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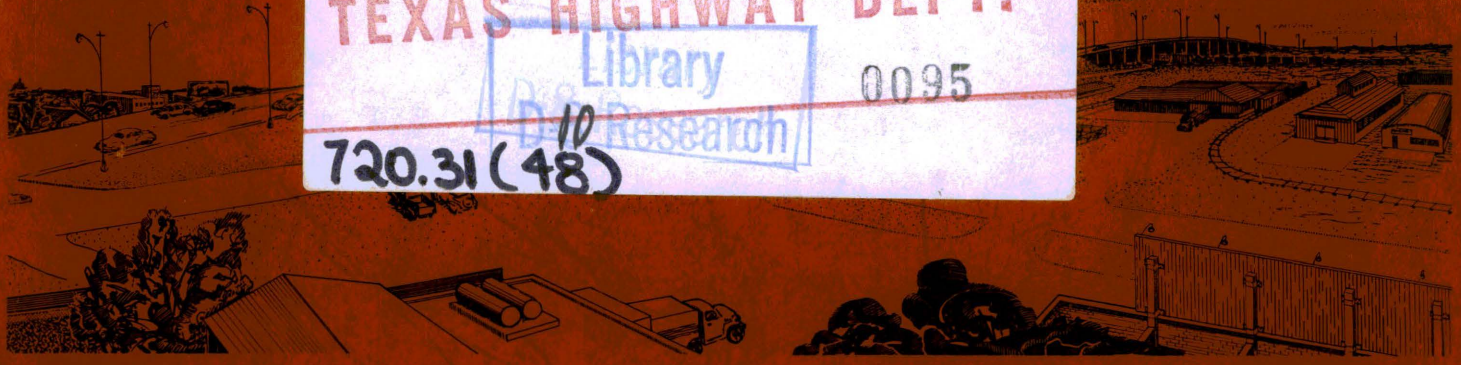
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A STUDY OF LAND VALUES

AND

LAND USE

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ALONG THE

GULF FREEWAY

HOUSTON TEXAS

1951

REPRODUCED BY
OPERATIONS DIVISION
TEXAS HIGHWAY DEPARTMENT
AUSTIN, TEXAS

**A STUDY OF LAND VALUES
AND
LAND USE
ALONG THE
GULF FREEWAY
IN THE CITY OF
HOUSTON, TEXAS**

**PREPARED BY
L.V. NORRIS ENGINEERING COMPANY
HERBERT W. ELDER SUPERVISING ENGINEER
HOUSTON, TEXAS**

**FOR THE
TEXAS HIGHWAY DEPARTMENT
HIGHWAY PLANNING SURVEY
AND THE
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS**

1951



PLATE 1

Aerial View of the Northern End of the Gulf Freeway

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Houston, Texas
December 15, 1951

Mr. D. C. Greer
State Highway Engineer
Texas Highway Department
Austin, Texas

Dear Sir:

We are pleased to submit herewith a report on a Study of Land Values and Land Use prepared in accordance with your directions of March 1, 1951.

The study as developed in this report was based upon the analysis of approximately twenty three hundred bona fide sales of property, records of which were obtained from authentic sources.

These sales represent all of the transfers of record for the selected areas during the periods 1939-1941, 1945-1946 and 1949-1951.

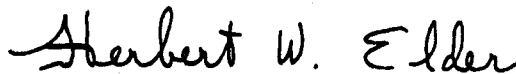
The areas studied were comparable to those suggested but much greater in scope.

The very large sample obtained and analyzed together with the wide distribution of the areas has afforded material for a very comprehensive study of conditions as relates to Land Values and Land Use along the Gulf Freeway and comparisons with other areas not affected by the facility.

The fact that the "sample" included all of the sales of record for the periods studied, although it required a great amount of detail work, made it relatively easy to follow the suggestion to "let the chips remain where they fall".

It is our sincere hope that this report will be of some help to those interested in the Economic Evaluation of Expressways as relates to Land Values and Land Use.

Respectfully submitted,



Herbert W. Elder
Supervising Engineer
L. V. Norris Engineering Company

ACKNOWLEDGMENTS

With pleasure we acknowledge the helpful cooperation of the Texas Highway Department through the Highway Planning Survey, the U. S. Bureau of Public Roads, the Departments of Traffic and Transportation, Public Works and Engineering, Taxation and City Planning of the City of Houston.

The Director of Research and Statistics of the Chamber of Commerce and the Executive Secretary of the Real Estate Board were very helpful in directing us to sources of information.

The success of the sampling method is due in large measure to the fine cooperation of the Houston Bank and Trust Company and we are particularly grateful to Mr. Charles E. Woodall, Manager, Real Estate Sales Department, and his staff.

To the many others, whom space limitation does not permit us to mention, we owe much, for helpful information cheerfully furnished.

Many of the pictures used in the report were made available to us by the Engineer-Manager of the Houston Urban Expressways and the Manager of the Highway Planning Survey.

We are indebted for many helpful suggestions to the conference committee representing the participating agencies which was comprised of:

Mr. H. P. Stockton, Jr., Texas Highway Department

Dr. David Levin

Mr. J. M. Page and

Mr. W. B. Andrews, U. S. Bureau of Public Roads.

L. V. Norris Engineering Company
Herbert W. Elder
Supervising Engineer

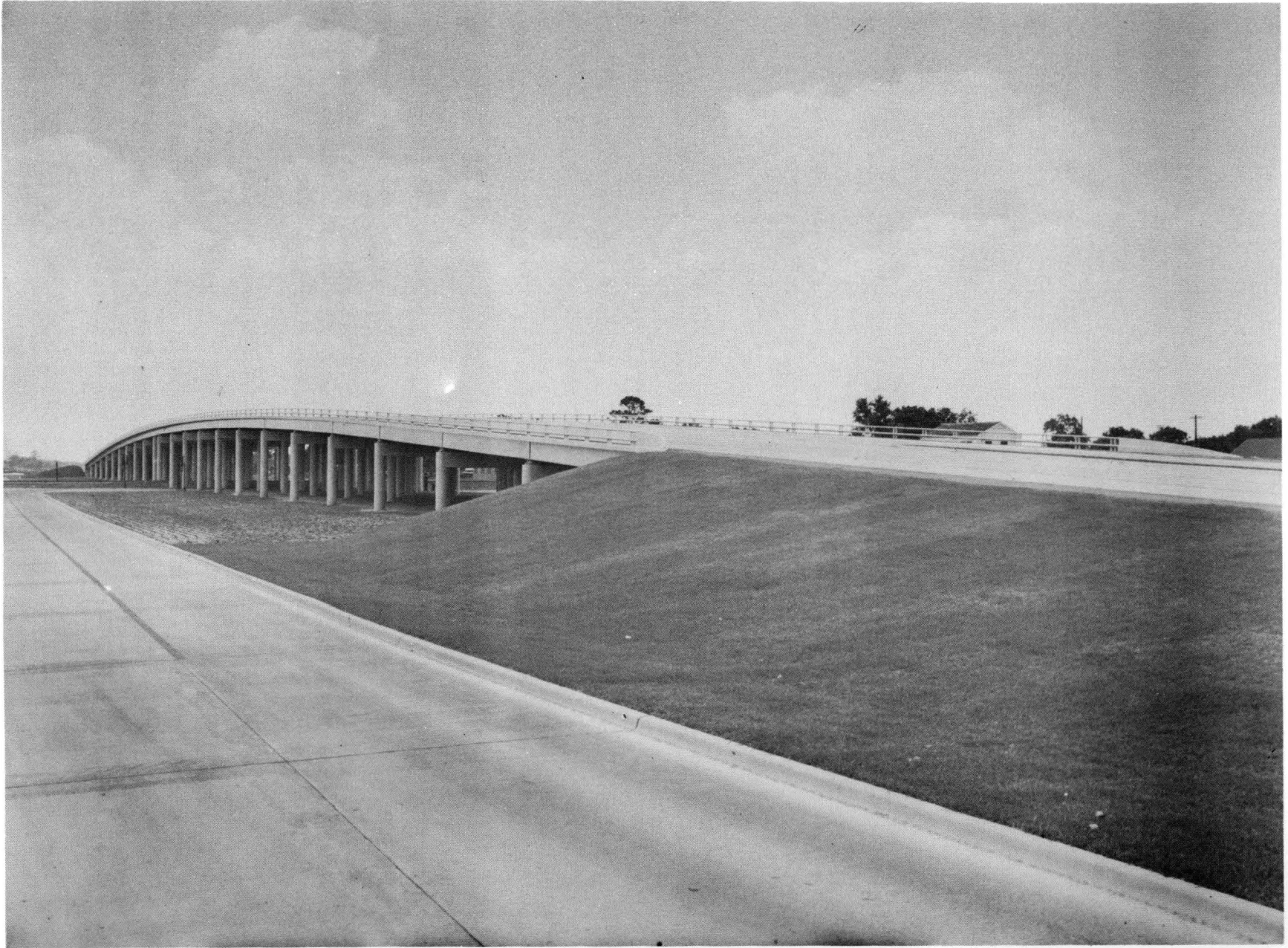


PLATE 2
Typical Railroad Overpass Structure

Effect of Gulf Freeway

on

Land Values

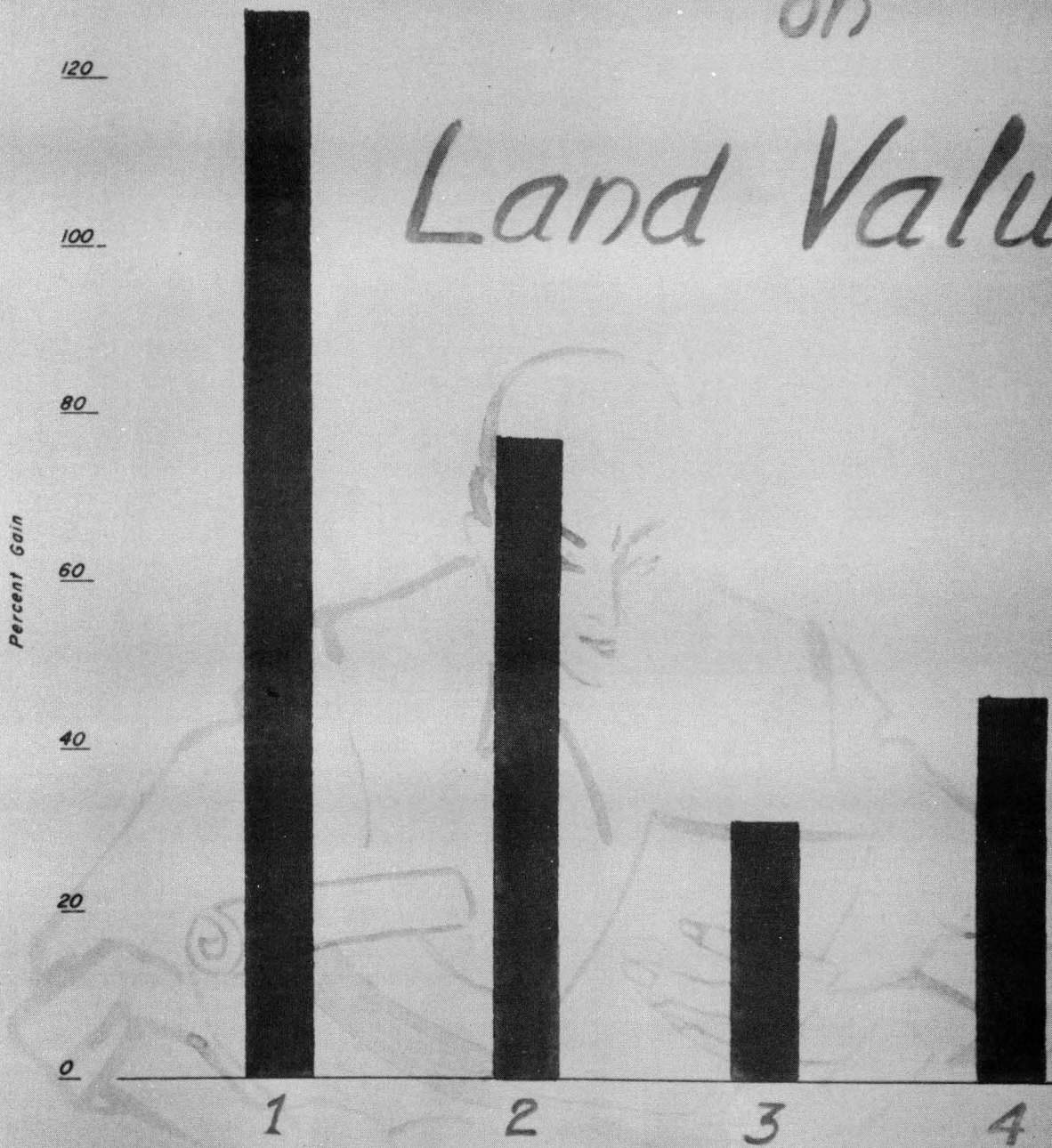


PLATE 3

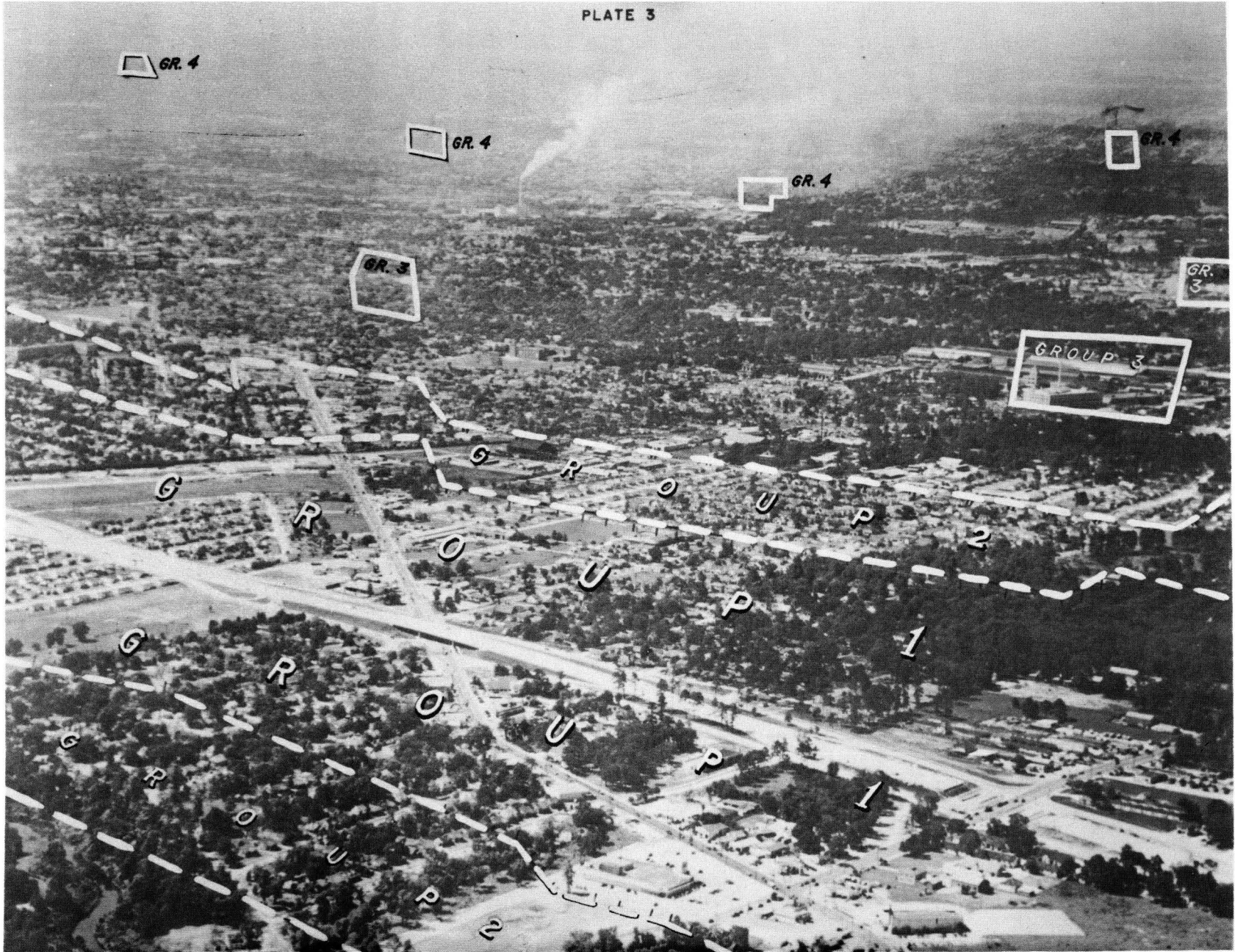


PLATE 3
Group Locations

SUMMARY OF CONCLUSIONS

LAND VALUES

- A. During the five year interval since the Gulf Freeway has been a potential factor of influence upon land values;
1. Properties adjacent or very close to the facility have increased in market value to a greater extent than in any other section of the city;
 2. Properties in the secondary zone of influence have increased in market value to a greater extent than did those farther removed from the facility;
 3. Properties in area group 3 more distant from the facility than those in the secondary zone but lying in the same quadrant of the city, have increased in market value less than those in any other area group studied;
 4. By all methods of analysis used in the study the relative changes in market values showed the same directional trend indicating that the facility is a definite factor of influence on the increase in market values of properties in the areas through which it passes. The apparently adverse trend in group 3 areas will probably be reversed when the effect of the facility becomes more stable and its zone of influence broadens.
- B. During the five year period immediately preceding the period of potential influence of the facility;

1. The increase in market value of properties adjacent to the future route of the Gulf Freeway was very close to the median of increases in all area groups studied;
 2. The increase in market values in the areas along the future route of the freeway were less than in those areas located so far distant from the facility as to be beyond any probable zone of influence.
- C. During the decade including the five year "before" and the five year "after" periods;
1. Although the increase in market values during the "before" period was slightly less in the areas along the future route of the facility than in areas beyond its zone of influence, the increase during the five year "after" period was so much greater that it resulted in the increase in the adjacent areas being considerably greater for the decade than in any other group of areas studied.

LAND USE

- A. Changes in land use are developing slowly except where large tracts of vacant land were located near the Gulf Freeway;
1. Very few tracts of land which were vacant when work started on the facility remain undeveloped;
 2. Many vacant tracts equidistant from the center of the city but in other sections of the city remain undeveloped;
 3. The development of the vacant tracts along the freeway has been generally of three classes; a, residential; b, light industry estab-

lishments, producing goods for wide distribution, particularly intracity by trucks and; c, warehouses.

GENERAL

The period during which the Gulf Freeway has been a potential factor of influence is too brief for the impact of the facility to have become fully effective. Changes in land values, although much more rapid than changes in land use, will probably continue for a long period of time.

All factual data and all methods and procedures used in analyzing these data indicate that within the areas or zones of potential influence; 1, the percentage increase in market values of properties has been much greater than in areas in other sections of the city; and 2, land use changes appear to be more rapid than in other areas similarly located in every respect, except proximity to the freeway.

This study, however comprehensive, can only show the trends established during this brief period and lay the ground work for further studies.

INTRODUCTION

The transportation of persons and goods through metropolitan areas is one of the most serious problems facing the nation today. The increasing concentration of the population into the major cities, with their generally inadequate automotive transportation systems, has forced them to face two alternatives: they must provide adequate facilities for intra-city traffic or be strangled by the ever increasing congestion.

For the City of Houston this problem has been partially solved by the construction of the Gulf Freeway.

Houston has not had a sudden increase in population. The increase has varied very little from a cumulative seventy percent each decade during the past eighty years. Expansion has been approximately uniform, influenced largely by the extension of traffic arteries in all directions. It appears logical that changes in land values and land use would be proportionately similar in all sections of the city. It seems probable that this condition or trend would continue unless some unusual influence were exerted upon a particular section. The Gulf Freeway, being the only traffic artery of its class in the city, presents a unique subject for the study of the effect of such a facility upon the sections served by it and a comparison of changes in land values and land use in those sections with corresponding changes in other sections of the city.

This report presents an impartial evaluation of this effect as related to changes in land values and land uses, based upon a careful and systematic analysis of comprehensive factual data.

DESCRIPTION

HOUSTON

The population of Houston is slightly less than 600,000. The metropolitan area, including several incorporated communities, enclosed by or adjoining the corporate limits of the city proper, has a total population of 665,000. Harris County, of which Houston is the county seat, has a population of 802,000.

Houston is a city of paradoxes. It has never had a boom, and yet has been booming throughout most of the years since its settlement a little more than a century ago. The average increase in population during the past eighty years has been an accumulative 70% per decade. The greatest increase in any decade was 111% during the roaring twenties, and the least 32% was during the depression thirties. These two averaged out to approximately the usual 70%. The average population density of the city proper is about 6,000 persons per square mile, but large cattle ranches extend almost to the city limits.

Houston is not on salt water but is a great seaport as ocean vessels come into the city limits through fifty miles of ship channel. It is a cross roads city and at the same time a great terminal. Three great trunk line railroads and three major federal highways pass through the city. A traffic survey made several years ago showed that only about 6% of the vehicles entering the city went through without a necessary stop. The inter-city traffic

is heavy on all highways entering the city but the intra-city traffic imposes a staggering load on the city streets. The development of major industries in and around the city, particularly during the past two decades, and the lack of adequate mass transportation facilities have contributed to the greater use of automotive vehicles than in many other cities.

The city's governing bodies have for many years realized the seriousness of the traffic problem, and within the limits of the money available, have developed many streets into excellent thoroughfares by widening, installation of signals and designation of a system of one-way streets. Until the construction of the Gulf Freeway no limited access traffic artery existed in the city.

THE GULF FREEWAY

The first plan for an arterial traffic way along the route of what is now the Gulf Freeway originated many years ago when the Galveston-Houston Electric Railway was abandoned and the City of Houston acquired the railroad right of way. At that time it was contemplated that, when funds became available, a major highway would be built along the route.

Definite plans for a controlled access highway were developed after the Texas Highway Department and the U. S. Bureau of Public Roads became participating agencies.

Work on surveys and plans was started in 1943. The right of way of the abandoned electric railway, varying in width from 60 feet to 100 feet, was

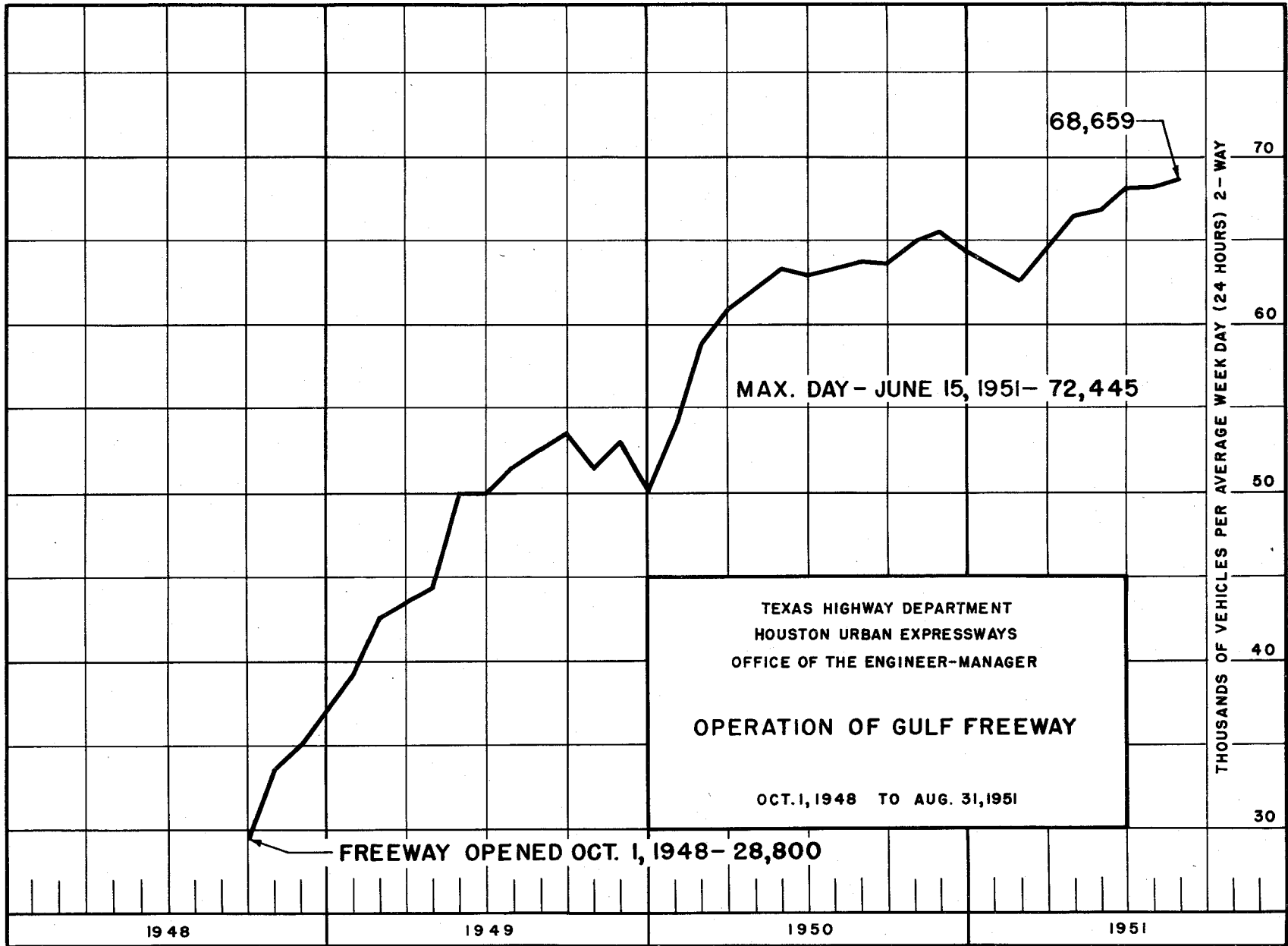


FIGURE I

used and enough additional land acquired by the city to provide an average width of 300 feet. Construction was begun early in 1946 and the first section, about three miles in length, from the center of the city outward was placed in operation October 1, 1948.

On October 4, 1948, the automatic counter which had been installed about midway of the three mile section, recorded the passing of 28,800 vehicles. June 5, 1951, the counter located at the same point, recorded 72,445 passing vehicles. The chart, Figure I, shows the steady increase in use of the facility. The plates Nos. 1 and 2 show various features of the completed freeway.

The total length of the section of the freeway in operation October 1, 1951, was approximately six and one half miles. Sections now under construction total about four additional miles, including the LaPorte Extension. Much of the rural section between Houston and Galveston has been completed or is under construction. It is expected that this arterial highway will be open from Houston to Galveston early in 1953.

The planning, design and construction has been done by the Texas Highway Department under the immediate supervision of the Engineer-Manager of the Houston Urban Expressways. The planning and construction cost has been shared by the Highway Department and the Bureau of Public Roads under the provisions of the Highway Act of 1944, and subsequent acts. All right of way has been purchased by the City of Houston. The facility is maintained by the State Highway Department. Traffic is regulated and controlled by the

City of Houston through the Department of Traffic and Transportation and the Police Department.

COST

The total cost of the Gulf Freeway located within the city limits as they existed prior to January 1, 1950, is estimated as follows:

Cost of Construction and Engineering	\$ 12,725,000
Cost of Rights of Way	<u>3,595,000</u>
Total	\$ 16,320,000

The overall length of the facility included in the above cost estimate is 7.8 miles all of which is either completed or under construction.

THE STUDY

OUTLINE

The Study of Land Values and Land Use along the Gulf Freeway, conducted under the joint sponsorship of the Texas Highway Department and the U. S. Bureau of Public Roads, Department of Commerce, from March through December 1951, was directed by the Texas Highway Planning Survey.

The first definite step toward initiating the study was taken in May 1950, following receipt of a memorandum from the Commissioner of the Bureau of Public Roads suggesting that the study be made, the essence of which is as quoted below:

"The objective of the study will be to ascertain what effect the Gulf Freeway has on the value of real property, both adjoining and removed from the expressway, and upon the land use pattern generally," and, "The study will be objective, and the chips will remain where they fall."

The Consulting Engineers, selected to conduct the study and prepare the report, were retained March 1, 1951, and submitted a proposed "Outline", March 21, 1951, to a committee of Engineers representing the sponsoring agencies.

This Outline for an Economic Survey of the Gulf Freeway was approved and has been faithfully followed, except for minor modifications, agreed upon at later conferences attended by all, or the majority, of the original committee. These modifications and the reasons therefor will appear as the

study is developed.

The essential features of the "Outline", as approved, are as follows:

1. Basically the study will include surveys showing Land Use and Land Values.
 - a. Before the facility was started, probably from 1938 to 1940.
 - b. After the route became known and work was started on the first section, 1945-1946.
 - c. The latest available factual data 1950-1951
2. Areas to be studied:
 - a. Group I, the primary area will be that immediately adjacent to the facility.
 - b. Group 2, the secondary area will be a band, or bands, of varying width, including lands that have been affected to a somewhat less degree, the extent of which will be determined during the development of the survey.
 - c. The third group of areas should be along the routes of future expressways. This item was later changed, at a joint conference, to include only a group of areas somewhat removed from the facility but accessible to it and also accessible via other good traffic arteries to the central business district and to other sections of the city.
 - d. The fourth group shall include areas where changes in land use and land values should in no manner have been affected by the

facility.

3. Sectionizing of Group 1 and Group 2.

Since the land use and land values, both past and present, vary greatly along the facility, these groups should be broken down or sectionized according to types of development. These areas are of six types and except for some minor overlapping, the lines of demarkation between them are reasonably definite.

These sections as they will be treated in this study are as listed below:

Section 1. Louisiana Street to Dowling Street.

" 2. Dowling Street to Cullen Boulevard (St. Bernard Street).

" 3. Cullen Boulevard to Jean Street.

" 4. Jean Street to Griggs Road.

" 5. Griggs Road to Detroit Street.

" 6. Detroit Street to Sims Bayou (Park Place).

Section 1 is that near the central business district. The facility through the area consists of the four street system. This section was at one time a better class residential district but before the freeway was built was rapidly changing to a mixed business and apartment or rooming house area.

Section 2 was a typical blighted area closely built up with low cost buildings. A few industries had been established in the area for a number of years but there have been several new ones built along the freeway since it was started, and some of those already there have expanded.

Section 3 was for the most part vacant land, held principally by estates,

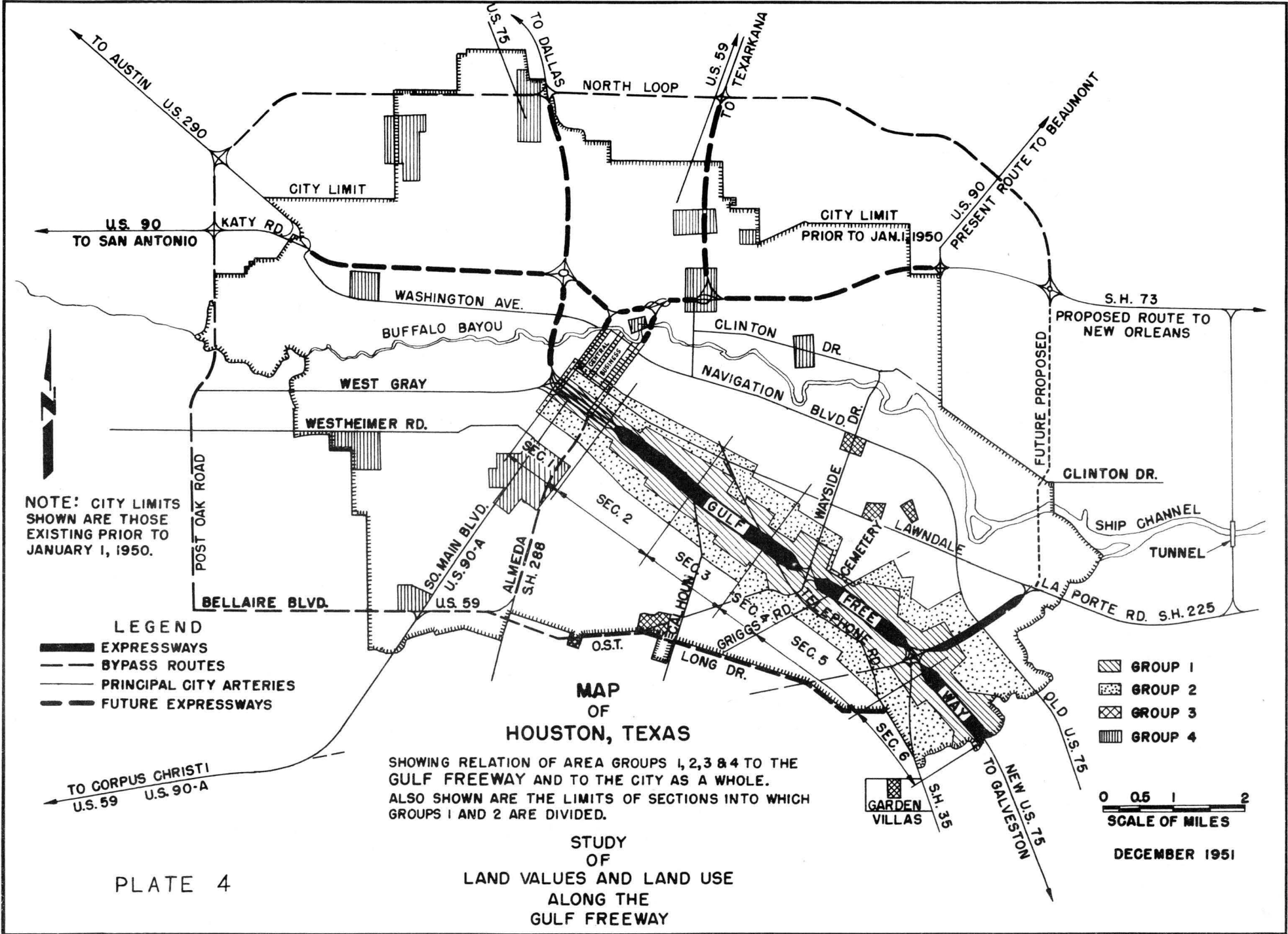


PLATE 4

which have owned it for many years. Much of it was bought by promoters soon after the freeway was started who resold to industries and it has developed very rapidly since the freeway was built.

Section 4. The portion of this section immediately adjoining the facility is an area closely built up with moderately priced homes. It was typically a quiet residential district with a few neighborhood stores, schools, churches, etc.

The secondary zone of influence of this section contained considerable vacant land a few years ago, much of which has been developed as residential areas.

Section 5, except for one large subdivision, was generally vacant land. Some of this land is being developed by light industry and other parts as multi-unit residential areas with the usual community business centers.

Section 6 provides a subject for the study of the effect upon an integrated suburban center. Park Place has been a town unto itself for many years with its own business center, schools, churches, etc. Until very recent years large areas of vacant land laid between it and the city proper. Access to the city was via two narrow congested arteries. The additional right of way required for the freeway almost obliterated the little business center of the town, forced the removal of one church and encroached upon the grounds of a church school. Travel time into the center of Houston will probably be reduced at least 50 per cent.

The Group Map, Plate 4, shows the lines of demarkation between the six

sections into which Group 1 and Group 2 were divided. This map shows all four groups. Much study was given to selecting the areas in Groups No. 3 and No. 4 in order that sections as closely comparable to the sections of Groups No. 1 and No. 2 would be included. Group 3 consists of areas somewhat removed from the facility but accessible to it and also to other good arteries which provide alternate routes to the central business district and to other sections of the city. Areas of Group 4 are widely distributed over all sections of the city that are so far distant from the facility as to be outside of any probable zone of influence.

BACKGROUND OF THE STUDY

The report "Economic Evaluation of the Gulf Freeway", prepared in 1949 by the Department of Traffic and Transportation of the City of Houston, is an excellent presentation of the economic evaluation of travel time savings effected by the freeway. At the time that report was written only a very short section of the facility had been in operation for less than a year. Much valuable data was submitted and subsequent studies indicated that this feature of economic value increases progressively with the length of time the facility is in use and to an even greater degree as extensions are opened to traffic. That report covered only briefly the "Land Value" and "Land Use" phases of economic evaluation as the primary purpose was to show the value of time savings of the facility. The surveys made for the preparation of this report have, therefore, included no studies pertaining to travel time savings.

The Highway Planning Survey is preparing a traffic report which will cover the economic phase of Traffic Use, particularly as relates to induced traffic. The traffic data collected by that agency have been used chiefly to determine zones of influence to develop the limits of probable effect as relates to land values and land use. This report will cover only the Economic Evaluation as relates to changes in Land Values and Land Use.

Greater emphasis will be placed upon changes in land values than land use as the period of time the Gulf Freeway has been in operation is too brief for the impact of the facility upon the areas near it to have had a very great effect upon changes in land use, except in those areas where large tracts of vacant land were near the freeway.

Changes in land values, although much more rapid than changes in land use, will probably continue for a long period of time. This study, however comprehensive it may be, can only show the trend established during this brief period and lay the ground work for further studies.

LAND VALUES

THE STUDY, as relates to changes in land values is based upon actual sales of real property. The decision to use actual sales as the basis of the survey was made only after thorough investigation. The study has been developed, primarily, from the analysis of approximately twenty three hundred bona fide sales of real property, the records of which have been obtained from unquestionably authentic sources, the major source being the records of the land department of one of Houston's greatest banks. This great volume of factual data obtained by use of all the sales on record in the selected areas for the periods outlined reduces the probability of error such as could occur in a selected sample.

The assessed values of the properties and of the improvements thereon were obtained from the Bracey block map books, which are facsimile copies of the block maps used by the city tax department. Dimensions for computing areas of parcels were obtained from this same source.

The groups of areas used in the study were selected prior to the collection of any data and very few changes were made in scope or distribution after the original selection. The principal change was the enlargement of the area of Group 3 after traffic data furnished by the Planning Survey showed that additional sections supplied considerable traffic to the facility and probably were in its zone of influence. Areas in Group 3, although similar in type of development to certain areas in the other groups, were selected primarily because they are accessible to the freeway and also, via alternate

routes, to other sections of the city. A thorough study was made to select areas in Group 4 that would not only be comparable to those in Groups 1 and 2 but would be widely distributed over all sections of the city except the southeast quadrant through which the Gulf Freeway passes. All of the areas in Group 4 are so far removed from the freeway and so located that they should in no manner be affected by the facility. Close association of the writer with the Gulf Freeway throughout the entire period of development provided the basic knowledge required to properly select the areas included in Groups 1 and 2.

The property transfers recorded are distributed into groups as shown in the following tabulation:

Group No.	No. of Parcels	Total area sq. feet	Total sales price
1	658	6,212,267	\$ 5,439,561
2	599	7,271,825	8,717,397
3	335	2,838,554	2,283,605
4	704	5,967,872	7,158,499
<hr/>			
Totals	2,296	22,290,518	\$23,598,921

The periods of time used in the study were selected to present the "before" and "after" pictures and to cover as long a period of time as practicable. As the route of the proposed facility was well established in 1945 and construction was started in 1946, these two years were selected as the middle period. As that was five years ago it was decided to use five years prior to that time for the first period, and the three years 1939-1941 inclusive, centering on 1940 were used. The sample includes all of the sales of

record made during the periods selected in the areas included in the four groups, with the following exception. Due to there being available only those sales made during the first quarter of 1951, it was agreed at the conference in August, 1951, to obtain additional data covering sales made during 1949. Approximately half of the area of each group was covered in these additional areas and all sales, in this predetermined portion of the group areas, made during 1949 were recorded and included with those made during 1950 and 1951.

The property sales were made during the three periods as shown in the following tabulation:

First Period	Second Period	Third Period	Total
1939-1941	1945-1946	1949-1951	3 Periods
858	1041	397	2296

During the first period market values of property could in no manner have been affected by the facility. No planning had been done and the first field surveys were not begun until late in 1943. As stated above, the route was well established and much publicity was given the proposed project during 1945 and construction was started during 1946. Speculators and promoters began acquiring tracts of land near the route and other evidence of influence of the facility upon areas near it became apparent. As the first section of the freeway was placed in operation during 1948, additional sections opened to traffic during 1949 and other sections placed under construction, the impact upon the community in the vicinity became evident throughout the length of the facility.

THE STUDY METHOD

ALL SALES

The basic procedure of the study method was planned to obtain detailed factual information to determine the market value of lands in all of the areas included in the four groups during each of the three periods selected.

As explained in previous paragraphs the time periods were chosen to cover a full decade, with the first period and the last period being respectively five years before and after the period when the facility became established as a potential factor of influence in the community. The areas included in the groups having been determined, as explained in the outline for the study, the sales of record made during each year of all three periods for all of the areas included in the four groups were obtained and assembled for analysis.

The collection, assembly and analysis of the 2296 sales involved a vast amount of work. The information as originally collected consisted of the legal description of the parcel, the date of sale and the total sales price. The sales data were then transferred to the city block maps which show the dimensions of the individual parcels, the assessed value of the land and the assessed value of the improvements thereon, if improved. (A typical block map with the sales data superimposed upon it is shown in Figure 1-A in the Appendix.) The area of each parcel was computed from the dimensions shown on the block map. As the parcels varied in size in some degree within the same block and vary greatly over the city, it was necessary to reduce the total sales price to a price per square foot so that a common factor could be

applied to all areas. These data were then tabulated under appropriate headings.

Figure 2 of the Appendix shows a typical sheet of tabulation of these data.

The next phase of the analysis consists of tabulating the above according to time periods. At this stage the first step was taken toward the breakdown of the great mass of sales data into groups. The block maps were separated into four lots in accordance with the predetermined areas included in each of the four groups. One or more block maps were included in each sheet of tabulation. It was seldom necessary to have part of a block map in each of two groups for the simple reason that block map limits are usually also the boundaries of subdivisions of different types of development. The form used in this step of the analysis is as shown in Figure 3 of the Appendix.

The total for each column was obtained and these totals entered upon a summation sheet for each of the four groups. For Groups 1 and 2 these summations were made for each of the six predetermined sections designated in the Outline.

With these data assembled and summarized the average selling price per square foot was determined for each period in each area included in the study. If only a single area or a few similar small areas had been involved the changes in market value as reflected by the price per square foot during each of the three periods would have provided an adequate criterion for determining the effect upon land values. For a study covering an area exceed-

ing twenty million square feet, comprised of more than two thousand parcels widely distributed over the entire city, some other basis of comparison was necessary. Included in the various groups are areas built up with substantial homes, other areas with moderately priced houses and still others that are closely built up with low cost, unkempt houses. The groups include highly developed business areas near the center of the city, outlying community centers, industrial development, newly developed sections, blighted areas and vacant land. Because of the great variation in types of development and the wide range of values of properties in the various sections it was decided to use percentage change in selling price as the basis of evaluation. For the purpose of comparison, this places the property which increased in price from \$8.00 to \$10.00 per square foot on the same basis as that which increased from 8 cents to 10 cents per square foot.

This, however, does not eliminate all of the disparity as some of the parcels are improved, others are vacant land. The fact that the study is based primarily on land value and with recognition of the impracticability of reducing costs of properties containing improvements to costs per unit for the comparisons which are required, it is necessary that the costs of improvements be separated from land costs. As the scope of the study is such that individual appraisal of the many hundreds of buildings was not feasible, it was decided to use the tax assessment value of improvements as a base for determining the relative values. The assessed value, as used by the City of Houston, is nominally 70% of the actual value. The assessments of

the major portion of the improvements on the properties included in this study were made several years ago. Very few changes in assessed value have been made since 1940 and no general re-appraisal has been made for many years. Because of this, the assessed value is generally much less than 70% of the actual present market value. This assessment evaluation is uniform over the city and in general applies to all classes of property. If the same method is used for all properties in all areas the relative changes in values should be comparable. If the same yardstick is used to measure the value of all classes of improvements in all areas in order to remove that portion of the properties, the residual portion which is land costs should be relative values. Admittedly, these residual land costs are probably too high but actual dollar value per square foot of land enters into the analysis only as a means to obtain the relative change in price to arrive at a percentage change. Thorough investigation was made prior to selecting the areas to be used in the survey. Every effort was made to choose areas in Groups 3 and 4 that are similar to areas in Groups 1 and 2, both as relates to stage of development and to classes or types of improvement. Upon this hypothesis the type of improvement separated from the land in each and all of the four groups would be approximately the same, and the only variable would be the residual land cost. This would vary in accordance with desirability of location. When these costs are reduced to a percentage change from the "before" period to the "after" period for each group of areas, these would reflect directly the effect of the freeway upon the areas located within the zone or

zones of influence of the facility as compared to other areas.

There are other methods of separating the improvements from land costs and these are presented in the report for comparison of procedure and results. These methods are based, (1) upon increase in price due to inflation, and (2) changes in price due to increased construction costs. The first of these affects both land and improvements, the latter affects, directly, only the cost of improvements. The tables, charts and graphs presented in the report and in the Appendix will show changes in land values based upon four methods, viz:

1. Sales prices, including improvements.
2. Sales prices with improvements deducted on the basis of assessed value divided by 70%.
3. Sales prices with improvements deducted on the basis of assessed value divided by 70% multiplied by the factors based upon the changes in the buying power of the dollar.
4. Sales prices with improvements deducted on the basis of assessed value divided by 70% multiplied by the factors based upon the increase in construction cost.

Method No. 1 requires no explanation and method No. 2 has been explained in the preceding pages. Method No. 3 is based upon assuming the dollar value as 100 cents in 1940 and from the consumers index of the U. S. Department of Labor, Bureau of Labor Statistics, developing the relative buying power of the dollar, for the second period at 77 cents, and for the third

period at 58 cents. These factors when multiplied by 70% yield a divisor for the first period of $.70 \times 1.00 = .70$; for the second period, $.70 \times .77 = .54$ and for the third period $.70 \times .58 = .41$. Method No. 4 is based upon assuming the assessed value of the improvements divided by 70% to be par as of 1940. From the appropriate Bureau of Labor Statistics data the average increase in construction costs of the four classes of improvements most nearly typical of those in the areas surveyed, were computed for the intervals from 1940 to 1945, 1945 to 1950, and for the decade from 1940 to 1950. These factors as determined and used in the analyses as related to par or 100 in 1940, are 152 and 236 respectively. These factors when reduced to the buying power of the dollar as relates to increase construction costs are 1.00, 0.658, and 0.423. The computed factors for use in the three periods, are for the first period, $.70 \times 1.00 = .70$; for the second period, $.70 \times .658 = .46$; and for the third period, $.70 \times .423 = .30$.

Other logical and meritable methods could be developed and used but the scope of this study does not permit further elaboration. One particular phase having considerable merit involves the depreciation factor. No data were collected for this survey concerning the date of construction or age of the improvements which this study feature would require. The basic data used are the total sales price or market value and the assessed value of the improvements. These basic data show the relative changes in property values in all of the areas surveyed.

The basic data are factual and conclusions deduced therefrom should be

tenable if proper procedures are followed in the development. The total sales price shows the true market value of properties in all areas studied during each of the three periods. The assessed values have not changed with time nor due to changing conditions. In general, no reassessment has been made during the decade covered by the "Study". The two major factors affecting changes in the value of properties in general, during the decade just past, are the decrease in the buying power of the dollar and the increase in cost of construction. The first of these affects the price of both the land and the improvements thereon. The latter should affect only the improvements. If the price of the improvements is separated from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased construction cost, the remainder should represent the market value of the land. The objective of this section of the report is to show the "Effect of the Gulf Freeway upon Land Values" and the method used to develop this feature has been to show the relative changes in the market value of properties by a comparison of the sales prices in the various areas. Tables and graphs presented in the Appendix show in detail the four procedures. As the procedure based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction affects the value of the improvements only, it appears to have greater merit.

By all methods of comparison used, the lands along the freeway are shown to have increased in value to a greater extent than those lands located

beyond the zones of potential influence of the facility. The resulting percentages of change differ only in degree. As the only major factor of potential influence, not common to all areas is the existence of the Gulf Freeway in the areas showing the greatest increase in land values, it is logical to assume that the facility has been largely responsible for the effect.

**COMPARISON OF CHANGES
in
LAND VALUES**

**Based upon separating the price of the improvements
from the total sales price at the assessed value
divided by 70%.**

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

**During this period the Gulf Freeway has been
a potential factor of influence on land values.**

EFFECT

OF

GULF FREEWAY

ON

LAND VALUES

PERCENT
120—

100—

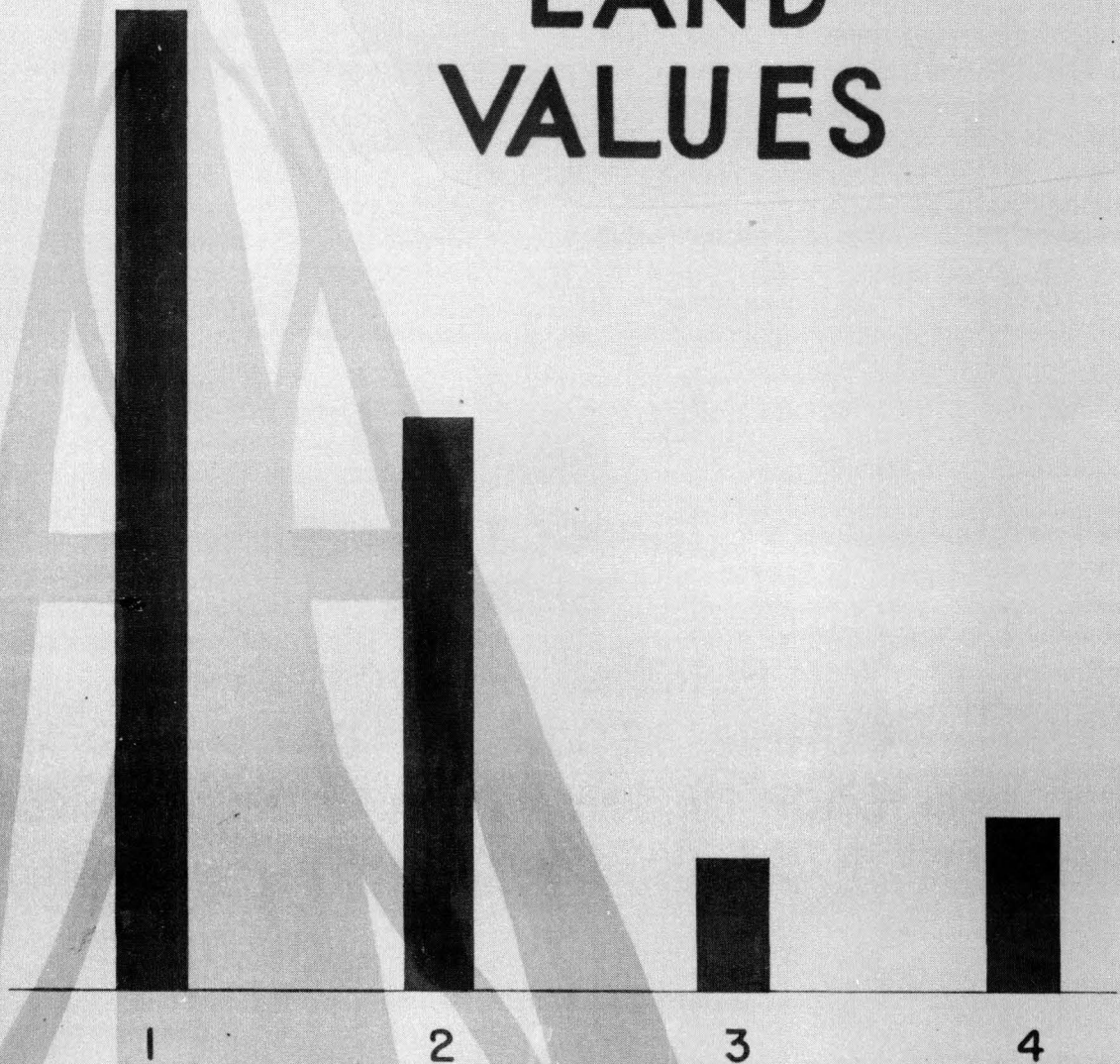
80—

60—

40—

20—

0—



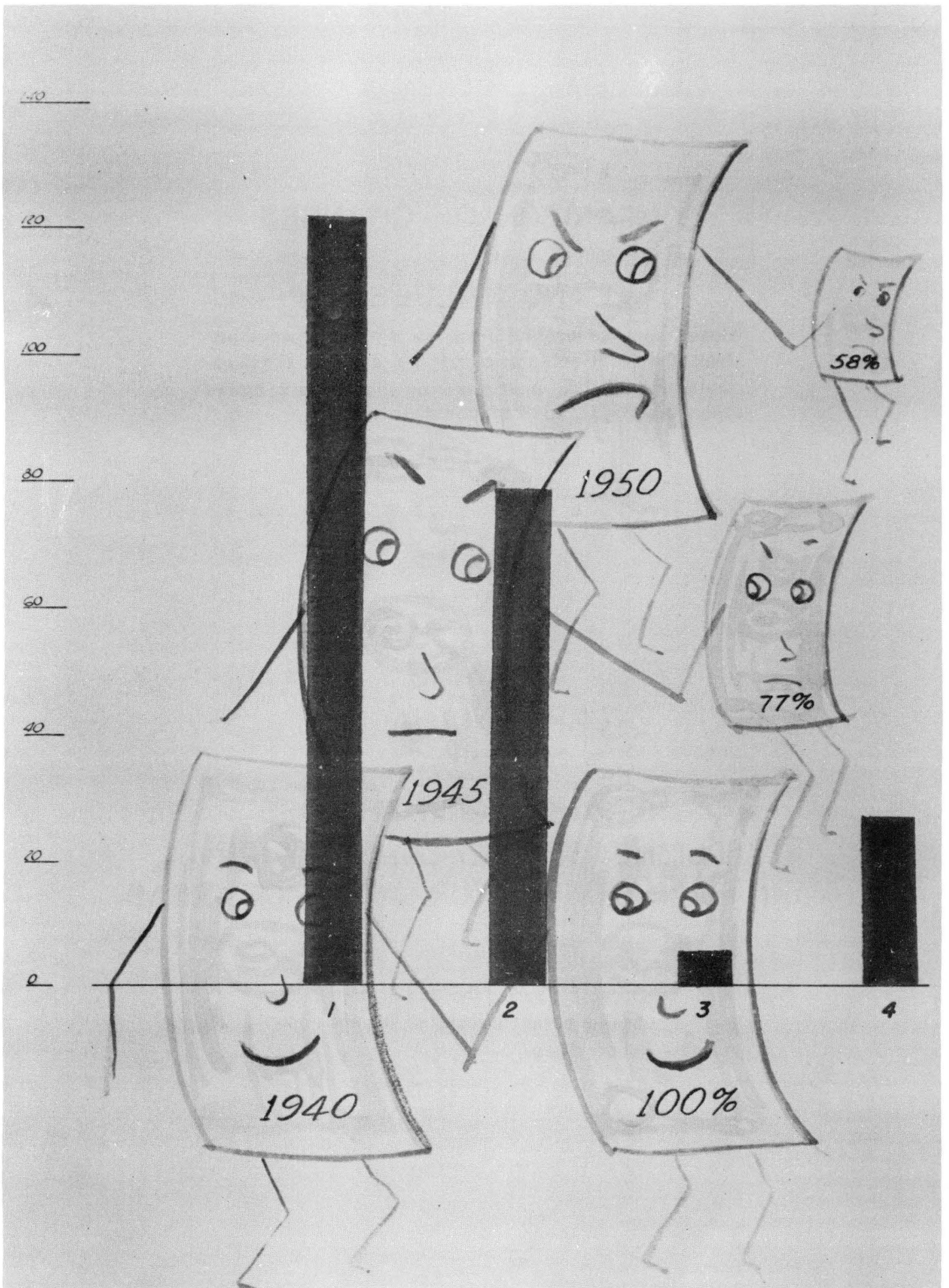
**COMPARISON OF CHANGES
in
LAND VALUES**

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

During this period the Gulf Freeway has been a potential factor of influence on land values.



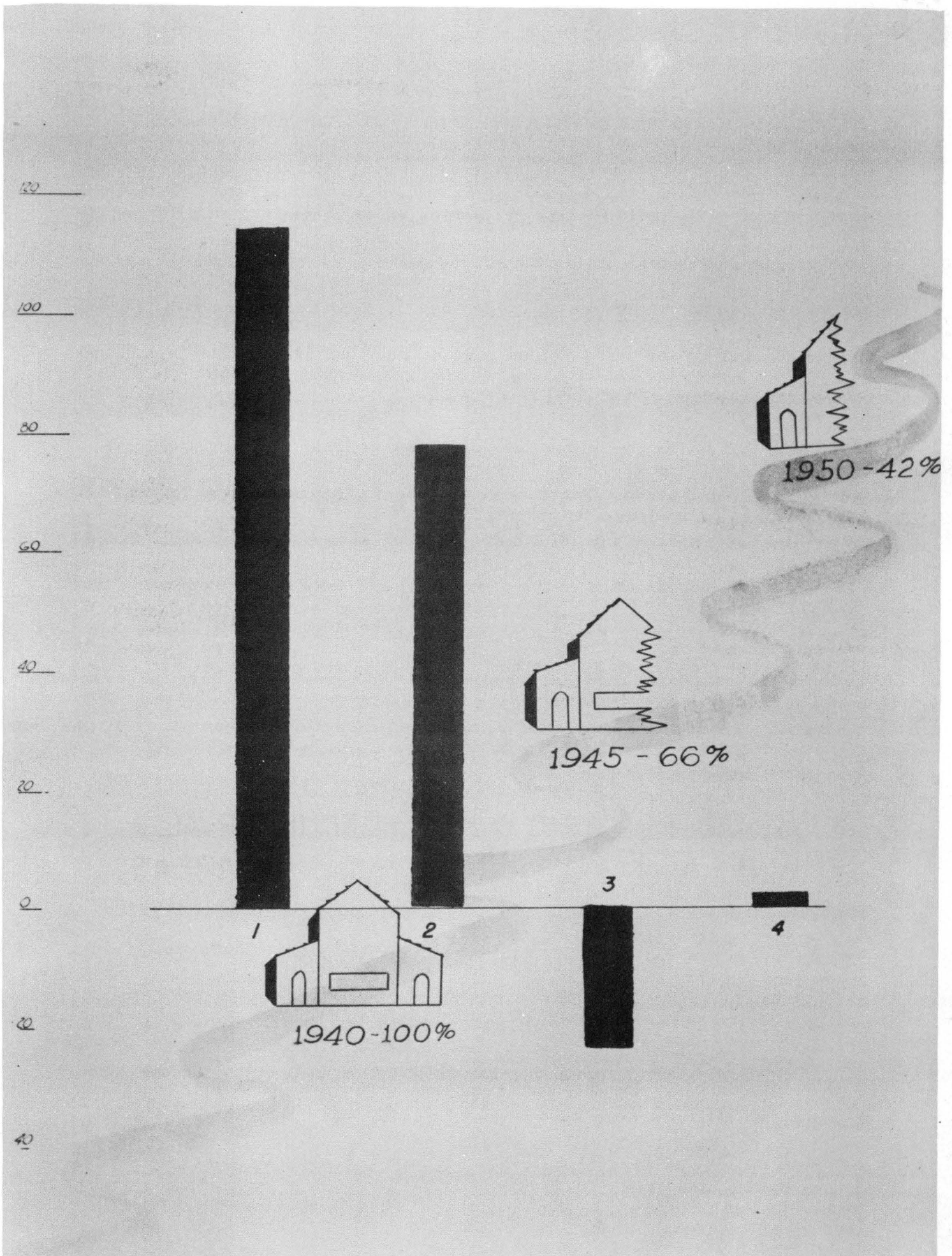
**COMPARISON OF CHANGES
in
LAND VALUES**

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

During this period the Gulf Freeway has been a potential factor of influence on land values.



REPEAT SALES

A total of 2296 bona fide sales were analyzed. Of this total number, 199 were repeat sales of 98 identical properties during the three periods covered in the study. These represent properties which were: 1, sold during the first period and resold during the second period; 2, sold during the second period and resold during the third period; 3, sold during the first period and resold during the third period; and 4, sold during the first period and resold during both the second and third periods. There are only three of the 2296 sales that fall in the fourth category. One of these was in group 1 areas and two in group 2 areas. There were 49 repeat sales made in group 1 areas involving 24 properties one of which, as noted above, was sold three times. There were 64 repeat sales in the group 2 areas involving 31 properties, two of which were sold three times. In group 3 areas there were 34 repeat sales involving 17 properties and in group 4 areas 52 repeat sales were made involving 26 properties. The ratios of repeat sales to total number of sales in each group were as shown below:

Decade including all three periods					
Group No.	1	2	3	4	Total
Total repeat sales	49	64	34	52	199
Total sales	658	599	335	704	2296
Ratio of repeat sales to total sales	7.4%	10.7%	10.1%	7.4%	8.7%

The following tabulation shows the distribution by groups for the three periods:

FIRST 5-YEAR INTERVAL

Properties sold during first period and resold during second period

Group No.	1	2	3	4	Total
Repeat Sales	36	42	26	26	130
Total sales first and second periods	553	516	266	564	1899
Ratio of repeat sales to total sales	6.5%	8.1%	9.7%	4.6%	6.8%

SECOND 5-YEAR INTERVAL

Properties sold during second period and resold during the third period

Group No.	1	2	3	4	Total
Repeat Sales	8	12	4	4	28
Total sales first and third periods	401	401	229	407	1438
Ratio of repeat sales to total sales	2.0%	3.0%	1.7%	0.98%	1.9%

10-YEAR INTERVAL

Properties sold during the first period and resold during the third period

Group No.	1	2	3	4	Total
Repeat Sales	4	8	4	22	38
Total sales second and third periods	362	281	175	437	1255
Ratio of repeat sales to total sales	1.1%	2.8%	2.3%	5.0%	3.0%

In the above, each parcel is represented by two sales, one in each of two periods, except in those three cases where the same parcel was sold in each of the three periods, in which case three separate sales were recorded.

No particular significance can be attached to the above ratios, unless it is that during the second five year interval the ratio of repeat sales to total sales in group 1 areas is approximately double that in group 4.

Of greater significance is the relative percentage increase in market values in the various groups of areas. This feature is particularly worthy of note for the second five year interval which is the period during which the facility has been a potential factor of influence on land values. The percentage gains in market value of identical properties during this interval with the improvements included, are for group 1 areas, 110%; group 2 areas, 62%; group 3 areas, 14%; and for group 4 areas, 18%. During the first five year interval, when the freeway could not have affected land values the repeat sales reflect approximately the same percentage increase in market values in groups 1 and 4. The percentage increases in the four groups were 110%, 134%, 59%, and 113% in groups 1, 2, 3, and 4 respectively. During the decade, 1940 to 1950, the repeat sales reflect increases of 141%, 477%, 157% and 101% for groups 1, 2, 3, and 4 respectively.

Tables and charts presented in the Appendix show changes in land value indicated by "repeat sales" for all four groups of areas during each of the three time intervals. These tables and charts show the percentage changes based upon total sales price, with the improvements included and with the price of the improvements separated from the total sales price at the assessed value divided by 70%. Also presented are the two procedures of separating the price of the improvements from the total sales price at the

assessed value divided by 70%: 1, multiplied by the factors based upon changes in the buying power of the dollar; and 2, multiplied by the factors based upon increased cost of construction.

The somewhat erratic results obtained by applying these factors emphasize the value of securing a sample or samples of considerable magnitude.

Although generally the trends of changes in land value are similar in direction for repeat sales as for total sales, the resulting percentage gains or losses indicated by the repeat sales are, in some cases, somewhat fantastic. This is particularly true in the case of properties in group 3 areas, sold during the second period and resold during the third period, when the factors based upon increased construction cost are applied to separate the price of the improvements from the total sales price.

The purpose of the study is to determine the effect of the "Gulf Freeway". The results of the repeat sales of identical properties bear out the results obtained from the analysis of the more than 2000 separate sales. By whatever procedure is used, the properties increased in value to a greater extent in those areas near the Gulf Freeway than in those areas farthest removed from it, after the facility became a potential factor of influence.

**COMPARISON OF CHANGES
in
LAND VALUES**

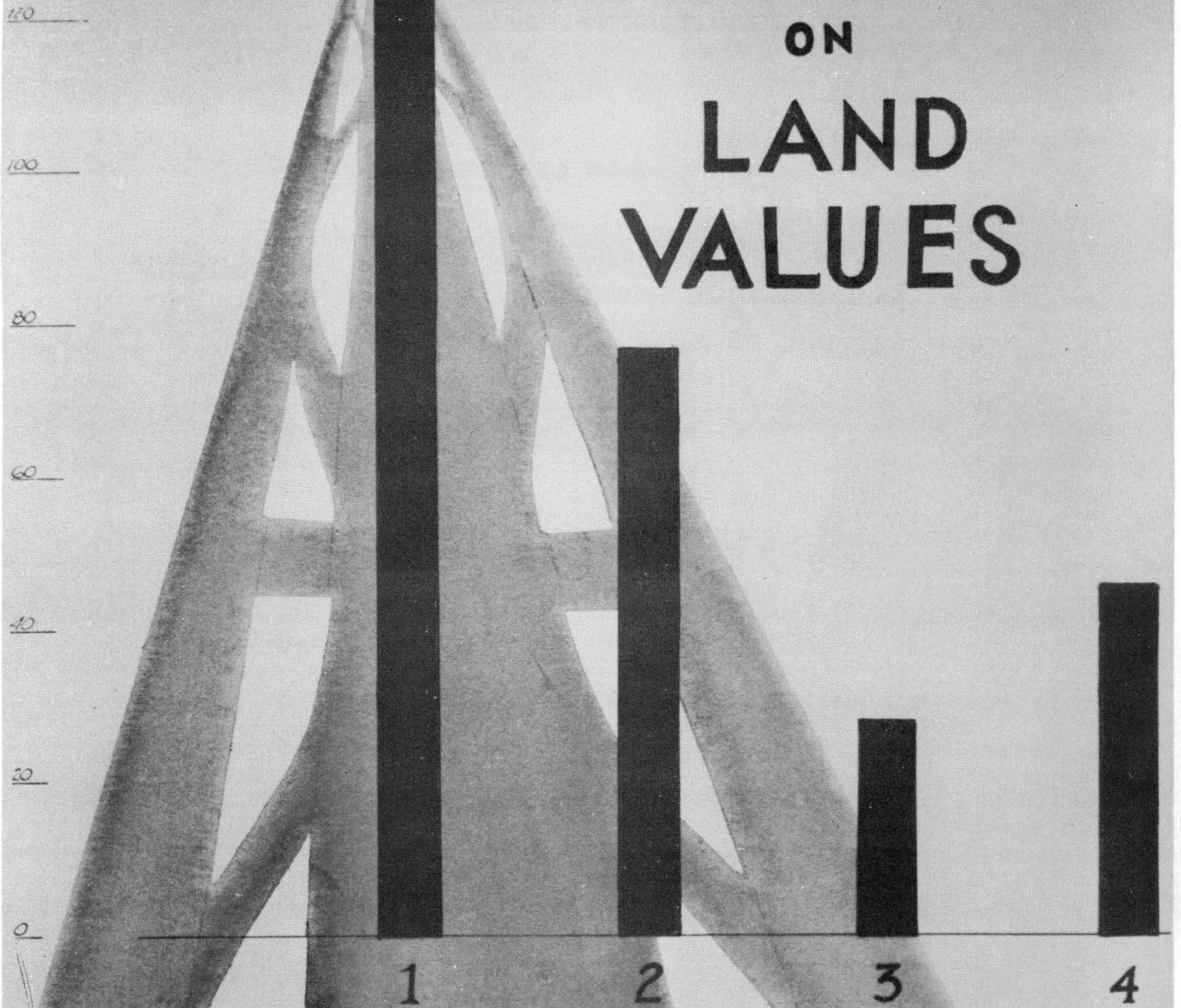
Including Improvements

REPEAT SALES

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS**

During this period the Gulf Freeway has been
a potential factor of influence on land values.

EFFECT OF GULF FREEWAY ON LAND VALUES



COMPARISON OF CHANGES IN LAND VALUES IN THE SECOND 5 YEAR INTERVAL BY METHODS 2, 3 AND 4 FROM ALL SALES AND FROM VALUES OF LAND INCLUDING IMPROVEMENTS DETERMINED FROM REPEAT SALES.

DESCRIPTION OF METHODS

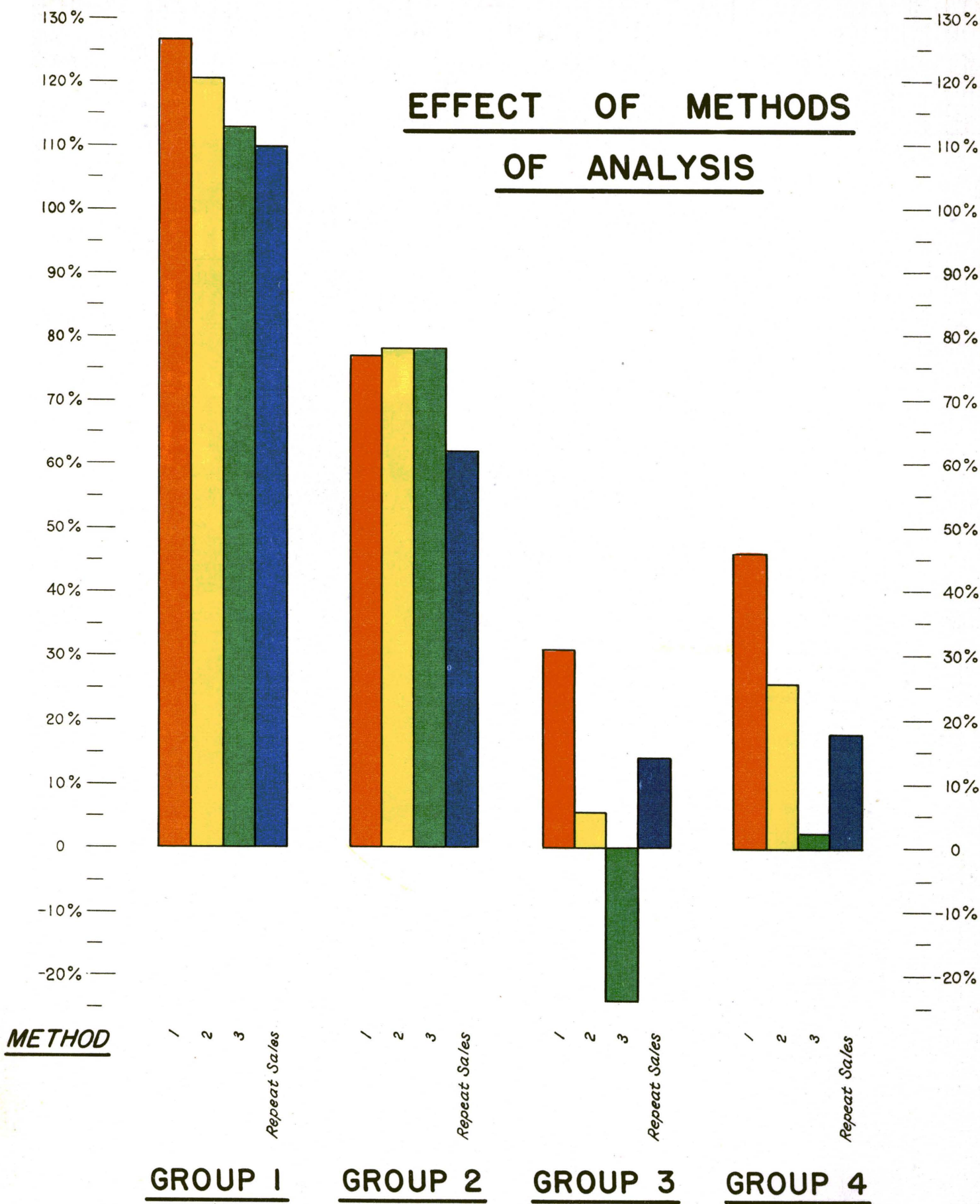
METHOD 2 - Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%.

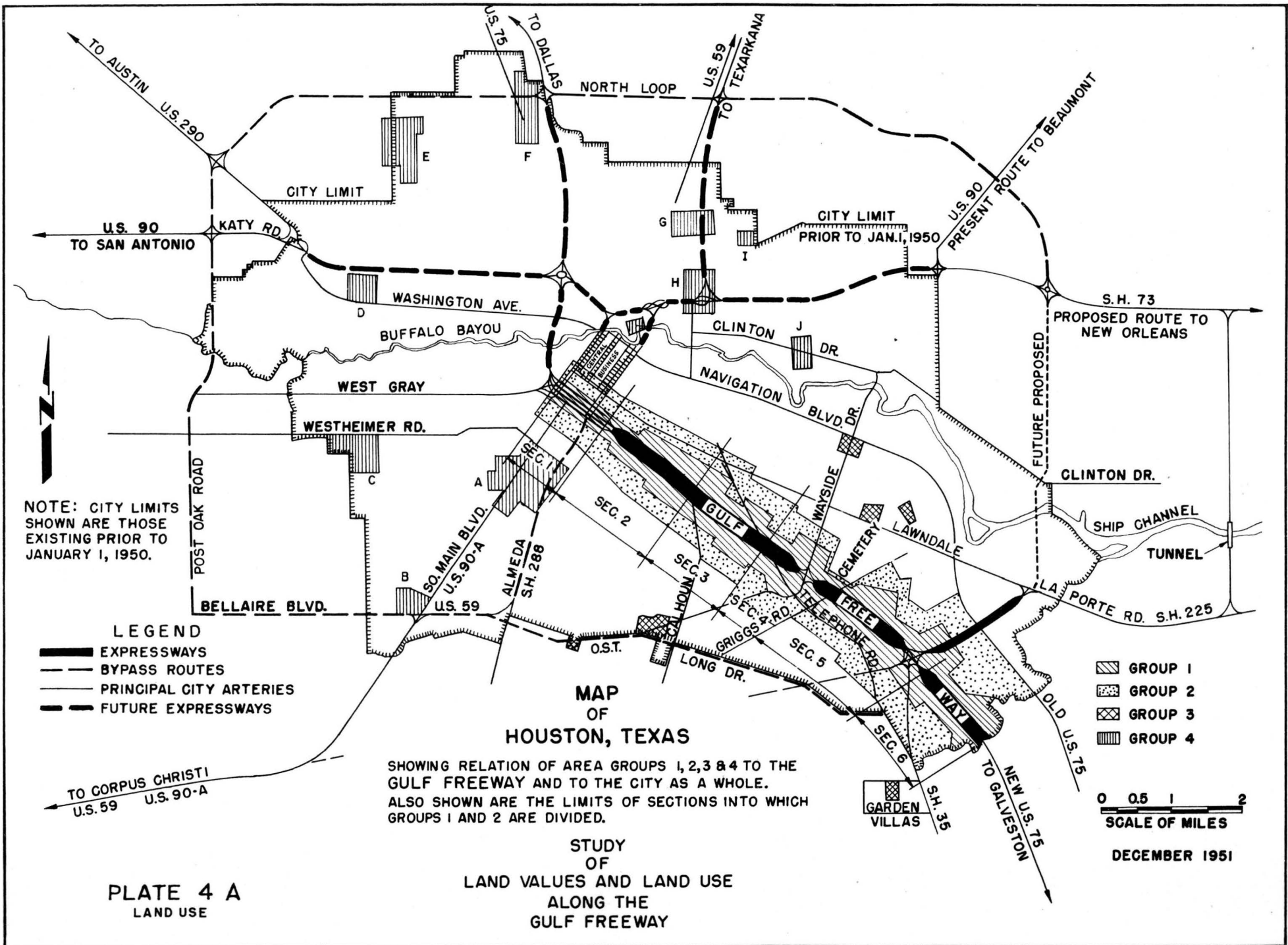
METHOD 3 - Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

METHOD 4 - Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

REPEAT SALES - Based upon sales price with improvements.

EFFECT OF METHODS OF ANALYSIS





NOTE: CITY LIMITS SHOWN ARE THOSE EXISTING PRIOR TO JANUARY 1, 1950.

LEGEND

- EXPRESSWAYS
- BYPASS ROUTES
- PRINCIPAL CITY ARTERIES
- FUTURE EXPRESSWAYS

MAP OF HOUSTON, TEXAS

SHOWING RELATION OF AREA GROUPS 1, 2, 3 & 4 TO THE GULF FREEWAY AND TO THE CITY AS A WHOLE. ALSO SHOWN ARE THE LIMITS OF SECTIONS INTO WHICH GROUPS 1 AND 2 ARE DIVIDED.

STUDY OF LAND VALUES AND LAND USE ALONG THE GULF FREEWAY

PLATE 4 A
LAND USE

LAND USE

The effect of the Gulf Freeway upon changes in land use has been much less than upon changes in land values.

Changes in land use take effect much more slowly than changes in land values and the length of time the facility has been a potential factor of influence is too brief to do more than establish a trend. Only in those sections where tracts of vacant land were located near the Freeway have changes in land use been very rapid. As the same groups of areas and the same sectioning of groups 1 and 2 were used in the survey relating to Land Use as for the study of changes in Land Values, the two can be compared. Whenever photographs showing conditions of development prior to the construction of the facility were available they have been used to indicate the "before" picture. Photographs made in recent months show the "after" picture.

Although Houston has an average population density of 6,000 persons per square mile, there are many vacant tracts, twenty to fifty acres in area, within the city limits. Several of these were located in the areas included in groups 1 and 2. Without exception those lying in these areas have been developed by the owners, sold to others for development, or are held at a price several times greater than their market value prior to the construction of the facility. In other sections of the city some of the vacant tracts have been developed, but many lie vacant, even where they are located near excellent city streets, and are no farther from the center of the city than those along the freeway.

DISCUSSION

Groups 1 and 2

Groups 1 and 2 are generally similar in all respects except that group 1 areas are adjacent to the freeway and group 2 consists of two bands of areas somewhat farther removed from the facility and lying one on either side of the group 1 area band. The lines of demarkation between the sections coincide. Reference to the Group Map Plate 4 will show the location of these two groups and also the limits of the six sections into which each group is divided. Where any considerable difference in land use exists between the two groups in the same numbered section it will be noted.

Section 1 of these groups of areas lies along the four street system which constitutes the interchange for the traffic moving between the Gulf Freeway and north-south streets leading into the central business area and to other sections of the city. These four streets and many of the north-south streets are one-way arteries, under restricted parking regulations. The area was at one time the most desirable residential section of Houston. It went through the usual transition. The fine old homes became boarding houses or were cut up into small apartments, etc. Prior to the construction of the freeway, many small businesses and offices had been established and a very few larger office buildings had been erected. Since the opening of the facility many more of the old residences have been changed into offices, supply houses, etc., and a considerable number have been removed and replaced with modern business buildings.

The large volume of fast moving traffic, together with restricted parking, is believed to have retarded development of the area to some extent. However, the trend at present appears to be toward removal of the old buildings, where several can be acquired on adjacent lots, and their replacement with new construction, part of the area being reserved for off-street parking. The photographs shown as Plates 5 and 6 show this phase of development. Plates 7 and 8 show old residences utilized as business offices, etc. Indicative of the influence of the freeway is that there are more new large buildings being erected along the four street system than in areas several blocks distant, but closer to the central business area. It is worthy of note that the market value of property in this section, including improvements, increased in value 150% during the decade from 1940 to 1950, while the same properties, with the price of the improvements separated from the total sales price, increased 267%.

Section 2, in both groups 1 and 2, consists principally of areas closely built up with inexpensive houses. It is not a true "blighted" area, as it was originally developed as a low cost residential area, but many of the houses need painting and have an unkempt appearance. The major changes in land use consist of the removal of these small houses and their replacement with modern buildings for light industries, warehouses, or wholesale establishments. There were some buildings of these types in the area prior to the construction of the freeway but others have been built since, not only in the area immediately adjacent to the facility but in group 2, the secondary area.

The two photographs shown in Plates 9 and 10 are views on opposite sides of the freeway. The wholesale business building site was occupied, prior to 1945, with houses of the type shown in the companion picture. The business building shown in Plate 11 is new. This company occupied a site which is now under the freeway. Note that they stayed as close to the facility as possible. The University of Houston is in group 2 area, south of the multi-unit apartments shown in Plate 12. These apartments were built after the freeway was started and the University had been in existence several years prior to that time.

Section 3. The larger part of the area included in group 1 of this section was vacant land, owned principally by estates. Much of it was purchased by promoters or speculators as soon as the proposed facility was assured. The tracts were subdivided into industrial sites and several of these were being built upon while the facility was under construction. The average first selling price was about 8 cents per square foot. The sales price to the business firms who have developed the properties varied from 35 to 50 cents per square foot. None of the undeveloped sites are available now at less than 50 cents per square foot. Plate 13 represents an aerial picture made in 1940 of part of this area. Plate 14 shows part of the same area in May, 1946. Plates 15 and 16 are photographs made in August 1951, showing developments in this area. The "scar" in the lower left corner of the picture made in 1946, while the freeway was under construction, is the site of the Vaughan establishment shown in Plate 16. This series of pictures represent the changes in

land use wherever vacant land in relatively large parcels was near the facility. More distant tracts in group 2 are being developed similarly, but more slowly.

Section 4, consists largely of a section of moderately priced homes, most of them built twenty or more years ago. Very few parcels of vacant land remained in the group 1 portion of this section. Several parcels of considerable extent remained vacant in the group 2 areas. Some of these tracts were acquired by developers soon after the facility was assured and are now closely built up with residences similar in class to those in group 1 area of the section. It is worthy of note that this section lies partly in census zone No. 48 which showed an increase in population from 1940 to 1950 of 286%, a greater percentage increase than any other zone in Houston. Plate 17 shows typical new development near the freeway in this section. Two of the largest tracts lying in group 2 area are owned and partly occupied by a convent and school. One of the largest cemeteries in the city is also in this section. Only one large vacant parcel adjacent to the freeway remains undeveloped. It was purchased in 1948 by a firm which has built several multi-unit apartment house projects in other locations.

Section 5, except for one large residential subdivision, consisted largely of vacant land prior to 1945. One parcel of approximately forty acres is being developed by light industrial establishments. The major portion of the vacant land was acquired by developers of residential projects. Many hundred single family units have been built in group 2 of this section. In the

portion of the section included in group 1 area many two and four family unit apartments have been built. Some of these projects provide housing for several hundred families. This section occupies the major portion of census zone 48 not occupied by section 4. Proximity to the freeway was emphasized in the sales promotion of properties in this area. Many of these projects have large community centers which provide most of the daily shopping needs. The development of this section in both group 1 and group 2 was very rapid during 1946. In group 1, adjacent to the freeway a larger part of the land was developed as multi-unit rental apartment projects and relatively few sales were made during 1949-1951. There was a leveling off of sales activity after 1946 for the simple reason that returning service men purchased most of these homes during 1946. It is interesting to note that in the areas near the facility where many tracts were developed into large rental projects the percentage increase in land value for the decade 1940 - 1950, was 286%. In the secondary area where the development was largely single family residences the corresponding percentage increase was 563%. One owner, from whom the City purchased approximately 30 acres for freeway right of way, is developing the remainder of his tract, approximately 125 acres, largely to multi-unit rental apartments. Several of the owners of large tracts were among the first to learn that the facility would be built as negotiations for right of way purchases were initiated in this area during 1946.

One tract of approximately 40 acres was purchased as a unit and approximately 25% of it has been sold in sites of one or more acres and

developed by light industry. Some of these establishments distribute their products widely over the city, making access to the freeway very desirable. Plate No. 18 shows a multi-unit rental apartment development and community center under construction in group 1, section 5. Plate No. 19 shows typical single family residences in group 2 of this section.

Section 6, includes Park Place which was a separate incorporated community prior to 1927, when it was annexed by the City of Houston. It is an integrated suburban area with its own schools, churches, civic clubs and business center. It was developed as a town site on the Galveston, Houston Electric Railway and for several years after this railway had discontinued service to Galveston, passenger service was maintained to Park Place. When service to Park Place was discontinued in the early thirties the community was badly hurt. Access to Houston proper was over two narrow inadequate roads. During the depression years it was kept alive largely by the determined civic pride of its people. During the war years the community revived to some extent due to the activation of Ellington Air Force Base, a few miles to the south and to industrial development in the Houston ship channel area east of Park Place. There was a considerable amount of opposition to the construction of the freeway in the beginning; particularly so, when it was learned that the 300 feet of right of way required would practically obliterate the small business center which had been developed along the much narrower abandoned railway right of way. Most of these business firms used the money they received from the City for right of way, to acquire the best

available sites as near the facility as possible, and erected new business buildings. Although the Gulf Freeway will not be in operation to ParkPlace until 1952 construction has been underway for several months.

The impact upon this community has been phenomenal. In group 1 areas of this section the increase in land values with the price of the improvements separated from the total sales price at the assessed value divided by 70% has been 1057% during the decade from 1940 to 1950. The effect upon the areas in the secondary zone, group 2, has not been very great. It is believed that this may be due partly to much of the land being held by owners who are awaiting the completion of the facility before developing. Scarcity of building material and caution due to uncertainty concerning the future may have retarded development during recent months.

The division of the areas included in groups 1 and 2 into sections was for the purpose of showing the changes in land use of various types of development adjoining the freeway or near enough to it to lie within the zones of primary or secondary influence.

GROUP 3

The areas included in group 3 are similar in type to areas in groups 1 and 2 but were selected primarily because they are near enough to the facility for it to be a potential factor of influence. The sections included in this group are accessible to the freeway but also have access, over other routes, to the central business district and to all parts of the city.

The survey discovered very little evidence of the facility having any in-

fluence upon land use in these areas. The traffic survey indicated that some of these sections supplied a considerable volume of traffic to the freeway, even where the travel distance was greater and the route less direct. Any influence exerted thus far may be negative. Group 3 areas, located in the same quadrant of the city as those areas near the facility, may have suffered due to the desire of people and businesses to be near the freeway. Vacant land has remained vacant, whereas along the freeway very little vacant land remains. Further evidence of this trend is indicated by the percentage change in land values. These increased less in this area during the five year interval after the freeway was started than in group 4 areas which lie outside of any probable zones of influence. These same group 3 areas had a greater average percentage increase in land values during the five year interval prior to 1945 than any other areas studied, including those adjacent to the Gulf Freeway. The above trend may have been due to some other influence such as a newer, more attractive subdivision being developed nearby but slightly less accessible via the routes which determined the selection of these particular areas. No other evidence indicating a negative influence of the facility was found during the development of the study.

GROUP 4

This group consists of ten areas widely distributed over all sections of the city except the southeast quadrant through which the Gulf Freeway passes. Thorough investigation was made in the selection to include areas which would be as closely similar as practicable to the various areas in groups 1

and 2. Included in the group is a section that is changing from what was formerly a desirable residential district, through the remodeling stage to boarding houses, business offices, etc., and finally to the replacement of these old residences with new business buildings. This area is located about one and one half miles south of section 1, group 1, and is comparable to it in every way. An area north of Buffalo Bayou in the northeast quadrant of the city was selected because it was similar in every respect, except proximity to the freeway, to the areas included in section 2. Both of these areas are densely populated, settled by Negroes, and almost equidistant from the central business area. Investigations made in the area north of the Bayou in recent months have shown no changes in land use of consequence. The pictures presented with the discussion of section 2 show the changes taking place along the facility. Plate 20 is a photograph showing the class of development typical of the area. The area shown on the group map located near Westheimer Road contains much vacant land and is only slightly farther from the central business district than section 3 of groups 1 and 2. River Oaks, with the most expensive homes in the city, is just across the road. The finest high school in the city is in this area and good city streets afford ready access to the central business district. Some business buildings and residences have been built in the area but at least half of the land is undeveloped. The areas along Washington Avenue and North Shepherd (U.S. 75) though slightly farther from the center of the city are in many ways similar to the areas in section 4 of groups 1 and 2. They contained settled residential

sections, with ribbon business developments along the main arteries. The areas adjoining South Main Boulevard near the south city limit is nearer the center of the city than sections 5 and 6 of groups 1 and 2 but was similar in class of development to those areas prior to the construction of the freeway. Considerable vacant land was in this area and it has been largely developed into a desirable residential section. No business establishments have been built except one community center, due to building restrictions. The various areas included in group 4 when considered as a group are comparable to groups 1 and 2.

CONCLUSIONS

Changes in land use develop much more slowly than changes in land values and the first areas to be affected are vacant land. The most obvious effect of the freeway is that very few of the tracts near the facility which were vacant prior to its construction remain undeveloped, while many tracts equally well located, except for proximity to the facility, lie vacant. The development of the vacant lands adjoining the facility has been largely by businesses or industries which distribute their products widely over the city or over the state. This is particularly true of those sections nearer the center of the city. Vacant lands in the secondary zones of influence have, with few exceptions, been developed as residential sections. A trend appears to have been established but the period of time has been too brief to show a definite conclusive effect. Further studies over a longer period of time will be required to determine the full effect of the facility upon land use.

LAND USE
PICTORIAL PRESENTATION

The following plates are presented to show changes in land use along the freeway, and also to show types of development in other areas for the purpose of comparison.

Plates numbered 5 to 21, inclusive, depict changes in land use along the facility in areas of groups 1 and 2, and plates numbered 22 to 32, inclusive, show land use and types of development in group 4 areas which are so far removed from the facility as to be outside the zones of influence. The objective is to show that the areas included in group 4 are similar to those in groups 1 and 2 in every respect except for proximity to the Gulf Freeway.

Plates numbered 13 to 16, inclusive, show the outstanding example of the effect of the facility upon changes in land use. This example is also presented in the text, both as relates to land use and to land values.

The group map Plate 4-A shows the wide distribution of the areas included in group 4.

PICTORIAL PRESENTATION

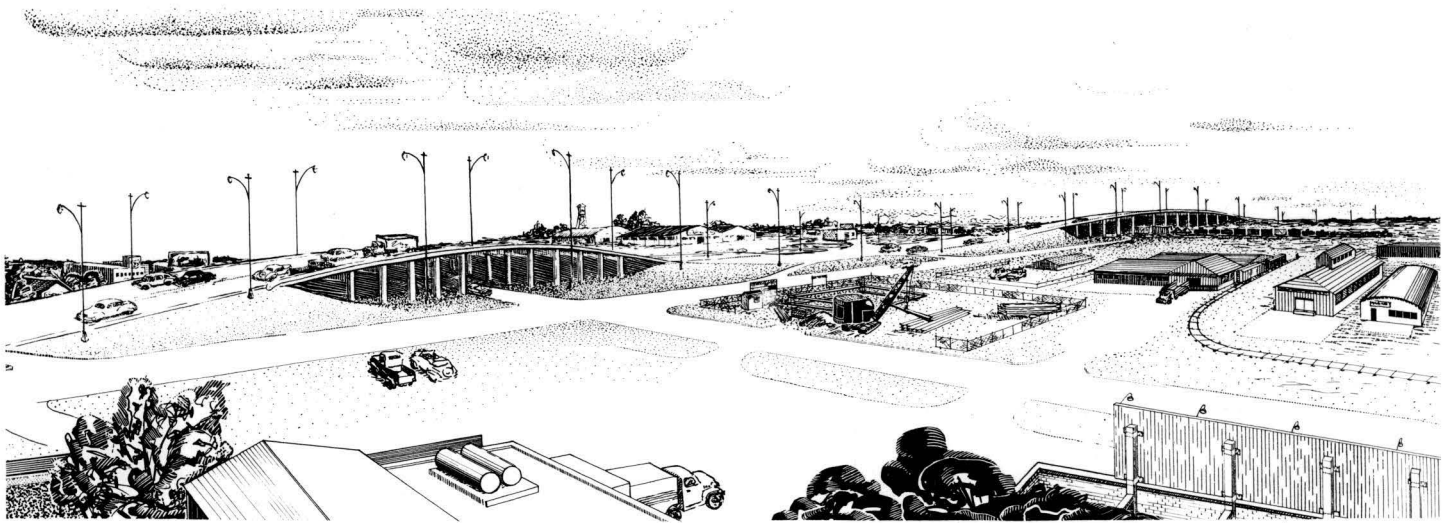




PLATE 5

New Office Building, Section 1, Group 1



PLATE 6
Off-Street Parking, 4-Street System - Section 1, Group 1



PLATE 7
Old Residences Changed to Business Offices - Section 1, Group 1

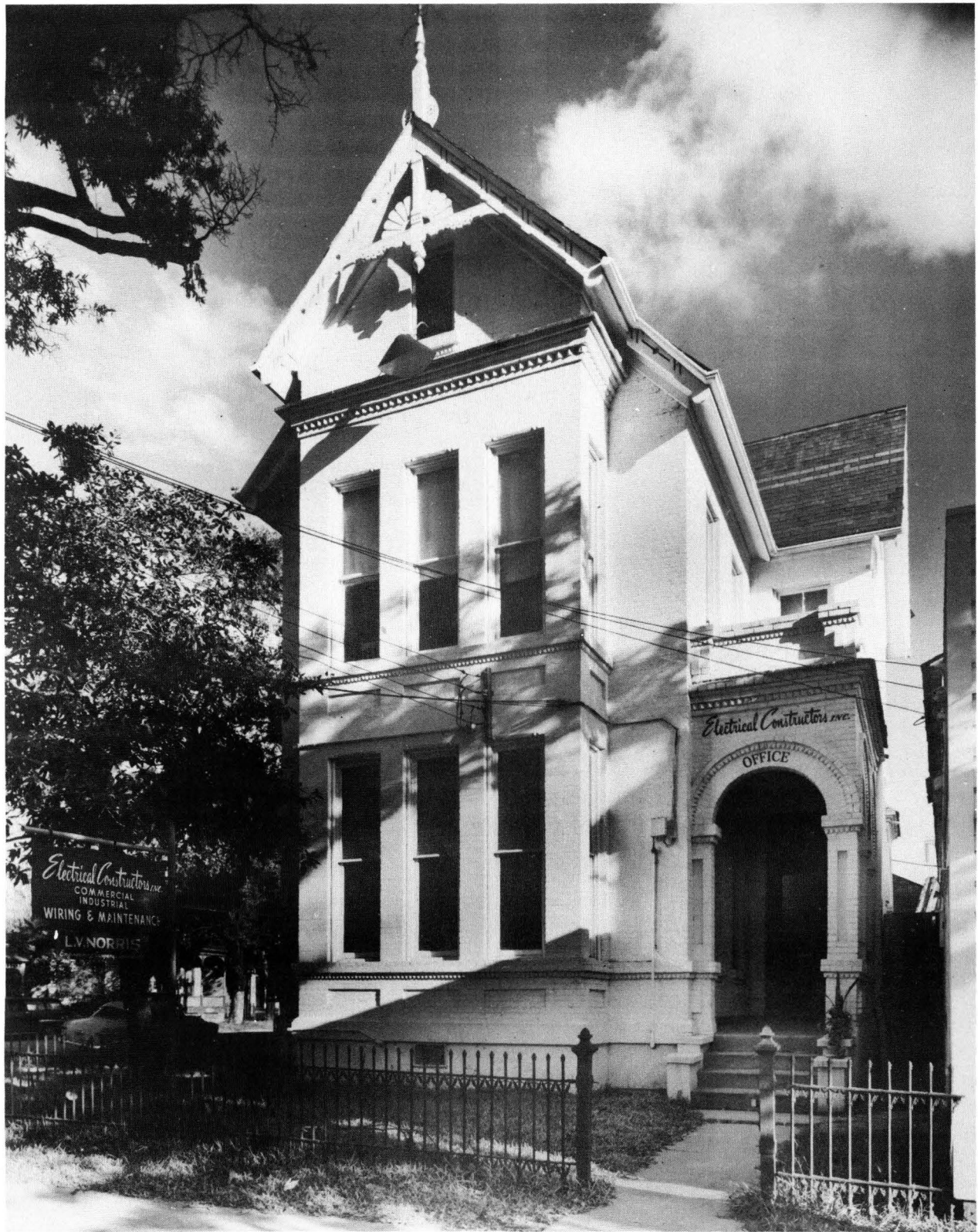


PLATE 8
Old Residence Changed to Business Offices - Section 1, Group 2



PLATE 9
Business Building - Section 2, Group 1



PLATE 10
Across Freeway From Building - Plate 9



PLATE 11

New Building, Old Site Now Part of Freeway R.O.W. - Section 2, Group 1



PLATE 12

New Multi-unit Apartments - Section 2, Group 1



PLATE 13

Aerial View Lombardy and H. B. & T. R. R. Area - Made in 1940



PLATE 14

Covers Same Area as Plate 13 - Showing Conditions in May, 1946

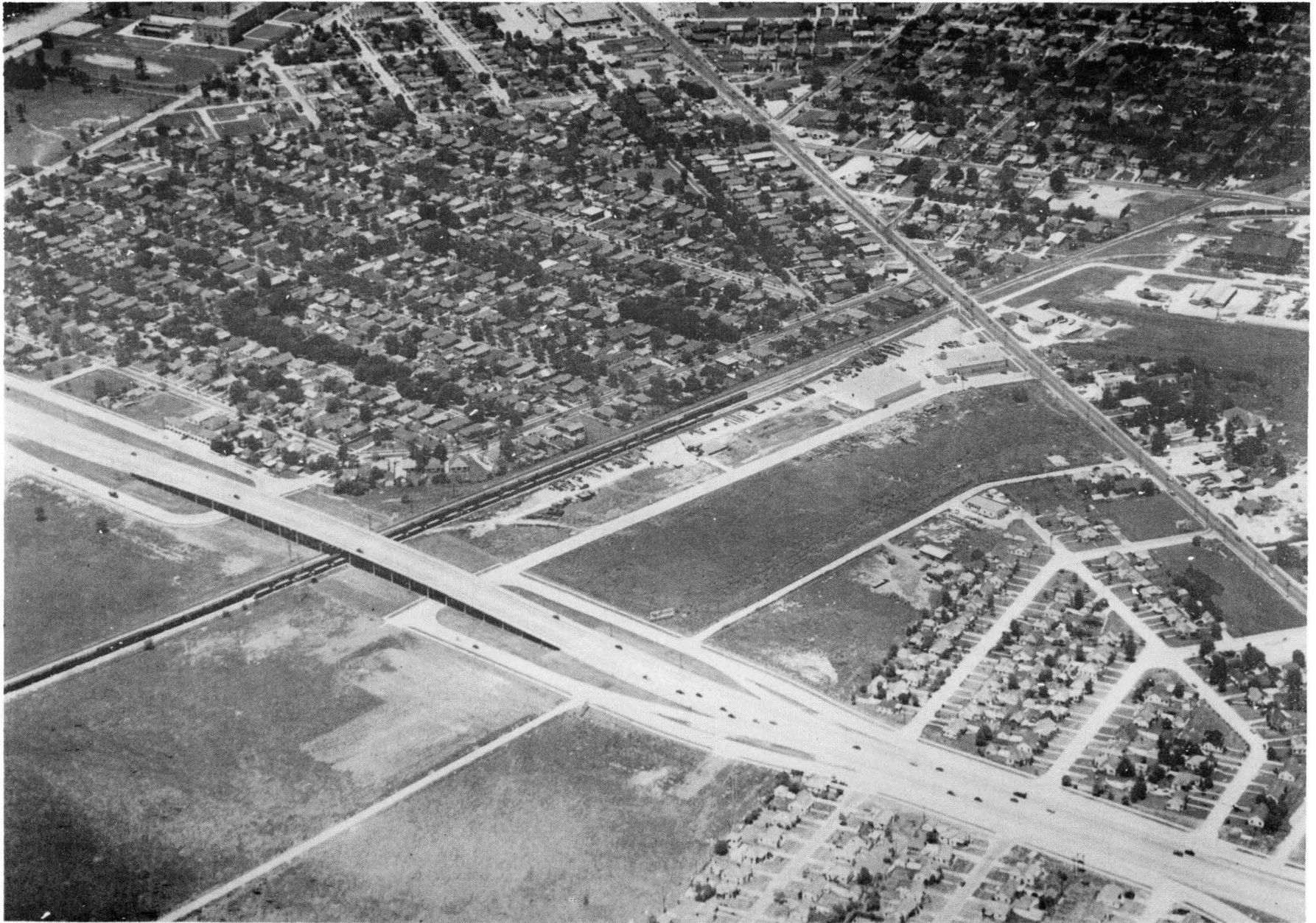


PLATE 14-A

Aerial View of Part of Area Shown in Plates 13 and 14 - Made in 1948
Soon After the Freeway Had Been Opened to Traffic



PLATE 15-A
New Warehouses North of Freeway - Section 3, Group 1



PLATE 15-B
New Industry South of Freeway - Section 3, Group 1
Both of Above Developments Are in Area Shown in Plate 13



PLATE 16-A

Development South of Freeway - Section 3, Group 1

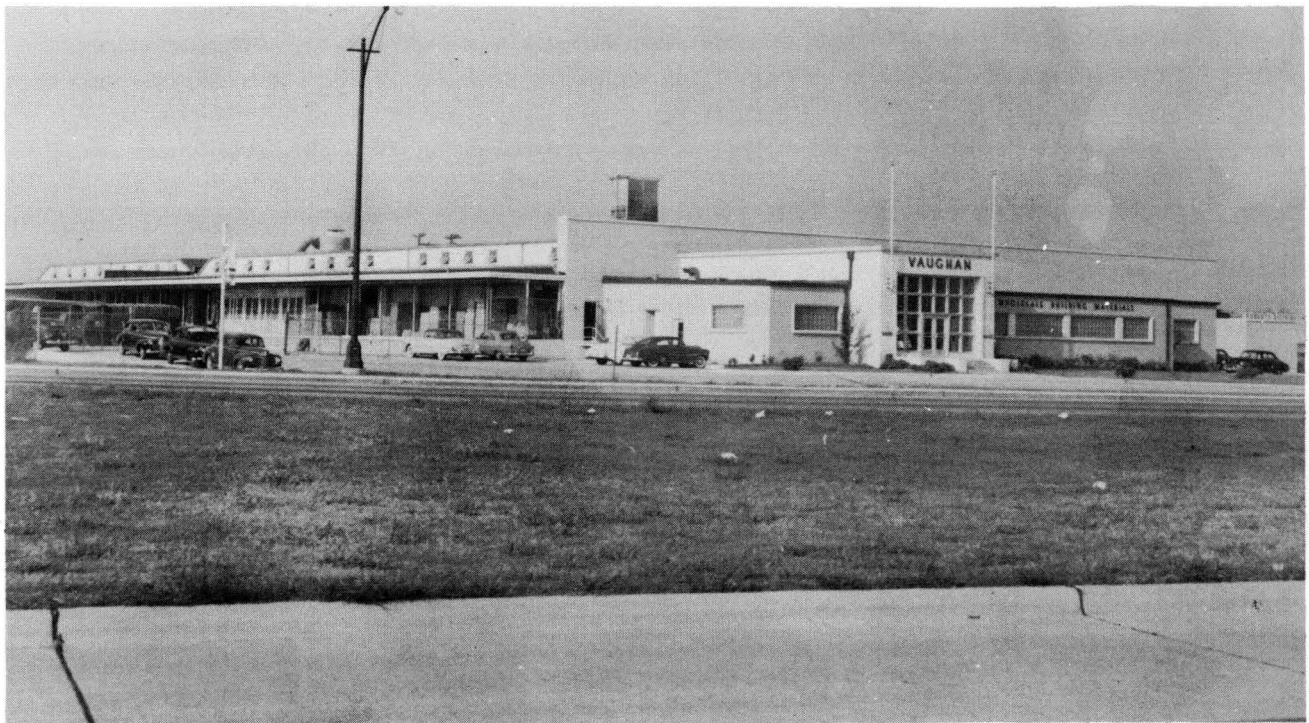


PLATE 16-B

Development South of Freeway - Section 3, Group 1
Both of Above Developments Are in Area Shown in Plates 13 and 14



PLATE 17-A
Light Standard is Between Off-Ramp and Frontage Road



PLATE 17-B
Both of Above Views Show New Buildings - Section 4, Group 1

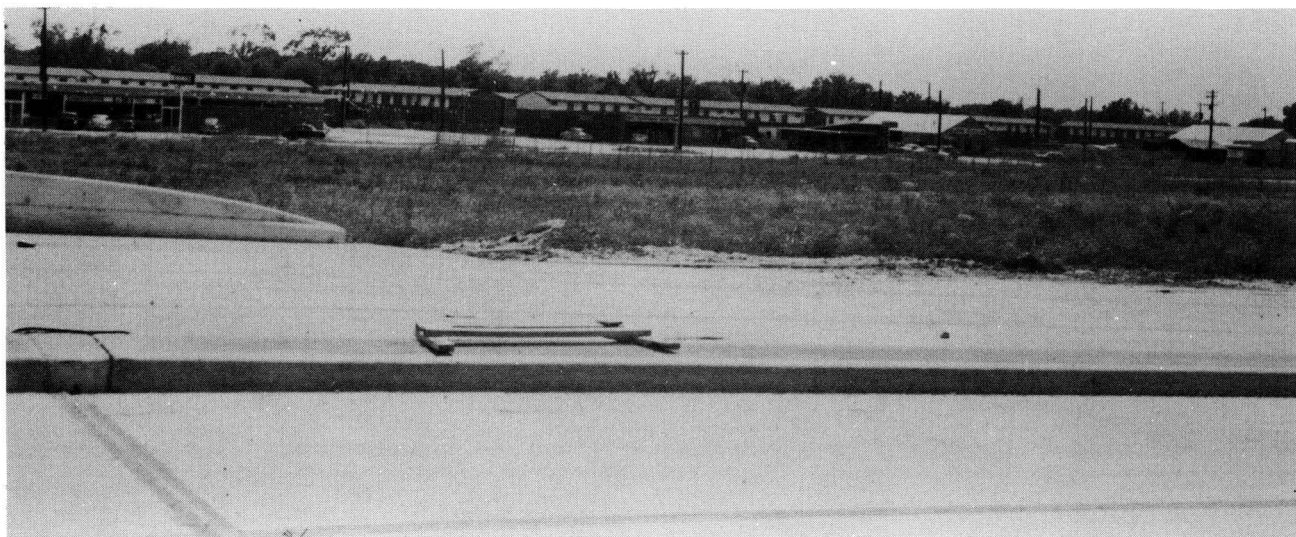


PLATE 18
Multi-unit Apartments - Section 5, Group 1



PLATE 19
Single Family Residences - Section 5, Group 2



PLATE 20

New Buildings in Park Place - Section 6, Group 1
Old Site of Drug Store in Center Above Was Purchased For R.O.W.



PLATE 21

New Light Industry Development - Section 5, Group 1



PLATE 22



PLATE 23

Showing Development in Area A, Group 4 Comparable to Development
in Section 1, Groups 1 and 2 and Shown in Plates 5, 6, 7 and 8



PLATE 24

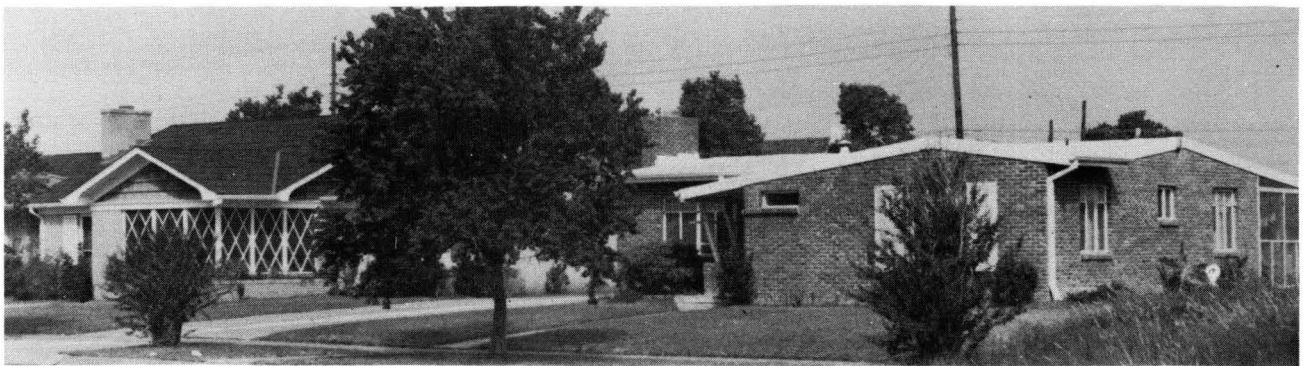


PLATE 25-1



PLATE 25-2

Above 3 Plates Show Business Center and Residences in Area B, Group 4



PLATE 26
Business Buildings North Side of Area C, Group 4



PLATE 27
Vacant Tract, Apartment Development in Background - Area C, Group 4
One of Several Vacant Tracts in This Area, Approximately Equidistant
From Central Business District as Section 4, Group 1
Where no Tracts Remain Vacant



PLATE 28

Vacant Tract in Area D, Group 4. Equidistant to Central Business District as Section 3, Groups 1 and 2. Foreground is on Railroad R.O.W.



PLATE 29

Business Block in Area D, Group 4. On Washington Avenue



PLATE 30
Typical Residences and Business Blocks - Areas E and F, Group 4
Similarly Located Except for Proximity to the Freeway
as Sections 6 and 4, Group 1

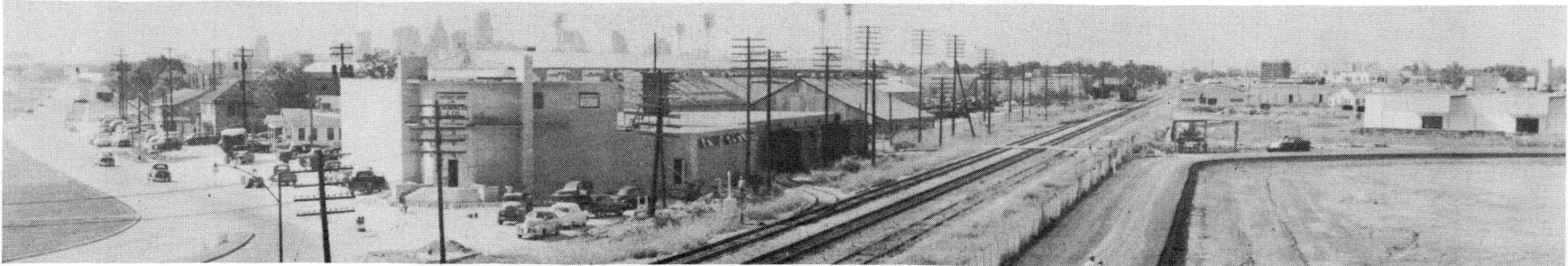


PLATE 31

Business Block Jensen Drive and Quitman Street - Residences Near Whitty and Sumpter Streets
Area H, Group 4 - Similar, Except Proximity to Freeway to Section 2, Group 1



In Section 2, Group 1



In Section 3, Group 1



In Area J, Group 4

PLATE 32
Showing Types of Industry in Area Groups 1 and 4

JUST A FINAL WORD

It was emphasized when the study was initiated that it should be an objective study, and the chips will remain where they fall.

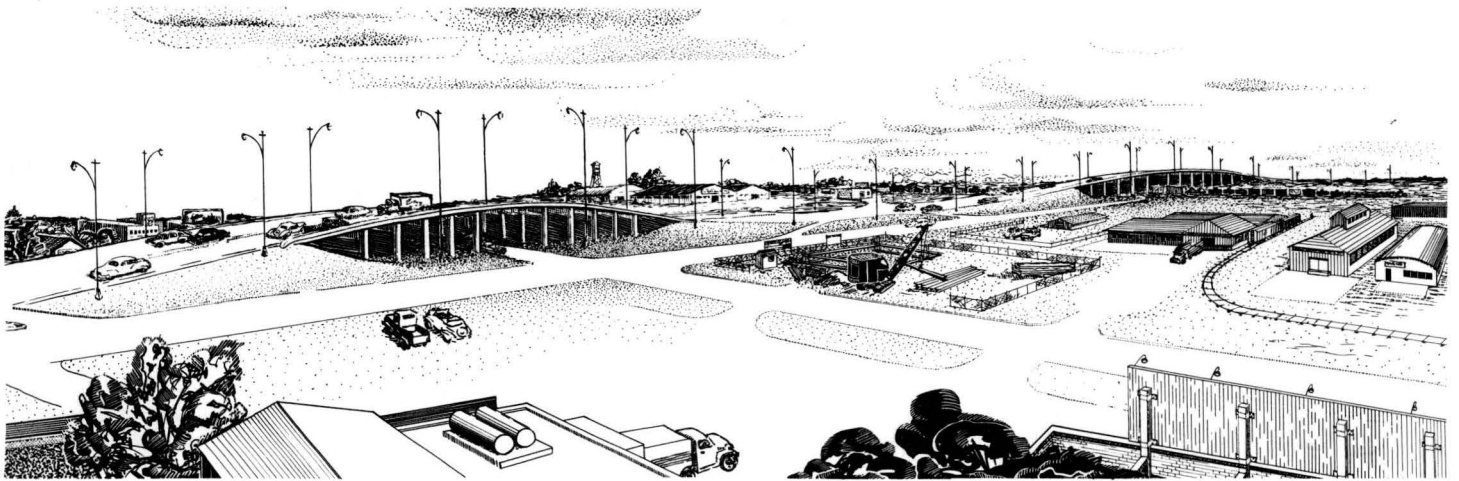
The assessed valuation of all taxable properties located in group 1, the primary zone of influence of the Gulf Freeway, is \$10,436,984. The actual present day market value of these properties is probably in excess of \$40,000,000. The Study shows the average per cent gain or increase in market value of all properties sold in this zone during the five year period immediately subsequent to the facility becoming a factor of influence upon land values to be 103%. The comparable increase in those areas so far removed from the facility as to be beyond any zone of probable influence was 50%. This reflects a 53% greater gain for all property within the primary zone of influence than for properties not affected by the freeway. If assessments could be increased in the primary area in proportion to the increased gain in market values due to the effect of the freeway, the additional annual revenue would aid materially in reimbursing the city for the cost of rights of way.

The analysis of "repeat sales" of identical properties sold and resold after the freeway became a potential factor of influence in the community indicates that a property owner in the primary zone of influence had approximately two times as many opportunities to resell as did the owner in the zones beyond the influence of the facility. It is also indicated that he not only could have resold twice as easily but have gained 110% on his investment while the owner in the zone of no influence would have made a profit of only 18%.

This is where the "chips fell". Here they remain.

APPENDIX

TABLES AND CHARTS

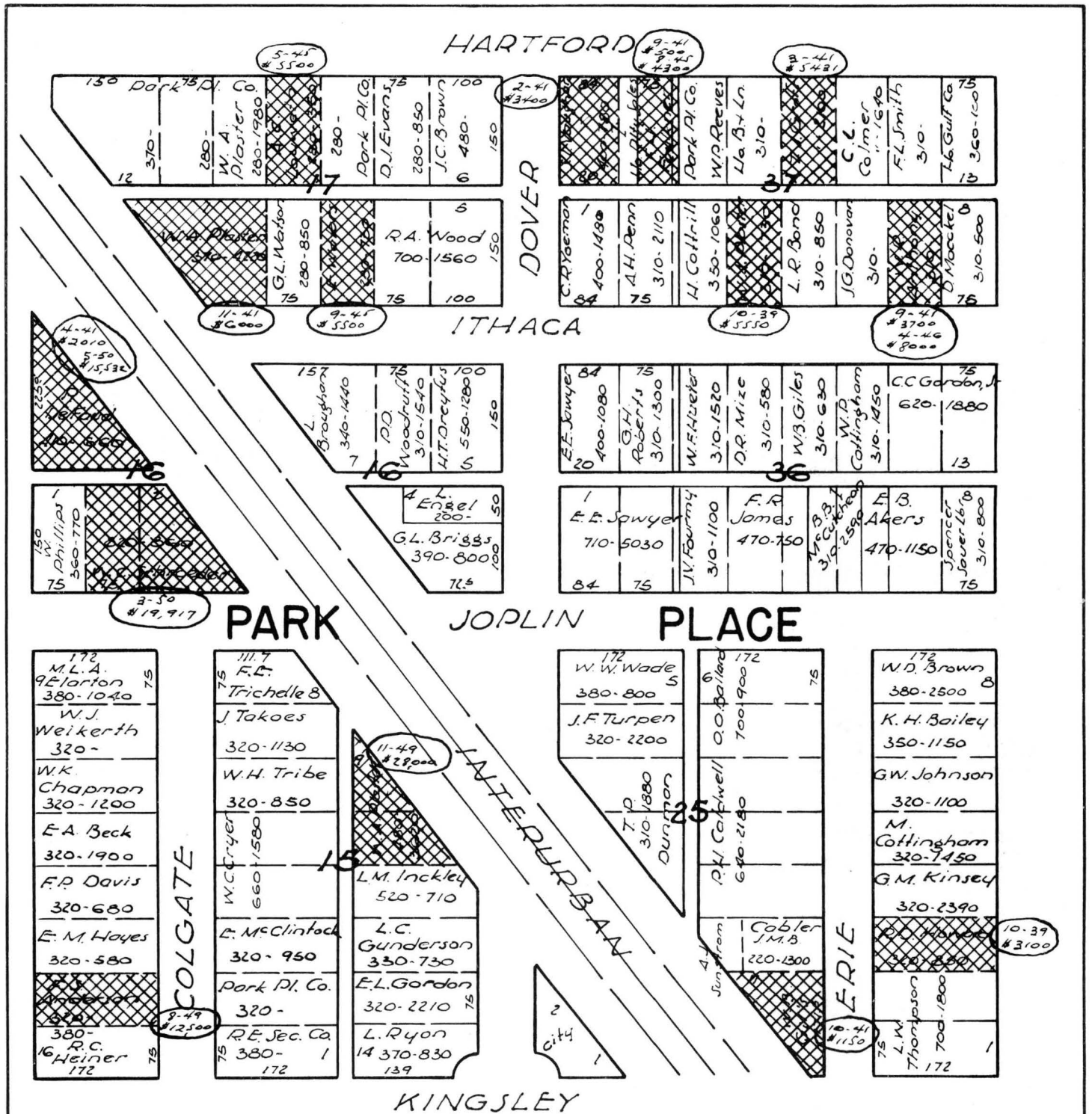


SHOWING DETAILS OF ANALYSIS OF
2296
SALES OF REAL PROPERTY

APPENDIX
PRESENTATION
OF
DATA

A total of 2296 property sales were analyzed. They are distributed by parcels into groups as follows: Group 1, 658; Group 2, 599; Group 3, 335; and Group 4, 704. Of these sales 858 were made during the first period, 1041 during the second and 397 during the last period.

Groups 1 and 2 are each divided into six section, each section representing a different type of development described in the Outline under the subhead, Sectionizing of Groups 1 and 2. These sections are located in numerical order according to their proximity to the central business area, No. 1 being nearest and No. 6 the farthest removed. The Group Map, Plate 4, shows the limits of the sections.



A TYPICAL BLOCK MAP
 WITH THE SALES DATA
 SUPERIMPOSED THEREON

FIGURE 1A

TYPICAL TABULATION SHEET

Assessed Value of Improvements	Block Map No.	City Block No.	Lot Nos.	Area Sq. Ft.	Date of Sale	Total Sales Price	Price p. s. f.
\$ 1,100	10	250	8	5,000	7/46	\$ 8,000	\$ 1.60
11,470	10	250	9 & 10	10,000	2/46	40,000	4.00
2,450	10	249	9, 10 & pt. of 8	12,500	3/41	10,000	0.80
730	10	249	pts. of 3, 4 & 5	6,250	3/46	14,000	2.24
1,350	10	248	pt. of 11	12,500	12/39	7,000	0.56
3,750	10	124	pt. of 12	12,500	10/41	9,500	0.76
4,100	10	127	1/2 of 7 & 8	5,000	9/45	17,500	3.50
3,000	10	128	S. E. 1/4 of Block	15,625	5/46	45,000	2.88
4,000	10	131	pts. 9 & 10	6,250	6/40	38,181	6.11
10,000	12	Holman 6 (1)	Entire Block	50,000	4/41	36,000	0.72
2,200	12	Holman 6 (2)	7 & 8	10,000	11/45	10,500	1.05
2,000	12	Holman 6 (4)	7	6,250	4/41	4,210	0.67
700	12	Holman 6 (3)	8 plus pts. 10 & 11	7,500	4/46	7,000	0.93
700	12	Repeat Sale	8 plus pts. 10 & 11	7,500	8/50	13,000	1.73

FIGURE 2

GROUP NO. I
BLOCK MAP NO. 221

FIRST PERIOD			SECOND PERIOD			THIRD PERIOD		
Assessed Value of Improvements	Area Sq. Ft.	Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Sales Price
\$ 700	5,000	\$ 3,200	\$ None	5,000	\$ 2,500	\$ 1,250	10,000	\$12,500
1,520	5,000	3,500	None	5,000	1,500	None	5,000	2,500
460	5,000	1,330	100	5,000	950	1,800	10,000	11,000
1,080	5,000	3,500	1,220	10,000	3,500	None	10,000	14,000
1,070	10,000	3,500	350	5,000	4,500	None	26,000	9,500
290	5,000	1,700	None	50,000	21,000	1,980	5,000	25,000
600	5,000	1,483	None	5,000	4,500			
100	5,000	1,500	None	5,000	1,500			
None	5,000	3,760	700	5,000	5,000			
1,000	5,000	2,100	750	5,000	4,500			
			1,390	5,500	3,000			

6,820	55,000	25,573	4,510	105,500	52,450	5,030	66,000	74,500
± 70% 9,743		- 9,743	6,443		- 6,443	7,186		- 7,186
Less Imp. ± 70%		15,830			46,007			67,314
Price p. s.f. with imp.		\$ 0.46		\$ 0.50			\$ 1.13	
Per cent gain 1st. 5 yrs. .04/.46 = 9%. Per cent gain 2nd. 5 yrs. .63/1.13 = 57%. Per cent gain 10 yrs. .67/1.13 = 59%.								
Price p. s.f. less imp.		\$ 0.29		\$ 0.44			\$ 1.02	
Per cent gain 1st. 5 yrs. .15/.29 = 52%. Per cent gain 2nd. 5 yrs. .58/.44 = 132%. Per cent gain 10 yrs. .73/.29 = 252%.								

FIGURE 3

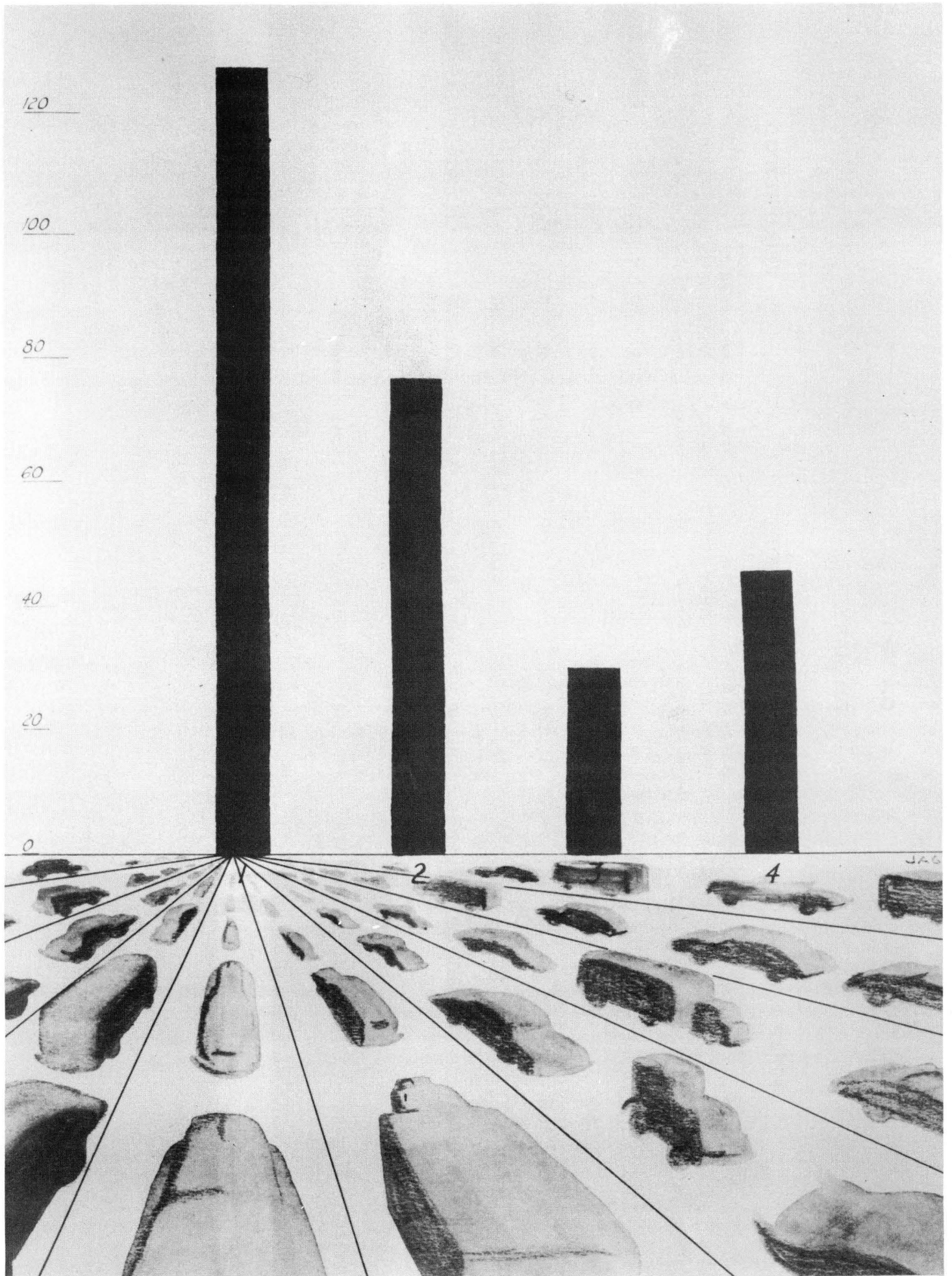
**COMPARISON OF CHANGES
in
LAND VALUES**

Based upon separating the price of the improvements
from the total sales price at the assessed value
divided by 70%.

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

During this period the Gulf Freeway has been
a potential factor of influence on land values.



GROUP 1

SUMMARY

Sec. No.	FIRST PERIOD			SECOND PERIOD			THIRD PERIOD		
	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price
1	\$ 135,580	338,042	\$ 548,651	\$ 84,760	428,447	\$ 773,265	\$ 47,390	198,625	\$ 833,270
2	20,780	385,235	134,276	28,550	490,523	298,904	10,700	181,125	259,000
3	82,865	329,588	180,835	51,100	235,628	280,130	48,850	170,328	290,900
4	44,927	328,300	139,832	73,720	671,624	427,794	12,304	72,750	103,000
5	30,190	154,510	77,170	65,740	300,824	310,276	22,860	149,975	159,947
6	59,300	1,102,211	158,555	44,480	428,823	224,050	27,770	245,709	239,715
Total	373,642	2,637,886	1,239,319	348,350	2,555,869	2,314,410	169,874	1,018,512	1,885,832
Imp. ÷ 70%	533,774		533,774	497,643		497,643	242,677		242,677
Value of land less improvements			705,575			1,816,767			1,643,155

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TABLE 1

GROUP 1

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	2,637,886	2,555,869	1,018,512
Total sales price of all parcels	\$1,239,319	\$2,314,410	\$1,885,832
Average price per sq. ft. with improvements	\$ 0.47	\$ 0.91	\$ 1.85
Total assessed value of improvements	\$ 373,642	\$ 348,350	\$ 169,874
Assessed value of improvements ÷ 70%	\$ 533,774	\$ 497,643	\$ 242,677
Value of land, less improvements	\$ 705,545	\$1,816,767	\$1,643,155
Computed value of land only, per sq. ft.	\$ 0.27	\$ 0.71	\$ 1.61
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, with improvements	.91/.47	1.85/.91	1.85/.47
Gain or Loss	94%	103%	294%
Per cent change, land only	.71/.27	1.61/.71	1.61/.27
Gain or Loss	163%	127%	496%

TABLE 2

GROUP 2

SUMMARY

FIRST PERIOD

SECOND PERIOD

THIRD PERIOD

Sec. No.	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price
1	\$ 181,000	668,929	\$1,834,687	\$ 422,890	935,395	\$2,679,450	\$ 51,423	324,010	\$1,156,070
2	30,040	183,152	122,346	40,320	320,078	335,600	9,710	120,250	169,494
3	39,670	234,270	116,645	44,970	189,047	237,725	31,150	103,920	191,500
4	31,860	333,410	105,588	48,580	336,595	266,029	24,010	104,530	173,700
5	38,490	942,036	128,745	133,140	1,149,041	690,210	13,872	192,630	122,505
6	18,740	468,307	77,545	47,640	543,525	255,558	7,070	122,700	53,500
Total	339,800	2,830,104	2,385,556	737,540	3,473,681	4,464,572	137,235	968,040	1,867,269
Imp. ÷ 70%	485,428		485,428	1,053,629		1,053,629	196,050		196,050
Value of land less improvements			1,900,128			3,410,943			1,671,219

001

TABLE 3

GROUP 2

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	2,830,104	3,473,681	968,040
Total sales price of all parcels	\$2,385,556	\$4,464,572	\$1,867,269
Average price per sq. ft. with improvements	\$ 0.84	\$ 1.29	\$ 1.93
Total assessed value of improvements	\$ 339,800	\$ 737,540	\$ 137,235
Assessed value of improvements ÷ 70%	\$ 485,428	\$1,053,629	\$ 196,050
Value of land, less improvements	\$1,900,128	\$3,410,943	\$1,671,219
Computed value of land only, per sq. ft.	\$ 0.67	\$ 0.98	\$ 1.73
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, with improvements	1.29/.84	1.93/1.29	1.93/.84
Gain or Loss	54%	50%	130%
Per cent change, land only	.98/.67	1.73/.98	1.73/.67
Gain or Loss	46%	77%	158%

TABLE 4

GROUP 3

SUMMARY

	FIRST PERIOD			SECOND PERIOD			THIRD PERIOD		
	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price
	\$ 117,310	931,066	\$ 349,639	\$ 253,860	1,295,653	\$ 1,202,866	\$ 149,100	611,835	\$ 731,100
Value of imp. ÷ 70%	167,586		167,586	362,657		362,657	213,000		213,000
Value of land less improvements			182,053			840,209			518,100

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GROUP 3

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	931,066	1,295,653	611,835
Total sales price of all parcels	\$ 349,639	\$1,202,866	\$ 731,100
Average price per sq. ft. with improvements	\$ 0.38	\$ 0.93	\$ 1.19
Total assessed value of improvements	\$ 117,310	\$ 253,860	\$ 149,100
Assessed value of improvements ÷ 70%	\$ 167,586	\$ 362,657	\$ 213,000
Value of land, less improvements	\$ 182,053	\$ 840,209	\$ 518,100
Computed value of land only, per sq. ft.	\$ 0.20	\$ 0.65	\$ 0.85
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, with improvements	.93/.38	1.19/.93	1.19/.38
Gain or Loss	145%	28%	213%
Per cent change, land only	.65/.20	.85/.65	85/.20
Gain or Loss	225%	31%	325%

TABLE 6

GROUP 4
SUMMARY

104

	FIRST PERIOD			SECOND PERIOD			THIRD PERIOD		
	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price	Assessed Value of Improvements	Area Sq. Ft.	Total Sales Price
	\$ 576,395	2,654,970	\$ 1,894,562	\$ 427,230	2,154,848	\$ 2,912,972	\$ 377,640	1,158,054	\$ 2,350,065
Value of imp. ÷ 70%	823,421		823,421	610,329		610,329	539,485		539,485
Value of land less improvements			1,071,141			2,302,643			1,811,480

TABLE 7

GROUP 4

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.




	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	2,654,970	2,154,848	1,158,054
Total sales price of all parcels	\$1,894,562	\$2,912,972	\$2,350,965
Average price per sq. ft. with improvements	\$ 0.71	\$ 1.35	\$ 2.03
Total assessed value of improvements	\$ 576,395	\$ 427,230	\$ 377,640
Assessed value of improvements ÷ 70%	\$ 823,421	\$ 610,329	\$ 539,485
Value of land, less improvements	\$1,071,141	\$2,302,643	\$1,811,480
Computed value of land only, per sq. ft.	\$ 0.40	\$ 1.07	\$ 1.56
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, with improvements	1.35/.71	2.03/1.35	2.03/.71
Gain or Loss	90%	50%	186%
Per cent change, land only	1.07/.40	1.56/1.07	1.56/.40
Gain or Loss	168%	46%	290%

TABLE 8

COMPARISON OF CHANGES in LAND VALUES

Based upon sales price
WITH IMPROVEMENTS

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

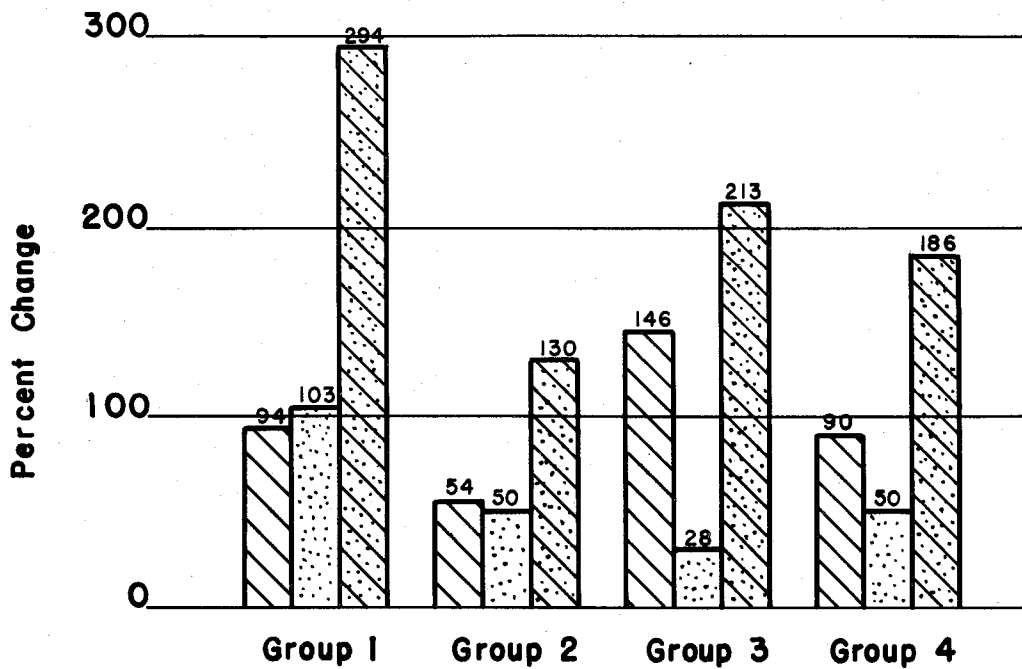





FIGURE 4

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements
from the total sales price at the assessed value
divided by 70%.

LAND ONLY

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

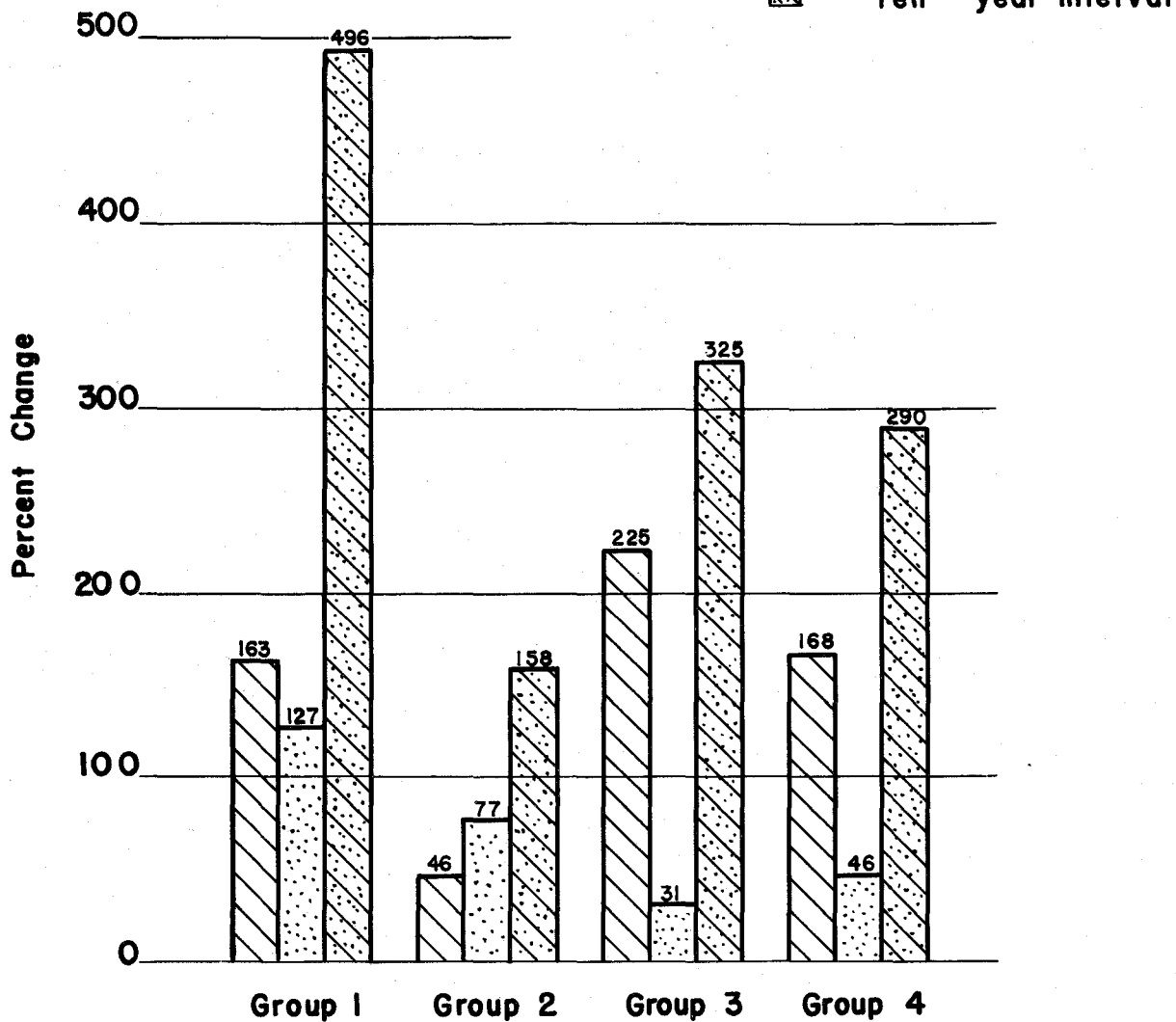


FIGURE 5

**COMPARISON OF CHANGES
in
LAND VALUES**

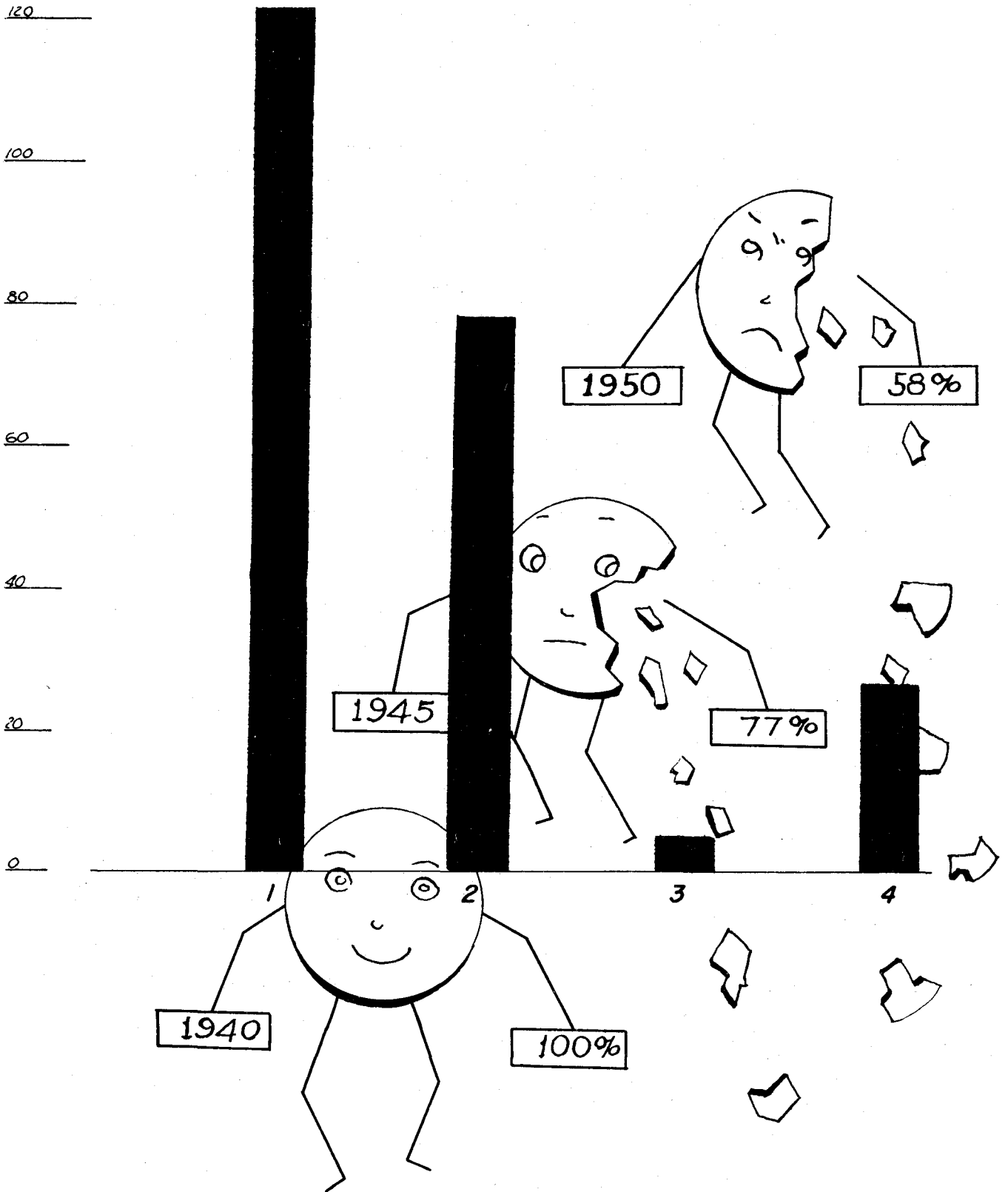
Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

During this period the Gulf Freeway has been a potential factor of influence on land values.

INFLATION



GROUP 1

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

	First Period	Second Period	Third Period
Total area of all parcels	2,637,886	2,555,869	1,018,512
Total sales price of all parcels	\$1,239,319	\$2,314,410	\$1,885,832
Total assessed value of improvements	\$ 373,642	\$ 348,350	\$ 169,874
Computed factors for each period	.70	.54	.41
Assessed value of improvements ÷ respective factors	\$ 533,774	\$ 645,092	\$ 414,329
Value of land, less improvements	\$ 705,575	\$1,669,318	\$1,471,505
Computed value of land per sq. ft.	\$ 0.27	\$ 0.65	\$ 1.44
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, land only	.65/.27	1.44/.65	1.44/.27
Gain or Loss	141%	121%	433%

TABLE 9

GROUP 2

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

	First Period	Second Period	Third Period
Total area of all parcels	2,830,104	3,473,681	968,040
Total sales price of all parcels	\$2,385,556	\$4,464,572	\$1,867,269
Total assessed value of improvements	339,800	737,540	137,235
Computed factors for each period	.70	.54	.41
Assessed value of improvements ÷ respective factors	\$ 485,428	\$1,365,815	\$ 334,720
Value of land, less improvements	\$1,900,128	\$3,098,757	\$1,532,549
Computed value of land per sq. ft.	\$ 0.67	\$ 0.89	\$ 1.58
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.89/.67	1.58/.89	1.58/.67
Gain or Loss	33%	78%	136%

TABLE 10

GROUP 3

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

	First Period	Second Period	Third Period
Total area of all parcels	931,066	1,295,653	611,835
Total sales price of all parcels	\$ 349,639	\$ 1,202,866	\$ 731,100
Total assessed value of improvements	\$ 117,310	\$ 253,860	\$ 149,100
Computed factors for each period	.70	.54	.41
Assessed value of improvements ÷ respective factors	\$ 167,586	\$ 470,111	\$ 363,659
Value of land, less improvements	\$ 182,053	\$ 732,755	\$ 367,441
Computed value of land only, per sq. ft.	\$ 0.20	\$ 0.57	\$ 0.60
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.57/.20	.60/.57	.60/.20
Gain or Loss	185%	5%	200%

TABLE 11

GROUP 4

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	2,654,970	2,154,848	1,158,054
Total sales price of all parcels	\$1,894,562	\$2,912,972	\$2,350,965
Total assessed value of improvements	\$ 576,395	\$ 427,230	\$ 377,640
Computed factors for each period	.70	.54	.41
Assessed value of improvements ÷ respective factors	\$ 823,421	\$ 791,167	\$ 921,073
Value of land less improvements	\$1,071,141	\$2,121,805	\$1,429,892
Computed value of land only, per sq. ft.	\$ 0.40	\$ 0.98	\$ 1.23
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.98/.40	1.23/.98	1.23/.40
Gain or Loss	145%	26%	208%

TABLE 12

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COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

LAND ONLY

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

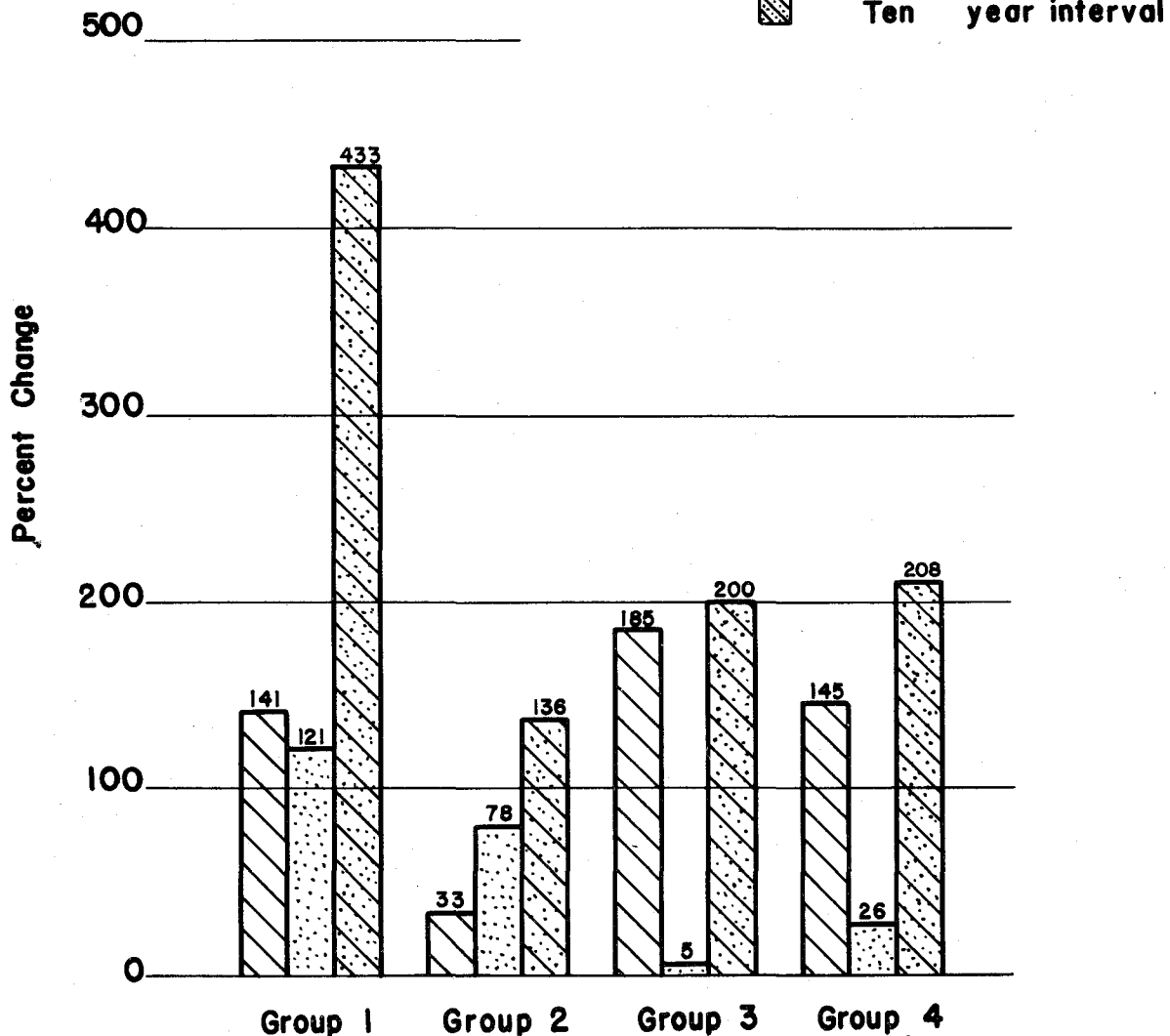


FIGURE 6

**COMPARISON OF CHANGES
in
LAND VALUES**

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

LAND ONLY

**DRAWING
(OPPOSITE PAGE)
SHOWING
PERCENT GAIN OR LOSS
DURING SECOND 5 YEAR INTERVAL
IN EACH OF THE FOUR GROUPS OF AREAS**

During this period the Gulf Freeway has been a potential factor of influence on land values.

120

100

80

60

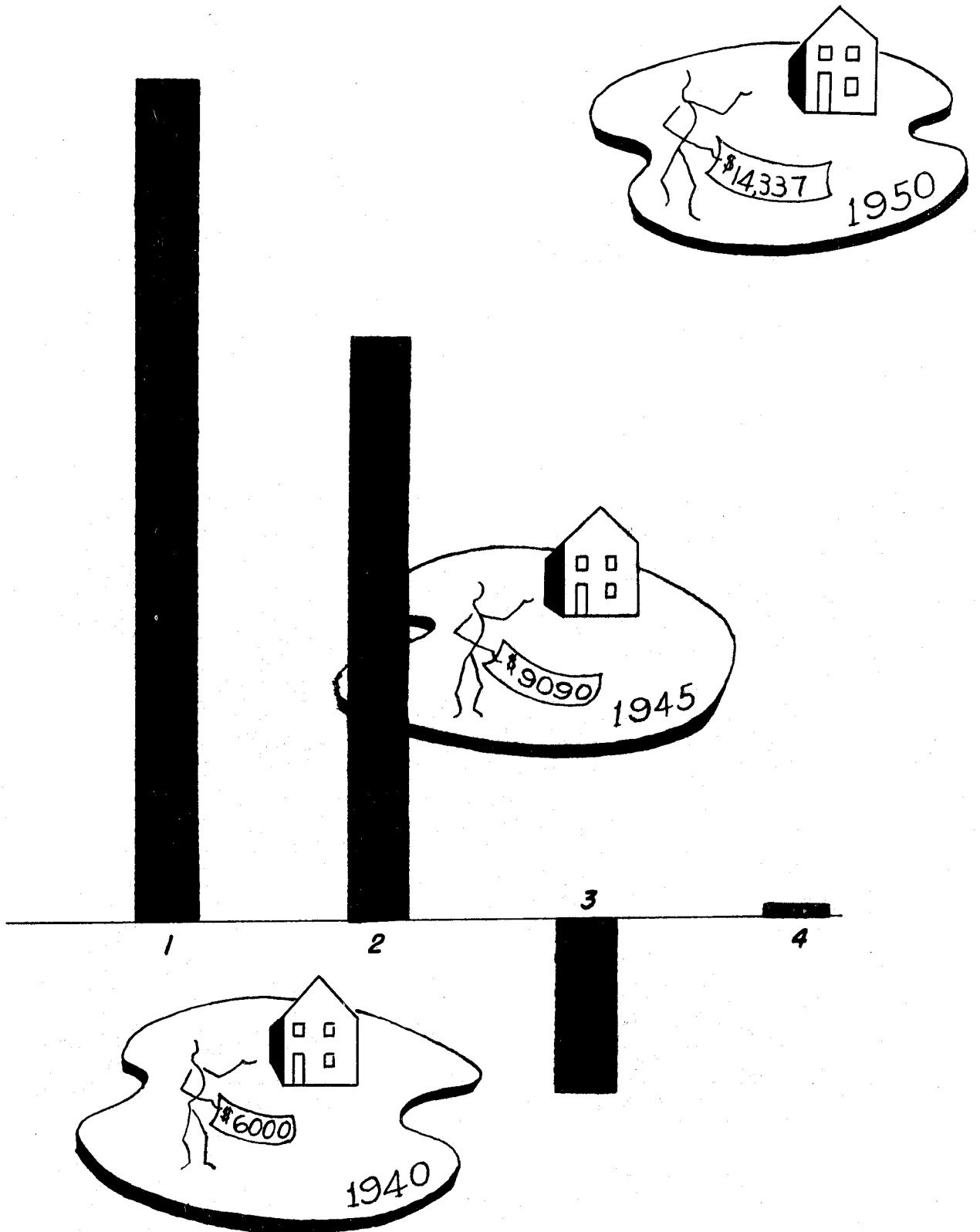
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20

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-20

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GROUP 1

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

	First Period	Second Period	Third Period
Total area of all parcels	2,637,886	2,555,869	1,018,512
Total sales price of all parcels	\$ 1,239,319	\$ 2,314,410	\$ 1,885,832
Total assessed value of improvements	\$ 373,642	\$ 348,350	\$ 169,874
Computed factors for each period	70%	46%	30%
Assessed value of improvements ÷ computed factors	\$ 533,774	\$ 757,283	\$ 566,247
Value of land, less improvements	\$ 705,575	\$ 1,557,127	\$ 1,319,585
Computed value of land, per sq. ft.	\$0.27	\$0.61	\$1.30

	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change, land only	.61/.27	1.30/.61	1.30/.27
Gain or Loss	126%	113%	381%

TABLE 13

GROUP 2

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

	First Period	Second Period	Third Period
Total area of all parcels	2,830,104	3,473,681	968,040
Total sales price of all parcels	\$2,385,556	\$4,464,572	\$1,867,269
Total assessed value of improvements	\$ 339,800	\$ 737,540	\$ 137,235
Computed factors for each period	.70	.46	.30
Assessed value of improvements ÷ respective factors	\$ 485,428	\$1,603,348	\$ 457,450
Value of land, less improvements	\$1,900,128	\$2,861,224	\$1,409,819
Computed value of land, only per sq. ft.	\$0.67	\$0.82	\$1.46
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.82/.67	1.46/.82	1.46/.67
Gain or Loss	22%	78%	118%

TABLE 14

GROUP 3

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	931,066	1,295,653	611,835
Total sales price of all parcels	\$349,639	\$ 1,202,866	\$731,100
Total assessed value of improvements	\$117,310	\$ 253,860	\$149,100
Computed factors for each period	.70	.46	.30
Assessed value of improvements ÷ respective factors	\$167,586	\$ 551,870	\$497,000
Value of land, less improvements	\$182,053	\$ 650,996	\$234,100
Computed value of land, only, per sq. ft.	\$0.20	\$0.50	\$0.38
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.50/.20	.38/.50	.38/.20
Gain or Loss	150%	*-24%	90%

*Minus sign indicates loss

TABLE 15

GROUP 4

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	2,654,970	2,154,848	1,158,054
Total sales price of all parcels	\$ 1,894,562	\$ 2,912,972	\$ 2,350,965
Total assessed value of improvements	\$ 576,395	\$ 427,230	\$ 377,640
Computed factors for each period	.70	.46	.30
Assessed value of improvements ÷ respective factors	\$ 823,421	\$ 928,761	\$ 1,258,800
Value of land, less improvements	\$ 1,071,141	\$ 1,984,211	\$ 1,092,165
Computed value of land only, per sq. ft.	\$0.40	\$0.92	\$0.94
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change	.92/.40	.94/.92	.94/.40
Gain or Loss	130%	2%	135%

TABLE 16

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

LAND ONLY

LEGEND:

- First 5 year interval
- Second 5 year interval
- Ten year interval

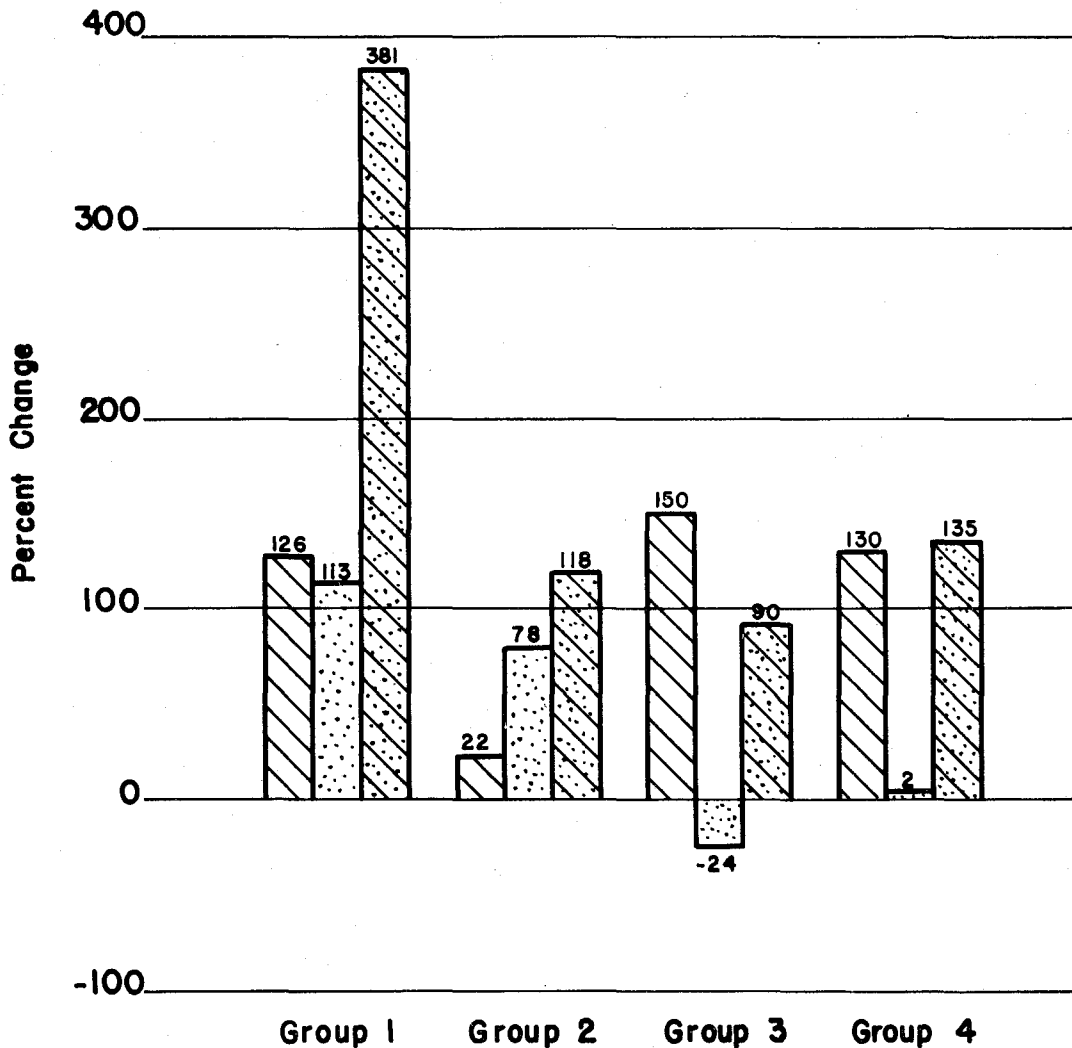


FIGURE 7

GROUP 1
SECTION 1
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	338,042	428,447	198,625
Total sales price of all parcels	\$ 548,651	\$ 773,265	\$ 833,270
Average price per sq. ft. with improvements	\$1.62	\$1.80	\$4.20
Total assessed value of improvements	\$ 135,580	\$ 84,760	\$ 47,390
Assessed value of improvements ÷ 70%	\$ 193,686	\$ 121,086	\$ 67,700
Value of land, less improvements	\$ 354,965	\$ 652,179	\$ 765,570
Computed value of land only, per sq. ft.	\$1.05	\$1.52	\$3.85
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improvements	1.80/1.62	4.20/1.80	4.20/1.62
Gain or Loss	11%	133%	159%
Land only	1.52/1.05	3.85/1.52	3.85/1.05
Gain or Loss	45%	153%	267%

TABLE 17

GROUP 1
SECTION 2
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	385,235	490,523	181,525
Total sales price of all parcels	\$ 134,276	\$ 298,904	\$ 259,000
Average price per sq. ft. with improvements	\$0.35	\$0.61	\$1.43
Total assessed value of improve- ments	\$ 20,780	\$ 28,550	\$ 10,700
Assessed value of improvements ÷ 70%	\$ 29,686	\$ 40,786	\$ 15,286
Value of land, less improvements	\$ 104,590	\$ 258,118	\$ 243,714
Computed value of land only, per sq. ft.	\$0.27	\$0.53	\$1.35
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	.61/.35	1.43/.61	1.43/.35
Gain or Loss	74%	134%	309%
Land only	.53/.27	1.35/.53	1.35/.27
Gain or Loss	96%	155%	400%

TABLE 18

GROUP 1
SECTION 3
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	329, 588	235, 628	170, 328
Total sales price of all parcels	\$ 180, 835	\$ 280, 130	\$ 290, 900
Average price per sq. ft. with improvements	\$0.55	\$1.19	\$1.71
Total assessed value of improvements	\$ 82, 865	\$ 51, 100	\$ 48, 850
Assessed value of improvements ÷ 70%	\$ 118, 379	\$ 73, 000	\$ 69, 786
Value of land, less improvements	\$ 62, 456	\$ 207, 130	\$ 221, 114
Computed value of land only, per sq. ft.	\$0.19	\$0.88	\$1.30
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improvements	1.19/.55	1.71/1.19	1.71/.55
Gain or Loss	116%	44%	211%
Land only	.88/.19	1.30/.88	1.30/.19
Gain or Loss	363%	48%	584%

TABLE 19

GROUP 1
SECTION 4
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	328,300	671,624	72,750
Total sales price of all parcels	\$ 139,832	\$ 427,794	\$ 103,000
Average price per sq. ft. with improvements	\$0.43	\$0.64	\$1.42
Total assessed value of improvements	\$ 44,927	\$ 73,720	\$ 12,304
Assessed value of improvements ÷ 70%	\$ 64,181	\$ 105,314	\$ 17,577
Value of land, less improvements	\$ 75,651	\$ 322,480	\$ 85,423
Computed value of land only, per sq. ft.	\$0.23	\$0.48	\$1.17
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improvements	.64/.43	1.42/.64	1.42/.43
Gain or Loss	49%	122%	230%
Land only	.48/.23	1.17/.48	1.17/.23
Gain or Loss	109%	144%	409%

TABLE 20

GROUP 1
SECTION 5
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	154, 510	300, 824	149, 975
Total sales price of all parcels	\$ 77, 170	\$ 310, 276	\$ 159, 947
Average price per sq. ft. with improvements	\$0.50	\$1.03	\$1.07
Total assessed value of improve- ments	\$ 30, 190	\$ 65, 740	\$ 22, 860
Assessed value of improvements ÷ 70%	\$ 43, 129	\$ 93, 914	\$ 32, 657
Value of land, less improvements	\$ 34, 041	\$ 216, 362	\$ 127, 290
Computed value of land only, per sq. ft.	\$0.22	\$0.72	\$0.85
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	1.03/.50	1.07/1.03	1.07/.50
Gain or Loss	106%	4%	114%
Land only	.72/.22	.85/.72	.85/.22
Gain or Loss	227%	18%	286%

TABLE 21

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GROUP 1
SECTION 6
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	1, 102, 211	428, 823	245, 709
Total sales price of all parcels	\$158, 555	\$224, 050	\$239, 715
Average price per sq. ft. with improvements	\$0.14	\$0.52	\$0.98
Total assessed value of improvements	\$ 59, 300	\$ 44, 480	\$ 27, 770
Assessed value of improvements ÷ 70%	\$ 84, 714	\$ 63, 543	\$ 39, 671
Value of land, less improvements	\$ 73, 841	\$160, 507	\$200, 044
Computed value of land only, per sq. ft.	\$0.07	\$0.37	\$0.81
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improvements	.52/.14	.98/.52	.98/.14
Gain or Loss	271%	88%	600%
Land only	.37/.07	.81/.37	.81/.07
Gain or Loss	429%	119%	1057%

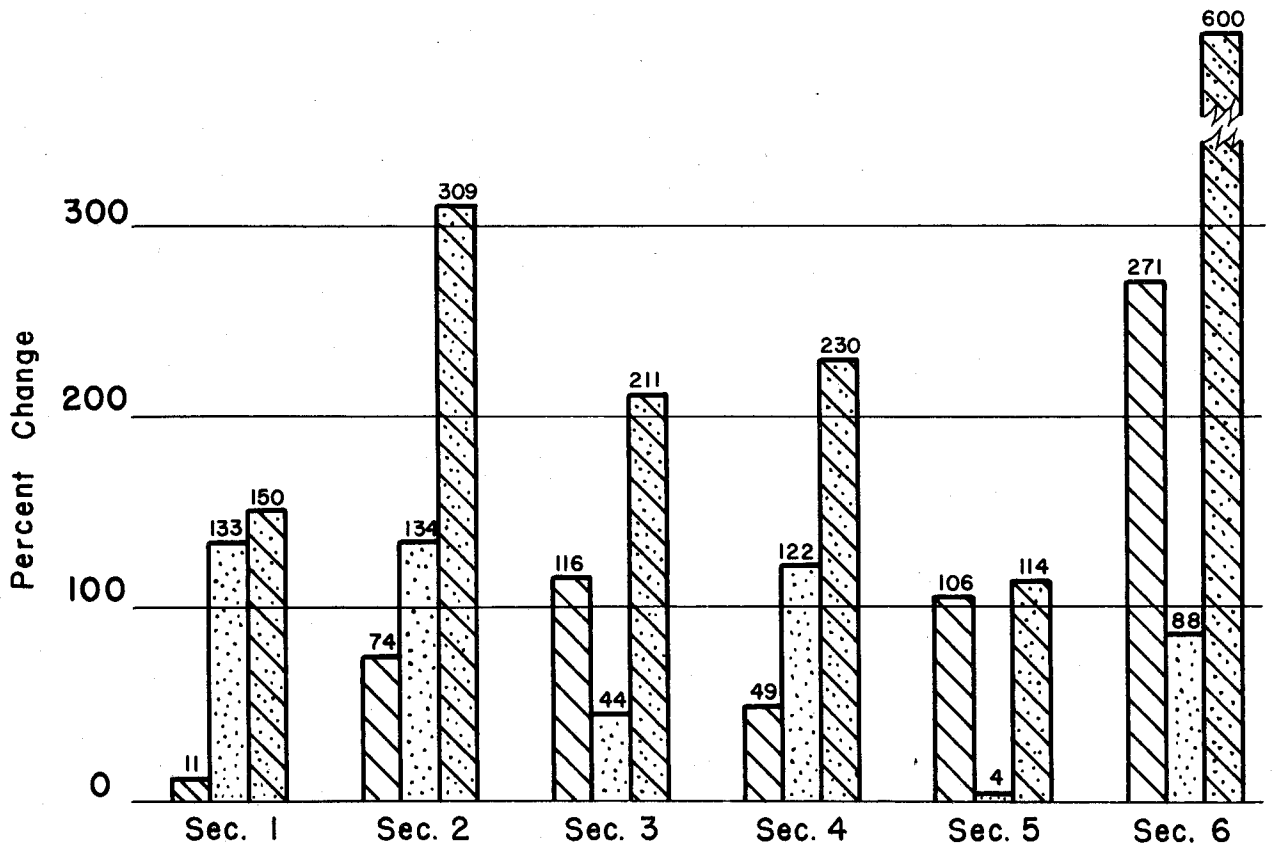
TABLE 22

COMPARISON OF CHANGES in LAND VALUES

Based upon sales price
WITH IMPROVEMENTS

LEGEND:

- First 5 year interval
- Second 5 year interval
- Ten year interval



GROUP I




FIGURE 8

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements
from the total sales price at the assessed value
divided by 70%

LAND ONLY

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

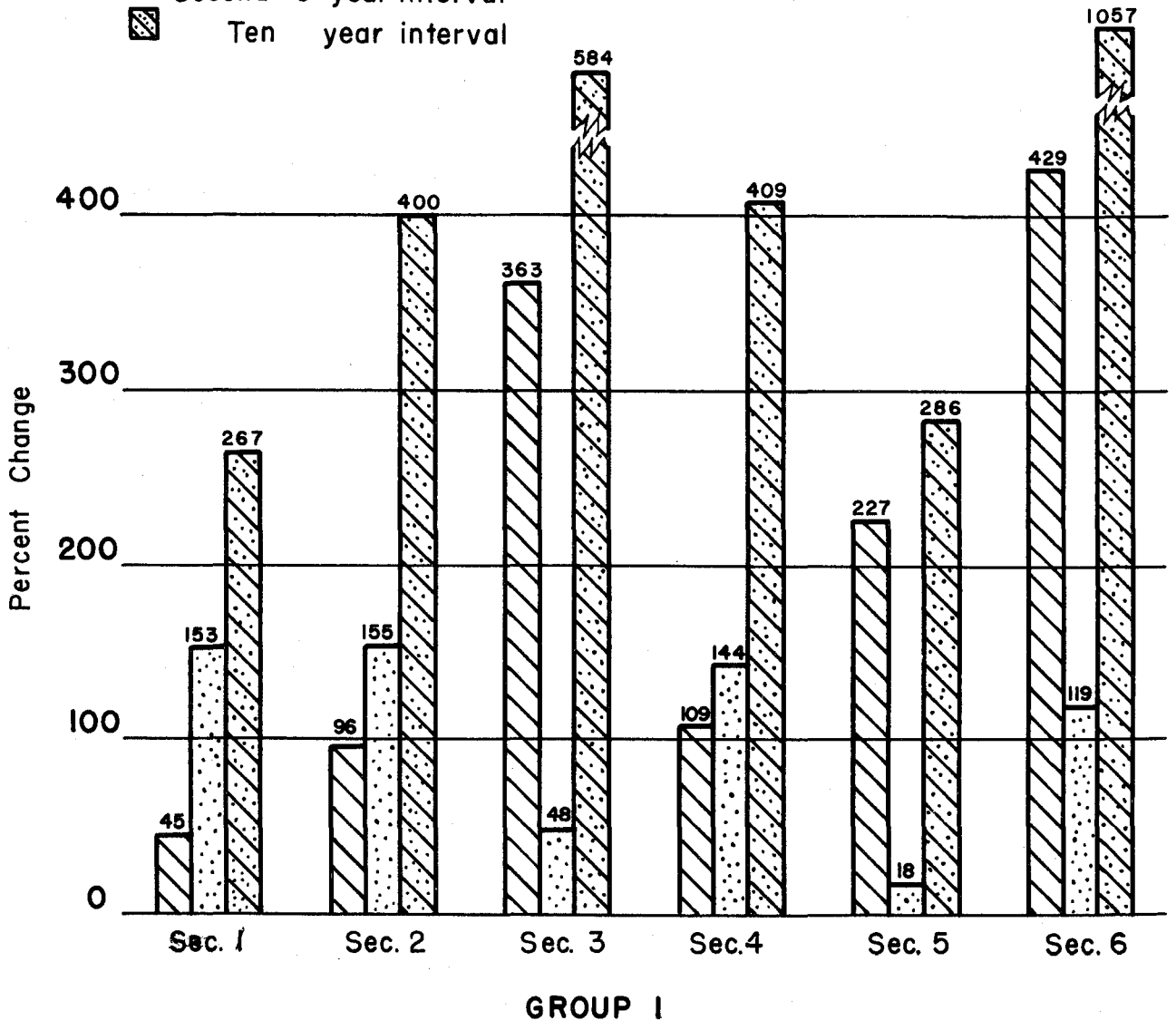


FIGURE 9

GROUP 2

SECTION 1

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	668,929	935,395	324,010
Total sales price of all parcels	\$ 1,834,687	\$ 2,679,450	\$ 1,156,570
Average price per sq. ft. with improvements	\$2.74	\$2.86	\$3.57
Total assessed value of improvements	\$ 181,000	\$ 422,890	\$ 51,423
Assessed value of improvements ÷ 70%	\$ 258,571	\$ 604,129	\$ 73,460
Value of land, less improvements	\$1,576,116	\$2,075,321	\$1,083,110
Computed value of land only, per sq. ft.	\$2.36	\$2.22	\$3.34
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improvements	2.86/2.74	3.57/2.86	3.57/2.74
Gain or Loss	4%	25%	30%
Land only	2.22/2.36	3.34/2.22	3.34/2.36
Gain or Loss	* -6%	50%	42%

* Minus sign indicates loss

GROUP 2
SECTION 2
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	183, 152	320, 078	120, 250
Total sales price of all parcels	\$122, 346	\$335, 600	\$169, 494
Average price per sq. ft. with improvements	\$0.67	\$1.05	\$1.41
Total assessed value of improve- ments	\$ 30, 040	\$ 40, 320	\$ 9, 710
Assessed value of improvements ÷ 70%	\$ 42, 914	\$ 57, 600	\$ 13, 871
Value of land, less improvements	\$ 79, 432	\$278, 000	\$155, 623
Computed value of land only, per sq. ft.	\$0.43	\$0.87	\$1.29
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	1.05/.67	1.41/1.05	1.41/.67
Gain or Loss	57%	34%	110%
Land only	.87/.43	1.29/.87	1.29/.43
Gain or Loss	102%	48%	200%

TABLE 24

GROUP 2

SECTION 3

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	234,270	189,047	103,920
Total sales price of all parcels	\$116,645	\$237,725	\$191,500
Average price per sq. ft. with improvements	\$0.50	\$1.26	\$1.84
Total assessed value of improve- ments	\$ 39,670	\$ 44,970	\$ 31,150
Assessed value of improvements ÷ 70%	\$ 56,671	\$ 64,243	\$ 44,500
Value of land, less improvements	\$ 59,974	\$173,482	\$147,000
Computed value of land only, per sq. ft.	\$0.26	\$0.92	\$1.41
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	1.26/.50	1.84/1.26	1.84/.50
Gain or Loss	152%	46%	268%
Land only	.92/.26	1.41/.92	1.41/.26
Gain or Loss	254%	53%	442%

TABLE 25

GROUP 2
SECTION 4
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	333,410	336,595	104,530
Total sales price of all parcels	\$105,588	\$266,029	\$173,700
Average price per sq. ft. with improvements	\$0.32	\$0.79	\$1.66
Total assessed value of improve- ments	\$ 31,860	\$ 48,580	\$ 24,010
Assessed value of improvements ÷ 70%	\$ 45,514	\$ 69,400	\$ 34,300
Value of land, less improvements	\$ 60,074	\$196,629	\$139,400
Computed value of land only, per sq. ft.	\$0.18	\$0.58	\$1.33
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	.79/.32	1.66/.79	1.66/.32
Gain or Loss	147%	110%	419%
Land only	.58/.18	1.33/.58	1.33/.18
Gain or Loss	222%	129%	639%

TABLE 26

GROUP 2
SECTION 5
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	942,036	1,149,041	192,630
Total sales price of all parcels	\$128,745	\$690,210	\$122,505
Average price per sq. ft. with improvements	\$0.14	\$0.60	\$0.64
Total assessed value of improve- ments	\$ 38,490	\$133,140	\$ 13,872
Assessed value of improvements ÷ 70%	\$ 54,986	\$190,200	\$ 19,817
Value of land, less improvements	\$ 73,759	\$500,010	\$102,688
Computed value of land only, per sq. ft.	\$0.08	\$0.44	\$0.53
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	.60/.14	.64/.60	.64/.14
Gain or Loss	329%	7%	357%
Land only	.44/.08	.53/.44	.53/.08
Gain or Loss	450%	20%	563%

TABLE 27

GROUP 2
SECTION 6
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	First Period	Second Period	Third Period
Total area of all parcels	468,307	543,525	122,700
Total sales price of all parcels	\$ 77,545	\$ 255,558	\$ 53,500
Average price per sq. ft. with improvements	\$0.17	\$0.47	\$0.44
Total assessed value of improve- ments	\$ 18,740	\$ 47,640	\$ 7,070
Assessed value of improvements ÷ 70%	\$ 26,771	\$ 68,058	\$ 10,100
Value of land, less improvements	\$ 50,774	\$ 187,500	\$ 43,400
Computed value of land only, per sq. ft.	\$0.11	\$0.34	\$0.35
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	.47/.17	.44/.47	.44/.17
Gain or Loss	176%	* -6%	159%
Land only	.34/.11	.35/.34	.35/.11
Gain or Loss	209%	3%	218%




*Minus sign indicates loss

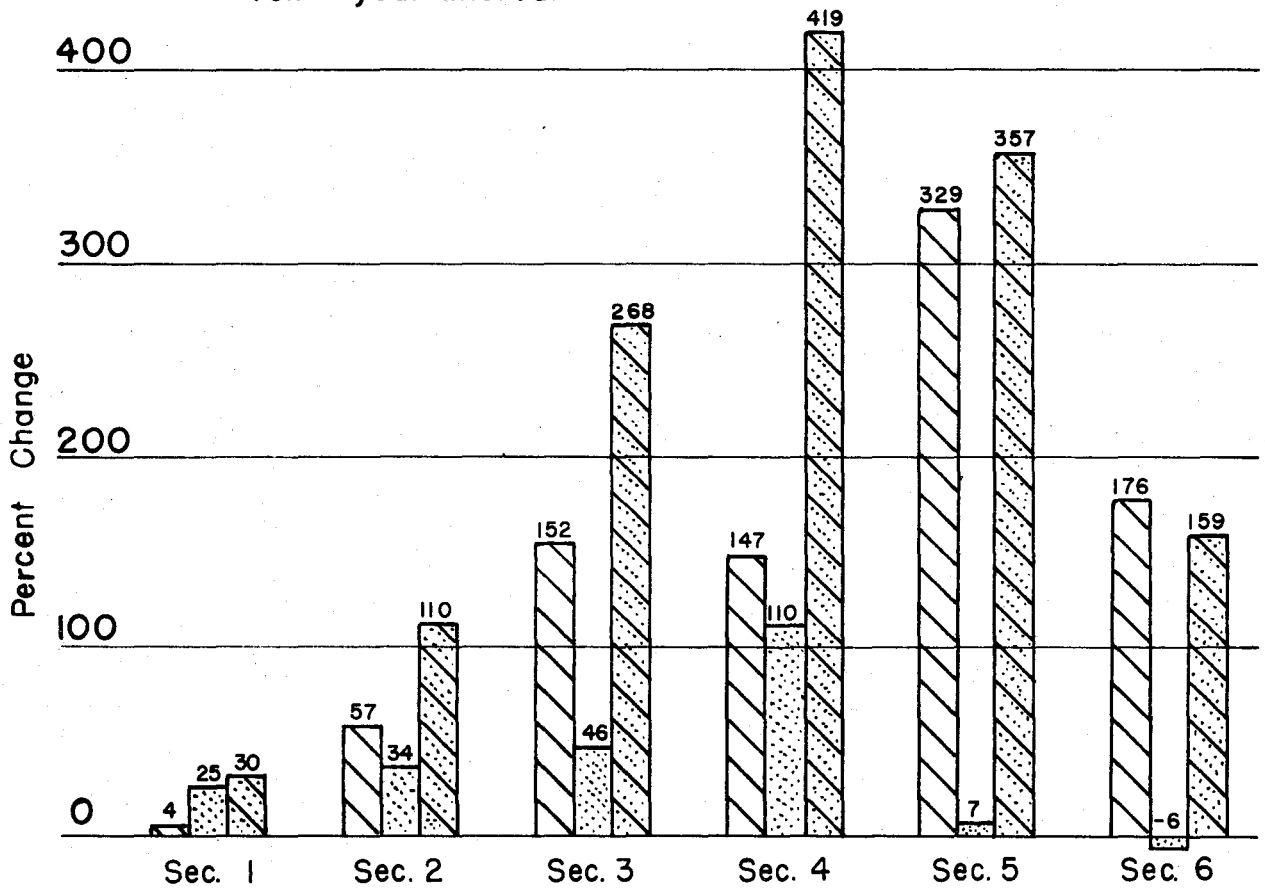
TABLE 28

COMPARISON OF CHANGES in LAND VALUES

Based upon sales price
WITH IMPROVEMENTS

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval



GROUP 2

FIGURE 10

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements
from the total sales price at the assessed value
divided by 70%

LAND ONLY

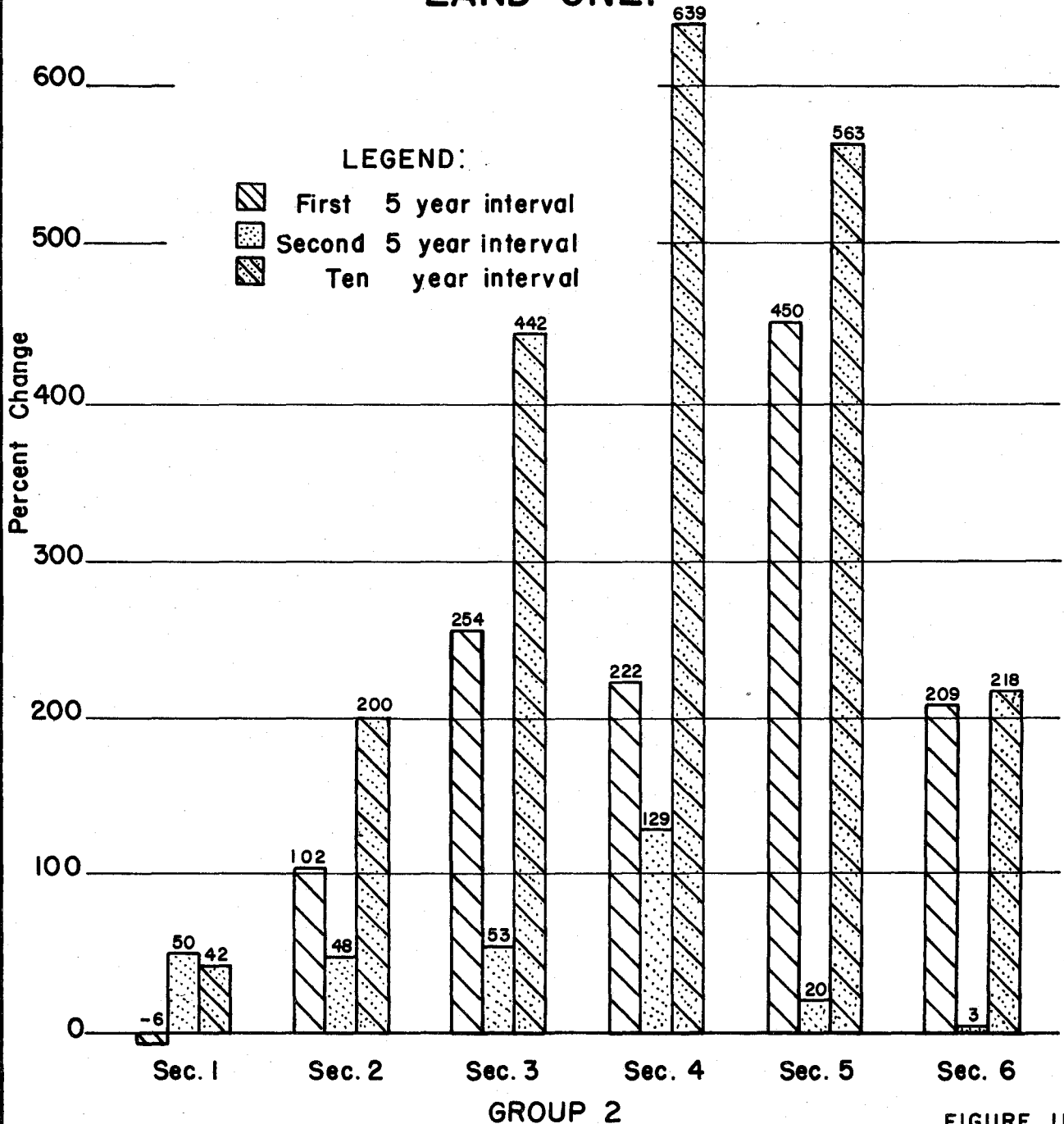


FIGURE 11

GROUP 4

SECTION A

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

(Section A of Group 4 is comparable in type of development to section 1 of Groups 1 and 2.)

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	681,584	795,962	188,125
Total sales price of all parcels	\$ 914,803	\$1,636,190	\$ 493,890
Average price per sq. ft. with improvements	\$1.34	\$2.05	\$2.63
Total assessed value of improve- ments	\$ 253,650	\$ 228,460	\$ 62,000
Assessed value of improvements ÷ 70%	\$ 362,357	\$ 326,371	\$ 88,571
Value of land, less improvements	\$ 552,446	\$1,309,819	\$ 405,319
Computed value of land only, per sq. ft.	\$0.81	\$1.65	\$2.15
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	2.05/1.34	2.63/2.05	2.63/1.34
Gain or Loss	53%	28%	96%
Per cent change Land only	1.65/.81	2.15/1.65	2.15/.81
Gain or Loss	104%	30%	165%

TABLE 29

GROUP 4
SECTION B
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

(Section B of Group 4 is comparable in type of development to sections 5 and 6 of Groups 1 and 2.)

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	799,190	227,660	580,654
Total sales price of all parcels	\$ 606,837	\$ 375,400	\$1,432,510
Average price per sq. ft. with improvements	\$0.76	\$1.65	\$2.47
Total assessed value of improve- ments	\$ 242,475	\$ 90,450	\$ 279,890
Assessed value of improvements ÷ 70%	\$ 346,393	\$ 129,214	\$ 399,843
Value of land, less improvements	\$ 260,444	\$ 246,186	\$1,032,667
Computed value of land only, per sq. ft.	\$0.33	\$1.08	\$1.78
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	1.65/.76	2.47/1.65	2.47/.76
Gain or Loss	117%	50%	225%
Per cent change Land only	1.08/.33	1.78/1.08	1.78/.33
Gain or Loss	227%	65%	439%

TABLE 30

GROUP 4
SECTIONS D, E & F
ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

(Sections D, E and F of Group 4 are comparable in type of development to section 4 of Groups 1 and 2.)

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	592,463	836,261	314,275
Total sales price of all parcels	\$194,979	\$569,782	\$339,265
Average price per sq. ft. with improvements	\$0.33	\$0.68	\$1.08
Total assessed value of improve- ments	\$ 40,910	\$ 70,150	\$ 31,970
Assessed value of improvements ÷ 70%	\$ 58,443	\$100,214	\$ 45,671
Value of land, less improvements	\$136,536	\$469,568	\$293,594
Computed value of land only, per sq. ft.	\$0.23	\$0.56	\$0.93
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	.68/.33	1.08/.68	1.08/.33
Gain or Loss	106%	59%	227%
Per cent change Land only	.56/.23	.93/.56	.93/.23
Gain or Loss	143%	66%	304%

TABLE 31

GROUP 4

SECTIONS G, H & I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

(Sections G, H and I of Group 4 are comparable in type of development to section 2 of Groups 1 and 2.)

	First Period	Second Period	Third Period
Total area of all parcels, sq. ft.	527,733	269,840	65,000
Total sales price of all parcels	\$145,543	\$290,850	\$ 75,300
Average price per sq. ft. with improvements	\$0.28	\$1.08	\$1.16
Total assessed value of improve- ments	\$ 27,850	\$ 31,450	\$ 3,780
Assessed value of improvements ÷ 70%	\$ 39,785	\$ 44,929	\$ 5,400
Value of land, less improvements	\$105,758	\$245,921	\$ 69,900
Computed value of land only, per sq. ft.	\$0.20	\$0.91	\$1.08
	First 5 Year Interval	Second 5 Year Interval	Ten Year Interval
Per cent change with improve- ments	1.08/.28	1.16/1.08	1.16/.28
Gain or Loss	286%	7%	314%
Per cent change Land only	.91/.20	1.08/.91	1.08/.20
Gain or Loss	355%	19%	440%

TABLE 32

ASSESSED VALUATIONS

IN THE

GULF FREEWAY AREA

1941

Assessed valuations of properties remaining on the tax rolls of the City of Houston, after eliminating properties purchased for the Freeway right-of-way.

GROUP 1

	Land	Improvements	Total
Section 1	\$ 3,878,700	\$ 1,497,416	\$ 5,376,116
2	912,065	1,008,214	1,920,279
3	546,136	589,656	1,135,792
4	255,820	616,604	872,424
5	170,580	495,160	665,740
6	<u>153,902</u>	<u>312,731</u>	<u>466,633</u>
Total	\$ 5,917,203	\$ 4,519,781	\$ 10,436,984

GROUP 2

	Land	Improvements	Total
Section 1	\$ 12,603,749	\$ 6,879,903	\$ 19,483,652
2	1,288,810	1,116,777	2,405,587
3	250,120	701,390	951,510
4	94,120	161,890	256,016
5	515,125	488,906	1,004,031
6	300,610	233,950	524,560
Total	\$ 15,052,534	\$ 9,572,816	\$ 24,625,356

REPEAT SALES

TABLES
AND
CHARTS

SHOWING DETAILS OF ANALYSIS OF

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SALES OF REAL PROPERTY

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	209,806	*184,704
Sales price of all parcels	\$ 63,949	\$115,680
Price per sq. ft. with improvements	\$ 0.30	\$ 0.63
Total assessed value of improvements	\$ 19,830	\$ 19,830
Assessed value of imp. divided by 70%	\$ 28,329	\$ 28,329
Value of land, less improvements	\$ 35,620	\$ 87,351
Computed value of land, per sq. ft.	\$ 0.17	\$ 0.47
		First 5 Year Interval
Per cent change with improvements	.63/.30	210%
Gain		110%
Less improvements divided by 70%	.47/.17	276%
Gain		176%

*Partial repeat of two tracts accounts for difference in area.

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	36,000	36,000
Sales price of all parcels	\$ 48,950	\$102,450
Sales price per sq. ft. with improvements	\$ 1.36	\$ 2.85
Assessed value of improvements	\$ 9,300	\$ 9,300
Assessed value of imp. divided by 70%	\$ 13,286	\$ 13,286
Value of land, less improvements	\$ 35,664	\$ 89,164
Computed value of land, only, per sq. ft.	\$ 0.99	\$ 2.48
	Second 5 Year Interval	
Per cent change with improvements	2.85/1.36	210%
Gain		110%
Per cent change, land only	2.48/ .99	250%
Gain		150%

TABLE 35

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	19,150	19,150
Sales price of all parcels	\$ 9,860	\$23,500
Sales price per sq. ft., with improvements	\$ 0.51	\$ 1.23
Assessed value of improvements	\$ 4,230	\$ 4,230
Assessed value of imp. divided by 70%	\$ 6,043	\$ 6,043
Value of land, less improvements	\$ 3,817	\$17,457
Computed value of land, only, per sq. ft.	\$ 0.20	\$ 0.91
		Ten Year Interval
Per cent change with improvements	1.23/.51	241%
Gain		141%
Per cent change, land only	.91/.20	455%
Gain		355%
LAND ONLY		
Per cent gain or loss		
First 5 year interval		176%
Second 5 year interval		150%
Ten year interval		335%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	216,382	*227,632
Sales price of all parcels	\$163,541	\$404,800
Sales price per sq. ft., with improvements	\$ 0.76	\$ 1.78
Assessed value of improvements	\$ 52,690	\$ 52,690
Assessed value of imp. divided by 70%	\$ 75,271	\$ 75,271
Value of land, less improvements	\$ 88,270	\$329,529
Computed value of land, only, per sq. ft.	\$ 0.41	\$ 1.45

	First 5 Year Interval	
Per cent change with improvements	1.78/.76	234%
Gain		134%
Per cent change, land only	1.45/.41	354%
Gain		254%

*Lot adjacent to one parcel included. Accounts for difference in area.

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	89,525	89,525
Sales price of all parcels	\$105,000	\$169,500
Sales price per sq. ft. with improvements	\$ 1.17	\$ 1.89
Assessed value of improvements	\$ 6,540	\$ 6,540
Assessed value of imp. divided by 70%	\$ 9,343	\$ 9,343
Value of land, less improvements	\$ 95,657	\$160,157
Computed value of land, only, per sq. ft.	\$ 1.07	\$ 1.90
	Second 5 Year Interval	
Per cent change with improvements	1.89/1.17	162%
Gain		62%
Per cent change, land only	1.90/1.07	178%
Gain		78%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	41,826	41,826
Sales price of all parcels	\$ 18,070	\$103,758
Sales price per sq. ft., with improvements	\$ 0.43	\$ 2.48
Assessed value of improvements	\$ 6,240	\$ 6,240
Assessed value of imp. divided by 70%	\$ 8,914	\$ 8,914
Value of land, less improvements	\$ 9,156	\$ 94,844
Computed value of land, only, per sq. ft.	\$ 0.22	\$ 2.26
	Ten Year Interval	
Per cent change with improvements	2.48/.43	577%
Gain		477%
Per cent change, land only	2.26/.22	1027%
Gain		927%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	123,312	*128,312
Sales price of all parcels	\$257,735	\$426,813
Sales price per sq. ft., with improvements	\$ 2.09	\$ 3.33
Assessed value of improvements	\$ 39,390	\$ 39,390
Assessed value of imp. divided by 70%	\$ 56,271	\$ 56,271
Value of land, less improvements	\$201,464	\$370,542
Computed value of land, only, per sq. ft.	\$ 1.63	\$ 2.88
		First 5 Year Interval
Per cent change with improvements	3.33/2.09	159%
Gain		59%
Per cent change, land only	2.88/1.63	177%
Gain		77%

*Lot adjacent to one parcel included, accounts for difference in area.

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	15,075	15,075
Sales price of all parcels	\$ 17,000	19,500
Sales price per sq. ft., with improvements	\$ 1.13	\$ 1.29
Assessed value of improvements	\$ 5,910	\$ 5,910
Assessed value of imp. divided by 70%	\$ 8,443	\$ 8,443
Value of land, less improvements	\$ 8,557	\$ 11,057
Computed value of land, only, per sq. ft.	\$ 0.57	\$ 0.73
	Second 5 Year Interval	
Per cent change with improvements	1.29/1.13	114%
Gain		14%
Per cent change, land only	.73/.57	128%
Gain		28%

TABLE 41

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	16,700	16,700
Sales price of all parcels	\$ 12,497	32,200
Sales price per sq. ft., with improvements	\$ 0.75	\$ 1.93
Assessed value of improvements	\$ 7,900	\$ 7,900
Assessed value of imp. divided by 70%	\$ 11,286	\$ 11,286
Value of land, less improvements	\$ 1,211	\$ 20,914
Computed value of land, only, per sq. ft.	\$ 0.07	\$ 1.25

	Ten Year Interval	
Per cent change with improvements	1.93/0.75	257%
Gain		157%
Per cent change, land only	1.25/.07	1785%
Gain		1685%

LAND ONLY

Per cent gain or loss	
First 5 year interval	77%
Second 5 year interval	28%
Ten year interval	1685%

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	84,065	84,065
Sales price of all parcels	\$ 53,127	\$ 112,300
Sales price per sq. ft., with improvements	\$ 0.63	\$ 1.34
Assessed value of improvements	\$ 19,760	\$ 19,760
Assessed value of imp. divided by 70%	\$ 28,229	\$ 28,229
Value of land, less improvements	\$ 24,898	\$ 84,071
Computed value of land, only, per. sq. ft.	\$ 0.30	\$ 1.00
	First 5 Year Interval	
Per cent change with improvements	1.34/.63	213%
Gain		113%
Per cent change, land only	1.00/.33	333%
Gain		233%

TABLE 43

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	13,812	13,812
Sales price of all parcels	\$ 30,000	\$ 35,500
Sales price per sq. ft., with improvements	\$ 2.17	\$ 2.57
Assessed value of improvements	\$ 6,260	\$ 6,260
Assessed value of imp. divided by 70%	\$ 8,943	\$ 8,943
Value of land, less improvements	\$ 21,057	\$ 26,557
Computed value of land, only, per sq. ft.	\$ 1.52	\$ 1.92
	Second 5 Year Interval	
Per cent change with improvements	2.57/2.17	118%
Gain		18%
Per cent change, land only	1.92/1.52	126%
Gain		26%

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% to obtain the residual land value.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	94,200	94,200
Sales price of all parcels	\$ 92,861	\$ 187,000
Sales price per sq. ft., with improvements	\$ 0.99	\$ 1.99
Assessed value of improvements	\$ 30,310	\$ 30,310
Assessed value of imp. divided by 70%	\$ 43,300	\$ 43,300
Value of land, less improvements	\$ 49,561	\$ 143,700
Computed value of land, only, per sq. ft.	\$ 0.53	\$ 1.53
	Ten Year Interval	
Per cent change with improvements	1.99/.99	201%
Gain		101%
Per cent change, land only	1.53/.53	289%
Gain		189%
Per cent gain or loss, land only		
First 5 year interval	233%	
Second 5 year interval	26%	
Ten year interval	189%	

TABLE 45

COMPARISON OF CHANGES in LAND VALUES

Based upon sales price
WITH IMPROVEMENTS
REPEAT SALES

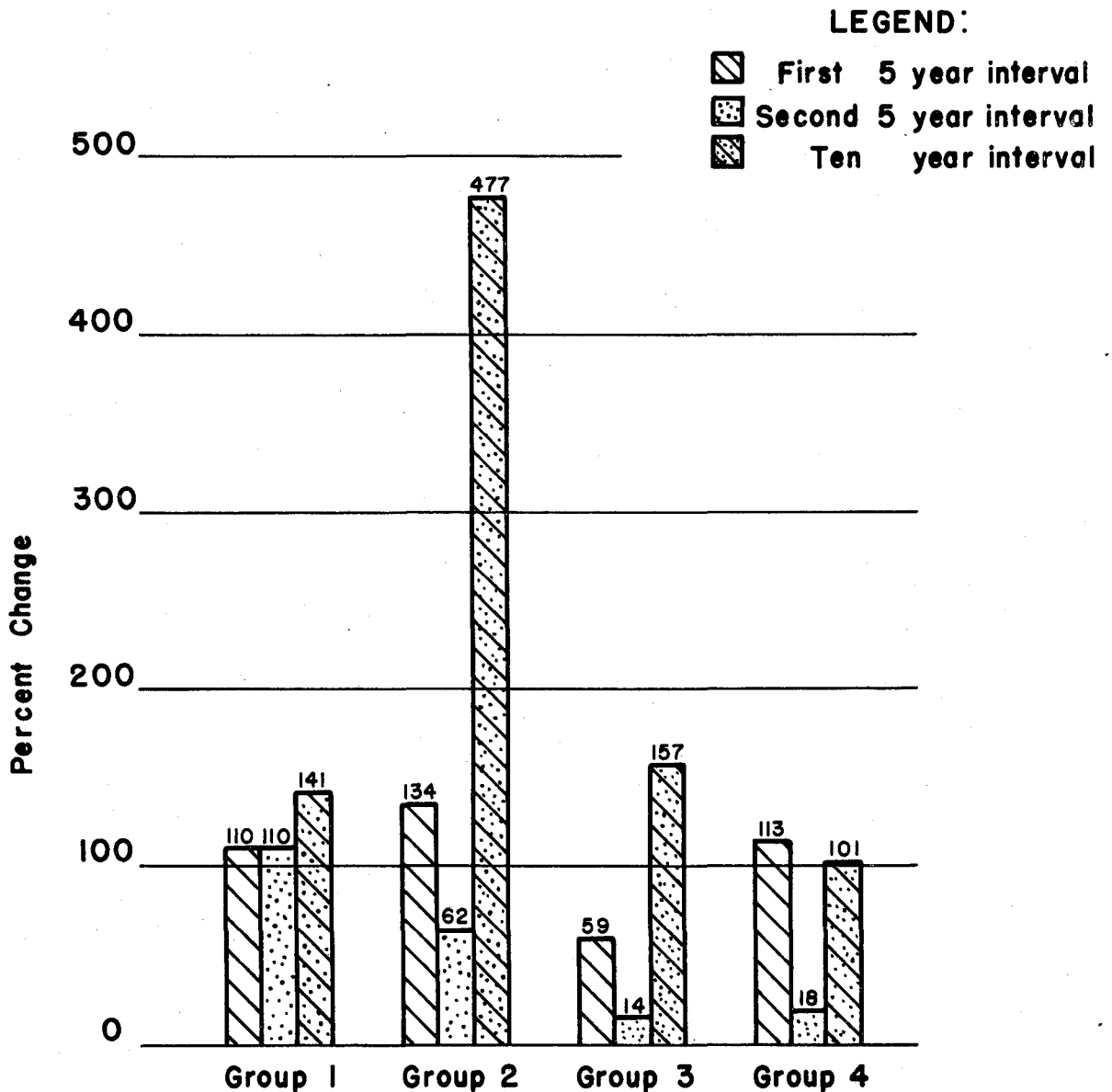





FIGURE 12

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%.

LAND ONLY REPEAT SALES

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

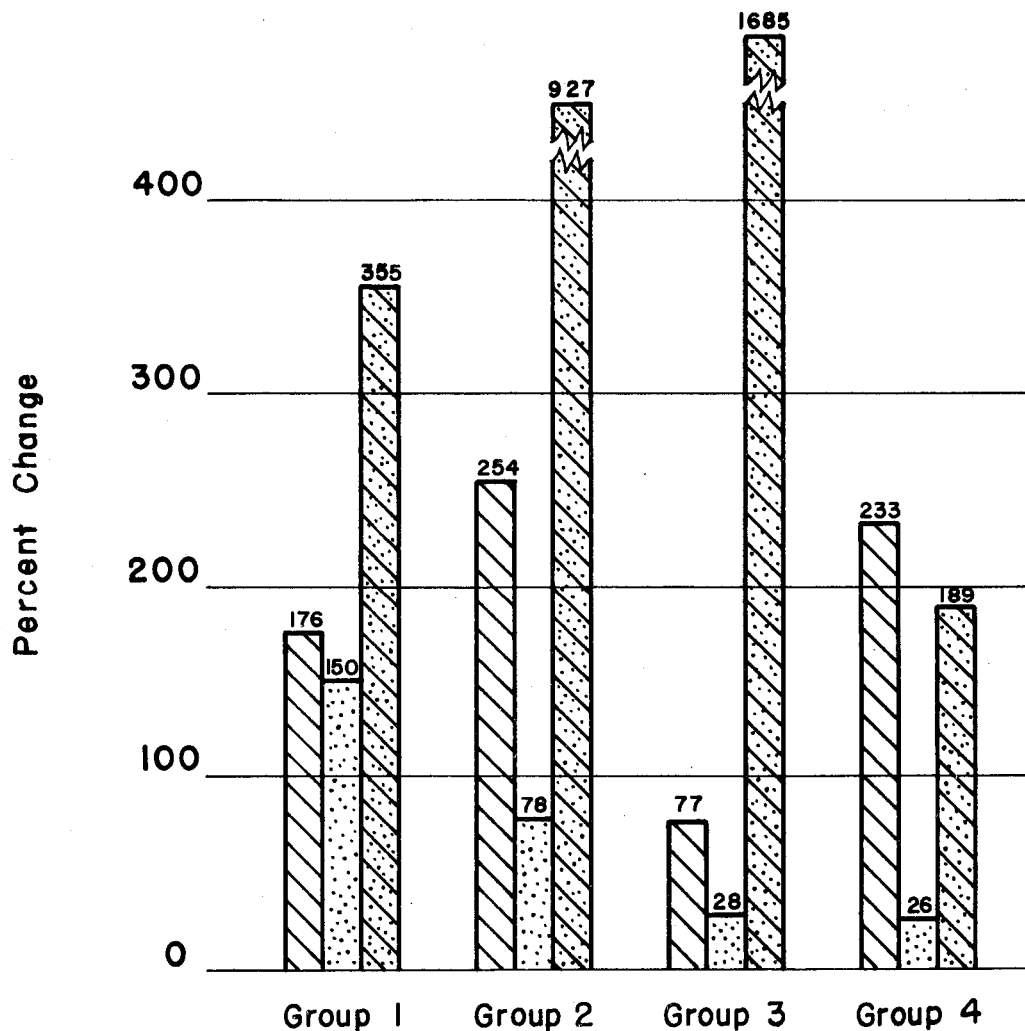


FIGURE 13

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	209,806	184,704
Sales price of all parcels	\$ 63,949	\$ 115,680
Assessed value of imp. divided by 70%	\$ 28,329	\$ 28,329
Above multiplied by dollar factors	\$ 28,329	\$ 36,791
Value of land, less improvements	\$ 35,620	\$ 78,889
Computed value of land, per sq. ft.	\$ 0.17	\$ 0.43
	First 5 Year Interval	
Per cent change	.43/.17 = 253%	
Gain	153%	

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the changes in the buying power of the dollar.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	36,000	36,000
Sales price of all parcels	\$ 48,950	\$102,450
Assessed value of imp. divided by 70%	\$ 13,286	\$ 13,286
Above multiplied by dollar change factors	\$ 17,254	\$ 22,907
Value of land, less improvements	\$ 31,696	\$ 79,543
Computed value of land, per sq. ft.	\$ 0.88	\$ 2.21
	Second 5 Year Interval	
Per cent change	2.21/.88	251%
Gain		151%

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	19,150	19,150
Sales price of all parcels	\$ 9,860	\$ 23,500
Assessed value of imp. divided by 70%	\$ 6,043	\$ 6,043
Above multiplied by dollar change factors	\$ 6,043	\$ 10,419
Value of land, less improvements	\$ 3,817	\$ 13,081
Computed value of land, per sq. ft.	\$ 0.20	\$ 0.68
	Ten Year Interval	
Per cent change	.68/.20	= 340%
Gain		240%

LAND ONLY

Based upon change in buying power of dollar

Per cent gain or loss

First 5 year interval	253%
Second 5 year interval	151%
Ten year interval	240%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	216,382	227,632 (includes adj. lot)
Sales price of all parcels	\$163,541	\$404,800
Assessed value of imp. divided by 70%	\$ 75,271	\$ 75,271
Above multiplied dollar change factors	\$ 75,271	\$ 97,755
Value of land, less improvements	\$ 88,279	\$ 307,045
Computed value of land, per sq. ft.	\$ 0.41	\$ 1.35
	First 5 Year Interval	
Per cent change	1.35/.41	329%
Gain		229%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	89,525	89,525
Sales price of all parcels	\$105,000	\$169,500
Assessed value of imp. divided by 70%	\$ 9,343	\$ 9,343
Above multiplied by dollar change factors	\$ 12,134	\$ 16,109
Value of land, less improvements	\$ 92,866	\$153,391
Computed value of land, per sq. ft.	\$ 1.04	\$ 1.71
	Second 5 Year Interval	
Per cent change	1.71/1.04	164%
Gain		64%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	41,826	41,826
Sales price of all parcels	\$ 18,070	\$103,758
Assessed value of imp. divided by 70%	\$ 8,914	\$ 8,914
Above multiplied by dollar change factors	\$ 8,914	\$ 15,369
Value of land less improvements	\$ 9,156	\$ 88,389
Computed value of land, per sq. ft.	\$ 1.07	\$ 2.11

	Ten Year Interval	
Per cent change	2.11/1.07	197%
Gain		97%

LAND ONLY

Based upon inflation

Per cent gain or loss

First 5 year interval	229%
Second 5 year interval	64%
Ten year interval	97%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold second period
Total area of all parcels	123,312	128,312* (Adj. lot included)
Sales price of all parcels	\$257,735	\$426,813
Assessed value of imp. divided by 70%	\$ 56,271	\$ 56,271
Above multiplied by dollar change factors	\$ 56,271	\$ 73,209
Value of land, less improvements	\$201,464	\$353,604
Computed value of land, per sq. ft.	\$ 1.63	\$ 2.76
	First 5 Year Interval	
Per cent change	2.76/1.63	169%
Gain		69%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold second period	Resold third period
Total area of all parcels	15,075	15,075
Sales price of all parcels	\$ 17,000	\$ 19,500
Assessed value of imp. divided by 70%	\$ 8,443	\$ 8,443
Above multiplied by dollar change factors	\$ 10,965	\$ 14,559
Value of land, less improvements	\$ 6,035	\$ 4,941
Computed value of land, per sq. ft.	\$ 0.40	\$ 0.33
	Second 5 Year Interval	
Per cent change	0.33/0.40	83%
Loss		17%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	16,700	16,700
Sales price of all parcels	\$ 12,497	\$ 32,200
Assessed value of imp. divided by 70%	\$ 11,286	\$ 11,286
Above multiplied by dollar change factors	\$ 11,286	\$ 19,459
Value of land, less improvements	\$ 1,211	\$ 12,741
Computed value of land, per sq. ft.	\$ 0.07	\$ 0.76

	Ten Year Interval	
Per cent change	.76/.07	= 1086%
Gain		986%

LAND ONLY

Per cent gain or loss

First 5 year interval	69%
Second 5 year interval	17%
Ten year interval	986%

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	84,065	84,065
Sales price of all parcels	\$ 53,127	\$ 112,300
Assessed value of imp. divided by 70%	\$ 28,229	\$ 28,229
Above multiplied by dollar change factors	\$ 28,229	\$ 36,661
Value of land, less improvements	\$ 24,898	\$ 75,639
Computed value of land, per sq. ft.	\$ 0.30	\$ 0.90
	First 5 Year Interval	
Per cent change	.90/.30	= 300%
Gain		200%

TABLE 55

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	13,812	13,812
Sales price of all parcels	\$ 30,000	\$ 35,500
Assessed value of imp. divided by 70%	\$ 8,943	\$ 8,943
Above multiplied by dollar change factors	\$ 11,614	\$ 15,419
Value of land, less improvements	\$ 18,386	\$ 20,081
Computed value of land, per sq. ft.	\$ 1.33	\$ 1.45
	Second 5 Year Interval	
Per cent change	1.45/1.33 = 109%	
Gain	9%	

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon changes in the buying power of the dollar.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	94,200	94,200
Sales price of all parcels	\$ 92,861	\$187,000
Assessed value of imp. divided by 70%	\$ 43,300	\$ 43,300
Above multiplied by dollar change factors	\$ 43,300	\$ 74,655
Value of land, less improvements	\$ 49,561	\$112,345
Computed value of land, per sq. ft.	\$ 0.53	\$ 1.19
		Ten Year Interval
Per cent change	1.19/.53	225%
Gain		125%

LAND ONLY

Per cent gain or loss




First 5 year interval	200%
Second 5 year interval	9%
Ten year interval	125%

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon changes in the buying power of the dollar.

LAND ONLY REPEAT SALES

LEGEND:

-  First 5 year interval
-  Second 5 year interval
-  Ten year interval

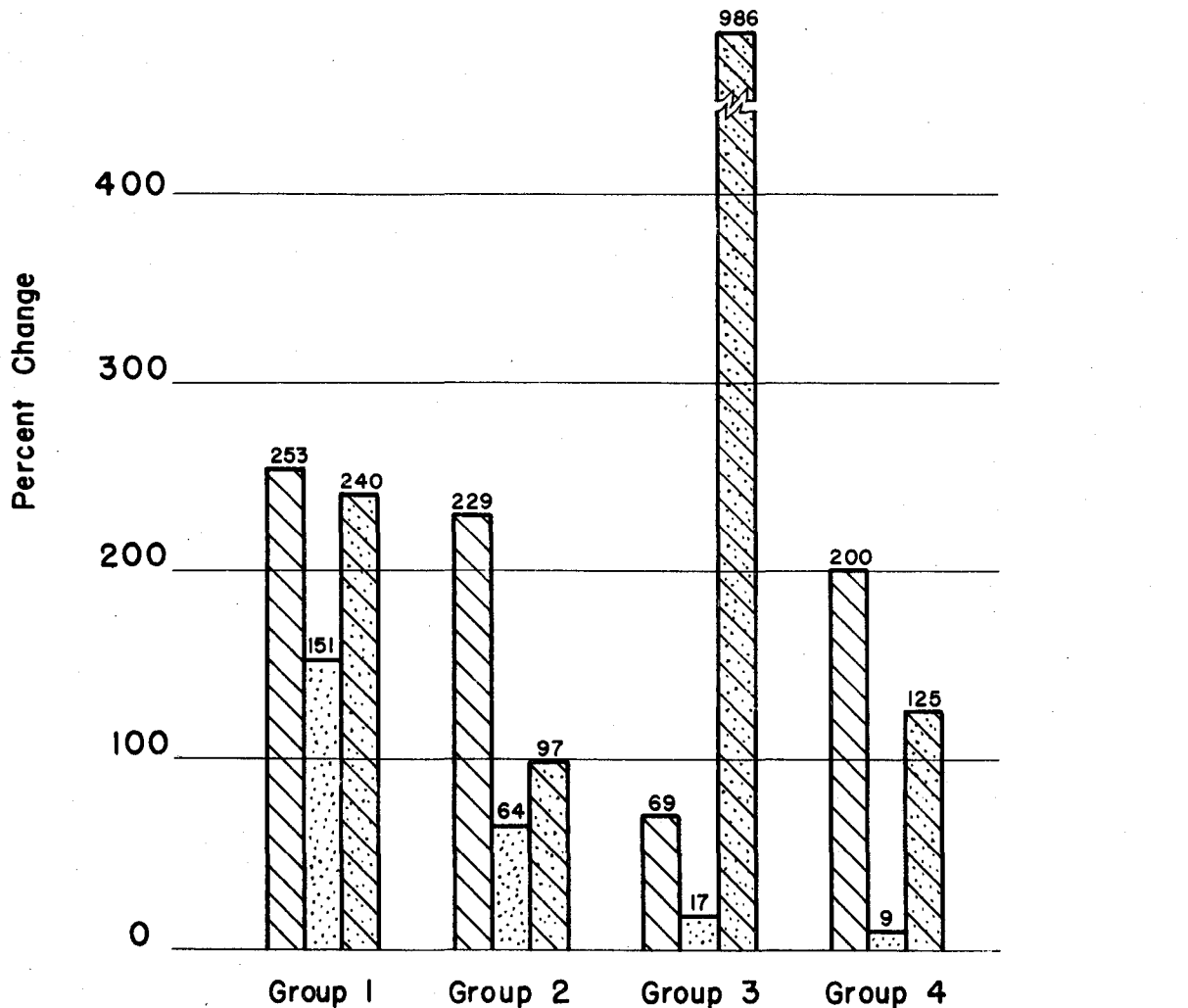


FIGURE 14

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	209,806	184,704
Sales price of all parcels	\$ 63,949	\$ 115,680
Assessed value of imp. divided by 70%	\$ 28,329	\$ 28,329
Above multiplied by construction cost factors	\$ 28,329	\$ 43,060
Value of land, less improvements	\$ 35,620	\$ 72,620
Computed value of land, per sq. ft.	\$ 0.17	\$ 0.39
	First 5 Year Interval	
Per cent change	.39/.17	229%
Gain		129%

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	36,000	36,000
Sales price of all parcels	\$ 48,950	\$ 102,450
Assessed value of imp. divided by 70%	\$ 13,286	\$ 13,286
Above multiplied by construction cost factors	\$ 20,191	\$ 31,409
Value of land, less improvements	\$ 28,759	\$ 71,041
Computed value of land, per sq. ft.	\$ 0.80	\$ 1.97
	Second 5 Year Interval	
Per cent change	1.97/.80	246%
Gain		146%

TABLE 59

REPEAT SALES

GROUP I

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	19,150	19,150
Sales price of all parcels	\$ 9,860	\$ 23,500
Assessed value of imp. divided by 70%	\$ 6,043	\$ 6,043
Above multiplied by construction cost factors	\$ 6,043	\$ 14,261
Value of land less improvements	\$ 3,817	\$ 9,239
Computed value of land, per sq. ft.	\$ 0.20	\$ 0.48
		Ten Year Interval
Per cent change	.48/.20	240%
Gain		140%

LAND ONLY

Based upon increased construction costs

Per cent gain or loss

First 5 year interval	129%
Second 5 year interval	146%
Ten year interval	140%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	216,382	*227,632 (includes adjacent lot)
Sales price of all parcels	\$ 163,541	\$ 404,800
Assessed value of imp. divided by 70%	\$ 75,271	\$ 75,271
Above multiplied by construction cost factors	\$ 75,271	\$ 114,394
Value of land, less improvements	\$ 88,279	\$ 290,406
Computed value of land, per sq. ft.	\$ 0.41	\$ 1.28
		First 5 Year Interval
Per cent change	1.28/.41	312%
Gain		212%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

Properties

	Sold second period	Resold third period
Total area of all parcels, sq. ft.	89,525	89,525
Sales price of all parcels	\$ 105,000	\$ 169,500
Assessed value of imp. divided by 70%	\$ 9,343	\$ 9,343
Above multiplied by construction cost factors	\$ 14,199	\$ 22,087
Value of land, less improvements	\$ 90,801	\$ 147,413
Computed value of land, per sq. ft.	\$ 1.01	\$ 1.65

Second 5 Year
Interval

Per cent change	1.65/1.01	163%
Gain		63%

REPEAT SALES

GROUP II

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	41,826	41,826
Sales price of all parcels	\$ 18,070	\$103,758
Assessed value of imp. divided by 70%	\$ 8,914	\$ 8,914
Above multiplied by construction cost factors	\$ 8,914	\$ 21,073
Value of land, less improvements	\$ 9,156	\$ 82,685
Computed value of land, per sq. ft.	\$ 1.07	\$ 1.98
		Ten Year Interval
Per cent change	1.98/1.07	185%
Gain		85%

LAND ONLY

Based upon increased construction cost
Per cent gain or loss

First 5 year interval	212%
Second 5 year interval	63%
Ten year interval	85%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold second period
Total area of all parcels	123,312	*128,312 (includes adjacent lot)
Sales price of all parcels	\$257,735	\$426,813
Assessed value of imp. divided by 70%	\$ 56,271	\$ 56,271
Above multiplied by construction cost factors	\$ 56,271	\$ 85,518
Value of land, less improvements	\$201,464	\$341,295
Computed value of land, per sq. ft.	\$ 1.63	\$ 2.66
	First 5 Year Interval	
Per cent change	2.66/1.63	163%
Gain		63%

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold second period	Resold third period
Total area of all parcels, sq. ft.	15,075	15,075
Sales price of all parcels	\$ 17,000	\$ 19,500
Assessed value of imp. divided by 70%	\$ 8,443	\$ 8,443
Above multiplied by construction cost factors	\$ 12,831	\$ 19,960
Value of land, less improvements	\$ 4,169	\$ -460
Computed value of land, per sq. ft.	\$ 0.28	\$ -0.03
	Second 5 Year Interval	
Per cent change	----	----
Loss, below 1945 value	.31/.28	* -111%

*Minus sign indicates loss

TABLE 65

REPEAT SALES

GROUP III

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon the increased cost of construction.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	16,700	16,700
Sales price of all parcels	\$ 12,497	\$ 32,200
Assessed value of improvements divided by 70%	\$ 11,286	\$ 11,286
Above multiplied by construction cost factors	\$ 11,286	\$ 26,680
Value of land, less improvements	\$ 1,211	\$ 5,520
Computed value of land, per sq. ft.	\$ 0.07	\$ 0.33
		Ten Year Interval
Per cent change	.33/.07	471%
Gain		371%

LAND ONLY

Based upon increased construction cost factors

Per cent gain or loss

First 5 year interval	63%
Second 5 year interval	* -111%
Ten year interval	371%

*Minus sign indicates loss

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon increased cost of construction.

	Properties	
	Sold first period	Resold second period
Total area of all parcels, sq. ft.	84,065	84,065
Sales price of all parcels	\$ 53,127	\$ 112,300
Assessed value of imp. divided by 70%	\$ 28,229	\$ 28,229
Above multiplied by construction cost factors	\$ 28,229	\$ 42,901
Value of land, less improvements	\$ 24,898	\$ 69,399
Computed value of land, per sq. ft.	\$ 0.31	\$ 0.83
	First 5 Year Interval	
Per cent change	.83/.30	277%
Gain		177%

TABLE 67

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon increased cost of construction.

Properties

	Sold second period	Resold third period
Total area of all parcels, sq. ft.	13,812	13,812
Sales price of all parcels	\$ 30,000	\$ 35,500
Assessed value of imp. divided by 70%	\$ 8,943	\$ 8,943
Above multiplied by construction cost factors	\$ 13,591	\$ 21,142
Value of land, less improvements	\$ 16,409	\$ 14,359
Computed value of land, per sq. it.	\$ 1.19	\$ 1.04

Second 5 Year
Interval

Per cent change	1.04/1.19	87%
Loss		* -13%

*Minus sign indicates loss

REPEAT SALES

GROUP IV

ANALYSIS

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70% multiplied by the factors based upon increased cost of construction.

	Properties	
	Sold first period	Resold third period
Total area of all parcels, sq. ft.	94,200	94,200
Sales price of all parcels	\$ 92,861	\$ 187,000
Assessed value of imp. divided by 70%	\$ 43,300	\$ 43,300
Above multiplied by construction cost factors	\$ 43,300	\$ 102,364
Value of land, less improvements	\$ 49,561	\$ 84,636
Computed value of land, per sq. ft.	\$ 0.53	\$ 0.90
		Ten Year Interval
Per cent change	.90/.53	170%
Gain		70%

LAND ONLY

Based upon increased construction cost factors

Per cent gain or loss

First 5 year interval	177%
Second 5 year interval	* - 13%
Ten year interval	70%

*Minus sign indicates loss

COMPARISON OF CHANGES in LAND VALUES

Based upon separating the price of the improvements from the total sales price at the assessed value divided by 70%, multiplied by the factors based upon increased cost of construction.

LAND ONLY REPEAT SALES

LEGEND:

- First 5 year interval
- Second 5 year interval
- Ten year interval

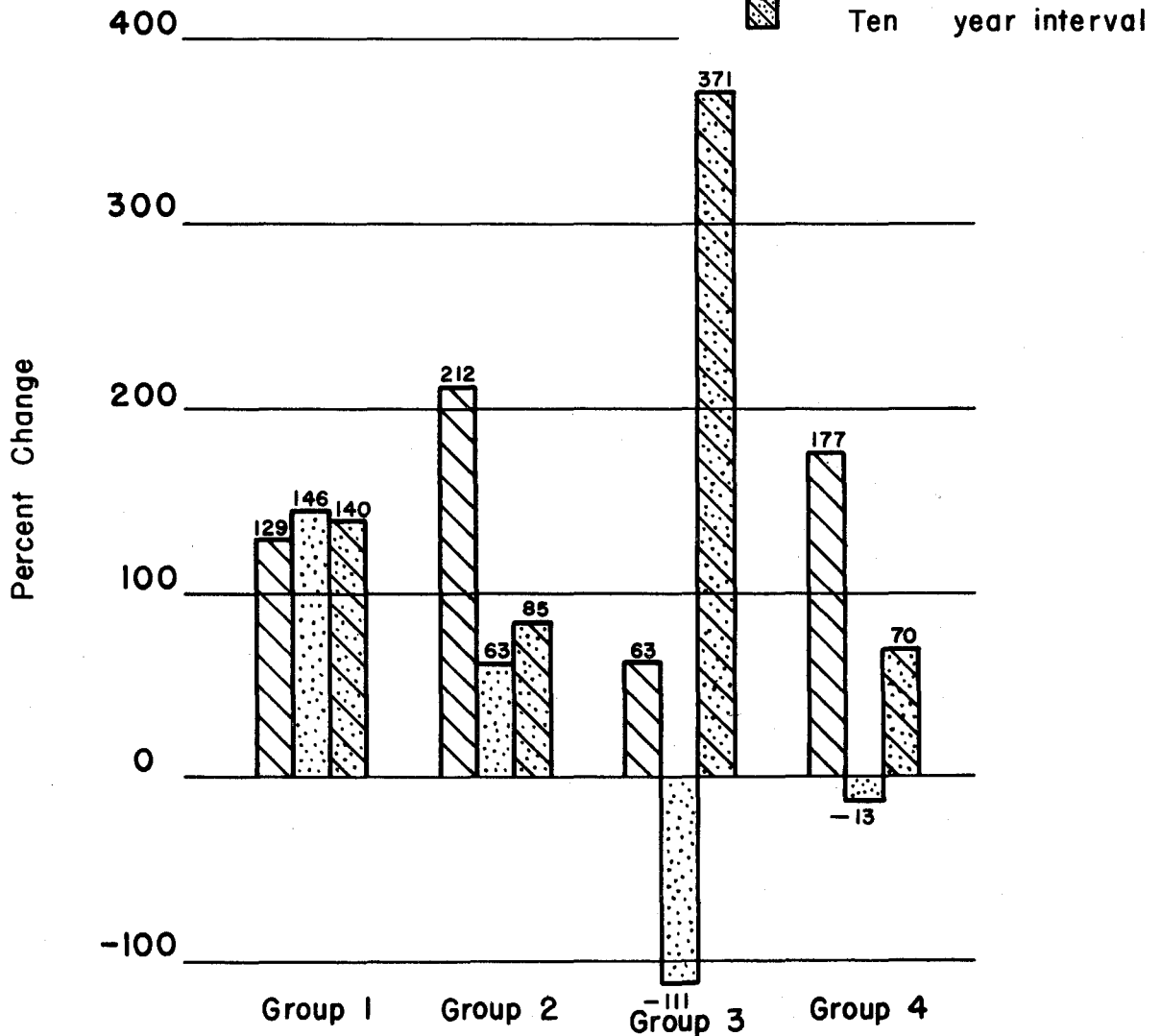
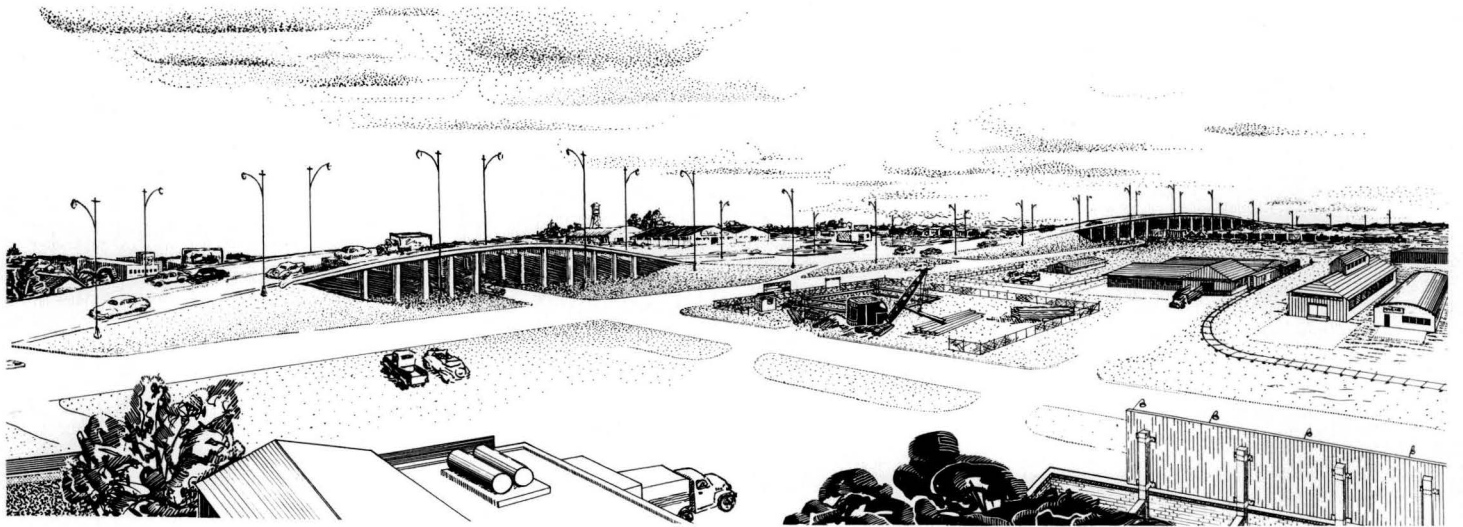


FIGURE 15

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ADDENDUM



ADDENDUM

The foregoing report carries four determinations as follows:

1. Sales prices including improvements.
2. Sales prices with improvements deducted on the basis of assessed value divided by 70 per cent.
3. Sales prices with improvements deducted on the basis of assessed value divided by 70 per cent, multiplied by the factors based upon changes in the buying power of the dollar, and
4. Sales prices with improvements deducted on the basis of assessed value divided by 70 per cent, multiplied by the factors based on the increase in construction cost.

With the exception of the first method, the determinations arrive at a sales price of the land only. Thereafter, the percentages of increase in value of the land in the intervals are expressed in the tabulations on the basis of the historical dollar; viz, the dollar of the period disregarding its buying power which steadily decreased over the ten year period under observation.

It is of interest and pertinent to the application of the facts disclosed by the report that the effect of the changing buying power of the dollar on the percentages as determined be brought out. The extent of the reflection of the change in the buying power of the dollar on land sales prices cannot be definitely established with knowledge now available, but the trend may be shown. In the report two dollar indices, the consumers index and the construction

index, were used in application of the above expressed methods of deducting the sales price of improvements to arrive at the sales price of the land only. These indices are applied to values of the land only in the following comparisons:

Conversion of Data on the Basis of the Consumer's
Dollar Index
Data from Tables 9, 10, 11 and 12

Item	Group			
	1	2	3	4
Data as used in report:				
1. Value of land per sq. ft., 1945	\$0.65	\$0.89	\$0.57	\$0.98
2. Value of land per sq. ft., 1950	\$1.44	\$1.58	\$0.60	\$1.23
3. Percentage, 1950/1945 <u>1/</u>	221.5	177.5	105.3	125.5
4. Percentage change	121	78	5	26
Conversion to 1940 dollars:				
5. Value per sq. ft., 1945 (0.77)	\$0.500	\$0.685	\$0.439	\$0.755
6. Value per sq. ft., 1950 (0.58)	\$0.835	\$0.916	\$0.348	\$0.713
7. Percentage, 1950/1945 <u>1/</u>	167.0	133.7	79.5	94.5
8. Percentage change	67	34	-21	- 5
9. Ratio to Group 4 value of percentage, 1950/1945 <u>2/</u>	1.77	1.41	0.84	1.00

1/ Actual percentages

2/ Note that these ratios have the same values whether computed in terms of the changing dollar (line 3) or of the constant (1940) dollar (line 7); e. g. ; $221.5/125.5 = 167.0/94.5$

Conversion of Data on the Basis of the Construction
Dollar Index
Data from Tables 13, 14, 15 and 16

Item	Group			
	1	2	3	4
Data as used in report:				
1. Value of land per sq. ft., 1945	\$0.61	\$0.82	\$0.50	\$0.92
2. Value of land per sq. ft., 1950	\$1.30	\$1.46	\$0.38	\$0.94
3. Percentage 1950/1945	213.1	178.0	76.0	102.2
4. Percentage change	113	78	-24	2
Conversion to 1940 dollars:-				
5. Value per sq. ft., 1945 (0.66)	\$0.403	\$0.541	\$0.330	\$0.607
6. Value per sq. ft., 1950 (0.42)	\$0.546	\$0.613	\$0.160	\$0.395
7. Percentage 1950 / 1945	135.5	113.3	48.5	65.1
8. Percentage change	36	13	-52	-35
9. Ratio to Group 4 value of percentage	2.08	1.74	0.75	1.00

Application of above calculations for the interval between 1945 and 1950, determines the bartering power of an average unit of land in Group 1 to have increased 72 per cent more than an average unit in Group 4 if based on the consumer's index, or 71 per cent more if based on the construction index.

