----	----	-------

FRONTAGE RATE %	9.00	-	0.00	-	0.00
-----------------	------	---	------	---	------

0.0	622.6	184.0	622.7	27.037
-----	-------	-------	-------	--------

TOTAL LOT VALUE				27.037
-----------------	--	--	--	--------

12,246.12
331,098.34

CONTINUOUS INTERFOLD © MOORE BUSINESS FORMS, INC. *

7/2/82

Current Rents

	<u>Coleman Value</u>	<u>City</u>	<u>Country</u>	<u>Total</u>	<u>Proposals</u>	
					<u>2%</u>	<u>1.75</u>
1. Residences & Non-Commercial	10,497,180 <i>53%</i>	152,379.31	13,923.00	166,302.31	209,943.60	183,700.65
					<u>3.33%</u>	<u>2.92%</u>
2. Commercial	4,304,680 <i>22%</i>	91,981.18	763.66	92,744.84	143,345.84	125,696.66
					<u>.5%</u>	<u>.44</u>
3. Country Acreage	4,961,450 <i>25%</i>		51,511.54	51,511.54	24,807.25	21,830.38
4. Not Leased/Other	454,120	10.00		10.00	10.00	10.00
TOTAL	20,217,480 <i>- 454,120</i> <i>19,763,360</i>	244,370.49	66,198.20	310,568.69	378,106.69	331,237.69

1982 DATA

Rent - Taxes - Net Revenue

By Category of Lessee (Net Revenue Sequence)

	Rent		Lessee Taxes	Land Taxes	Net	
City Homesteads	\$103,681	(33%)	\$30,812	\$17,608	\$55,261	(52%)
Country Homesteads	31,518	(10%)	7,338	3,183	20,997	(20%)
*Farms	20,791	(7%)	47	2,274	18,470	(17%)
Country Rentals	10,877	(4%)	2,570	1,169	7,138	(7%)
City Rentals	50,594	(16%)	27,514	18,605	4,475	(4%)
Country Business	3,012	(1%)	1,836	197	979	(1%)
City Business	90,012	(29%)	61,728	29,286	(1,002)	(-1%)
	<u>\$310,485</u>	<u>(100%)</u>	<u>\$131,845</u>	<u>\$72,322</u>	<u>\$106,318</u>	<u>(100%)</u>

Date 8/10/83

*Farms include those leaseholds of 10+ acres that do not have improvement of consequence.

	City	Countryside
1962	85,759.52	10,604.56
1963	86,194.02	10,580.06
64	100,771.87	12,197.63
65	100,756.74	12,314.98
66	100,545.62	12,554.00
67	121,550.09	16,098.34
68	121,459.48	16,784.86
69	121,566.07	17,810.44
70	130,625.96	19,360.43
71	130,742.90	19,759.34
	+ 52%	+ 87%
	+ \$44,549	+ \$9,179

67%

OR Countryside increased 1.67 times
greater rate than City

vs 62	46	2.3	37,267.60	2.48	4271.26
vs 79		6.56		16.0	
vs 46	54	1.85	68,904.00	2.01	8606.08
	56	1.9	70,681.40	2.00	8578.85

From 1946 through 79 (84) city profits

rust

71	130,742.90	19754.34
76	207,346.43	51388.10
	55%	160%

OR 2.7 times city

76	207,346.43	51,388.10
79	244,543.70	68,348.35
	20%	33%

OR 1.67 times city

- 77 6/27 Report ~~Not~~ adopted
 11/14 Recommendation no action
 " " Approved
 11/27 " Approved
- 78 11/2 Report not adopted (4/7)
- 79 No Report No ^{Reported} Council action.
 ↑
- 80 11/6 Report + Approved
- 81 12/3 "
- 82 10/12 Report 11/11 not adopted
- 83 No Report - Council Action
- 84 R - Adopted

3 years no committee
 18 years 18 reports (not one a year)
 3 more additions 15 fully or
 partially adopted

64-67

No Text Study

62

1151

First Special

Trust Committee 5/2/68



To develop more diversified means

69

Continue development

70

Report of Committee Adopted
6/18/70

71

~~No Report Request adopted~~

72

~~Report~~ Report 2419 1972 Adopted
including saddlehorn muremys -

73

Report 9/20/73

Partially adopted?

74

Report Partially accepted 10/17/24

75

Report 3/4 signed

~~action~~ Sept Nov 1892 per

Council meetings with local legislators

Report 4/3/1975 redyted

76

Report 7/4, Report -

10/1 Account

11/15 delayed

26

For Rent Study

In order of acreage

Bertolla Brothers - 2 leases 150 and 320 = 470 acres ~~(467000)~~ 14100 | 2880.98 (6.12)

Klump, G. B. - 4 leases 149 + 153 + 35 + 20 = 357 acres ~~(44500)~~ 1100 | 10710 | 753.60 (2.11)

Corte, A. A. & Sons - 238 acres

Corte Land Co. - 76 acres
314 acres

Melson-Holmberg - 1 lease - 136 acres

Krhut, R. - 3 leases - 66 + 39 + 23 = 128 acres 152300 1400 | 3840 | 2131.38 (16.6)

Rezner, R. J. - 3 leases - 10 + 38 + 39 = 87 acres 135800 1500 | 3045 | 1201.16 (13.8)

~~Corte~~ 2660

Hoffren, M. - 1 lease - 80 acres 203,650 2500 | 2800 | 3495.80 (43.7)

Gustafson, D. C. - 1 lease - 76 acres 91200 1200 | 2660 | 642.72 (9.12)

Walley, W. T. - 1 lease - 76 acres 94450 1200 | 2660 | 770.48 (10.14)

~~Crittenden~~ 65 102400 2275 | 1302.92 (20.04)

Triple M. Farm - 1 lease - 60 acres 60000 1000 | 2100 | 409.50 (6.83)

Gabel, E. W. Jr. - 2 leases - 44 + 14 = 58 acres 96900 1600 | 2030 | 1184.64 (20.42)

Crittenden, Dale - 2 lease - 57 acres 1995 1995 | 718.26 (14.37)

Stejskal et al - 1 lease - 57 acres 76050 1700 | 1995 | 819.26 (14.37)

Kralik, J. - 1 lease - 50 acres 50,000 1000 | 1750 | 341.26 (6.83)

Gabel, E. W. Sr. - 1 lease - 45 acres 58800 1300 | 1800 | 450.90 (10.02)

Ruffles, W. R. Jr. - 3 leases - 24 + 13 + 4 = 41 acres 107400 2500 | 960 | 1010.58 (24.65)

~~Pegman~~

Goodrich, E. - 1 lease - 40 acres 52500 1300 | 1600 | 310.32 (7.76)

Benik, Al - 2 leases - 20 + 19 = 39 acres 79,150 2000 | 800 | 577.08 (14.80)

Brown, W. D. - 2 leases - 34 + 5 = 39 acres 65,700 1700 | 1760 | 456.30 (11.70)

Dailey, S. - 2 leases - 35 + 4 = 39 acres 66,100 1700 | 1400 | 427.40 (10.96)

~~Klump~~

McKenzie, F. - 1 lease - 39 acres 58,150 2200 | 1500 | 415.56 (12.19)

Cummings, J. V. - 2 leases - 33 + 5 = 38 acres 71,250 1900 | 1328 | 657.92 (17.31)

Hayes, C. - 1 lease - 38 acres 56,900 1520 | 643.36 (16.93)

Lindgren, J. - 1 lease - 38 acres 58,150 1500 | 1520 | 489.12 (12.87)

~~Corte~~ 202

1760

Page 2 - order of acreage

Moyd, E. D. - 1 lease - 38 acres	56,700	1500	1520	897.60 (23.62)
Hardy, C. - 1 lease - 30 acres	30,000	1000	1200	204.76 (6.83)
Hughes, B. G. - 1 lease - 30 acres	55,100	1800	1200	572.66 (19.09)
Higbee, R. - lease - 28 acres	51,500	1800	1120	459.16 (16.40)
Hutter, A. - 1 lease - 24 acres	55,400	2300	960	528.48 (22.02)
Enfinger, F. - 1 lease - 23 acres	41,400	1800	920	1059.16 (46.05)
Gail, M. - 1 lease - 23 acres	42,000	1800	920	821.16 (35.70)
Olsen, W. - 20 + 3 = 23 acres	58,000	2500	420	320.08 (13.92)
Bishop, F. - 1 lease - 20 acres	39,450	1950	800	225.82 (11.29)
Fechtler - 1 lease - 20 acres	35,150	1750	800	459.88 (22.59)
Powelson, 1 lease - 20 acres	35,200	1750	26200	11,047.3
Bishop, C. - 1 lease - 19 acres	31,900	1100	855	671.26 (35.33)
Chambers, Golda - 1 lease - 19 acres	33,400	1750	855	289.92 (15.26)
Northrop, M. - 1 lease - 19 acres	36,450	1900	855	122.80 (6.46)
Meyer, W. C. - 1 lease - 17 acres	38,400	2300	765	164.52 (9.68)
Watking, F. - 1 lease - 16 acres	36,400	2300	720	338.56 (21.16)
Gabel, G. - 1 lease - 15 acres	33,850	2300	675	21528 (14.35)

94390 41853

13 lease average 12 acres 32650
10.7%

10-20 lease average 1.8%

+ 1 13 acre (M+K)

585
\$ 13305 / 5480
12695 / 5132

35 lease over 8 acres 25050
overall 106

13,090 / 7972

\$ 116,645 55255.40

total 13.9A + 6.12A

45900 (2295)

For Rent Study

Alphabetical Order - Lessees holding 15 acres or more.

Benik, Al - 2 leases 19.8 and 19.8 = 39 plus

Bertolla Bros. - 2 leases 150 and 320 = 470

Bishop, Cliffore - 18.5 acres (17.7)

Bishop, Floyd - 19.7

Brown, W. D. - 34.7 () and 4.52 = 39

Chambers, Golda - 18.5

Corte, A. A. & Sons - 238

Corte Land Co. - 76

Crittenden - 57

Cummings, J. V. - 2 leases 33.71 and 4.75 = 38

Dailey - 2 leases 34.7 and 4.2 = 39

Enfinger - 23

Fechtler - 19.5

Gabel, E. W. Jr. - 2 leases 43.6 and 14.8 = 58

Gabel, E. W. Sr. - 45 (42)

Gabel, George - 14.7

Gail, Mary - 23

Goodrich, E.- 39.5

Gustafson, D. C. - 75.8

Hardy, Chas. - 30

Hayes, Chas. - 38.1

Higbee, Richard - 28.4

Hoffren, M. - 80.34

Hughes, B. G. - 29.6

Hutter, A. - 24.3

Klumpp, G. B. - 4 leases - 148.8 and 152.9 and 35.4 and 19.5 = 357

Page 2 - Lessees holding 15 acres or more

Kralik, Joe - 50

Krhut, R. - 3 leases 65.7 and 39.25 and 23 = 128

Lindgren, J. - 38.1

Meyer, W. C. - 17

Moyd, E. D. - 37.9

McKenzie, F. - 38.7

Nelson-Holmberg - 135.5

Northrop, Medrick - 19.2

Olsen, Wm. - 23

Pouncey, Oliver - 19.5

Rezner, R. J. - 3 leases 10 and 37.8 and 39.52 = 87

Ruffles, W. R. Jr. - 3 leases - 24.4 and 12.6 and 4 = 41

Stejskal - 57.4

Triple M Farms - 60

Walley, W. T. - 76

Watkins, F. - 16

For Rent Study

In order of acreage

Bertolla Brothers - 2 leases 150 and 320 = 470 acres

Klumpp, G. B. - 4 leases 149 + 153 + 35 + 20 = 357 acres

Corte, A. A. & Sons - 238 acres

Corte Land Co. - 76 acres
 314 acres

~~M~~elson-Holmberg - 1 lease - 136 acres

Krhut, R. - 3 leases - 66 + 39 + 23 = 128 acres

Rezner, R. J. - 3 leases - 10 + 38 + 39 = 87 acres

Hoffren, M. - 1 lease - 80 acres

Gustafson, D. C. - 1 lease - 76 acres

Walley, W. T. - 1 lease - 76 acres

Triple M. Farm - 1 lease - 60 acres

Gabel, E. W. Jr. - 2 leases - 44 + 14 = 58 acres

Crittenden, Dale - 1 lease - 57 acres

Stejskal et al - 1 lease - 57 acres

Kralik, J. - 1 lease - 50 acres

Gabel, E. W. Sr. - 1 lease - 45 acres

Ruffles, W. R. Jr. - 3 leases - 24 + 13 + 4 = 41 acres

Goodrich, E. - 1 lease - 40 acres

Benik, Al - 2 leases - 20 + 19 = 39 acres

Brown, W. D. - 2 leases - 34 + 5 = 39 acres

Dailey, S. - 2 leases - 35 + 4 = 39 acres

McKenzie, F. - 1 lease - 39 acres

Cummings, J. V. - 2 leases - 33 + 5 = 38 acres

Hayes, C. - 1 lease - 38 acres

Lindgren, J. - 1 lease - 38 acres

Page 2 - order of acreage

Moyd, E. D. - 1 lease - 38 acres

Hardy, C. - 1 lease - 30 acres

Hughes, B. G. - 1 lease - 30 acres

Higbee, R. - lease - 28 acres

Hutter, A. - 1 lease - 24 acres

Enfinger, F. - 1 lease - 23 acres

Gail, M. - 1 lease - 23 acres

Olsen, W. - 20 + 3 = 23 acres

Bishop, F. - 1 lease - 20 acres

Fechtler - 1 lease - 20 acres

Bishop, C. - 1 lease - 19 acres

Chambers, Golda - 1 lease - 19 acres

Northrop, M. - 1 lease - 19 acres

Meyer, W. C. - 1 lease - 17 acres

Watking, F. - 1 lease - 16 acres

Gabel, G. - 1 lease - 15 acres

STATE OF ALABAMA)

COUNTY OF PIKE }

Before me, Dorothy M. Thomas, a notary public in and for said county and state, personally appeared Wayne C. Curtis who is known to me and, who being by me first duly sworn, disposes and says:

My name is Wayne C. Curtis, I reside at Route 4, Box 127, Troy, Alabama 36081. I am presently employed as Director of the Center for Business and Economic Services and Professor of Economics at Troy State University, Troy, Alabama. I also serve as an adjunct professor of quantitative economics with the University of Southern California. I was a member of the faculties of Auburn University and Mississippi State University prior to becoming associated with Troy State University. I have been a professional economist for approximately 15 years, holding a Ph.D. from Mississippi State University. My areas of research specialization include regional economics, resource economics, and the area of economics and law. My teaching experience includes economics, statistics, and operations research. My professional affiliations include the American Economic Association, National Association of Business Economists, Southern Economic Association, Western Economic Association, Atlantic Economic Society, American Agricultural Economics Association, Midsouth Academy of Economists, and Association for University Business and Economic Research. During the past five years, I have presented professional papers before most of these organizations. I have approximately 35 professional publications in economics and legal journals, monographs, and bulletins and over 100 consulting reports. Over the years, I have served as a consultant to approximately 20 governmental and public agencies and private firms and individuals. I have served as an expert witness in court cases involving various facets of applied economics. I have also appeared as an expert witness before committees of the U.S. Senate, Alabama House and Senate, the Undersecretary of the Air Force, and the Alabama Dairy Commission.

Based on my background, training, and experience in the field of economics, the following is my opinion with respect to evaluation of rental charges currently administered by the Fairhope Single Tax Corporation, Fairhope, Alabama.

I. HISTORY OF THE HENRY GEORGE - FAIRHOPE SINGLE TAX COLONY MOVEMENT

Title 10, Section 168 of the Code of Alabama enabled the Fairhope Single Tax Corporation to incorporate in the office of the Probate Judge of Baldwin County, Alabama, on August 9, 1904. According to this statute, ten or more persons desiring to associate themselves together--not for pecuniary profit in the sense of paying interest or dividends on stock, but for mutual benefit through the application of cooperation, single tax, or

other economic principals--may become a body corporate. Such a corporation shall have the power to buy, sell, and lease and mortgage real estate; to build and operate wharfs, boats, and other means of transportation and communication; to build, erect, and operate water works, electric lighting and power companies, libraries, schools, and parks; and to do any other lawful thing, incident to its purpose, for the mutual benefit of its members. It may admit such other persons to participate in its benefits as it may see fit and upon such conditions as it may impose. The statute further provides that a corporation incorporating under this statute shall be perpetual, subject to revocation at any time by the Legislature.

The single tax as used by the Fairhope Single Tax Corporation refers to the suggestion made by Henry George in Progress and Poverty that the ageless and universal problem of poverty and other economic and social evils might be cured by simple fiscal reform. The remedy urged by Henry George was simply that government would tax away the full annual use value of land and would refrain from any other mode of taxation. Under the Henry George plan there would be no taxes on the value of or income from buildings, industrial equipment, household furniture, jewels, stocks of goods or other intangible personal property. There would be no customs duties, no income taxes, and no sales, excise or business license taxation. To the maximum extent practical, however, all economic rent would be taken for community purposes. Thus this plan could be viewed as somewhat communal in nature.

According to paragraph three of the Charter or Articles of Incorporation of the Fairhope Single Tax Corporation, the purpose of the corporation is to demonstrate the beneficence, utility, and practicability of the single tax theory with the hope of its general adoption by governments in the future.

In the meantime the corporation would secure for its members and their children and associates the benefits to be enjoyed from the single tax theory application as fully as existing laws would permit. To that end, the corporation would conduct

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a model community free from all forms of special privilege: securing to its members equality of opportunity and the full reward of individual efforts in the benefits of cooperation in matters of general concern; holding all land in the name of the corporation and paying all taxes on the same and improvements and other personal property of lessees thereon (monies and credits excepted); charging the lessees the fair rental value; and, in the prosecution of its plans for the general welfare of its members, doing and performing all the acts and exercising all the powers permitted.

According to Article Two of the Constitution of the Fairhope Single Tax Corporation, the purpose shall be to establish and conduct a model community or colony, free from all forms of private monopoly and to secure to its members equality of opportunity, the full reward of individual efforts, and the benefits of cooperation in matters of general concern.

At the present time, the Fairhope Single Tax Corporation owns approximately 4,000 acres of real estate in and near the community of Fairhope, Alabama, in Baldwin County. In principal, the corporation actually owns the real estate or land which it leases for a term of 99 years. The lessees own the improvements constructed or erected on the real estate. The annual rental charged to the lessees is set by the executive council of the corporation. According to the Articles of Incorporation and the Constitution of the Fairhope Single Tax Corporation, the rental value should be fair and equitable with the objective to treat all lessees equally. Supposedly, the underlying purpose of the single tax corporation is to lease the property for reasonable and fair rental. After using the rental for the purpose of paying taxes and other ordinary and necessary operating expenses, the balance of the rental collected is to be used by the corporation for the mutual benefit of the lessees.

II. OBLIGATION OF THE FAIRHOPE SINGLE TAX CORPORATION TO TREAT LESSEES EQUITABLY

There exists a distinct legal obligation on the part of the Fairhope Single Tax Corporation to treat lessees of such

4

corporation in a fair and equitable manner. This obligation is found in at least three instruments.

1. Paragraph 1 of the lease entered into by the Fairhope Single Tax Corporation and its lessees stipulates that the "said lessee . . . shall pay . . . the annual rental value of said land, exclusive of his improvements thereon." Paragraph 4 states that rents paid by lessees shall "be administered as a trust fund for the equal benefit of those leasing its lands." Paragraph 5 states that "said Corporation still further agrees, that in the distribution of the benefits which its purposes is to secure for residents upon its lands, no distinction shall be made between individuals, whether members of the corporation or not, but that with the exception of the right of members as participants in the government of The Corporation, all shall be treated with strict equality."

2. Article II of the Constitution of the Fairhope Single Tax Corporation spells out the purpose of the organization: "to establish and conduct a model community or colony, free from all forms of private monopoly, and to secure to its members therein, equality of opportunity, the full reward of individual efforts, and the benefits of cooperation in matters of general concern." Article VIII, Sec 2., states that "lands shall be equitably divided and leased to members at an annually appraisal rental which shall equalize the varying advantages of location and natural qualities of different tracts and convert into the treasury of the Corporation for the common benefit of its members, all values attaching to such lands, not arising from the efforts and expenditures of the lessees."

3. 42 U.S.C. 1983 protects the lessees of the Fairhope Single Tax Corporation: "Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suits in equity, or other proper proceeding for redress."

III. DEFICIENCIES IN THE FAIRHOPE SINGLE TAX CORPORATION RENT FORMULA

Several deficiencies were found to exist in the present mathematical model supposedly used by the Fairhope Single Tax Corporation to determine rental charges to its lessees. This model was "developed" by the corporation because of various problems with rental charges. Using the common body of economic theory as it relates to land resources, standard references from the literature, and commonly accepted methodological and statistical procedures, several specific defects in the model were noted. These deficiencies are enumerated below:

1. At the most elementary level of analysis, the mathematical rent formula employed by the Fairhope Single Tax Corporation fails to satisfy the basic requirement of a valid model-- it is not a representation of reality in that it ignores the massive body of economic theory in assuming that value is created solely by the presence of people. It makes no attempt to incorporate commonly accepted determinants of land value and thus has no theoretical base.

2. Obvious subjectivity was involved in "developing" the model. Coefficients and exponents were arbitrarily assigned in some cases rather than being developed, tested, and validated through commonly accepted statistical procedures. Although there are a number of statistical techniques available for determining the validity of models such as that described above, none was apparently used. This, in itself, would cause any prudent researcher to discount the validity of the model.

3. Perhaps even more serious is the arbitrary and subjective manner in which weights were assigned to defect and view factors. The extreme degree of subjectivity inherent in assignment of these values tends to destroy any remaining credibility the model might have.

4. With respect to defect factors discussed above, the non-availability of improvements causes land rentals to be decreased. This is in direct violation of paragraph (1) of the present lease form: "The said lessee . . . shall pay . . . the annual

rental value of said land, exclusive of his improvements thereon." Therefore, the defect factors used in the model are not only arbitrary and subjective, but they are also discriminatory.

5. The basic thrust of the model is toward prediction of urban or residential land values: "The basic frontage values for lands outside the city limits uses a different exponent other than the 0.95 shown here and used in the residential equation, otherwise the method is the same." With the exception of a different exponent value, the same model with the same variables and coefficients is used for estimating two types of land values with alternative uses. This is simply not statistically acceptable.

6. The model largely omits outside influences such as industrial areas. It has been empirically established, for instance, that rent is partially a function of the distance of property from centrally-located employment concentrations. As presently structured and utilized, the Fairhope model fails to take cognizance of this factor.

IV. EXAMPLES OF DISCRIMINATION

Because of the deficiencies noted above, one would expect the results of the model to demonstrate erratic, inconsistent, unpredictable, and, in some cases, ridiculous behavior. To examine the pattern of rental charges imposed on lessees, data relating to rentals were collected through a representative sample of the master list of lessees of the Fairhope Single Tax Corporation. The master list covered the period 1971-1976. The sample was randomly selected to insure that all property sizes and locations were represented. After the initial sample was selected, it was disaggregated into sub-samples representing rural and urban lessees. Commonly accepted sampling procedures and statistical techniques were utilized throughout the study.

Findings with respect to rental charges are summarized below:

1. Analysis of the sample demonstrated an erratic and seemingly discriminatory manner in which rental charges changed during the six-year period under observation.

7. 2. Rents charged rural lessees increased at an astounding rate, exhibiting an apparent pattern of discrimination. Average rentals collected from rural lessees increased 175 percent during this period as contrasted with 60 percent for urban lessees.

3. Fifty percent of the rural lessees experienced increases of 250 percent or more during the 1971-1976 period as compared with only 3.3 percent of urban lessees. Twenty percent of rural lessees had increases of 300 percent or more.

4. Seventy percent of the urban lessees had increases of less than 50 percent; only 5 percent of rural lessees were in this range.

5. Eighty-nine percent of the urban lessees had increases of less than 100 percent while only 20 percent of the rural lessees were in this category.

6. When compared to data for the same time period for Alabama, changes in rents paid by rural lessees were of a much larger magnitude than would be expected. Changes in both average land values and rents for farmland in Alabama were approximately half the change in rents paid by rural lessees of the Fairhope Single Tax Corporation.

7. As noted earlier, the obvious deficiencies and inaccuracies in the rent formula would be expected to cause erratic and inconsistent behavior with respect to changes in rental charges. The magnitude of the deviations in the sample, however, would lead one to question whether all of the discrepancies can be attributed to the formula.

To further test the validity of the model--if indeed the model is being employed by the Fairhope Single Tax Corporation--additional comparative rental data were collected through personal interviews, examination of the rental records of the Corporation, and records on file at the Baldwin County Court-house in Bay Minette, Alabama. Major findings, which are summarized below, indicate clear-cut patterns of economic discrimination against certain individual lessees as well as certain classes of lessees.

1. Several instances were found where members and/or officers of the Corporation were charged lower rentals than non-member lessees for comparable property. For example, in 1976 rental charges for two lessees on opposite sides of a paved road were \$41.98 per acre for an officer of the Fairhope Single Tax Corporation as contrasted with \$74.87 per acre for the non-member lessee. Available evidence indicates that the land rented by the officer is of better quality than that rented by the non-member lessee.

Another example of economic discrimination in favor of officers and/or members of the Corporation is the rental charged on an office occupied by three members of the Fairhope Single Tax Corporation. During the period 1971-1976, when average rentals for all urban property owned by the Corporation increased 60.1 percent, there was no change in rentals for this land. In a similar example during the same time period, rentals charged the son of a Fairhope Single Tax Corporation member and officer did not change.

2. There are numerous examples of rental charges that defy explanation based on economic theory or logic. Perhaps the best example is an 18.43 acre plat located at the junction of two main traffic arteries in the City of Fairhope. Tremendous variations occurred in 1976 rental charges to the various lessees. At the intersection of the two roads--where both traffic counts and rents would be highest if the formula were used--rental charges are, in fact, quite low compared to other lessees in this plat. The shopping center at the junction of the two roads paid \$173.41 per acre, the lessee of a vacant building adjacent to one side of the shopping center who is further removed from the main flow of traffic was charged \$240.46 per acre, a manufacturing plant still further from the road junction was charged \$752.45 per acre, while a lessee whose property was partially on the road and partially removed was charged \$264.94 per acre. If the rent formula had been applied, such variations in rental charges would not have

occurred; highest charges would have been imposed on the shopping center lessee. Obviously, the formula could not have been applied in this instance.

A similar situation exists with respect to rental charges for two tracts of rural property on opposite sides of a paved road. Neither of the lessees is a member of the Corporation. During the period 1973-1977, average rental charged the first lessee was \$17.56 per acre as contrasted with \$9.38 for lessee number two. There is no explainable factor present to cause these rentals to differ.

Perhaps an even more glaring example of the discriminatory nature of rental charges is found in the case of three tracts of property, essentially identical, lying on opposite sides of a paved road. In 1976 lessee one paid \$76.97 per acre, lessee two was charged \$49.31 per acre, and lessee three was charged only \$7.33 per acre.

Two lessees holding adjacent property of like quality experienced variations, though not of the magnitude listed above, in rental charges for 1978. One lessee, who had two tracts, was charged \$12.42 and \$13.16 per acre for these tracts. The other lessee was charged \$18.94 per acre.

Another example relates to two lessees with property physically separated by more than one mile. The lessee most distant from the City of Fairhope, who has no access to his rental property because it is surrounded by deeded property, paid \$7.73 per acre in 1976. The other lessee, whose property is on a paved road within the City of Fairhope, paid \$7.33 per acre.

3. In addition to the discrimination in rentals, there are also variations in taxes and contributions by lessees to the trust fund of the Corporation. An analysis of the rental charges, ad valorem tax payments, and net contributions to the trust fund reveals instances of extremely inequitable treatment. In 1975, nine urban lessees, ranging from a major manufacturing company to a beverage distributor, made no contribution to the Fairhope Single Tax Corporation Trust Fund. Since the Corporation pays ad valorem taxes for all lessees--or if the lessee

pays the taxes, this amount is subtracted from his rent--these nine lessees had average taxes of \$1,704.31, average rental charges of \$1,069.24, and an average cost of \$635.07. Since taxes were greater than rentals, these lessees made no contribution to the trust fund.

By contrast, four rural lessees during the same time period had average taxes of \$230.73, average rentals of \$3,559.31, an average cost of \$3,328.58, and thus an average contribution to the trust fund of \$3,328.58.

Even though the income of the urban lessees was much higher on a per acre or any other basis, these nine lessees made no contribution to the trust fund. The four rural lessees, less able to pay the costs, contributed a total of \$13,314.32 to the trust fund. The purpose of the trust fund is for the mutual benefit of all lessees; however, based on the above, it would appear that contributions are being made by a select few.

4. In many cases, officials of the Fairhope Single Tax Corporation have arbitrarily decided that the "highest and best use" of certain parcels of land would be to subdivide this land into 200' X 200' lots. Rents are raised based on this arbitrary determination. Several examples have been found where land cannot be subdivided into 200' X 200' parcels because percolation tests of the soil indicate that at least five acres would be required to subdivide. Thus, individuals are being charged higher rentals based on a highest and best use which does not exist.

V. IMPACT OF DISCRIMINATION

In general, the impact of such economic discrimination as shown above is to ultimately force land use changes. The legal question aside, most economists would contend that selective increases in rental charges are not the most desirable means of achieving such changes. Other means, less painful and less disrupting, are available.

Such selective discrimination also brings about uncertainty and shortens the planning horizon of lessees, particularly rural

lessees who may wish to develop long-term investments. The fact that uncertainty exists due to the arbitrary and selective nature in which rentals have changed during the past few years has forced many lessees, particularly those engaged in agricultural occupations, to liquidate or otherwise reduce the scale of their operations. This has occurred during a time period characterized nationwide by increasing size of production units necessary to achieve economies of scale in production. How, for instance, can a lessee invest hundreds of thousands of dollars in developing a dairy operation in the face of such uncertainty as to rental charges that has existed in the past and continues to the present? How can one justify planting pecan trees, knowing that no return will be realized for at least 20 years, in the face of such discrimination and selective application of rental charges apparently focused on bringing about land-use changes?

Perhaps the Fairhope Single Tax Corporation is merely following the dictates of Henry George as outlined in Progress and Poverty. On page 403, he states: "We have weighed every objection and seen that neither on the ground of equity or expediency is there anything to deter us from making land common property by confiscating rent." On Page 405: "It is not necessary to confiscate land; it is only necessary to confiscate rent."

VI. HOW CHANGING ECONOMIC AND SOCIAL CONDITIONS INVALIDATE THE SINGLE TAX CONCEPT

Henry George's Progress and Poverty was first published in 1879--nearly 100 years ago. As noted earlier, the single tax theory as applied by the Fairhope Single Tax Corporation is rooted in the works and philosophy of Henry George. What is not generally known, however, is that much of George's philosophy was based on the works of eighteenth century French economists: "But there has been a school of economists who plainly perceived what is clear to the natural perceptions of men when uninfluenced by habit--that the revenues of the common property, land, ought to be appropriated to the common service.

The French Economists of the last century, headed by Quesnay and Turgot, proposed just what I have proposed, that all taxation should be abolished save a tax upon the value of land."

It should be noted that Francois Quesnay was founder and leader of the physiocratic school of economic thought. Founded in France as a reaction to mercantilism and to the feudal character of the old regime in that country, the beginning of this school can be dated at 1756 when Quesnay, a physician by training, published his first article on economics. It ended in 1776 with the downfall of Robert Jacques Turgot as finance minister of France and the publication of Adam Smith's Wealth of Nations.

Social, economic, and other changes of an almost unbelievable magnitude have occurred in the United States, as well as the rest of the world, since the publication of George's Progress and Poverty. These changes tend to destroy any credibility that the George single tax concept might have had.

In 1879, the economy of the United States was primarily agrarian, there were few metropolitan areas, income was derived primarily from agriculture, and the percentage of people living in poverty was extremely high. Modern industrial processes had not been visualized in man's most optimistic dreams.

Perhaps the most damaging advance in society--i.e., damaging to the single tax concept--has been the invention of the automobile and other motor vehicles and the resulting mobility that accompanies it. To contend, as the single tax theorists do, that land value is created solely by the presence of people and automobiles is no longer valid. How, for instance, is value created when a four-lane highway is constructed through a residential area? Actually, property values will probably decline rather than increase.

Even though hundreds of changes could be cited that invalidate the single tax concept as proposed by Henry George, one additional example will suffice. Interstate highways are frequently built through farmland and cities with resulting increases in traffic. To contend that increased traffic counts resulting from travel on an interstate system is indicative of the true value of the land borders on the ridiculous.

To summarize, lessees of the Fairhope Single Tax Corporation are in a unique economic position. They lease bare land for 99 years. They invest, in some cases, substantial sums of money for improvements such as buildings, houses, and similar items. In many cases, rural lessees have enhanced the value of the land by clearing, terracing, and fertilizing it. In a like manner, urban lessees have also enhanced the value of the raw land by constructing residences and businesses.

The past few years, however, have been frustrating for many lessees. They have been the object of selective economic discrimination in the charging of land rentals, forcing many to sell or otherwise change the use of their property. This economic discrimination is in violation of the lease agreement entered into by the Fairhope Single Tax Corporation and its lessees, the Constitution of the Corporation, and Federal law.

VII. APPLICABILITY OF ABOVE FINDINGS TO Rezner et. al v.

Fairhope Single Tax Corporation

Although the Alabama Legislature at the time it passed the statute authorizing the single tax theory to be practiced probably did not envision such, the Fairhope Single Tax colony as operated is a land commune. A land commune, as provided for in this statute, will probably inevitably result in the deprivation of constitutional rights to the leaseholder. It is a concept which, if practiced nationwide, would not only deprive the public of basic economic constitutional rights, but would very likely wreck the economy. The factual examples stated above are applicable to the plaintiffs in this case. Their plight is a direct result of the misuse of power possessed by virtue of state law and made possible as it has developed only because the defendant is clothed with authority of state law.

Wayne C. Curtis
Wayne C. Curtis, Ph. D.

Sworn to and subscribed before me this 10th day of
May, 1978.

Dorothy M. Shuman
Notary Public

My commission expires 9-8-79.

FSTC

As of 31 Dec 1985

	<u>General Fund</u>	<u>Land Fund</u>	<u>Mineral Fund</u>
Cash	200.00		
Trucking	16,937.62		
DO	301,242.44		85,000.00
Attor Cash	7031.57		(5,729.00)
Bldg + Stk	124,950.02		345,487.34
new Mkt	149,281.65	57,516.49	94,622.15
	<u>599,643.30</u>	<u>57,516.49</u>	<u>519,380.49</u>

Fund By Institution by category

	<u>General Fund</u>			
	<u>Central</u>	<u>F+M</u>	<u>Hutton</u>	<u>Other</u>
Attor Cash	16,937.62		7031.57	200.00
AS	-	175,000.00		126,242.44
new Mkt	92,380.14	56,901.51		
ks + Bldgs	89,963.00*		34,987.02	
isafe	199,280.76	231,901.51	42,018.59	126,442.44
	<u>Central</u>	<u>F+M</u>	<u>Land Fund</u>	
new Mkt	24,229.37	33,287.12		

	<u>Central</u>	<u>MINERAL FUND</u>	
		<u>F+M</u>	<u>HUTTON</u>
new Mkt	56,284.03	38,338.12	(5,729.00)
DO		85,000.00	
ks + Bldgs	300,535.55*		44,951.79
	<u>356,819.58</u>	<u>123,338.12</u>	<u>39,222.79</u>

There comes the ~~unquies~~
~~oncess~~

The Rent money cycle is
 simply this - Rents Collected less
 land taxes less losses and volountary
 less operating costs administrative costs
~~equals~~ the amount available
 for ~~public~~ public benefits and
 public services

		1284 1286	260 104 152	974 <u>1106</u>
2960	Farms (10+ Acres)	29 73	+ 23 + 73	+ — +
1340	Commercial	135	+ 5 +	+ 130 +
	Homes	691 <u>782</u>	+ 100 59 +	+ 54 +
	Rentals	335 <u>312</u>	+ 82 59 +	+ 253 +

1340				
<u>520</u>	242,800	\$467/acre	974	249.28
820	23,100	\$28/acre	187	124. 124
2960	45,100	15/acre	73	618. 618

went

Cum gratia Populorum
Roubaix

1.7% - 9.66 to 34.85
1.6% - 11.81 to 107.79

1.6% - 11.81 to 107.79

[illegible]

THE SINGLE TAX PRINCIPLE

THE SINGLE TAX PRINCIPLE IS FOUNDED ON THE PREMISE THAT CREATIVE ENTERPRISE AND LABOR SHOULD NOT BE TAXED: THAT MAN SHOULD BE ALLOWED TO KEEP WHAT HE CREATES BY HIS PRODUCTIVE EFFORTS AND NO MAN IS ENTITLED TO DEMAND A SHARE OF WHAT OTHERS PRODUCE: THAT MEN HAVE AN INHERENT RIGHT TO A PLACE ON THE EARTH AND SHOULD HAVE ACCESS TO LAND ON WHICH TO LIVE AND WORK UPON PAYMENT OF AN ANNUAL TAX EQUIVALENT TO THE ECONOMIC RENT OF SUCH LAND.

THERE IS NOTHING EITHER SOCIALISTIC OR COMMUNISTIC ABOUT THE SINGLE TAX PROGRAM.

* * * * *

FSTC RESOLUTION ADOPTED JANUARY 8, 1981

" BE IT RESOLVED THAT THE FAIRHOPE SINGLE TAX CORPORATION IS A LAND LEASING CORPORATION AND ITS PURPOSE IS TO DEMONSTRATE THE BENEFITS OF A SINGLE TAX AS TAUGHT BY THE PRINCIPLES OF HENRY GEORGE. ALL SUBDIVISION OF COLONY LEASEHOLDS SHALL ADHERE TO ALL REGULATIONS OF ANY AND ALL LAWFUL BODIES, AS WELL AS, FAIRHOPE SINGLE TAX CORPORATION. THE FAIRHOPE SINGLE TAX CORPORATION SHALL NOT ASSUME ANY COST LIABILITY FOR ANY LESSEE'S SUBDIVISION, THIS INCLUDES ENGINEERING, DRAINAGE, PAVING, WATER, SEWERAGE, GAS, LEGAL OR ANY OTHER COST CONNECTED WITH THE SUBDIVISION."

RENT STUDY COMMITTEE MEETING

Friday October 10 1980

10AM

1. Mr. Mason call the meeting to order.
2. Report on luncheon with Mr. McBee - Mr Gale Rowe
3. Estimated taxes for 1980 to be paid by FSTC.-Mr. Gale Rowe
4. Estimated economic rent income to the FSTC for 1980.-W. C. Lucey
5. Report the break out of block assessments to leasehold assessments and the taxes paid by FSTC on each leasehold -Mr. Gale Rowe.
6. Samples showing economic rent paid by lessees and the taxes paid by FSTC on land, improvements and ad valorem tax paid on cars.
7. Question: Should a traffic count be made during March and April 1981 in order to update our present system?
8. The office cannot find the details on how the Rockwell's converted the traffic count to frontage rates. The office has requested Mr. Kenneth Rockwell to explain so that we all can know the details.
9. Discuss other approaches to use to set the economic rent for the FSTC other than what we have now:
 - A. Fair market value of the land of each lease.
 - B. Use assessment by the County
 - C. Percent added to one of the above for cost of FSTC
 - D. Taxes plus percent for the cost of FSTC
 - E. Any combination of the above
10. Should the FSTC consider employing an expert to help develop a simplified rent formula which will meet the needs of the FSTC. If answer is yes --Who.
11. Discuss and prepare a recommendation to the Executive Council for its November Meeting on what the rent should be. This is needed so that the office can start preparing the bills for 1981.
- 12 Adjournment

FAIRHOPE SINGLE TAX CORPORATION

To: All Members of the Rent Study Committee:

From: W.C.LUCEY

Subject: Minutes of the October 10 1980 meeting.

Attached are the minutes of the meeting of the Committee. Will you kindly review them and let us know if there are any additions or deletions which could be made.

Sincerely,

John
10/17/80

FAIRHOPE SINGLE TAX CORPORATION

Minutes of Rent Study Committee, Friday October 10 1980

1. The meeting was called to order at 9.30AM by Mr. R-bert Mason, Vice-Chairman. The following were present; Robert Mason, Members Rick Boone and Charles Ingersoll. President Lucey and Secretary Rowe were in attendance.
2. Mr. Rowe reported on a recent meeting which he had with Mr. McBee of the State Revenue Office. Mr. McBee advised Mr. Rowe that the land tax bill for October 1980 will be the same as for 1979, and further that the tax bill for 1981 and 1982 should be the same as '79 and '80. Mr. McBee also stated that the new appraisal had started in the north end of Baldwin County and they are working south and should finish in time for the 1982 tax bills. He also states that our problem with PRC data would be solved and to get in touch with him at the end of the month (October).
3. The estimated tax to be paid in 1980 by FSTC is as follows;

Improvement taxes for country	\$7,026.02
Land taxes for country land	<u>8,554.06</u>
	\$15,580.08

Improvement taxes in the City	\$62,061.93
Land taxes for City land	<u>37,099.02</u>
	\$99,160.95
	<u>\$114,741.03</u>
4. Under the present rent formula it is estimated that the following monies will be received by FSTC from the lessees;

Country economic rents	\$76,421.38
City economic rents	\$236,139.25
5. During the past few months as time permitted and PRC facts were available the office has been breaking out the assessments for each leasehold. While many blocks of land have been divided we still do not have the information from the County that we have been trying to get for the past 7 months. Most of the information on country land is missing. WE will continue to try and get the information and finish up this study so that it will be available and can be updated as new information becomes available.
6. The Committee were given examples of economic rent versus taxes which pointed out that in significant number of cases our rent appraisals do not cover enough income to cover improvement taxes much less the land tax and administrative cost of maintenance, i.e. some lessees do not contribute any moneys to the general fund. These examples were both business and residential.
7. Discussion was held on the present rent formula and the fact that there has not been a traffic count in the past few years. The Committee feels that we should not consider doing a traffic count until the present law suits are resolved.
8. The Committee was advised that there is no detailed explanation in the office of how the traffic counts were converted to front foot rates. Discussions have been held with Mr. Kenneth Rockwell about how the conversion was accomplished and he has agreed to come in during the last week in October and advise us on the method used. The Committee recommends that if for some reason Mr. K. Rockwell does not come in to then employ an expert to fill

8. con't-in the details by decipher the computer language used by the Rockwells. Time is running along and the office needs these details before the cases come to court.
9. The Rent Study Committee's consensus is to recommend to the Executive Council that no changes in the rent formula be made until the present cases are resolved. The Committee recognizes that a formula that can be using a simple method that can be easily explained to lessees is what is needed but now is not the time to change. The Committee encouraged the Office staff to continue to explore various methods using facts from tax appraisal values, assessed valuation and fair market values, plus overhead costs and reserves for emergencies and public improvements.
10. There was a discussion on whether the FSTC should employ a outside firm or individual to help develop a new formula. This idea seemed to have value but that this again is not the time. There was no firm or individual suggested as this discussion was only an idea for discussion.
11. The Committee is preparing a resolution for consideration by the Executive Council at the November 1980 meeting. Two points were agreed upon for this resolution.
 - A. The FSTC supports the efforts of the Tax Assessors Office in their efforts of developing fair land and improvement assessments.
 - B. The Economic rents for 1981 be the same as for 1979 and 1980.
12. The meeting was adjourned 11AM

RENT CALCULATION SYSTEM FOR FSTC

Background- In 1914 a W.A. Somers devised a rent calculation system for the FSTC which embodied the following rules:

- Determine relative values of the different locations (usually expressed as per front foot or per acre).
- Determine the total of rent to be collected. (adjust modifier if needed)
- Determine Depth Table to be used. The depth table implements the rule that land decreases in value as distance increases from the access. (FSTC uses 100' table)
- Determine dimensions of parcel for which rent is to be calculated)
- Use the formula(or different expressions thereof):

$$\text{Rent} = \text{Frontage Rate} \times \text{Depth Value} \times \text{Width} \times \text{Multiplier}$$

where Frontage Rate is a ratio or percentage of 100
(.01 is 1% of 100)

Depth Value is a ratio selected from table
for the depth of parcel- a lot 100' deep
would have ratio of 1.00.

Width is width of area being calculated.
(in feet)

Multiplier is factor used to convert the
product of the other factors to dollars.
That is 1.00(highest rate) X 1.00(100') X
1'(width) X 12.246(multiplier) = \$ 12.25 - the
rent for a parcel 1' wide and 100' deep on
highest valued land.

$$.01 \times 1 \times 1 \times 13.05 = .13$$

$$.01 \times 1 \times 122 \times 13.05 = .16$$

For corners the rent is calculated for the triangles
created by bisecting the corner angle.

As currently implemented, relative frontage rates are calculated through
use of computer programs. There are three inter-related programs-
commercial, residential and country.

Using the rates computed rents can be calculated either manually or
by use of computer programs(both techniques are used.)

To facilitate manual calculation in the country parcels, tables are prepared
of three kinds of "acreage" values- corner, front and inner. A corner
acre is 200' x 200' in dimension. A front acre is 200' x 200' in
dimension not a corner but fronting the access. An inner acre is
43560 sq ft beyond the depth of a front acre.

Some facts about FSTC Rent-

Rents for residential, commercial and country are calculated with frontage rates determined a little differently from each other. But all residential leaseholds are calculated the same way and so forth.

The current multiplier within city limits is 12.246 and the multiplier for country is 13.05

Land defects % Applied-

No Rent for ROW Easement.

c. Estate of E. B. Gaston, deceased.

d. Purchase.

e. Not applicable.

63. Yes. The Answer to the rest of this Interrogatory is practically impossible and would involve much time and effort to answer and this Defendant has reported to the Court on the burdensome nature of this enquiry.

Economic Rent
69. The amount one pays for use of land of another based on location and demand therefore created by the public.

Fair
72. The amount of rent or charge for the use of the land of the corporation so as to equalize the varying advantage of location and natural qualities of different tracts, ~~and convert into the treasury of the corporation for the common benefit of its lessees, all values attaching to such lands, exclusive of the improvements thereon.~~

73. None.

Gale Rowe

c. Estate of E. B. Gaston, deceased.

d. Purchase.

e. Not applicable.

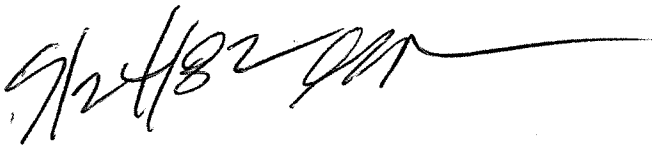
63. Yes. The Answer to the rest of this Interrogatory is practically impossible and would involve much time and effort to answer and this Defendant has reported to the Court on the burdensome nature of this enquiry.

Answer
69. The amount one pays for use of land of another based on location and demand therefore created by the public.

Fair
72. The amount of rent or charge for the use of the land of the corporation so as to equalize the varying advantage of location and natural qualities of different tracts, ~~and convert into the treasury of the corporation for the common benefit of its lessees, all values attaching to such lands, exclusive of the improvements thereon.~~

73. None.

Gale Rowe



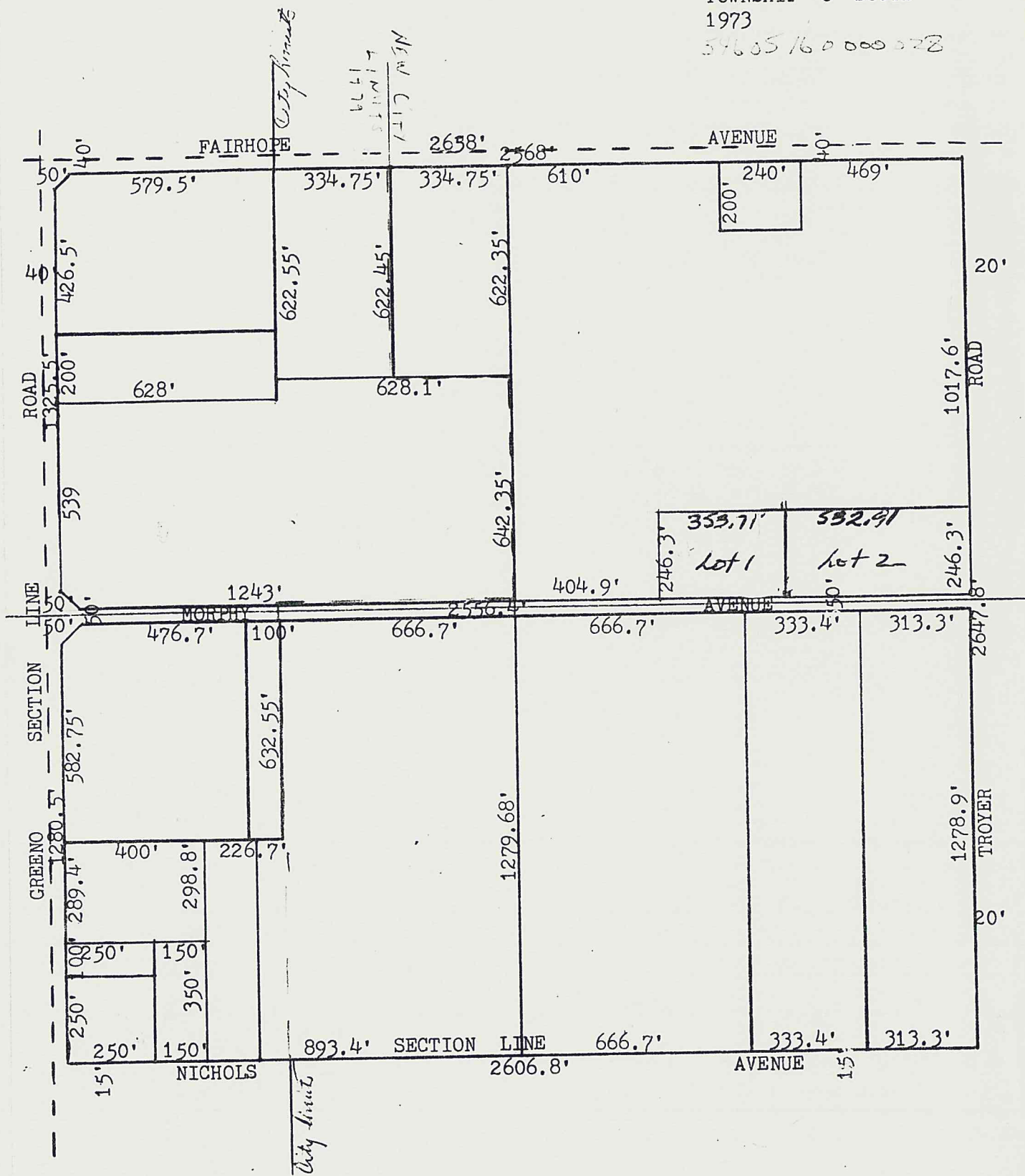
FSTC Computer Rent Program Notes

- In the Frontage Rate portion of the program different 'Roots' are used for commercial, residential and country. The root appears in the denominator of the expression used in calculating the rates and for commercial it is 1.2; for residential it is .85; and for the country it is .9. Everything else being equal in the expression the roots used will cause the commercial rents to be lower- the residential higher and the country in the middle. Of course everything else is not equal but the root values used will tend to have the effect stated.
- The frontage rate portion of the rent program is NOT Somers. Mr Somers came up with frontage rates differently- he may have observed traffic counts but he depended on the input of other individuals as to relative value of frontages.
- Once rates are determined, then the Somers formula of Frontage Rate x width x depth factor x the Multiplier is used. The Multiplier is not in the computer program but has to be applied manually. The Multiplier is the factor the Council has to determine and the first multiplier was calculated to be the value needed to cover the needs(cost) of the Corporation.

BOORUM & PEASE "NOTAR"®

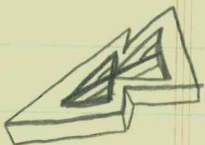
SW $\frac{1}{4}$ SECTION 16
TOWNSHIP 6 SOUTH
1973

54605 160000028

$$1'' = 400'$$


Conversation with Charles McFee 6 April 1981

1. He has not received official word but reappraisal will be effective 1 October 1981 (1982 Tax Bill).
2. Has finished pricing improvements
Is finishing pricing land.
 - a. Results yet to go to Montgomery office.
 - b. Proofing procedures to take place between now and Oct.
(check against land sales)
3. Basis is market value
 - + They are ignoring current use.
 - + Expect the legislature to pass another current use - but this is applied by the TAX ASSESSOR.
4. BECAUSE of the short deadline they will not go by leasehold this year. But might get it done by next year (1982).
5. The notification we will get will be the appraisal sheets. ~~o~~ ~~o~~ ~~o~~



GOOD EVENING LADIES AND GENTLEMEN. I'M DONALD GOODEN. I AM PRESIDENT OF THE FAIRHOPE SINGLE TAX CORPORATION, FOR THOSE OF YOU WHO DON'T KNOW ME. I'D LIKE TO FIRST TAKE THIS OPPORTUNITY TO THANK YOU, ON BEHALF OF THE CORPORATION, FOR THE INTEREST YOU DISPLAY IN THE CORPORATION'S WELFARE BY YOUR PRESENCE HERE TONIGHT. AS MANY OF YOU KNOW THIS MEETING IS THE RESULT OF A REQUEST BY WHAT IS NOW KNOWN AS "THE SINGLE TAX ADVOCATES" AND IS BEING HELD AS A FIRST STEP TO IMPROVE COMMUNICATIONS BETWEEN THE CORPORATION AND ITS CONTRACT CUSTOMERS, THE LESSEES. NOT BY WAY OF APOLOGY, BUT I THINK IT IS APPROPRIATE TO POINT OUT AT THIS TIME, THAT WHEN YOU ARE IN A LEGAL OR LEGISLATIVE BATTLE, AS THE CORPORATION HAS BEEN IN FOR SOME TIME NOW, THERE ARE PLANS AND ACTIONS WHICH WOULD BE RENDERED USELESS BY PREMATURE DISCLOSURE.

IN THIS CONTEXT THERE MAY HAVE BEEN TIMES IN THE PAST WHEN THE CORPORATION WENT BEYOND THESE PARAMETERS FEELING THAT IT WAS BETTER TO ERR IN THIS DIRECTION THAN THE OTHER. HOPEFULLY, IN THE FUTURE WE CAN STRIKE A HAPPY MEDIUM.

IN THE BEGINNING THIS CORPORATION WAS FORMED FOR THE PURPOSE OF DEMONSTRATING THE HENRY GEORGE THEORY OF THE SINGLE TAX. THE CONSTRUCTION WHICH I, INDIVIDUALLY, PLACE ON THIS, IS THAT THE MAIN PURPOSE OF THE CORPORATION, ONCE HAVING PROVEN THE THEORY IN THE DEMONSTRATION, IS TO PROMOTE THE PROVEN IDEA IN OUR CITY, OUR COUNTY, OUR STATE, OUR COUNTRY AND THE WORLD AS A WHOLE. I FEEL THAT GEORGE'S IDEA, THAT PROGRESS WOULD BE RAPID UNDER THIS PLAN, WAS PROVEN WHEN FAIRHOPE, STARTING FROM A COW PASTURE IN 1894, WAS THE LARGEST TOWN IN THE COUNTY PRIOR TO THE 1930 CENSUS. ACCORDINGLY THE GOAL I HAVE SET FOR MYSELF, AS PRESIDENT, IS TO STEER THE CORPORATION IN THE DIRECTION OF MORE PROMOTION OF THE HENRY GEORGE THEORY.

I HOPE THAT THIS WILL BE THE FIRST OF MANY SUCH MEETINGS AND THAT YOUR QUESTIONS WILL BE ANSWERED FULLY. THE QUESTIONS WHICH WE HAVE RECEIVED PREVIOUSLY WILL BE ANSWERED TONIGHT AND AT THE CONCLUSION OF THESE ANSWERS, THE FLOOR WILL BE OPEN FOR FURTHER QUESTIONS. THESE QUESTIONS WILL BE ANSWERED TONIGHT IF POSSIBLE BUT AS YOU KNOW SOME OF THEM WILL REQUIRE RESEARCH AND MAYBE EVEN LEGAL ADVICE. IN THIS EVENT WE WILL ASK YOUR INDULGENCE. WE WILL TAKE QUESTIONS DOWN AND THE ANSWERS WILL BE FORTHCOMING AT FUTURE MEETINGS.

BEFORE I SIT DOWN I WOULD LIKE TO AGAIN THANK YOU FOR YOUR ATTENDANCE HERE TONIGHT. THANK YOU.

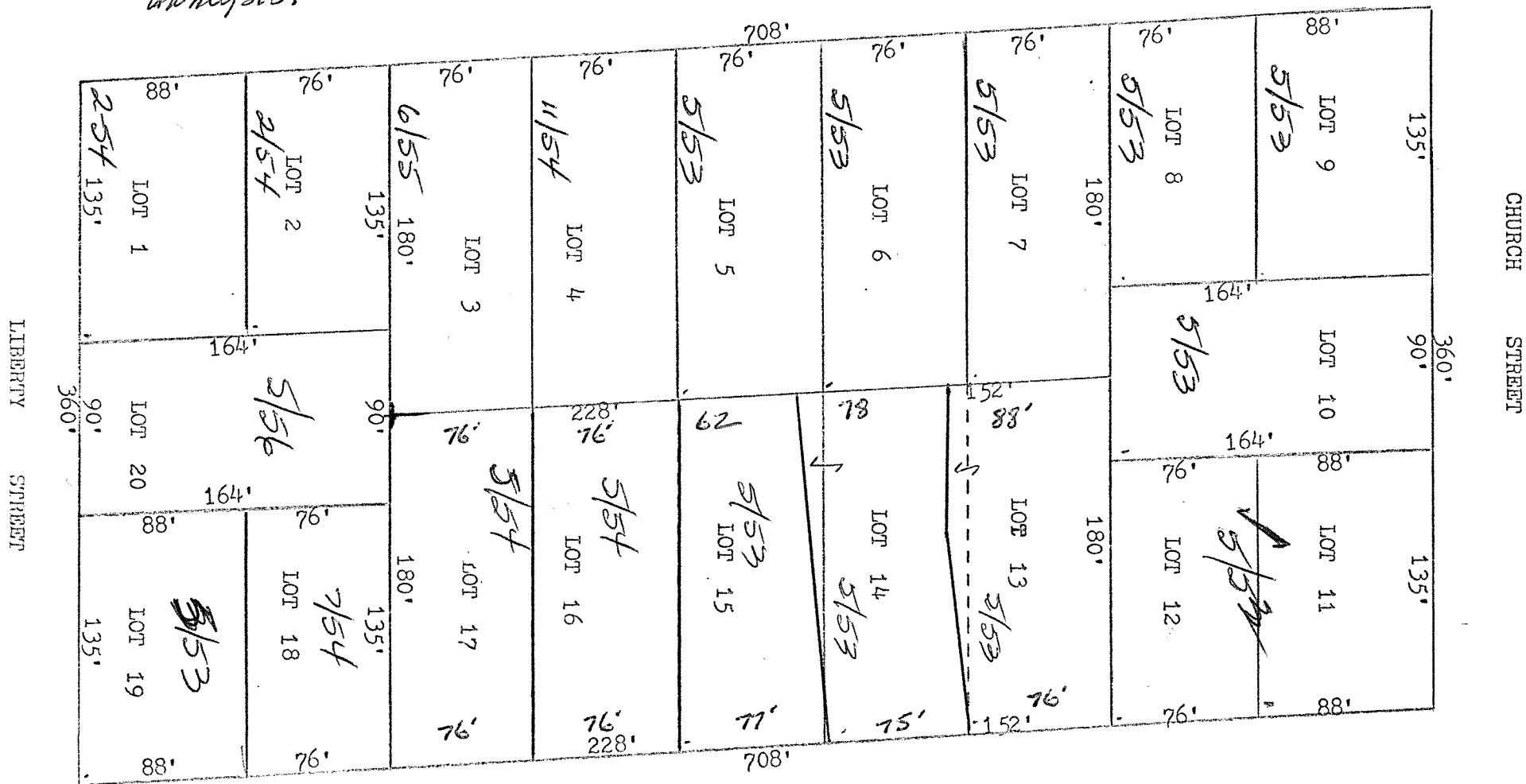
Copy

- ONE HOOK AT CORNER - / CORNER IMPROVEMENT

+ DATES INDICATE WHEN LOTS FIRST ACQUIRED - MONTH AND YEAR

++ THREE CORNERS 5/53; ONE CORNER 2/54
 ++ 9 inside 5/53; 1 inside 2/54; 2 inside 5/54; 1 inside 7/54; 1 inside 11/54;
 ++ 1 inside 6/55; 1 inside 5/56.

++ SEE BACK FOR ANOTHER DATE ORANGE STREET



Lots 13,14,15 changes as recorded in Map Book 10, pg 121

5/53

3 corner; 9 inside

2/54

1 corner; 1 inside

5/54 thru

5/56

6 inside

27-42

1973

5.229

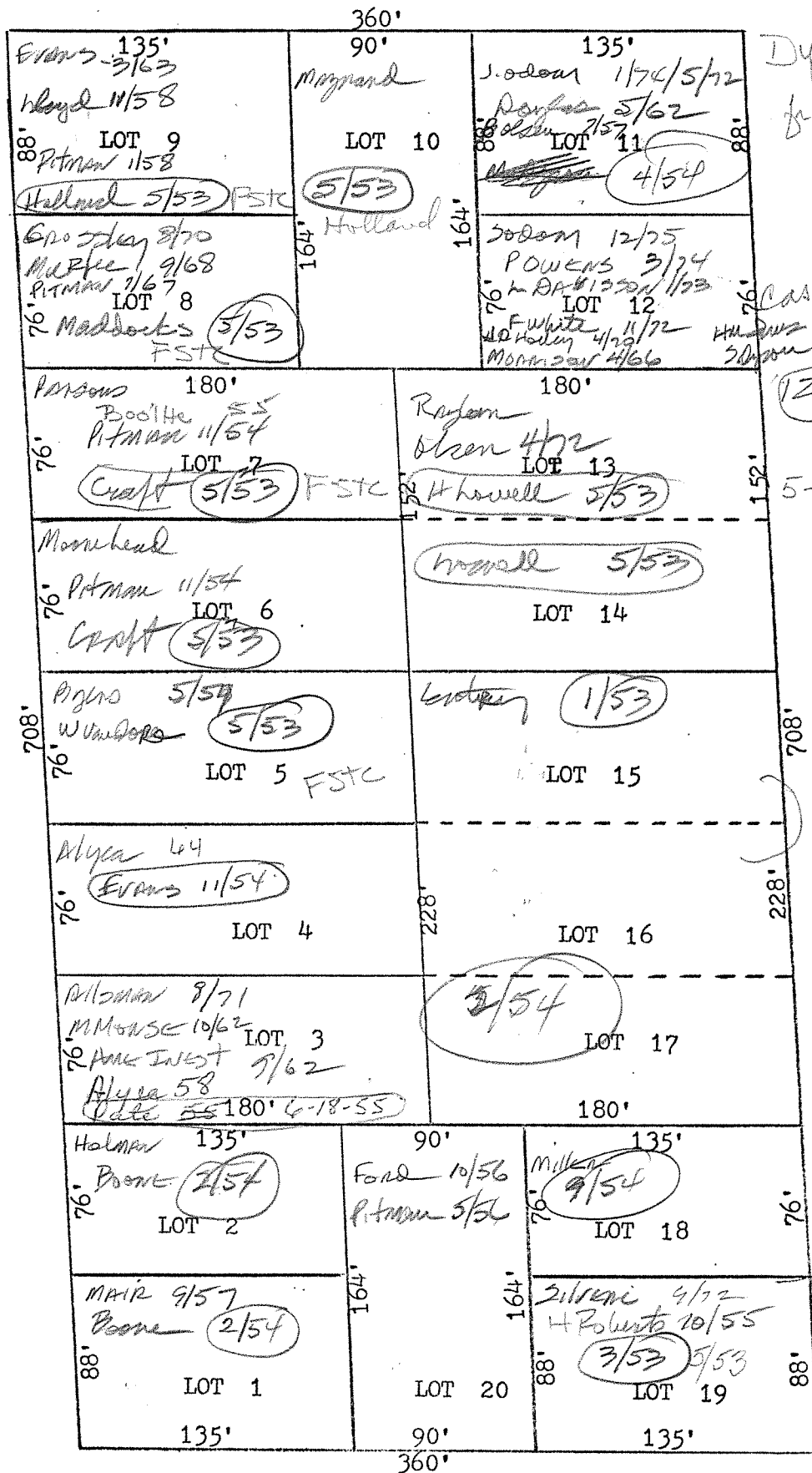
CHURCH

STREET

ORANGE STREET

STREET

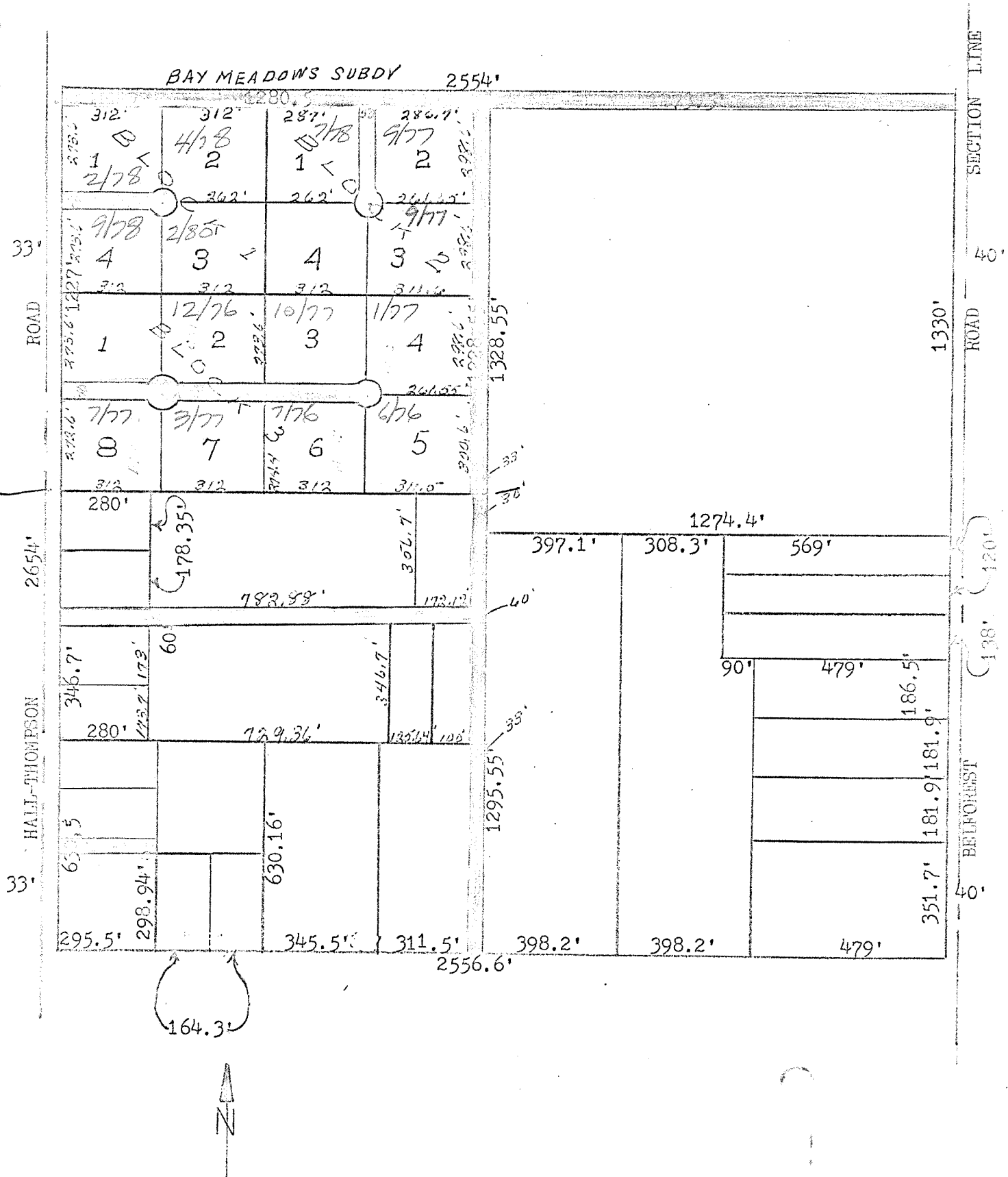
FIG



1" = 100'

TOWNSHIP 6 SOUTH
1973

546 2522 0000



COMMERCIAL PROGRAM

1. This program establishes the commercial areas ("business") frontage rates and also establishes a value ("mass" value) for each commercial block that is used to compute the frontage rates for residential and country areas.
2. The concept or theory of this program is that frontage rates for business areas relate to each other in some proportion determined by the size of the traffic counts and the distance (x, y ^{coordinates}) between the points of count. The concept is analogous to the physical law ^{which states} that the influence of two or more ~~electrical~~ ^{charges} ^{have on} each other is directly related to relative strengths of the charges and inversely related to the square of the distance between the charges.

3. The basic formula used is:

$$\text{Relative Value} = \frac{\text{People Count} + .04 \text{ CAR Count}}{[(\text{ABSOLUTE VALUE } X_{\text{value point}} - X_{\text{count point}})^2 + (\text{ABS } Y_0 - Y_C)^2]}$$

Where people count ^{is} ~~avg.~~ ¹⁶ daily count, total people counted/ days of count.

car count is total cars counted/day X .04

(~~That~~ .04 is about 23 cars/per person ^{and})

The source of this factor has not been provided.)

The power ^(root) selected is determined through an ^{iterative} ~~iterative~~ process of matching the ^{curve} ~~wave~~ of known values.

Each point at which a count was taken is computed in ^{comparison} ~~comparision~~ to every other count point. There are 181 count points so 180 computations are made for each count point and the ^{product} ~~product~~ of each computation is added together to come up with a raw "value" ^{for each count point.}

4. The next step is to put these raw values into an ^{array} ~~array~~ related to the highest raw value.

$$\% \text{ factor} = \frac{\text{Highest value}}{100}$$

$$\% \text{ value} = \frac{\text{point raw value}}{\% \text{ factor}}$$

5. ~~Following this a correction is made to~~ ^{add to} allow for the influence from other cities.

This is done through the expression

$$\text{other city adjusted value} = \text{value} + 2$$

5. (Cont.) This is done through the expression;

$$\text{other city adjusted value} = \frac{\frac{\% \text{ value}}{\text{factor}} + 2}{\frac{2}{100} + 1}$$

value = *Summation* for each count point.

factor = number to correct *Summation* value to %

2 = Influence number of other cities. (From where is not known.)

1 = number to *INSURE* % relation to 100% is kept

6. Therelative frontage rates thus obtained are then retained for the rent computation program (Somers) for business districts and are also used for the next step.

7. The next step is to compute a "mass" value for each identified commercial block.

The mass value is the adjusted relative value $\times$ for an entire block and ~~further~~ *is* computed to be located somewhere in the interior of the block. There are 44 commercial blocks used (some not in FSTC areas) - (commercial Block 1 is the area bounded by Morphy $\nearrow$ Section, Fels and includes the Shell and Chevron service stations). Another way of stating this is that the mass value is the "Block Count"

The adjusted relative value (mass value) for a block is the sum of all the relative values assigned to the count points in the block.

$$\text{Mass value} = \text{relative value 1} + \text{relative value } 2x \\ + \text{-----} + \text{nth relative value.}$$

The coordinates (x, y) of the mass value are computed thusly:

$$\text{X coordinate} = \frac{\text{relative value 1 times X coordinate} + \text{---} \text{Relative value } \text{nth} \text{ times } \text{nth X}}{\text{Mass Value}}$$

Y coordinate computed similarly.

The mass value and its (x,y) coordinates for each commercial value are then

~~input~~ *input* to the residential/rural frontage rate program.

Residential/Rural Frontage Rate Program

1 This program computes the frontage rates for the residential and rural (country areas). ² The basic concept that frontage rates are a function of traffic counts and distances between count points is continued with some modification and or exception. Where the business area frontage ~~Rate~~ values are a function of the traffic counts and distances between count points, the residential and rural rate at any point are deemed to be a function of the distance ^{Business Count and the} ~~and count~~ from the business count points and the bay influence line ^{Bay Count and distance from the} ~~(and its count)~~ and then modified by views, defects, and a city factor.

The ~~in~~puts to this program are:

<u>Name</u>	<u>Explanation/Source</u>
Views	Manual (Human)
Defects	"
Residential Root	.85 #
Factor	Numeral 1 2 (.95) #?
City Influence Factor	.5 #
Bay Count	4500 #
X Bay	-4000' X axis measure along F'pe Ave to Bay Influence line.
Slope of Bay line	-.432
Commercial Block Value	Computed in Program 1
" " X & Y	" " " "
Location #	Human
Country Bay Root	.9 #
X,Y Cordiates) of Residential, Country)- Frontage Points)	From Human

RESIDENTIAL/RURAL FRONTAGE RATE PROGRAM

The routines for residential and country relative frontage rates are the same except for the root number (.85 residential, .9 for country). The following applies to both.

The influence of the Bay is computed by the following steps (for each residential and country rate point)

$$\text{Bay influence value} = \frac{\text{Bay Count}}{[\text{ABS}(X_2 - X)]^{\text{Root}}}$$

Where Bay Count = 4500 (Given)

X_2 is distance from bay count line to the x coordinate of the rate computation.

X is X coordinate distance from center of town.

Root is residential (.85) or rural (.9).

X₂ is computed as follows

$$X_2 = X_{\text{Bay}} + Y \times .432 \quad \text{where } X_{\text{Bay}} = -4000'$$

The influence of the commercial areas on the rate points is computed as follows:

$$\text{Commercial Influence} = \frac{\text{Mass Value}}{[\text{ABS}(\text{COM X} - X) + (\text{COM Y} - Y)]^{\text{Root}}}$$

Where mass value is commercial traffic count computed in Program 1

COM X is x coordinate of commercial block

X is x coordinate of rate point

COM Y is Y coordinate of commercial block

Y is y coordinate of rate point

Root is .85 or .9

C^t The Bay influence value is added to the Commercial influence value and the sum is then modified by the following:

Rate = Value times factor (1) times defects plus applicable view
plus city factor

where Rate is the frontage rate for the point being evaluated,
Value is sum of Bay influence and Commercial influence,
Factor is number 1 ~~4~~
Defects is number computed by $1 - (\text{sum of all defects})$,
View is value given,
City factor is .5

5

2. This program uses the "Somers" approach in computing the leasehold rent values.

Rent Program

(Somers)

1. This program computes a non-monetary value for each leasehold.)² The program steps are the same for commercial, residential and rural leaseholds. And the inputs to each leasehold computation are the same except that the commercial leasehold computation uses a variable frontage rate while the residential and rural leasehold uses a constant frontage rate.

4 The commercial variable frontage rate is determined by (1) computing a frontage rate change amounts for each front foot.

$$\text{Change amount} = \frac{\text{Valuation Point Value}_1 - \text{Valuation Point Value}_2}{\text{Distance between Valuation Points in feet.}}$$

(2) Valuation point value + change amount = commercial rate for first foot.

i.e. Rate at beginning of corner = valuation point value + 0

← Rate at next foot = valuation point value + change amount,
and so on.

3. The inputs to the program are:

- depth factor table
- frontage rates
- dimensions of block and lots in X,Y coordinate forms.

2 The program computes the relative rents on lot at a time with each block,

4 The Somers basic formula used by FSTC is

Relative frontage rate times depth factor times width of lot being evaluated times the multiplier. The "Rent" program leaves out or omits the multiplier step (This step is ultimately accomplished manually!) ?X@! So what we have left is the formula:

Non monetary rent = relative frontage rate times width of lot times depth factor.

This program accomplishes this for any one lot by computing the non-monetary rent one foot (width component) at a time and then SUMS the products (i.e. if lot is 66 feet wide then 66 products are SUMMED) for the total value of the lot.

1. The charge has been made that the FSTC set up a standard of 200' x 200' for development lots in the country and that country lessees were encouraged to subdivide their leaseholds such that the outer (first) 200' strip would be for homes, and the inner would be continued as farmland.

I do not know if the charge is true (it is not a documented policy) but I do know that at the 200' depth in the Somers System the rate of change in the depth value is approximately zero. This fact was used to simplify computer processing. Instead of needing to establish a table of 150 or more entries, one with 21 entries would be used and the depth factor would increase by .01 for each 10 feet over 200 feet. It should be stressed this approach was used anywhere there might be a 200' plus leasehold - country or city.

This fact was also used to devise a method for manual calculation of rents for larger tracts ie. those with depths greater than 200 feet.

Thus the "corner acre" (a 200' corner), the "front acre" (200' x 200' not a corner) and the "inner acre" (actual acreage beyond the 200 foot depth) were created.

2. Starting in 1970 the computer was used to determine frontage rates for all FSTC lands.

A combination of computer and manual computation was used to calculate the "FWD" part of the rent using the Frontage Rates dependent upon division or section. Existing breakout is:

Computer - Commercial, Divisions 1, 3, 4, Magnolia Beach, Golf Course,

Misc. 17, Sections 16 and 15 and Block 23, Div. 2.

Manual - Division 2 (except Blk. 23), Sections 22, 14, 11, 10, 2, 1, 27,

35 and Section 2 in Township 7.

The multiplier was applied manually until very recently.

Defect factors are applied manually.

Charges for alleys and parking lots are applied manually.

All is done without regard for member or non-member.

Formula for rectangular inside lot is:

$$U \times DV \times F \times M = \$ \quad \text{or} \quad 100\% \times 100 \text{ ft. depth} \times 100 \text{ ft. width} \times \underline{\underline{10.44}} = \$1044.00$$

U = Units Frontage Rate

DV = Depth Value

F = Front Feet

M = Multiplier or absolute value conversion

\$ = Dollars of Rent

To determine mass values for each block:

A mass value for each block was found by adding the frontage value of each count position on the block and the coordinates of the point were found by adding each count position value times its coordinate and dividing the sum by the mass value to get the coordinate of the mass point.

There are a number of values in the equation which had to be adjusted many times to arrive at a value which fit known values from recent sales of bare land, these being car factor (.04), the exponent (1.3) in the first equation and the 2.0 in the new value equation.

— OF —

Fairhope, Alabama.....19.....

I, the undersigned, hereby make application for lease of

Respectfully yours,



VIEW

GRADED ST.

PAVED ST.

CURBS

SIDEWALKS

WATER

GAS

LIGHTS

GARB. PICK-UP.

CORP. LIMITS

Number of counts — over a number
of days? ~~Decided~~

How did factors arrive at

1.00 Zone Values

Corner Increment

1	.185	.185	<i>124</i>	<i>155</i>
2	.141	.326	<i>278</i>	<i>133</i>
3	.128	.454	<i>412</i>	<i>116</i>
4	.116	.570	<i>528</i>	<i>109</i>
5	.100	.670	<i>627</i>	<i>093</i>
6	.089	.759	<i>720</i>	
7	.079	.838	<i>812</i>	
8	.065	.903	<i>882</i>	
9	.053	.956	<i>939</i>	
10	.044	1.000	<i>985</i>	
11	.040	1.040	<i>1027</i>	
12	.035	1.075	<i>1063</i>	
13	.030	1.105	<i>1095</i>	
14	.025	1.130	<i>1122</i>	
15	.020	1.150	<i>1143</i>	
16	.018	1.168	<i>1162</i>	
17	.016	1.184	<i>1179</i>	
18	.014	1.198	<i>1193</i>	
19	.012	1.210	<i>1206</i>	
20	.010	1.220	<i>1217</i>	
21	.010	1.230	<i>1227</i>	
22	.008	1.238		
23	.008	1.246		
24	.007	1.253		
25	.007	1.260		
26	.007	1.267		
27	.007	1.274		
28	.006	1.280		
29	.006	1.286		
30	.006	1.292		
31	.006	1.298		
32	.005	1.303		
33	.005	1.309		
34	.005	1.314		
35	.005	1.319		
36	.005	1.324		
37	.005	1.329		
38	.004	1.333		
39	.005	1.338		
40	.004	1.342		

	A	B	C	D	T
1	.019	.010	.046	.005	.080
2	.021	.010	.014	.005	.050
3	.020	.010	.030	.005	.065
4	.020	.010	.030	.005	.115
5	.020	.010	.050	.005	.085
6	.028	.010	.025	.012	.075
7	.057	.010	.251	.032	.350
8	.101	.010	.303	.051	.465
9	.140	.010	.297	.068	.515
10	.174	.010	.304	.084	.572

CORNER 100/100

$$\text{Inc } A+B+C+D = 2.00$$

$$F = 90 \times .05 = 4.50$$

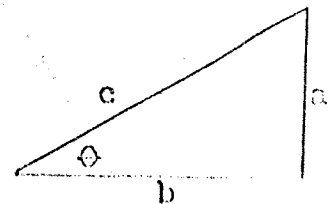
$$\text{Total Inc} = 6.50$$

$$F \text{ Factor} = .05$$

Low Side

0.1.2.3.4.5.6.7.8.9

1.4	
C	A
.50	.60
272	10
D	B
.40	.50



$$\sin \theta = \frac{a}{c}$$

$$\cos \theta = \frac{b}{c}$$

$$\tan \theta = \frac{a}{b}$$

$$\cot \theta = \frac{b}{a}$$

FORMULA FOR RECTANGULAR INSIDE LOT

$$U \times DV \times F \times M = \$$$

FRONT RATE $\times$ *DEPTH VALUE* $\times$ *FRONT* $\times$ *MULTIPLIER*

$$.08 \times 1.11 \times .06 \times 10.44 = \$61.18$$

130' deep

U = Units

DV = Depth Value

F = Front Feet

M = Multiplier

\$ = Dollars of Rent

sin & hyp = side opposite
cos & hyp = side adjacent

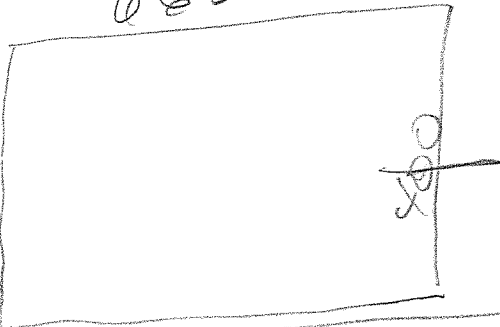
FRONTAGE RATE	INSIDE ACRE VALUE	FRONT ACRE VALUE	FRONTAGES	CORNER ACRE
.030	140.92 \$ 13.64 <i>6.82</i>	229.24 \$ 76.42 <i>30.21</i>	3/3	315.47 \$ 108.49
.029	13.19	73.87	3/2.5	101.03
.028	12.73	71.33	3/2	93.13
.027	12.28	68.79	3/1.5	86.36
.026	11.82	66.23	3/1	80.86
.025	11.37	63.68	2/2	72.33
.024	10.88	61.14	2/1.15	59.90
.023	10.46	58.59	2/1	57.59
.022	10.00	56.04	1/1	36.16
.021	9.55	53.49	21/15	52.30
.020	9.10	50.95	19/17	66.00
.019	8.64	48.40	018/017	64.08
.018	8.19	45.85	18/12	57.32
.017	7.73	43.31	17/16	60.40
.016	7.28	40.76	017/14	56.98
.015	6.82	38.21	017/12	53.78
.014	6.37	35.66	016/015	56.72
.013	5.91	33.12	016/014	55.02
.012	5.46	30.57	016/013	53.32
.011	5.02	28.02	15/14	53.08
.010	4.55	25.47	15/13	45.56
			15/12	43.64 <i>49.43</i> <i>OK</i>
			14/13	49.44
			12/12	43.92

480 x 660

$$\begin{array}{r} 3.3 \text{ FA} \\ 6.97 \\ \hline 10.27 \end{array}$$

660

660



$$\begin{array}{r} 3.3 \text{ FA} \\ 3.03 \text{ FA} \\ \hline 6.33 \end{array}$$

6.06

.27

142.92

23.42

166.34

142.92

2225

165.16

2.87

$$660 \times .017 \times \frac{(400)}{1.342} \times \frac{\text{Mult}}{10.44}$$

157.20

400

210 -

190

10.

1.27

1.41

1.41

1.41

1.41

1.41

1.41

1.41

1.41

190

001

190

FRONTAGE
RATEINSIDE
ACRE VALUEFRONT
ACRE VALUE

FRONTAGES

CORNER ACRL

.030

\$ 13.64

\$ 76.42

3/3

Set Back

\$ 108.49 109.81 000

.029

13.19

73.87

3/2.5 12

101.03 101.01

.028

12.73

71.33

3/2 28

93.13 90.30

.027

12.28

68.79

3/1.5 49

86.36

.026

11.82

66.23

3/1 75

80.86

.025

11.37

63.68

2/2 0

72.33 73.21 9

.024

10.88

61.14

2/1.50 20

59.90

.023

10.46

58.59

2/1 49

57.59

.022

10.00

56.04

1/1 0

36.16 36.60 00

.021

9.55

53.49

21/15 24

52.30

.020

9.10

50.95

20/19 24

66.00 66.29

.019

8.64

48.40

19/17 24

66.00 65.97

.018

8.19

45.85

19/18 4

64.08 62.90

.017

7.73

43.31

018/017 4

64.08 59.51

.016

7.28

40.76

18/16 8

57.32 62.33

.015

6.82

38.21

18/12 28

60.40 60.61

.014

6.37

35.66

18/15 12

56.98 56.13

.013

5.91

33.12

17/16 4

53.78 58.67

.012

5.46

30.57

17/15 8

53.78 56.98

.011

5.02

28.02

017/14 13

53.78 53.78

.010

4.55

25.47

17/13 19

53.78 53.78

017/12 24

53.78 53.78

016/015 4

53.78 53.78

016/014 8

53.78 53.78

016/013 14

53.78 53.78

15/14 5

53.78 53.78

15/13 9

53.78 53.78

15/12 15

53.78 53.78

14/13 5

53.78 53.78

14/12 10

53.78 53.78

12/12 0

53.78 53.78

13/12 6

53.78 53.78

12/11 6

53.78 53.78

11/10 7

53.78 53.78

11/11 0

53.78 53.78

10/10 0

53.78 53.78

62.73 18/17 64.08
 61.38 18/16 62.33
 60.03 18/15 60.61
 58.68 18/14
 57.33 18/13 57.32
 57.33 18/12

10/10 0

36.60

$\frac{1}{14}$ of 1¢ per foot

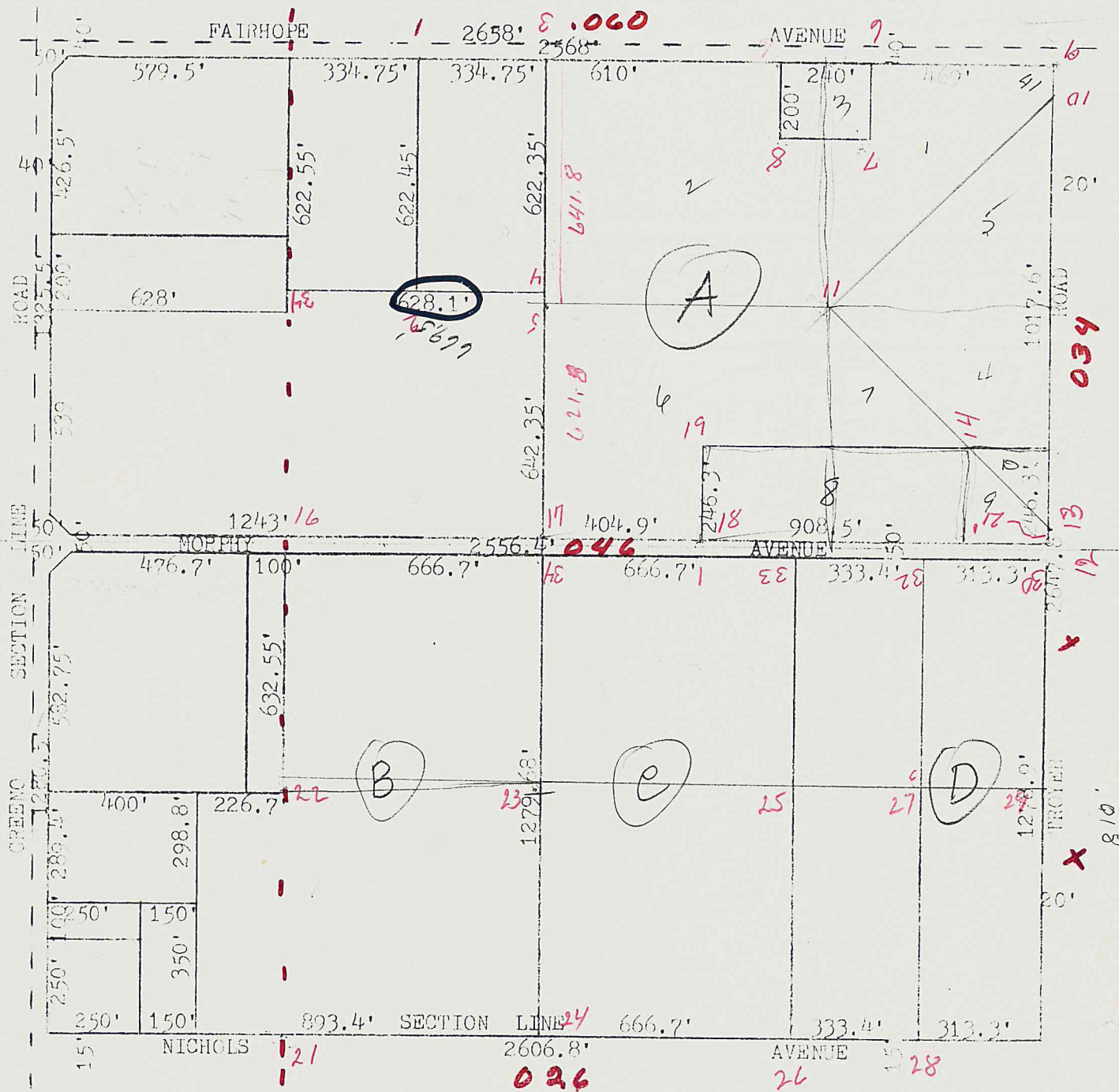
.06 of 1¢ per foot

075

033	15.06	84.06
FRONTAGE RATE	INSIDE ACRE VALUE	FRONT ACRE VALUE
	14.00	78.97
	140.92	222.26
.030	\$ 13.64	\$ 76.42
	6.82	38.21
.029	13.19	73.87
.028	12.73	71.33
.027	12.28	68.79
.026	11.82	66.23
.025	11.37	63.68
.024	10.88	61.14
.023	10.46	58.59
.022	10.00	56.04
.021	9.55	53.49
.020	9.10	50.95
.019	8.64	48.40
.018	8.19	45.85
.017	7.73	43.31
.016	7.28	40.76
.015	6.82	38.21
.014	6.37	35.66
.013	5.91	33.12
.012	5.46	30.57
.011	5.02	28.02
.010	4.55	25.47

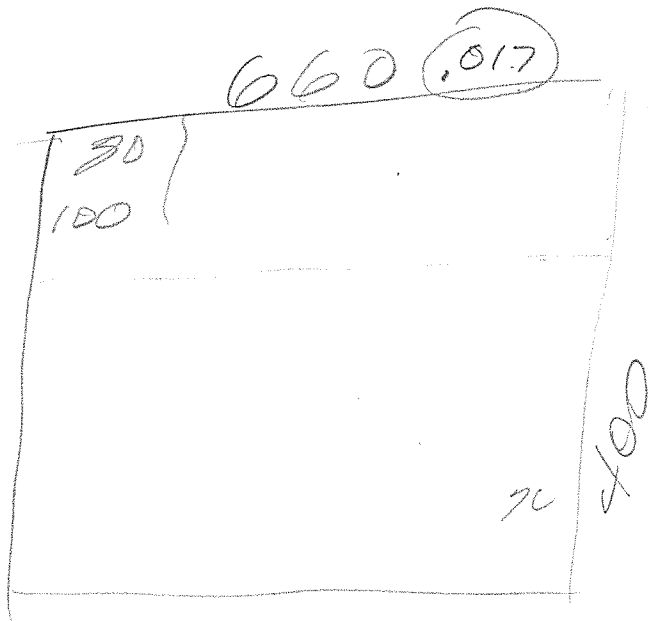
FRONTAGES	CORNER ACRE
3/3	\$ 108.49
3/2.5	101.03
3/2	93.13
3/1.5	86.36
3/1	80.86
2/2	72.33
2/1.15	59.90
2/1	57.59
1/1	36.16
21/15	52.30
19/17	66.00
018/017	64.08
18/12	57.32
17/16	60.40
017/14	56.98
017/12	53.78
016/015	56.72
016/014	55.02
016/013	53.32
15/14	53.08
15/13	45.56
15/12	43.64
14/13	49.44
12/12	43.92

1974



$$\frac{30}{200} = \frac{FA}{2}$$

$$\frac{660}{200} = 3.3FA$$



$$3.3FA \times 4331$$

$$= 142.92$$

$$23.42$$

$$166.34$$

$$\frac{200 \times 660}{43560}$$

$$= 3.03 \text{ Inner Area}$$

$$3.03 \times 7.73$$

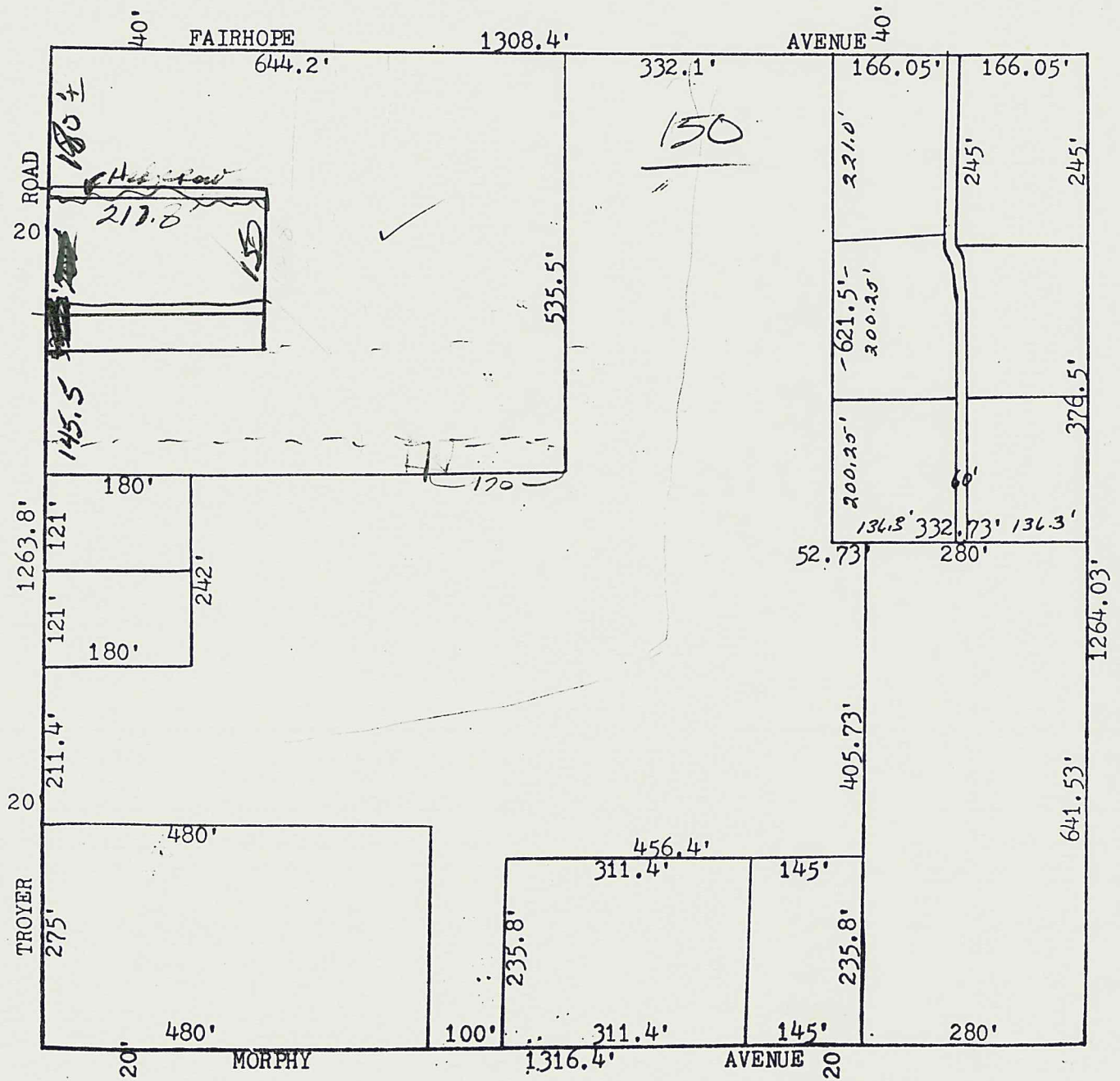
$$= 23.42$$

$$\frac{50}{x} = \frac{2825}{2725}$$

1"=200'

RED

NW 1/4 SE 1/4 SECTION 16
TOWNSHIP 6 SOUTH

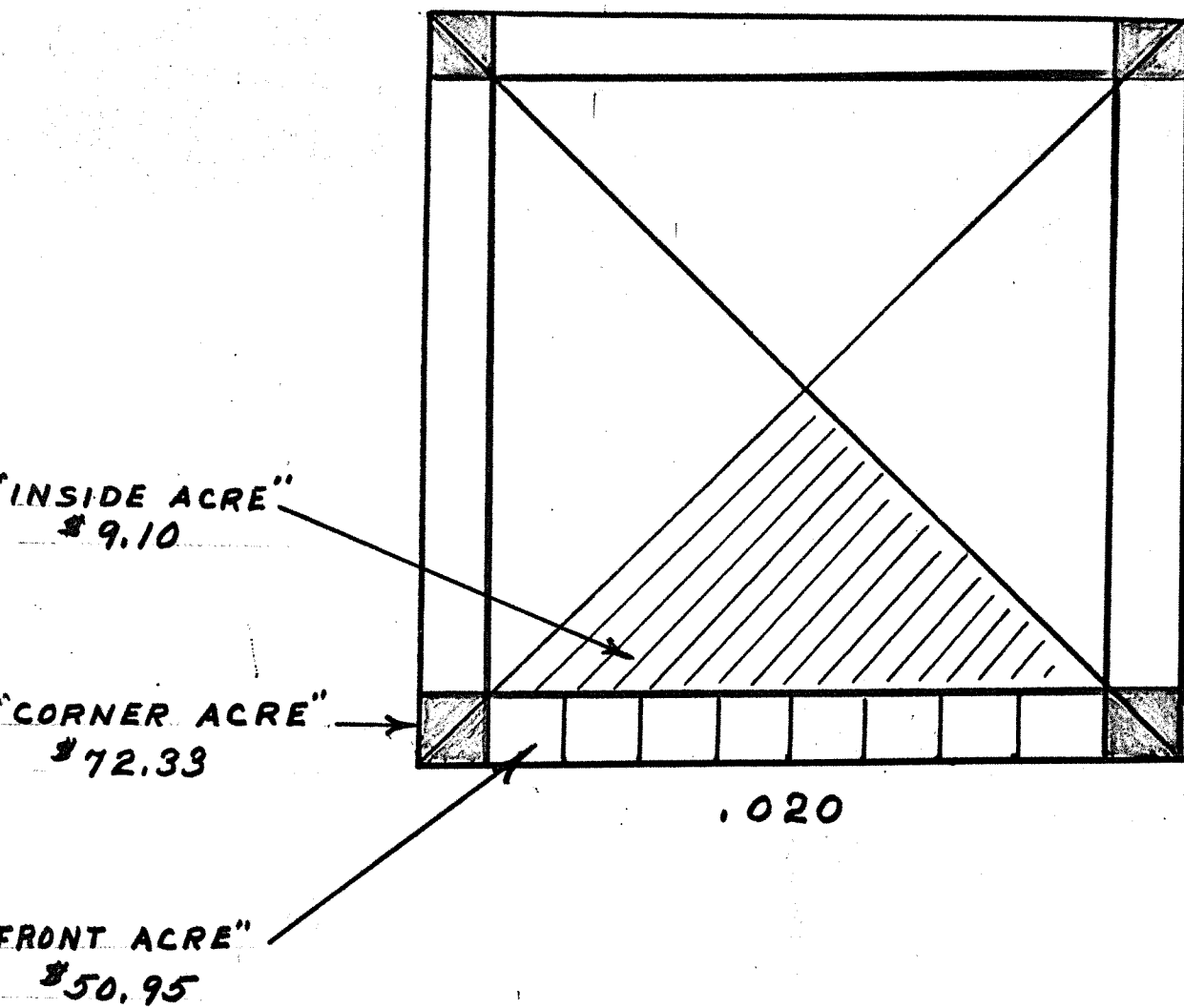


CORNER INFLUENCE SETBACKS FOR .50 FRONTAGE RATES

1.00 Zone Values

Corner	Feet	Corner	Feet		
50/50	0	50/19	67	1 .185	.185 + 0.141
50/49	1 98	50/18	71	2 .141	.326 + 0.128
50/48	3 92	50/17	74 34	3 .128	.454 + 0.116
50/47	4 94	50/16	76 32	4 .116	.570 + 0.100
50/46	6 92	50/15	82 30	5 .100	.670 + 0.089
50/45	7 90	50/14	83	6 .089	.759 + 0.079
50/44	8 88	50/13	87	7 .079	.838 + 0.065
50/43	10 86	50/12	94	8 .065	.903 + 0.053
50/42	11 84	50/11	100	9 .053	.956 + 0.044
50/41	13 82	50/10	106 20	10 .044	1.000 + 0.040
50/40	15 80	50/9	113 18	11 .040	1.040 + 0.035
50/39	17 78	50/8	120 16	12 .035	1.075 + 0.030
50/38	19 76	50/7	129 14	13 .030	1.105 + 0.025
50/37	21 74	50/6	139 12	14 .025	1.130 + 0.020
50/36	23 72	50/5	154 10	15 .020	1.150 + 0.018
50/35	25 70	50/4	168 8	16 .018	1.168 + 0.016
50/34	27 68	50/3	186 6	17 .016	1.184 + 0.014
50/33	29 66	50/2	269 4	18 .014	1.198 + 0.012
50/32	32 64	50/1		19 .012	1.210 + 0.010
50/31	34 62			20 .010	1.220 + 0.010
50/30	36 60			21 .010	1.230 + 0.008
50/29	38 58			22 .008	1.238 + 0.008
50/28	42 56			23 .008	1.246 + 0.007
50/27	44 54			24 .007	1.253 + 0.007
50/26	46 52			25 .007	1.260 + 0.007
50/25	49 50			26 .007	1.267 + 0.007
50/24	52 48			27 .007	1.274 + 0.006
50/23	55 46			28 .006	1.280 + 0.006
50/22	58 44			29 .006	1.286 + 0.006
50/21	61 42			30 .006	1.292 + 0.006
50/20	64 40			31 .006	1.298 + 0.005
				32 .005	1.303 + 0.005
				33 .005	1.309 + 0.005
				34 .005	1.314 + 0.005
				35 .005	1.319 + 0.005
				36 .005	1.324 + 0.005
				37 .005	1.329 + 0.004
				38 .004	1.333 + 0.005
				39 .005	1.338 + 0.004
				40 .004	1.342 + 0.004

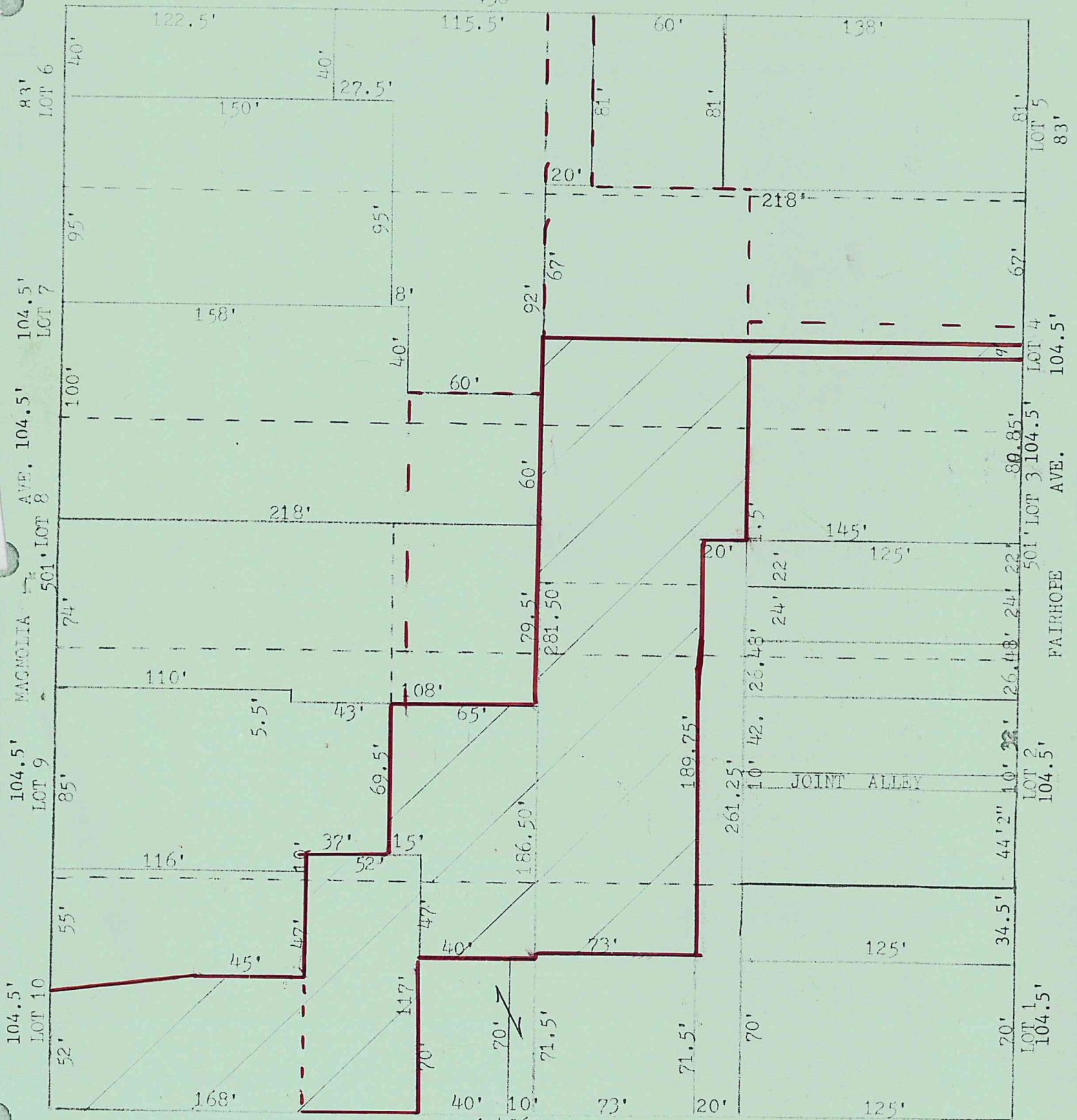
Tables and values of the Somers System used for one foot of frontage to designated depth and for ratio of high frontage to low frontage to bisect angle.



NOTE: "FRONT ACRE" & "CORNER ACRE" ARE 200 FT. SQUARE
 "INSIDE ACRE" = 43,560 SQUARE FT.

BLOCK 7, DIV. 1.
1973

436.



1225-

220

.002179 Var

CHURCH STREET

Front Acres - Country

$$122 \times 200' = .244 \times 032 =$$

$\times 10.44$

$$.032 \times 1.22 \left(\overset{2088.00}{200 \times 10.44} \right) = \$ 81.52$$

$$.030 \quad " \quad = \quad 76.42$$

$$.029 \quad \quad \quad = \quad 73.87$$

$$.028 \quad \quad \quad = \quad 71.33$$

$$.027 \quad \quad \quad 2542.36 \quad = \quad 68.78$$

$$.026 \quad \quad \quad = \quad 66.23$$

$$.025 \quad \quad \quad = \quad 63.68$$

$$.024 \quad \quad \quad = \quad 61.14$$

$$.023 \quad \quad \quad = \quad 58.59$$

$$.022 \quad \quad \quad = \quad 56.04$$

$$.021 \quad \quad \quad = \quad 53.49$$

$$.020 \quad \quad \quad = \quad 50.95$$

$$.019 \quad \quad \quad = \quad 48.40$$

$$.018 \quad \quad \quad = \quad 45.85$$

$$.017 \quad \quad \quad = \quad 43.30$$

$$.016 \quad \quad \quad = \quad 40.76$$

$$.015 \quad \quad \quad = \quad 38.21$$

$$.014 \quad \quad \quad = \quad 35.66$$

$$.013 \quad \quad \quad = \quad 33.12$$

$$.012 \quad \quad \quad = \quad 30.57$$

$$.011 \quad \quad \quad = \quad 28.02$$

$$.010 \quad \quad \quad = \quad 25.47$$

Inside acres - Country

032	$(1001 \times \frac{454.7664}{1032} \times 10.44)$	14.55
030		13.64
029		13.19
028		12.73
027		12.28
026		11.82
025		11.37
024		10.91
023		10.46
022		10.00
021		9.55
020		9.10
019		8.64
018		8.19
017		7.73
016		7.28
015		6.82
014		6.37
013		5.91
012		5.46
011		5.00
010		4.55

Corner Acres & Setback

$$022/022 = 19' = \$101.20$$

$$030/023 = 5' \quad 97.66$$

$$029/023 = 15' \quad 95.70$$

$$027/023 = 11' \quad 80.70$$

$$026/025 = 3' \quad 93.34$$

$$025/025 = 0' \quad 91.51$$

$$025/023 = 6' \quad 87.90$$

$$025/024 = 3' \quad 89.70$$

$$025/022 = 8' \quad 86.18$$

$$024/022 = 6' \quad 84.26$$

$$023/022 = 3' \quad 82.26$$

$$023/020 = 10' \quad 78.86$$

$$022/021 = 3' \quad 78.70$$

$$021/020 = 3' \quad 75.06$$

$$021/015 = 23' \quad 52.30$$

$$019/017 = 7' \quad 66.00$$

$$018/017 = 4' \quad 64.04$$

$$018/012 = 29' \quad 57.32$$

$$017/017 = 0' \quad 62.23$$

$$017/016 = 4' \quad 60.40$$

$$017/013 = 19' \quad 55.28$$

$$017/012 = 25' \quad 53.78$$

$$016/015 = 4' \quad 56.72$$

$$015/012 = 15' \quad 43.64$$

$$014/011 = 17' \quad 40.62$$

$$013/012 = 6' \quad 45.78$$

$$012/012 = 0' \quad 43.92$$

$$016/013 = 13' \quad 53.32$$

$$015/013 = 10' \quad 45.56$$

$$013/011 = 10' \quad 42.52$$

Computer Depth Value Computation

1. For depths less than 200 feet the basis Somers table is used.
For example:

~~Depth is 110 feet~~
~~Example $110/10 = 11$~~
~~Go to 11th entry which is 1.04~~

~~Depth is 115 feet~~
 ~~$\frac{115}{10} = 11.5$~~
~~11th Entry is 1.04~~
~~12th Entry is 1.075~~
~~Difference is .035~~
 ~~$.035 \times .5 + 1.04 = 1.0575$~~

2. For depths more than 200:

~~Depth~~
 ~~$\frac{250}{10} = 25$~~
Depth is 250 feet

$$25 - 21 = 4$$

$$4 \times .01 = .04$$

$$200' \text{ Depth} = 1.22$$

$$1.22 + .04 = 1.26$$

$$\text{Depth is } 300$$

$$\frac{300}{10} = 30$$

$$30 - 21 = 9$$

$$9 \times .01 = .09$$

$$1.22 + .09 = 1.31$$

Table

DF is 1.26

DF is 1.292

From Bureau 11/27/84 *PL*

1.22	X 200	X .060 =	14.64	X 10.44 =	152.84	13.1
"	"	.055 =	13.42	" =	140.10	12.6
		.040 =	9.76	" =	101.90	11.1
		.046 =	11.22	" =	117.18	12.2
		.048 =	11.71	" =	122.28	12.9
		.039 =	9.57	" =	99.34	12.3
		.038 =	9.27	" =	96.80	12.2
		.037 =	9.03	" =	94.26	12.1
		.033 =	8.05	" =	84.06	10.9
		.032 =	7.80	" =	81.52	10.6
		.031 =	7.56	" =	78.96	10.2
		.030 =	7.32	" =	76.42	9.9
		.029 =	7.07	" =	73.88	9.6
		.028 =	6.83	" =	71.32	9.2
		.027 =	6.58	" =	68.78	8.9
		.026 =	6.34	" =	66.24	8.6
		.025 =	6.10	" =	63.68	8.2
		.024 =	5.85	" =	61.14	7.9
		.023 =	5.61	" =	58.58	7.6
		.022 =	5.36	" =	56.04	7.2
		.021 =	5.12	" =	53.50	6.9
		.020 =	4.88	" =	50.94	6.6
		.019 =	4.63	" =	48.40	6.2
		.018 =	4.39	" =	45.86	5.9
		.017 =	4.14	" =	43.30	5.6
		.016 =	3.90	" =	40.76	5.3
		.015 =	3.66	" =	38.22	4.9

14

13

12

30.57

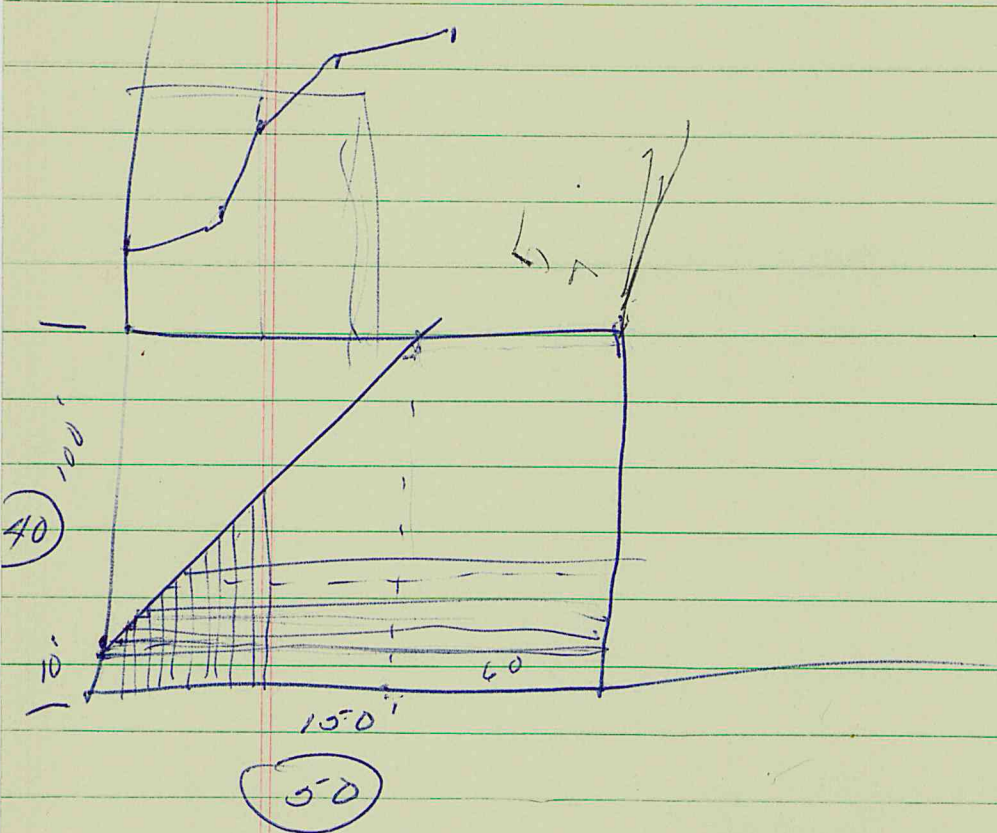
Corner Values - Country - 1975 ^{multiplier} (13.6)

Inside Acres

960/028 = 16.619 x 13.6 = 226.02				
055/028 = 15.722 x 13.6 = 213.82			43560 x .070 x .060 x 13.6 =	
040/028 = 13.086 x 13.6 = 164.37			435.60	
046/028 = 13.475 x " = 183.26				
048/038 = 13.055 x " = 177.55	15.72	060 x 435.60 = 26.14	x 13.6 = 35.3	
039/038 = 13.5 x " = 182.60		.059	2.57	^{10.44} 24.9
038/031 = 12.14 x " = 165.10		.058	2.53	24.4
031/028 = 10.355 x " = 140.83		.057	2.48	23.73
020/018 = 6.67 x " = 90.71		.056	2.44	33.12
037/034 = 12.457 x " = 169.42		.055	2.40	32.64
038/037 = 13.149 x " = 178.83	137.26	.054	2.35	31.96
033/031 = 11.222 x " = 152.62		.053	2.31	31.42
029/028 = 9.46 x " = 128.66		.052	2.27	30.87
025/022 = 8.254 x " = 112.25		.051	2.22	30.19
032/038 = 9.545 x " = 129.81	99.65	.050	2.18	29.65
022/018 = 7.044 x " = 95.80		.049	2.13	28.97
039/033 = 12.613 x " = 172.22		.048	2.09	28.42
028/020 = 8.67 x " = 117.91		.047	2.05	27.88
028/028 = 9.70 x " = 131.92		.046	2.00	27.20
		.045	1.96	26.66
		.044	1.92	26.11
		.043	1.87	25.43
		.042	1.83	24.89
		.041	1.79	24.34
		.040	1.74	23.66
		.039	1.70	23.12
		.038	1.66	22.58
		.037	1.61	21.90
		.036	1.57	21.35
		.035	1.52	20.67
		.034	1.48	20.13
		.033	1.44	15.02 19.58
		.032	1.39	14.51 18.90
		.031	1.35	14.08 18.36
		.030	1.31	17.82
		.029	1.26	17.14

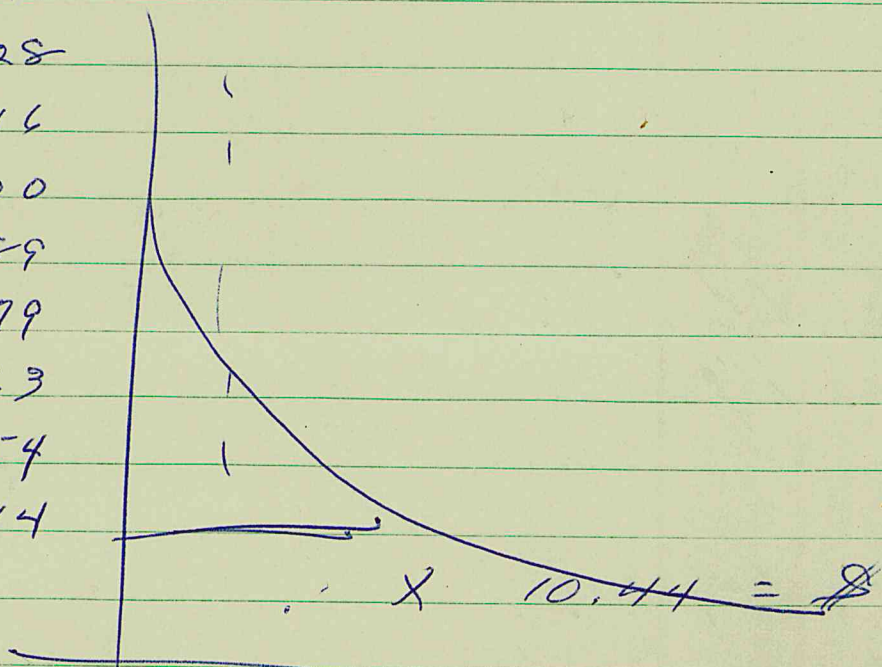
Zones

- 1 - .185
- 2 - .141
- 3 - .128
- 4 - .116
- 5 - .100
- 6 - .089
- 7 - .079
- 8 - .063
- 9 - .054
- 10 - .044



$$50 @ (10) \times .185 \times 150 = \quad \times 10.44 = \text{~~8~~}$$

- 2 - 145' x .141 =
- 3 - 135' .128
- 4 - 125' .116
- 5 - 115' 100
- 6 - 105' 89
- 7 - 95' 79
- 8 - 85' 63
- 9 - 75' 54
- 10 - 65' 44



$$50 @ ? \times 10.44 = \text{~~8~~}$$

21 22 23