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REGIONAL LAND USE INVENTORY

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PROCEDURAL MANUAL

NUMBER 7
(Revised)

REGIONAL LAND USE INVENTORY

Southeastern Wisconsin Regional Planning Commission
Continuing Regional Land Use-Transportation Study

Old Courthouse
Waukesha, Wisconsin
53186

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Chapter I

INTRODUCTION

THE REGIONAL PLANNING COMMISSION

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) represents an attempt to provide the necessary areawide planning services for one of the large urbanizing regions of the nation. The Commission was created in August 1960 under the provisions of Section 66.945 of the Wisconsin Statutes to serve and assist the local, state, and federal units of government in planning for the orderly and economic development of southeastern Wisconsin. The role of the Commission is advisory; and participation by local units of government in the work of the Commission is on a voluntary, cooperative basis. The Commission itself is composed of 21 citizen members--three from each of the seven counties within the Region--who serve without pay.

The powers, duties, and functions of the Commission and the qualifications of the Commissioners are carefully set forth in the state-enabling legislation. The Commission is authorized to employ experts and a staff as necessary for the execution of its responsibilities. Basic funds necessary to support Commission operations are provided by the member counties, the budget being apportioned among the several counties on the basis of relative equalized valuation. The Commission is authorized to request and accept aid in any form from all levels and agencies of government for the purpose of accomplishing its objectives and is authorized to deal directly with the state and Federal Governments for this purpose. The Commission, its committee structure, and its staff organization, together with its relationship to the constituent counties, are shown in Figure 1.

THE REGION

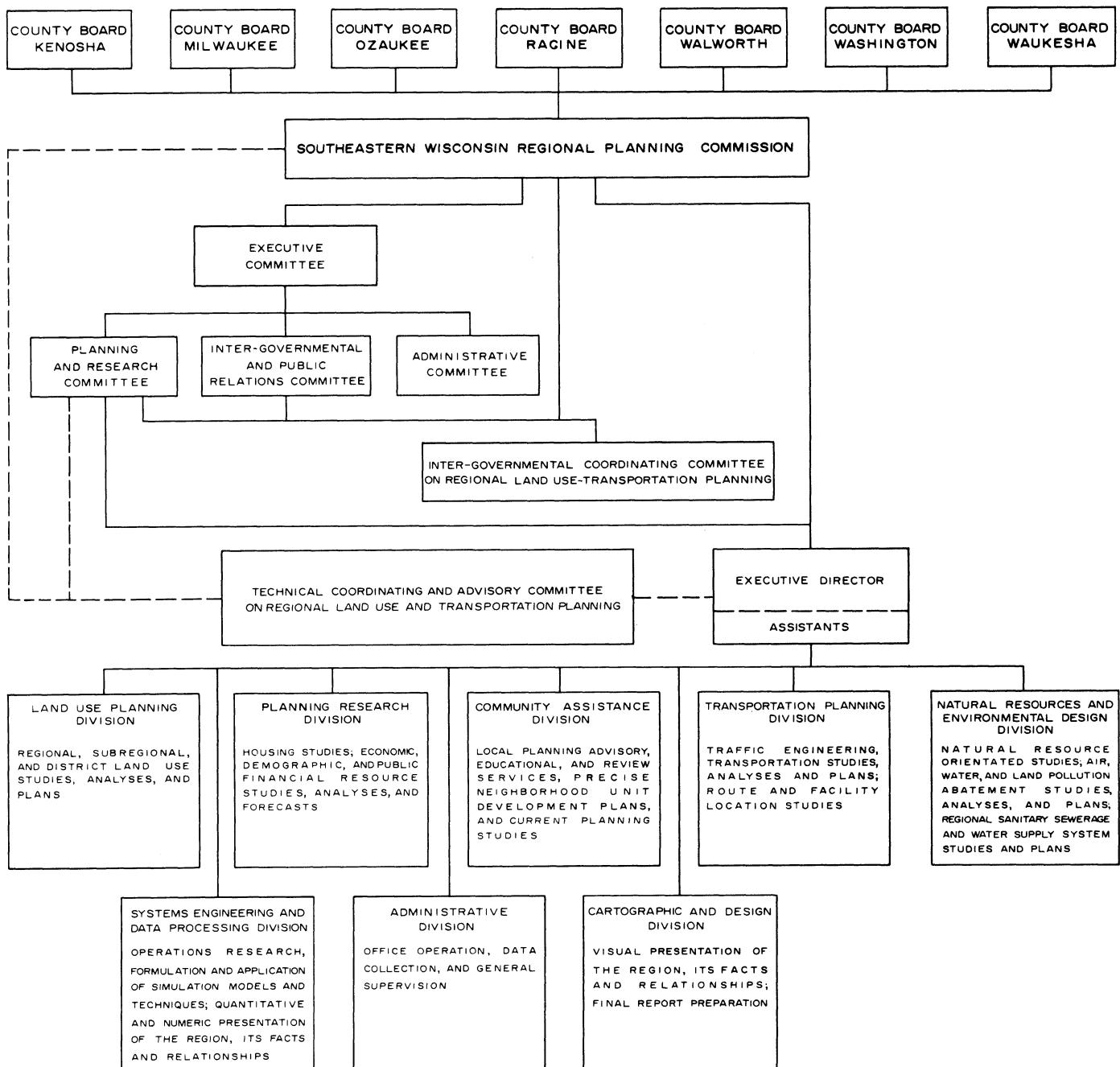
The Southeastern Wisconsin Planning Region, as shown on Map 1, is comprised of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties in southeastern Wisconsin. Exclusive of Lake Michigan, these seven counties encompass a total area of 2,689 square miles and together comprise about 5 percent of the total area of the State of Wisconsin and contain approximately 42 percent of the state population. The Region contains approximately one-half of all the tangible wealth in the State of Wisconsin, as measured by equalized valuation, and represents the greatest wealth-producing area of the state, with approximately 42 percent of the state labor force being employed within the Region. The seven-county Region contains 153 local units of government, exclusive of school and other special-purpose districts, and encompasses all or parts of 11 major watersheds. The Region has been subject to rapid population growth and urbanization and in the decade from 1950 to 1960, accounted for 64 percent of the population increase of the entire state.

THE REGIONAL PLANNING CONCEPT IN SOUTHEASTERN WISCONSIN

Regional planning as conceived by the Commission is not a substitute for, but a supplement to, local, state, and federal planning efforts. Its objective is to aid the various levels and units of government in finding solutions to areawide developmental and environmental problems which cannot be properly resolved within the framework of a single municipality or a single county. As such, regional planning has three principal functions:

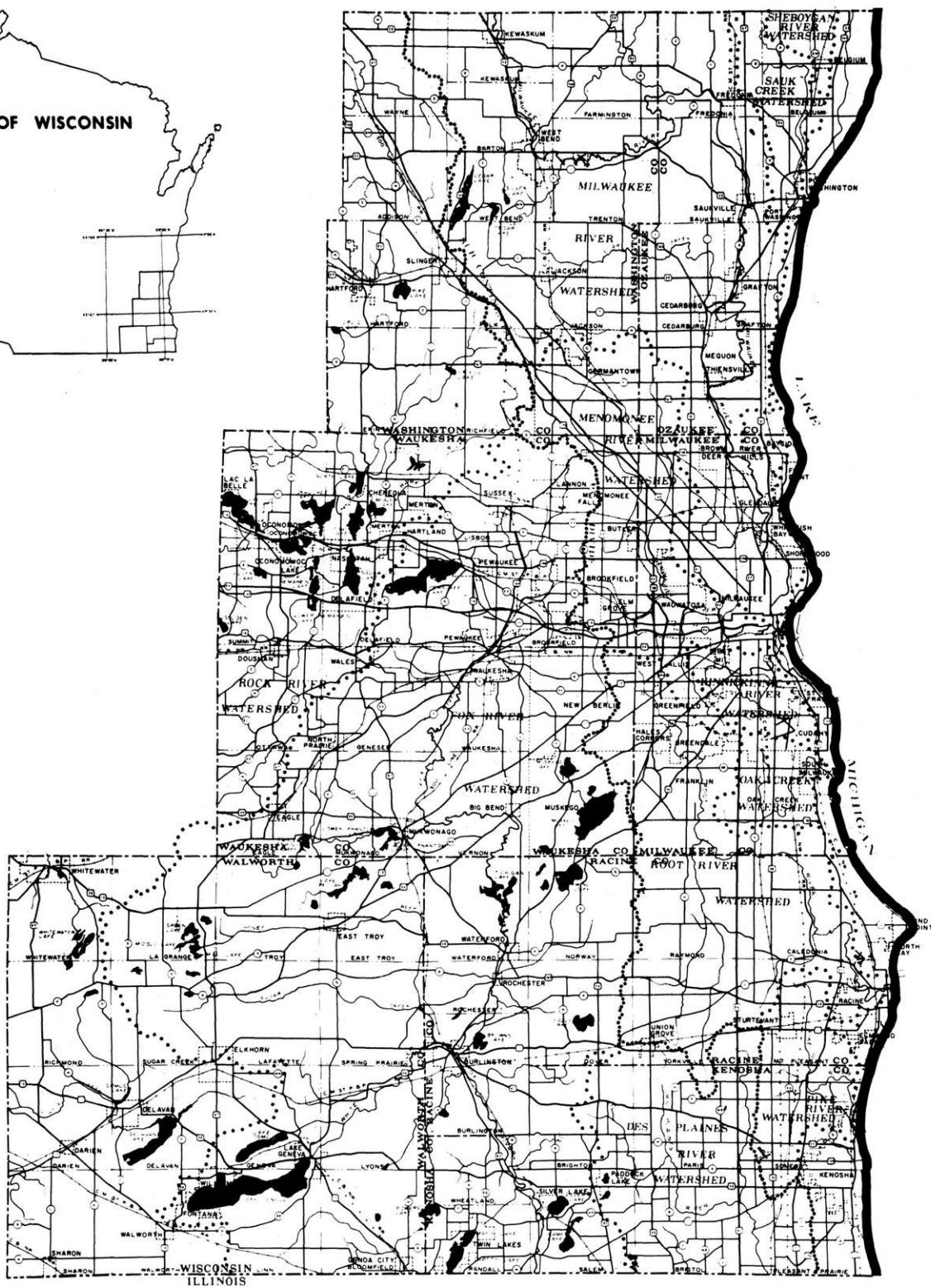
1. Inventory--the collection, analysis, and dissemination of basic planning and engineering data on a uniform, areawide basis so that, in light of such data, the various levels and agencies of government

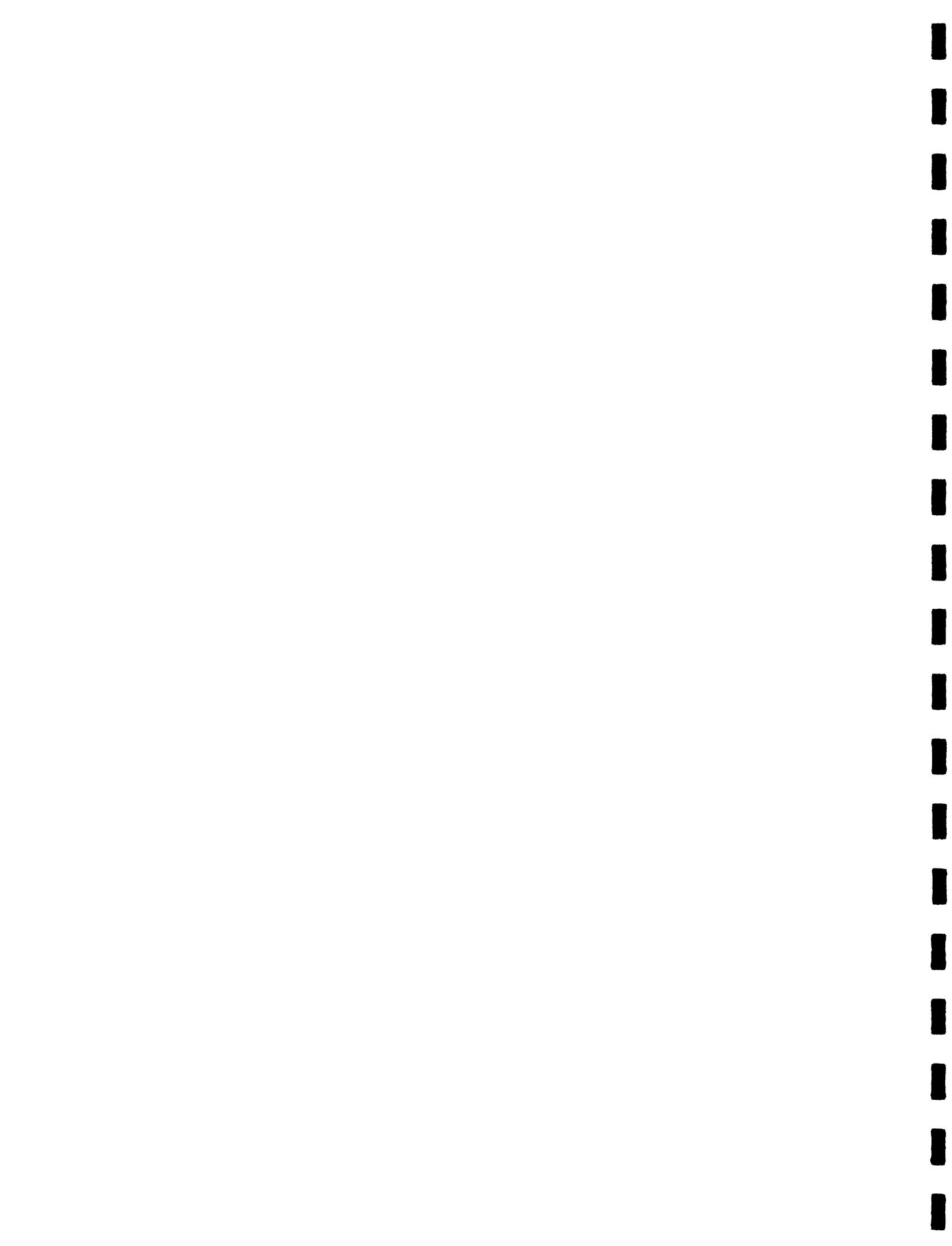
Figure 1
**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
 EXISTING STAFF AND COMMITTEE STRUCTURE**





Map I
SOUTHEASTERN WISCONSIN REGION





and private investors operating within the Region can better make decisions concerning community development.

2. Plan Design--the preparation of a framework of long-range plans for the physical development of the Region, these plans being limited to those functional elements having areawide significance. To this end the Commission is charged by law with the function and duty of "making and adopting a master plan for the physical development of the Region." The permissible scope and content of this plan, as outlined in the enabling legislation, extend to all phases of regional development, implicitly emphasizing, however, the preparation of alternative spatial designs for the use of land and for the supporting transportation and utility facilities.
3. Plan Implementation--promotion of plan implementation through the provision of a center for the coordination of the many planning and plan implementation activities carried on by the various levels and agencies of government operating within the Region.

The work of the Commission is, therefore, visualized as a continuing planning process providing assistance to the making of development decisions by public and private agencies and to the preparation of plans and plan implementation programs at the local, state, and federal levels of government. The work of the Commission emphasizes close cooperation between the governmental agencies and private enterprise responsible for the development and maintenance of land uses within the Region and for the design, construction, operation, and maintenance of their supporting public works facilities. All of the Commission work programs are intended to be carried out within the context of a continuing planning program which provides for the periodic reevaluation of

the plans produced, as well as for the extension of planning information and advice necessary to convert plans into action programs at the local, regional, state, and federal levels.

COMMISSION WORK PROGRAMS

Initial Work Programs

The initial work program of the Commission, which was instituted in 1961, was directed entirely toward the collection of specific planning and engineering data for the Region and included six basic regional planning studies which were begun in July 1961 and completed in July 1963. These six regional planning studies included:

1. A statistical program and data processing study.
2. A regional and county base mapping program.
3. A regional economic base and structure study.
4. A regional population study.
5. A regional natural resources inventory.
6. A regional public utilities inventory.

This initial work program was directed to providing the basic foundation of areawide planning and engineering data required for regional planning, and these data were documented in six published planning reports.

Initial Land Use-Transportation Study

The initial regional land use-transportation study was begun in January 1963 and was completed in July 1966. The study included the first region-wide collection of data on land use, as well as transportation, facilities and services; soils; outdoor recreation; stream water quality flow; and other elements of the natural resource base. These inventories subsequently were used to formulate alternative land use plans and transportation plans for the

seven-county Region, and The Recommended Land Use-Transportation Plan for 1990 was adopted by the Commission in December of 1966 and certified to the seven constituent counties and 146 constituent local units of government within the Region for their approval, as well as to those state and federal agencies with ongoing programs within the Region for their approval or endorsement.

Continuing Land Use-Transportation Study

The first continuing land use-transportation study was begun in July 1966 and was completed in December 1969. This three and one-half year continuing study was primarily concerned with surveillance of the major inputs to the adopted land use and transportation plans, reappraisal of the plan input, and the provision of planning and engineering services aimed at the implementation of the adopted land use and transportation plan for 1990. One of the major areas of surveillance during this continuing study period was concerned with the monitoring of urban development in the Region during the four-year period beginning on the date of the original land use inventory in April 1963 to April 1967, the date of the reinventory of land use in the Region. To accomplish this monitoring of urban development, a re-survey of land use in the Region was conducted utilizing April 1967 1" = 400' scale aerial photograph enlargements of the entire Region.

Second Continuing Land Use-Transportation Study

The second continuing land use-transportation study for the southeastern Region was begun in January 1970 and is scheduled to terminate in December 1974. A study design for this second continuing land use-transportation study, outlining the major work elements to be undertaken during the five-year study period, has been prepared by the Commission. One of the work elements to be completed under the second continuing land use-transportation study will be

the reinventory of land use in the Region as it occurs in April 1970. Such a reinventory will provide the Commission with the data necessary to delineate the historical record of land use within the Region at the time of the conduct of the 1970 U. S. Census of Population and Housing; provide a basis for monitoring changes in the urban growth patterns occurring within the Region during the periods subsequent to the first two regional land use inventories in 1963 and 1967; provide a basis for the direct comparison of the existing regional land use in 1970 with the 1970 stage of the adopted regional land use plan; and provide a basis for the reevaluation of the 1990 adopted regional land use plan and the extension of the plan design year beyond 1990.

The 1970 Land Use Inventory Procedural Manual was presented at a combined meeting of the Regional Planning Commission's Land Use Subcommittee and the Natural and Recreation-Related Resources Subcommittee of the Technical Coordinating and Advisory Committee on Regional Land Use-Transportation Planning on July 1, 1970. The Land Use Procedural Manual, as presented herein, was approved unanimously by the combined Subcommittee for use in the conduct of the 1970 regional land use inventory.

Chapter II

PURPOSE OF THE LAND USE INVENTORY PROCEDURAL MANUAL

The purpose of this Procedural Manual is to outline the methods and procedures to be followed in the conduct of the 1970 reinventory of land use in southeastern Wisconsin as an integral work element of the continuing regional land use-transportation planning process. In addition, this Procedural Manual sets forth the basic assumptions under which the reinventory of land use in the Region will be made, as well as the major objectives to be attained by such a reinventory of land use.

BASIC ASSUMPTIONS

The methods and procedures outlined in this Procedural Manual have been prepared based upon the following assumptions:

1. The 1970 land use inventory effort is to consist primarily of an updating of the 1963 and 1967 land use inventories and, as such, will utilize the same general land use categories and inventory procedures used with those inventories (see Appendix A).
2. The time and funds available for the 1970 land use reinventory are necessarily limited and, therefore, the reinventory should be accomplished as expeditiously as possible, utilizing the most direct and economical techniques available in order to accomplish the task involved in such a reinventory, while maintaining the highest possible quality.

OBJECTIVES OF THE LAND USE REINVENTORY

The reinventory of land use in southeastern Wisconsin will provide the basic data necessary to accomplish the following major objectives:

1. The measure of the total land use change which has taken place in both rural and urban areas of the Region during the periods 1963 to 1967, 1967 to 1970, and 1963 to 1970.
2. The analysis of the conversion of rural land use to urban land use during the periods 1963 to 1967, 1967 to 1970, and 1963 to 1970.
3. The delineation of historic urban development within the Region to the year 1970.
4. The detailed analysis of the impact of recent urban development upon those remaining elements of the natural resource base.
5. The monitoring of progress toward the implementation of the adopted regional land use plan for 1990.
6. The provision of land use data which can be directly related to the 1970 U. S. Census of Population and Housing.
7. The comparison of land development in the Region in 1970 with the 1970 stage of the adopted regional land use plan for 1990.
8. The provision of a current land use data base for reevaluation of the adopted regional land use plan for 1990 and the evaluation of the need to extend the plan design year beyond 1990.
9. The provision of current land use data for use as input into other regional, subregional, district, and local planning programs within southeastern Wisconsin.

Chapter III

LAND USE INVENTORY PROCEDURES AND METHODOLOGY

INTRODUCTION

While the 1970 land use inventory has several stated objectives, the primary objective of the Commission's Land Use Division in 1970 is the completion of the reinventory of land uses within the Southeastern Wisconsin Region. Utilizing the 1970 1" = 400' scale aerial photograph enlargements, the land use reinventory will be accomplished by visually comparing each 1970 aerial photograph print against each corresponding 1963 and 1967 land use aerial photograph print existing in the SEWRPC files and noting any changes in the land use arrangements that have occurred since the 1963 and the 1967 land use inventories.

In addition to this 1970 detailed land use inventory, two closely related land use inventory projects will be completed during 1970. The first project involves the transfer of 1962 City of Milwaukee land use information from the City of Milwaukee 1" = 200' scale plat maps to the SEWRPC 1963 1" = 400' scale aerial photographs. The mapping of these existing land use data to match the computer data previously received from the City of Milwaukee eliminates the need for any major field listings of existing land uses within the City of Milwaukee. The second project involves the drafting of a single sheet cronaflex overlay for each aerial photograph within the Region. This overlay will portray the 1970 land use delineations; the 1967 land use delineations, where they remain unchanged; and the 1963 land use delineations, where they remain unchanged. The mapping of this information onto a cronaflex overlay will provide the Commission with a complete single sheet record of land uses as they exist within the Region in April 1970.

1970 PROCEDURES

The 1970 reinventory of land uses in southeastern Wisconsin will be conducted in accordance with the following seven procedures.

1. Preinterpretation Procedure

The purpose of this procedural step is to prepare the prints of the 1" = 400' scale 1970 aerial photograph enlargements for use in the conduct of the 1970 land use reinventory. To accomplish this photo print preparation, the following tasks will be completed:

- a. Diazo prints of each 1" = 400' scale 1970 aerial photograph enlargement will be obtained using plastic-coated black-line diazo process paper.
- b. A 10 percent random sample will be drawn of the diazo prints of the photographic enlargements covering the entire seven-county Region for the purpose of determining any error in the scale of the U. S. Public Land Survey quarter sections, as contained within any aerial photograph, compared to the actual scale of the U. S. Public Land Survey quarter sections, as determined as a part of the initial regional land use inventory in 1963. Exact procedures for determining the scale error have been set forth in a staff memorandum entitled "Photo Sampling Quality Control," dated August 12, 1963.
- c. A priority number, as established in the initial 1963 land use inventory, will be assigned to each photo print of the 1970 aerial photographic enlargements.
- d. The boundaries of each U. S. Public Land Survey quarter section will be delineated upon each 1970 aerial photo print by connecting

the quarter-section corner "tick" marks which appear on the photo print, using an orange magic marker and a straightedge.

- e. The municipal corporate limit lines of all cities and villages within the Region will be placed on the 1970 aerial photo prints, using a black magic marker and a straightedge where necessary. Only the municipal boundaries as they existed on January 1, 1970, will be delineated on the aerial photo prints; and such corporate limit boundaries will be obtained from the files of the SEWRPC Cartographic and Design Division. In addition to the delineation of the municipal corporate boundary lines, the name or names of the cities and villages and the three-digit civil division code number will be placed adjacent to the delineated corporate limit line, using a black ball-point pen. Where the aerial photo print contains only one civil division, the name and three-digit civil division code of that civil division shall be placed at the top margin of the photo print, using a black ball-point pen.
- f. All quarter sections, as delineated on the 1970 photo prints, will be classified by special marking into two groups, using the following detailed procedures:
 - (1). By visually comparing the 1963, 1967, and 1970 aerial photographs, the land use research aides will determine those quarter sections that have had no visible land use change between 1963 and 1967, 1967 and 1970, and 1963 and 1970. Those quarter sections in which there is no land use change will be marked with a blue "X" in the upper right hand corner of the quarter section. This visual comparison will be

accomplished by a two-man interpretation team, and both members of the team must agree that no land use change has occurred in any particular quarter section before the "X" mark is placed. The quarter sections marked with a blue "X" will need no further interpretation, delineation, or measurement of land uses; and the 1963 or 1967 land use file will be maintained as the current land use data for these quarter sections. This group of quarter sections will then be designated as "Group One Quarter Sections."

- (2). Those quarter sections not being classified as Group One Quarter Sections will be those areas that have experienced a change in land use and, consequently, will be those areas directly involved in the 1970 land use inventory on a quarter-section-by-quarter-section basis. These quarter sections will be designated as "Group Two Quarter Sections" and will be subject to additional delineation, identification, coding, measurement, and recording of the land use changes occurring in each quarter section. Group Two Quarter Sections will be those quarter sections without a blue "X."
- (3). Following the completion of the determination of quarter-section groups, the research aide will place the 1963, 1967, and 1970 aerial photo prints, together with a 3" x 5" work unit number card, in the appropriate flat file for storage until needed for the interpretation-measurement task. Each individual aerial photograph

in the Region for 1963, 1967, and 1970 will be designated as a work unit. Each work unit will consist of the following items:

- (a). 1963 aerial photo print.
- (b). Corresponding 1967 aerial photo print.
- (c). Corresponding 1970 aerial photo print.
- (d). 1963 quarter-section print-out of land use information.
- (e). 1967 quarter-section print-out of land use information.
- (f). A work unit number card.

g. An additional preinterpretation step will be completed prior to the 1970 land use inventory. This work element will involve the transfer of 1962 City of Milwaukee land use information from 1" = 200' scale 1962 city plat maps to the 1" = 400' scale SEWRPC 1963 aerial photographs. This transfer of land use information will eliminate the necessity of a major field listing of land uses within the City of Milwaukee in 1970. These City of Milwaukee land use data correspond to the 1963 computer land use data for the City of Milwaukee. The 1" = 400' scale aerial map file copy of these data will allow a visual comparison of land use change in the City of Milwaukee similar to the methods used in the rest of the Region.

2. Interpretation-Measurement

The purpose of this step is to identify land use changes on the aerial photographs and interpret, delineate, measure, and code these changes. Two sets of procedures are described below. The correct procedure to be used for each quarter section is determined

by the quarter-section group assigned during the preinterpretation step. A work unit (one set of aerial photos, 1963, 1967, and 1970) may include all Group One Quarter Sections, all Group Two Quarter Sections, or a combination of the two groups.

a. Procedure for Group One Quarter Sections: Group One Quarter Sections are those quarter sections which have had no land use change since 1963 and 1967 and can be identified by a blue "X" in the upper right hand corner of each quarter section. The following procedures will be used for Group One Quarter Sections.

- (1). The aide will enter the appropriate 1970 civil division, town, range, section, and quarter-section identification numbers on a 1970 Measurement Change Form (Form LUD-2) for every quarter section on the aerial photo print that has been included in Group One Quarter Sections (those quarter sections having a blue "X.")
- (2). Group One Quarter Sections should be listed as usual on the 1970 measurement Change Form (Form LUD-2) and, in place of land use changes, "No Land Use Change" should be indicated.
- (3). Since no land use change has occurred in these Group One Quarter Sections, the existing land use data in the SEWRPC file will be used as the current 1970 land use for these quarter sections.

b. Procedure for Group Two Quarter Sections: Group Two Quarter Sections are those quarter sections which have had land use changes since 1963 or 1967, and the changes to the previously

existing land use pattern necessitates utilizing inventory and analysis procedures. The following procedures will be used for Group Two Quarter Sections.

- (1). Working in One Quarter Section at a time, the research aide will enter the appropriate 1963, 1967, and 1970 civil division, town, range, section and quarter-section identification numbers on a 1970 Measurement Change Form (Form LUD-2) for each Group Two Quarter Section.
- (2) After the above entries have been made for a quarter section, the aide will identify and delineate all land use changes in each quarter section, using the 1963 and 1967 aerial photo prints and computer print-outs as references to determine prior land use codes where change is apparent and to determine the new land use by aerial interpretation.
- (3) Those areas which cannot be interpreted by aerial photo reading or in which the 1963 or 1967 codes cannot be determined or appear questionable shall be outlined in orange to show that the area in question should be field-checked.
- (4) If field checks are required in a quarter section, do not measure or code that quarter section until the field check has been completed. If no field checks are required in a particular quarter section or if field checking has been completed, the land uses should be measured by counting squares on a grid overlay scaled

at 1 square = 1,000 square feet. Each individual land use delineation should be measured separately and entered on the coding forms (Forms LUD-1 or/-2) in a systematic manner to facilitate review by a supervisor. The research aide and the land use supervisor will determine whether the changes in land uses within a quarter section are of such significance in terms of size or number to warrant a complete remeasurement of all land uses in the quarter section. If a complete remeasurement is warranted, Form LUD-1 will be used to record all land use codes and measurements. If only a few measurements of land use change are necessary, Form LUD-2 will be used to record those changes. Starting with land use code 00, all of the areas delineated and coded that single land use shall be measured before proceeding to land use codes 01 through 94. In addition, where there are several separate areas coded as the same land use, these areas should be measured and the measurement results recorded on the coding form in a systematic manner (that is, block-by-block, left-to-right, and clockwise rather than haphazardly).

- (5). After the above procedures have been followed for each Group Two Quarter Section and after each quarter-section coding sheet (Form LUD-1 or/-2) is complete, the separate area entries on the coding form should be totaled on

an adding machine and the tape checked for errors, and attached to the 1970 coding form so that the maps, the land use codes, and the measurements can be checked by a land use inventory supervisor.

- (6). The land use inventory supervisor will then check the work unit for completeness and accuracy, especially checking the following points: a) the assignment of civil division codes, b) the areas marked for a field check, and c) the total area of the quarter section. If additional field work is not required, the work unit will be filed by the supervisor to await data processing. If additional field work is required in the work unit, it will be scheduled by the supervisor. After the field work is completed, the supervisor will return the work unit to the same research aide, who will finish delineating the land uses and measure and code those quarter sections which required added field work.
- (7). The completed work unit will then be returned to the supervisor for a final map and coding check and for filing to await transfer to the data processing section.

3. Quality Control

The purpose of this step is to assist in ensuring the highest possible accuracy in the conduct of the 1970 land use inventory update. Control checks will be made as to land use change interpretation, delineation, and measurement. All quarter sections

that contained land use changes will be checked for control purposes. A supervisor will perform checking operations with respect to interpretation, delineation, measurement, and coding. The supervisor will correct and point out all discrepancies to the research aides.

4. Civil Division Assignment

Because of changes in corporate limit lines throughout the Region since 1963 and 1967, it is necessary in some cases to reassign civil division code numbers to quarter sections. The following criteria will be used to determine the 1970 Civil Division Code for a quarter section containing more than one civil division.

- a. The civil division number representing a city, village, or town will be assigned to an entire quarter section if that civil division covers at least one-half of the quarter section area and contains the greater percentage of urban development of that quarter section.
- b. When urban development and area in a given quarter section are equally divided among two or more civil divisions, the codes will be assigned in the following order: city, village, and town, except for the City of Milwaukee, where separate data are given for each portion of a split quarter section.
- c. If both civil divisions are of the same type and contain equal urban development, the code of the civil division having the greater area will be assigned.

5. Data Processing

As the 1970 measurement forms and the measurement change forms are completed for each county in the Region, they shall be transmitted

to the Data Processing Division in order that a duplicate 1967 land use inventory tape file may be updated. Using the tally sheets, the Data Processing Division will keypunch, verify, and calculate all changes in the area measurements for each land use category in each quarter section and run contingency checks on all land use totals derived for each quarter section. For those quarter sections where surveyed control measurements have been completed (see SEWRPC Technical Report No. 7, Horizontal and Vertical Survey Control In Southeastern Wisconsin), the surveyed control measurement of each quarter section will be used in place of the 1963 quarter-section area control total that was derived from map measurements. The revised land use category totals will then be adjusted by machine processing. Once the revised 1970 land use data have been edited and the 1970 land use file is complete and correct for each county, additional, data processing work requests will be made in order to obtain basic inventory print-outs by quarter section and section and summaries by town, range, civil division, county, and region. These initial summaries will be used in the preliminary analysis of land use growth and change within the Southeastern Wisconsin Region. These land use summaries will also be the basic input into any plan reevaluation and extension of the plan design year. The detailed land use analysis procedures will be explained more fully in separate memoranda as these phases of the land use program are begun.

6. Overlay Mapping of Land Use Information

At the completion of the reinventory of land uses in 1970, the Regional Planning Commission will have three sets of aerial

photos on file upon which the following land use information is coded.

- a. 1963 aerial photograph paper prints, with 1963 land uses delineated and coded.
- b. 1967 aerial photograph paper prints, with only 1967 land use changes and additions coded.
- c. 1970 aerial photograph paper prints, with only 1970 land use changes and additions coded.

These three sets of aerial photos will contain parts of the total land use inventory for each quarter section within the Region. A cronaflex overlay for each aerial photograph in the Region will be prepared. The 1970 land use changes, the 1967 land use changes, and the remaining unchanged 1963 land uses will be delineated on these cronaflex overlays.

The overlay mapping will involve the use of the three land use aerial photo prints. Using a straightedge, pencil, and a 30" x 30" cronaflex sheet, the research aide will transfer land use data from the aerial photographs to a cronaflex overlay in the following manner.

- (1). Tick marks and aerial photograph identification numbers corresponding to the 1970 and 1967 aerial photograph prints will be placed on the cronaflex sheet.
- (2). The cronaflex sheet will be taped to the 1970 land use aerial photograph prints, and the 1970 land use changes will be delineated onto the cronaflex overlay.

(3) Following delineation of the 1970 land uses, the cronaflex sheet will be taped to the 1967 land use aerial photograph prints; and the 1967 land use changes will be delineated onto the cronaflex overlay.

Note: If a 1967 land use has been changed in the 1970 inventory, the 1970 land use delineation will be the current land use transferred to the cronaflex overlay.

(4) Following the delineation of the 1967 land uses, the cronaflex sheet will be taped to the 1963 land use aerial photograph prints; and the 1963 land uses will be delineated for those remaining portions of the aerial photograph not mapped during the 1967 or 1970 land use overlay map procedures.

The completion of this land use overlay program will provide the Commission with a current record of land use for each part of the Region on one map sheet. The preparation of such an overlay will enable any future land use inventories to utilize one sheet of land use facts to overlay new aerial photos and immediately identify land use changes that will need new delineation, coding, measuring, and eventual transfer to the permanent land use record single sheet cronaflex overlays. The conduct of the overlay mapping of 1963 and 1967 land uses will take place in conjunction with the land use survey, and the overlays will be utilized to identify 1970 land use changes. However, completion of the land use overlays, including the 1970 land use data, will be based upon the completion of the 1970 land use inventory, which is the primary objective of the program.

7. Equipment and Materials

It is essential to the quality and efficiency of the land use work that, at all times, each research aide has the proper equipment and materials to accomplish the assigned tasks. The following materials will be distributed by the land use supervisor to each research aide.

- a. One transparent straightedge.
- b. One pink pearl eraser.
- c. One ball-point pen.
- d. Two No. 2 5/10 pencils.
- e. Two each of the following prisma color pencils: yellow, red, pink, purple, brown, light blue, dark blue, light green, dark green, and orange.
- f. Grid overlay templates having grid squares representing 1,000 square feet for measurement purposes.
- g. One scratch pad.

Two research aides will share a work station; and each work station will be supplied with one engineer's scale, a supply of 1970 land use measurement forms (LUD-1), and a supply of 1970 land use measurement change forms (LUD-2). In addition, the following equipment and materials will be available in the land use inventory work room: adding machines, calculators, planimeters, map measures, pencil sharpeners, staplers, felt tip pens, and cronaflex overlay sheets.

Both equipment and materials will be kept in an orderly manner so they are readily available to the research aides and so the

workroom maintains efficient working conditions to ensure accurate interpretation and delineations during the conduct of 1970 land use inventory.

Chapter IV

DEFINITIONS FOR LAND USE CLASSIFICATION

INTRODUCTION

In order to interpret and delineate accurately the land uses identified on the 1970 aerial photos, it is necessary to define the 40 land use classifications listed in Appendix A of this Manual. In some instances questions will arise as to the proper coding of an identified land use change. When this occurs, the research aide should consult the inventory supervisor, who will determine the proper classification by examining the 1963 and 1967 aerial photos in locations where the same or similar land use can be readily identified. In this way the same determinations will be made in 1970 as were made in 1963 and 1967. In every instance where such a determination is made, the supervisor will immediately record the decision in a log to be kept in the workroom and will post a duplicate of the log on the workroom bulletin board. Research aides should always first consult the log to see if the situation for which he is concerned has been previously rectified or assigned. When the 1970 inventory is completed, the log entries will be listed and issued as an addenda to this guide. The following definitions are adopted from SEWRPC Procedural Manual No. 5, Land Use Survey, published in 1963 and include changes made during the course of the 1963 and 1967 inventories.

RESIDENTIAL (COLOR CODE ~ YELLOW ORANGE)

00 Single-Family Residential

A single building and premises with the primary use being that of housing one family. For farm dwellings, include an area of 20,000 square feet. Any clear-cut rural residential area that is larger than 20,000 square feet, however, must be delineated as such.

01 Two-Family Residential

Any single building and premises with the primary use being that of housing two families, either side-by-side, one front and one rear, or one above the other, and generally called a duplex.

02 Multi-Family Residential (High-Rise)

Any single building four or more stories in height and premises with primary use being that of housing three or more families.

03 Multi-Family Residential (Low-Rise)

Any single building one, two, or three stories in height and premises with the primary use being that of housing three or more families.

04 Mobile Home

A vehicle designed for the purpose of housing one family, usually parked in a mobile home park or trailer park, but may also be found on single lots or on lots having another primary use. When found outside mobile parks, include a minimum area of 20,000 square feet.

Note: Be careful not to confuse mobile homes with truck trailers which are similar in appearance from the air.

05 Residential Land Under Development

A vacant lot which is adjacent to, or in the vicinity of, residential uses or a portion of a block which has street frontage, is vacant, and which adjoins residential uses. A vacant lot abutting both a residential and other use should not be given this classification unless it can be determined that the area is primarily residential in character and that the lot is likely to be developed for residential purposes.

Note: Vacant areas or lots less than 10,000 square feet (100 x 100 or 50 x 200) in size shall be classified with the adjacent use.

RETAIL AND SERVICES (COLOR CODE - PINK)

10 Local Retail and Services

All retail and service commercial uses for which the primary function involves the sale of goods and services, such as the grocery store, drugstore, automobile or farm implement dealer, taverns, beauty or barber shop, commercial recreation, and law or other professional offices which are not located in specially delineated Major Retail and Service areas, as shown on the regional plan map.

11 Regional Retail and Services

Those retail commercial uses, as outlined in 10 above, which are located in specially delineated Major Retail and Service areas, as shown on the regional plan map.

WHOLESALE (COLOR CODE - SCARLET LAKE)

20 Wholesale (Open)

Goods located in open yards or on lots for the primary purpose of storage awaiting further processing or sale to retailers or for the storage of equipment. Examples might be a coal yard, contractor's yard, pipe storage yard, or junk yard.

21 Wholesale (Enclosed)

Goods located in buildings, including sheds and warehouses, for the primary purpose of storage awaiting further processing or sale to retailers or for the storage of equipment. Examples might be a lumber yard, feed and grain storage, retail warehouse (not sales), or oil tanks.

MANUFACTURING AND RELATED (COLOR CODE - PURPLE)

30 Manufacturing (All Kinds)

All buildings and premises (except off-street parking) devoted to the manufacturing of all goods and products.

Note: The 1963 land use inventory attempted to break manufacturing down into 18 categories. However, this attempt was dropped at the analysis stage; and all categories were lumped into one. Therefore, read all numbers from 30 to 48 on the 1963 aerial photos as "30."

49 Extractive (Quarries and Mining Operations)

The extraction of products from the earth, such as the quarrying of stone or sand and the drilling and mining of minerals and ore. Where small excavations are formed with no public access on a farm, classify under the surrounding use. Usually they are small areas used by the farmer for his own use in filling or fertilization if lime or other material is available.

Note: Do not confuse land fill operations or dumps with extractive operations. Where in doubt, mark for field checking. Land fill operations and dumps are to be coded as category 93.

TRANSPORTATION, COMMUNICATIONS, AND UTILITIES (COLOR CODE - DARK BROWN)

50 Rail, Bus, and Ship Terminals

The place of embarkation or arrival of passenger and freight via rail, bus, or ships.

51 Railroad Right-of-Way

That area of land generally set apart by fencing on which the railroad bed and rails are laid and which is owned or controlled by a railroad

company (usually 100 to 150 feet in width). Railroad rights-of-way shall be outlined in brown and assigned the appropriate number.

52 Railroad Yards

The switching area for railroad cars being transferred from one track to another, usually including three or more parallel tracks in the vicinity of warehouses, terminals, or storage sheds.

53 Airports

An airport or airstrip, including runways, terminals, and plane maintenance and storage facilities.

54 Local and Collector Street Right-of-Way

All public vehicular rights-of-way not included in categories 55 and 56. Use a standard width of 50 feet unless obviously different.

55 Arterial Street and Highway Right-of-Way

Public vehicular rights-of-way on arterial street and highway system, including state and county highways, but not including freeways, expressways, and other limited access highways. Use a standard width of 72 feet unless obviously different.

Note: Categories 54 and 55

In urban areas only Category 55 roads should be labeled.

Roads not labeled in urban areas are understood to be "54."

In a small subdivision outside urban areas, designate both "54" and "55."

56 Freeway and Expressway Right-of-Way

Public vehicular rights-of-way which are limited access routes having an interchange or grade separation as the only access.

Note: Lands located within the right-of-way of a freeway or expressway, but not directly used as a highway, such as large parcels of land at cloverleaf intersections, are to be coded as part of the freeway or expressway.

57 Truck Terminals

The termination point of trucks and where trucks or truck trailers are loaded, unloaded, or stored (may include unloading shed).

58 Off-Street Parking

All lots or structures of more than 10 parking spaces used for the temporary storage of automobiles. Included are supermarket lots, factory lots, and so forth.

59 Communication and Utility Facilities

The building or premises on which communication substations, radio, and TV transmission stations and antennas, incinerators, and utility plants, such as sewerage disposal, and water wells and water storage and filtration facilities are located. Also includes all utility line rights-of-way.

INSTITUTIONAL AND GOVERNMENT SERVICES (COLOR CODE - TRUE BLUE)

60 Those institutional uses which primarily serve one community or municipality or part thereof, such as an elementary school, junior high school, a church, or a neighborhood library.

Note: Do not separate a playground from a school building and grounds in assigning a land use code number, unless the playground is of substantial size and not directly connected with the school.

61 Regional Institutional

Those institutional uses which primarily serve more than one community or area larger than one community, such as a senior high school, a

junior-senior high school, college, university, vocational school, major library cultural centers, convents, hospitals, union halls, lodge halls, and cemeteries.

62 Local Governmental

Those government services uses which are extended to persons within a community or municipality or part thereof, such as a town, village, or city hall, a fire station, municipal police station, vehicle maintenance garages, or local government offices, including local public utility offices.

63 Regional Government

Those governmental services uses which are extended to persons from various communities or municipalities, such as county courthouses, Red Cross office, welfare agencies, state or federal offices, post office, and military and penal installations.

RECREATION (COLOR CODE - INDIGO BLUE)

70 Local Public Recreation Areas (Enclosed)

Those public recreation areas serving a community, municipality, or part thereof which are enclosed by a wall or fence or entirely with a building for the purpose of restriction, such as tennis courts, swimming pools, hockey rinks, and other special uses (may include an entire playground or minor park).

Note: When such uses are part of a larger park, they should be classified under the larger park classification.

71 Local Public Recreation Areas (Open)

Those public recreation areas serving a community, municipality, or part thereof which are open in character, such as a park, tot lot, and general playfield, including river parkways.

73 Regional Public Recreation

Those public recreation areas which serve more than one community or municipality and are designated as major outdoor recreation sites on the regional plan.

74 Private and Other Recreation (Natural Area--Intensive Use)

Those recreation areas in which the natural character of the landscape has not been significantly changed, such as game preserves, beaches, campgrounds, or large parks (100 acres or more).

75 Private and Other Recreation (Artificial Areas--Intensive Use)

Those recreation areas in which the natural character of the landscape has been changed, such as a golf course, ski and toboggan runs, playfields, race tracks, marinas, or fish hatcheries, and special recreation uses, such as a fairgrounds, stadium, zoo, or conservatory.

AGRICULTURE AND RELATED (COLOR CODE - TRUE GREEN)

80 Croplands and Pasture

Those areas used either for the cultivation of crops each year or on a rotation crop basis, such as corn and other grain field, and vegetables, legumes, or grasses. Also, those areas used as a pasture for livestock.

82 Orchards and Plant Nurseries

Those areas of land of at least one acre used for the cultivation and raising of trees, vines, or bushes for the commercial sale of their fruits, nuts, or sap and also the cultivation of trees, vines, and shrubs for wholesale or retail sale.

Note: Does not include timber farms.

83 Fowl and Fur Farms

Those farms where fowl or fur-bearing animals are raised for commercial and wholesale consumption as food or for pelts or down.

84 Other Agricultural Uses

All other agricultural uses, such as breeding farms and sod farms, which cannot be classified in classifications 80 through 83 above.

Note: All farm dwellings will be classified in the appropriate residential classification and shall include an area of 20,000 square feet. All other farm buildings will be classified along with the adjoining agricultural use.

OPEN LANDS AND WATER AREAS (COLOR CODE - DARK GREEN)

90 Lakes Rivers, and Streams and Canals

All bodies of water (except Lake Michigan and as indicated above under recreation) and all streams, rivers, and canals over 50 feet in width. Streams less than 50 feet are coded with the adjacent use, often wetland.

91 Swamps, Marshes, and Wetlands

Swamps are wooded lands which are generally covered with water, and marshes are open lands intermittently covered with water. Both of these areas are usually found at the edge or adjacent to lakes or streams. Wetlands are those lands which are wet and spongy due to a high water table and the character of the soil but are not necessarily adjacent to bodies of water. Where wetlands are cropped or show evidence of being cropped, assign code number 80.

92 Unused Lands

Lands which are neither developed, cropped, tilled, or grazed or used as a place of storage.

93 Land Fill and Dumps

A tract of land used for the purpose of trash or garbage dumping, either in open pits or by burying.

94 General Woodlands

Those areas which are covered with trees or heavy brush, including timber farms. Minimum area for woodlands is one acre, or about 40,000 square feet.

GENERAL NOTES

- a. In the event two uses may be determined for an area, code the more intensive use.

Example: A bridge over a stream shall be coded as road right-of-way.

- b. Small, insignificant areas shall be coded that of the adjacent, most logical, land use.

Example: Vacant land adjacent to commercial, if less than 10,000 square feet, code as commercial; if greater than 10,000 square feet, code as unused land.

Example: A narrow strip of wetland (ditch) less than 50 feet in width through cropland shall be as coded cropland.

- c. Where problems arise, do not hesitate to consult a supervisor. They will be responsible for resolving coding conflicts and recording all such determinations, posting them on a bulletin board in the Land Use Workroom so that consistency is maintained throughout the inventory.

APPENDIX A

DETAILED LIST OF LAND USE CODES

(To Be Used With Land Use Code Definitions)

0 Residential

00 Single-Family

Single units-detached

Row houses

Townhouses

Private cottages or summer houses

01 Two-Family

Side-by-side

One above the other

02 Multi-Family, High-Rise (4 or More Stories)

03 Multi-Family, Low Rise (1-2-3 Stories)

04 Mobile Homes

On single lots and in parks

05 Vacant Residential Land

1 Retail and Services

10.11 Retail and Services (Local and Regional)

Grocery and Drugs

Supermarket

Neighborhood food store

Special food (dairy products, candy, meats, fruit,
and vegetables, etc.)

Bakery
Drugstore
Liquor or beer store
Other

Eating and Drinking

Restaurant
Tavern
Drive-in restaurant
Soda fountain, hamburger, short order
Other (expresso house)

General Merchandise, Variety

Department store (traditional)
Discount store (self-service)
Mail-order, catalog sales
Dime store
Dry goods, draperies, linens

Apparel and Accessories

Women's apparel
Men's apparel
Children's apparel
Family apparel
Shoes, boots
Other (rental of costumes, dressclothes, etc.)

Furniture and Appliance

Furniture
Used furniture and appliances

Appliances

Carpet and floor covering, shades, and blinds

Radio, TV, hi-fi

Other (antiques, sleep shop, cut glass, and mirrors)

Hardware, Paints, Building Materials, Lumber, (etc.)

Sales building with small proximate storage area

Garden store--equipment, plants, other

Motor Vehicle Sales and Service

Auto sales-and-service

Auto repair, carwash

Auto body and paint shop

Auto parts and accessories

Auto, truck, and trailer rental

Sales, other vehicles--trucks, trailers, boats, implements

Service station

Other Retail, Intensive (Small Products and Space)

Music, including instruments, sheet music, records

Music schools

Sporting goods, toys, hobbies

Card and gift

Office equipment, stationery, typewriter, artist supplies

Florist

Pawnshop, second-hand

Jewelry

Other (religious goods, books, cameras, paintings, smoke
shop, pet shop)

Other Retail, Extensive (Large or Heavy Products and Space)

Legal, Insurance, Real Estate Offices

Legal

Insurance

Real estate

Banks and Other Financial

Banks, except drive-in

Banks, drive-in

Savings and loan

Other financial agencies (loan offices)

Medical Services

Doctors' office

Dentist office

Other medical offices

General Administrative and Sales, Not Elsewhere Classified (n.e.c.)

Buyers, brokers, manufactures agent

Hotels and Motels

Theaters and Amusements

Theaters (including drive-ins)

Billiard parlor or poolroom

Bowling alley

Amusement device parlor

Dance hall

Meeting hall, including halls for rent

Miscellaneous, outdoor commercial recreation, (go-karting,

pitch-and-putt, miniature golf, driving ranges)

Riding academy (stable area)

Amusement park

Personal Services

Barber, beauty shop

Self-service laundry or dry cleaner

Funeral home, mortuary

Shoe repair, shoeshine

Optometrist, oculist, optician

Photographer

Other (recording studio, photographer, health studio, vapor baths, travel agency)

Business Services (Nonoffice)

Blueprinting, small-scale printing

Laboratories, research (no manufacturing)

Catering service

Other (maintenance, sign painter)

Business Services

Architect

Engineer

Interior decorator

Accountant

Advertising

Consultants, n.e.c.

Commercial artist

Other (tax, notary public, mail service, telephone answering)

2 WHOLESALE-STORAGE

20, 21 Wholesale, Storage-Heavy--Open

Motor vehicles and equipment
Chemicals and allied products
All construction material, hardware, electrical, plumbing, etc.
Machinery, equipment and supplies, bearings
Fuel and ice products, coal, oil, gas, ice, etc.
Farm products--raw materials
Grain elevator, stockyards
Lumber and contractor's yards--junkyards
Automobile salvage yard
Laundry and dry cleaning plants

Wholesale, and/or Storage--light--Enclosed

Food and related products
Drug and medical supplies
All types of apparel
Furniture and household wares
Paper and paper products
Moving--storage
Other (Tobacco storage, bicycle storage, advertising display,
commercial storage)

3, 4 MANUFACTURING

30 Food and Kindred Products

Meat packing plant, slaughter house
Sausage and meat products

Bread and bakery products

Bottled soft drinks

Dairy products

Malt liquors

Other food products

Textile Mill Products

Knitting mills

Other textile products

Apparel and Other Finished Products

Men's and boys' clothing

Women's and children's clothing

Other fabricated textile products

Paper and Allied Products

Envelopes, stationary and paper bags

Paperboard containers and boxes

Converted paper products

Other paper products

Lumber and Wood Products

Millwork plants

Wooden containers

Household furniture

Office and store fixtures

Other wood products

Stone, Clay, and Glass Products

Concrete products

Other stone, clay, and glass products

Primary Metal Industries

Gray-iron and steel foundaries

Non-ferrous foundaries

Iron and steel forgings

Other primary metal industries

Fabricated Metal Products

Cutlery, hand tools, and general hardware

Enamelled iron and metal sanitary ware and heating equipment

Fabricated structural steel and ornamental metal work

Boiler shop products

Stamped and pressed metal products

Sheet metal work

Electroplating, plating, and polishing

Bolts, nuts, washers, rivets, and screw machine products

Job shop other fabricated metal products

Machinery (Except Electrical)

Engine and turbines

Agricultural machinery, construction, and mining

Metal-working machinery

Machine tool accessories

Special industry machinery

Mechanical power transportation equipment

Other general industrial machinery

Other office, store, service-industry, household machinery

Machine shops (includes tool and die works)

Electrical Machinery, Equipment, and Supplies

Electrical equipment for industrial use

Switchgear, switchboard, and industrial controls

Radios, TV equipment, radar, and related direction equipment

Other electrical apparatus

Transportation Equipment

Passenger car bodies and frames

Truck and bus bodies and frames

Motor vehicle parts and accessories

Truck trailers

Railroad cars and repair

Motorcycles, bicycles, and parts

Boat building and repairing

Outboard-inboard motors

Other transportation equipment

Professional, Scientific, and Controlling Instruments,

Photo and Optical Goods, Watches, and Clocks

Miscellaneous

Jewelry, silverware, and plated ware

Musical instruments and parts

Toys, amusements, sporting and athletic goods

Pens, pencils, and other office and artists' materials

Costume jewelry, novelties, buttons, and miscellaneous notions

Printing, Publishing, and Allied Industries

Commercial printing
Lithographing
Service industries for printing trade
Periodicals, books, bookbinding and related industry
Newspaper publishing and printing
Other printing and publishing

Chemical and Allied Products

Drugs and medicine
Soap, detergents, and cleaning preparations
Paints, varnishes, lacquers, enamels, and allied
products
Petroleum and coal products
Rubber and miscellaneous plastic products
Chemical products, other

Leather and Leather Products

Leather tanning and finishing
Boot and shoe stock and findings
Leather gloves and mittens
Other leather goods

49 Extractive

Quarry
Gravel pit
Mines
Wells
Other extractive

5 Transportation, Communications, and Utilities50 Rail, Bus, and Ship Terminals

Railroad stations, shop, and other buildings
Bus and transit facilities
Taxicab facilities
Water transportation facilities, dredging
Miscellaneous

51 Railroad Right-of-Way52 Railroad Yards53 Airports Terminal and FieldStreets and Street Corners

54 Local and collector street rights-of-way
55 Arterial street and highway rights-of-way
56 Freeway and expressway rights-of-way

57 Truck Terminals

Trucking and trucking terminals

58 Off-Street Parking

Parking lots and ramps, public and private, 10 or more off-street parking spaces

59 Communications and Utilities Facilities

Telephone and telegraph
Electric light and power, substations
Gas supply facilities
Radio and TV transmission stations
Water supply facilities
Sewer facilities and drainageways

Water facilities-filtration

Sewage disposal

Incinerators

Utility rights-of-way (when no other use applies)

Drainageway (when not in park use)

Communication, film distribution, broadcasting studio

6 Institutional, Government Services, and Other Public Buildings

60 Local Institutional

Elementary school

Junior high school

Churches

Neighborhood library

Nursery school

Day care center

61 Regional Institutional

Senior high or junior-senior high schools

Vocational or trade school

College, university

Nursing schools, schools for handicapped

Business school

Finishing school

Beauty and barber school

Technical school

Convents, rectories, and parsonage

Home for children

Lodges, athletic clubs, social clubs

Union halls, permanently occupied
Civic cultural association, professional associations
Hospital, clinic (not doctors' offices), health centers
Libraries
Art centers, museum, etc.
Auditorium, arena, etc.
Settlement houses, YMCA, boys' club
Cemeteries
Nursing homes
Convalescent homes
Observatories
Red Cross
Community Fund

62 Local Government Services

Police station
Other protection services
Department of public works and other public service facilities
Board of education
City vehicle maintenance garages (ward yards)

63 Regional Government Services

Welfare agencies
Military recruiting
Post office
Military installations
Wisconsin public agencies

- Unemployment agencies
- County courthouse
- State and federal offices
- Penal institutions
- Veterans' administration
- County home
- County vehicle maintenance garages
- Sheriffs' department

7 Recreation

70 Local Public Recreation Areas (Enclosed)

- Tennis courts
- Swimming pools
- Hockey rinks

71 Local Public Recreation Areas (Open)

- Play lots, tot lots
- Playgrounds, playfield
- Minor parks
- River parkways

73 Regional Public Recreation

- Major public outdoor recreation sites

74 Private and Other Recreation (Natural Areas-Intensive Use)

- Campgrounds and picnic areas
- Wayside
- Game preserves
- Beaches
- organizational camps

75 Private and Other Recreation (Artificial Areas-Intensive Use)

Golf course
Ski and toboggan runs
Playfields
Race tracks
Marinas
Fish hatcheries-trout ponds
Conservatory
Zoo
Stadium
County fair grounds
Polo field

8 Agriculture and Related

80 Cropland and Pasture
82 Orchards and Nurseries
83 Fowl and Fur Farms
84 Other Agricultural Uses
Sod farms

9 Open Lands and Water Area

90 Lakes, Rivers, and Streams and Canals
91 Wetlands, Marshes, Bogs, and Swamps
92 Unused Lands
93 Land Fill and Dumps
94 Woodlands

APPENDIX B

CIVIL DIVISION CODES

100	<u>Kenosha County</u>	<u>Ozaukee County (continued)</u>
101	Brighton, Town	210 Port Washington, City
102	Bristol, Town	211 Port Washington, Town
103	Kenosha, City	212 Saukville, Town
104	Paddock Lake, Village	213 Saukville, Village
105	Paris, Town	214 Thiensville, Village
106	Pleasant Prairie, Town	215 Bayside, Village (Part) see 401
107	Randall, Town	
108	Salem, Town	300 <u>Racine County</u>
109	Silver Lake, Village	301 Burlington, City
110	Somers, Town	302 Burlington, Town
111	Twin Lakes, Village	303 Caledonia, Town
112	Wheatland, Town	304 Dover, Town
		305 Elmwood Park, Village
200	<u>Ozaukee County</u>	306 Mt. Pleasant, Town
201	Belgium, Town	307 North Bay, Village
202	Belgium, Village	308 Norway, Town
203	Cedarburg, City	309 Wind Lake (unincorporated)
204	Cedarburg, Town	310 Racine, City
205	Fredonia, Town	311 Raymond, Town
206	Fredonia, Village	312 Rochester, Town
207	Grafton, Town	313 Rochester, Village
208	Grafton, Village	314 Sturtevant, Village
209	Mequon, City	315 Union Grove, Village

Racine County (continued)

316	Waterford, Town	500	<u>Walworth County</u>
317	Waterford, Village	501	Bloomfield, Town
318	Wind Point, Village	502	Darien, Town
319	Yorkville, Town	503	Darien, Village
		504	Delavan, City
400	<u>Milwaukee County</u>	505	Delavan, Town
401	Bayside, Village (Part) see 215	506	Delavan Lake (unincorporated)
402	Brown Deer, Village	507	East Troy, Town
403	Cudahy, City	508	East Troy, Village
404	Fox Point, Village	509	Elkhorn, City
405	Franklin, City	510	Fontana-on-Geneva Lake, Village
406	Glendale, City	511	Geneva, Town
407	Greendale, Village	512	Genoa City, Village
408	Greenfield, City	513	LaFayette, Town
409	Hales Corners, Village	514	LaGrange, Town
410	Milwaukee, City	515	Lake Geneva, City
411	Oak Creek, City	516	Linn, Town
412	River Hills, Village	517	Lyons, Town
413	St. Francis, City	518	Richmond, Town
414	Shorewood, Village	519	Sharon, Town
415	South Milwaukee, City	520	Sharon, Village
416	Wauwatosa, City	521	Spring Prairie, Town
417	West Allis, City	522	Sugar Creek, Town
418	West Milwaukee, Village	523	Troy, Town
419	Whitefish Bay, Village	524	Walworth, Town

	<u>Walworth County (continued)</u>		<u>700 Waukesha County</u>
525	Walworth, Village	701	Big Bend, Village
526	Whitewater, City	702	Brookfield, City
527	Whitewater, Town	703	Brookfield, Town
528	Williams Bay, Village	704	Butler, Village
		705	Chenequa, Village
600	<u>Washington County</u>	706	Delafield, City
601	Addison, Town	707	Delafield, Town
602	Barton, Town	708	Dousman, Village
603	Erin, Town	709	Eagle, Town
604	Farmington, Town	710	Eagle, Village
605	Germantown, Town	711	Elm Grove, Village
606	Germantown, Village	712	Genesee, Town
607	Hartford, City	713	Hartland, Village
608	Hartford, Town	714	Lac La Belle, Village
609	Jackson, Town	715	Lannon, Village
610	Jackson, Village	716	Lisbon, Town
611	Kewaskum, Town	717	Menomonee Falls, Village
612	Kewaskum, Village	718	Merton, Town
613	Polk, Town	719	Merton, Village
614	Richfield, Town	720	Mukwonago, Town
615	Slinger, Village	721	Mukwonago, Village
616	Trenton, Town	722	Muskego, City
617	Wayne, Town	723	Nashotah, Village
618	West Bend, City	724	New Berlin, City
619	West Bend, Town	725	North Prairie, Village

Waukesha County (continued)

- 726 Oconomowoc, City
- 727 Oconomowoc, Town
- 728 Okauchee (unincorporated)
- 729 Oconomowoc Lake, Village
- 730 Ottawa, Town
- 731 Pewaukee, Town
- 732 Pewaukee, Village
- 733 Summit, Town
- 734 Sussex, Village
- 735 Vernon, Town
- 736 Wales, Village
- 737 Waukesha, City
- 738 Waukesha, Town

1970 LAND USE INVENTORY MEASUREMENT FORM

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
CONTINUING LAND USE TRANSPORTATION STUDY

CONTROL NUMBER				TOWN & RANGE		SECTION		1/4 SEC		CIVIL DIVISION CODE				
				<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1963	1967	1970		
LINE	LAND USE CODE	AREA IN SQUARE FEET (Thousands)		ADJ. (✓)	LINE	LAND USE CODE	AREA IN SQUARE FEET (Thousands)		ADJ. (✓)	LINE	LAND USE CODE	AREA IN SQUARE FEET (Thousands)		ADJ. (✓)
1		<input type="text"/>	<input type="text"/>	<input type="text"/>	29		<input type="text"/>	<input type="text"/>	<input type="text"/>	57		<input type="text"/>	<input type="text"/>	<input type="text"/>
2		<input type="text"/>	<input type="text"/>	<input type="text"/>	30		<input type="text"/>	<input type="text"/>	<input type="text"/>	58		<input type="text"/>	<input type="text"/>	<input type="text"/>
3		<input type="text"/>	<input type="text"/>	<input type="text"/>	31		<input type="text"/>	<input type="text"/>	<input type="text"/>	59		<input type="text"/>	<input type="text"/>	<input type="text"/>
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CONTROL TOTAL AREA														

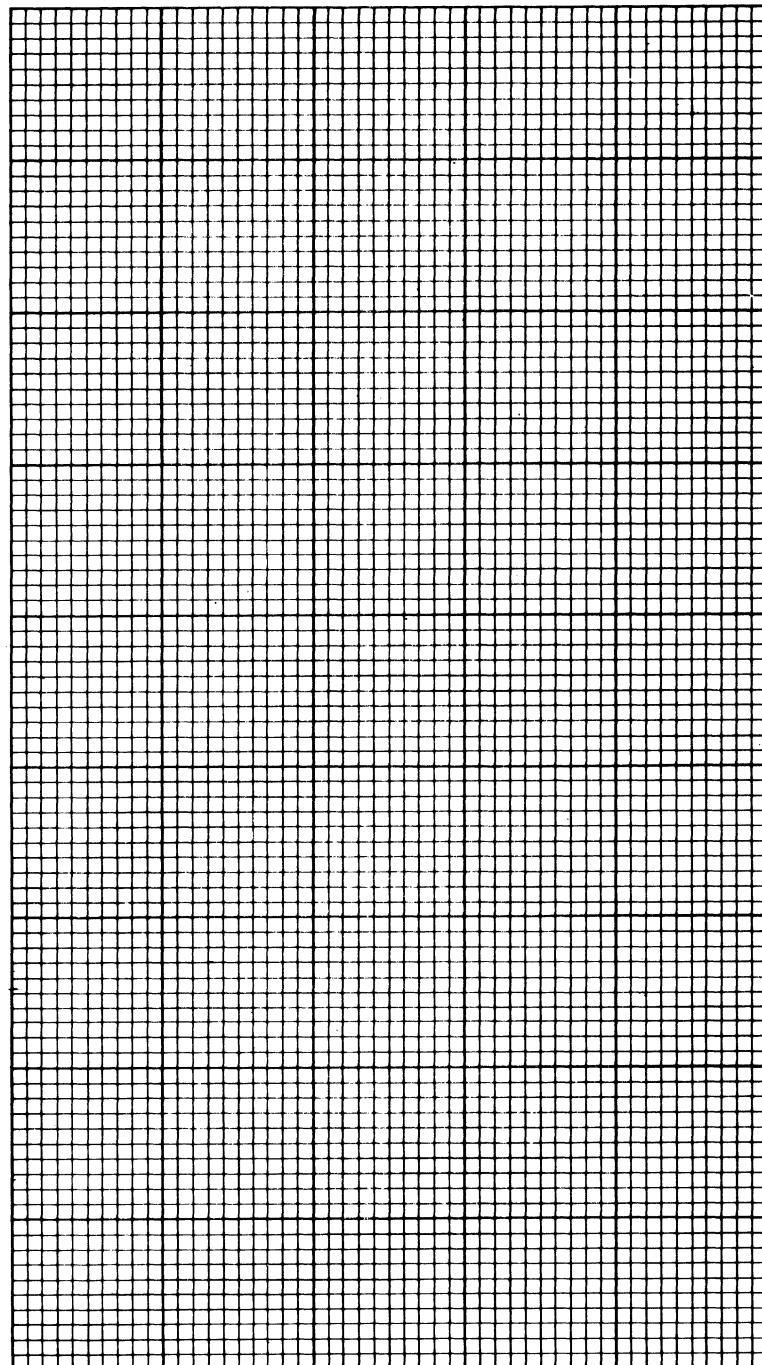
1970 LAND USE INVENTORY MEASUREMENT CHANGE FORM

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
CONTINUING LAND USE-TRANSPORTATION STUDY

CONTROL NUMBER			TOWN & RANGE		SECTION	1/4 SEC	CIVIL DIVISION CODE			
							1963	1967	1970	
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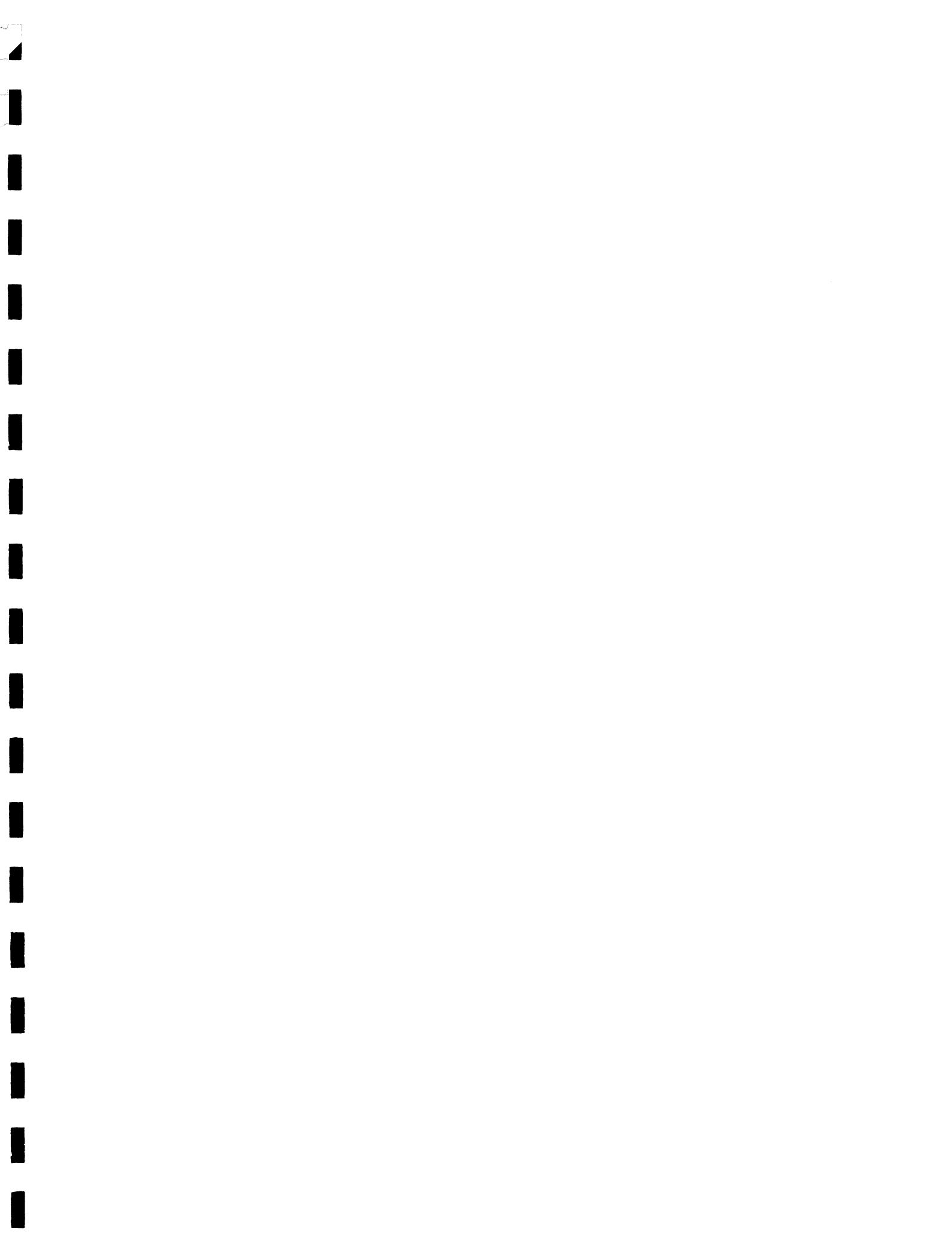
Appendix E

SAMPLE OF A 1000 SQUARE FOOT
GRID OVERLAY TO BE USED IN THE
MEASUREMENT OF IRREGULAR AND REGULAR AREAS.



SCALE: 1" = 400'
NOTE: EACH SMALL SQUARE REPRESENTS
1000 SQUARE FEET





1. *Leucanthemum vulgare* L. (L.)
2. *Leucanthemum vulgare* L. (L.)
3. *Leucanthemum vulgare* L. (L.)