

City of Flint, Michigan

1977

**Comprehensive
MASTER
PLAN**

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY
FOR
THE CITY OF FLINT - MICHIGAN

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I. INTRODUCTION

Cities are as diversified as the people who reside and work in them. Each offers certain amenities, opportunities and conditions which create liveable environments enabling necessary activities to occur in a somewhat consistent manner. As with people, cities change with time. Some mellowing, offering even greater selections of urban amenities and viable environments, others exhibiting strong signs of major decay. All must compete to some degree not only with each other, but with newer concepts of suburban living.

Flint, like many cities of comparable size, exhibits a full spectrum of metropolitan living. It provides unique cultural and educational experience, diversified and mature neighborhoods and income levels which during periods of prosperity far exceed the national average. It unfortunately also displays many problems created by rapid growth, age and perhaps insensitive planning. Blight is very evident in certain portions of the city, as are problems of crime and social decay.

Economic fluctuation plays a key role in lives of Flint's residents. As with any city that is dominated by one major industry, cyclical periods of high unemployment take their toll in the city's viability.

Master Plan

Flint, as with all cities, is undergoing constant change. As this occurs, some type of guide is required to assist in maintaining stability and orderly land use arrangement. One such device used to perform this function is a "Master Plan." This comprehensive plan becomes an official public document used as a policy implementation guide for the physical development of communities. It should encompass all the geographical parts of the community, summarizing general policy and recommendations to occur over a certain period of time.

Other documents such as zoning ordinances, capital improvement programs, and building codes act as tools to carry out the intent of the Master Plan. Special short range plans may also be developed for specific areas within the general plan indicating detailed activity to occur over a period of perhaps 10 years or less.

Why a Master Plan?

Local government and its legislative bodies deal almost daily with some aspect of the city's physical development - site plan reviews; the laying of streets, sewers and other capital improvements; zoning; environmental activities; transportation; etc. Some type of general guide is required to assist decision-makers in a positive manner. Short term studies based on "hot" issues cannot replace a general reference which provides a context for major policy decisions.

The intent of this Master Plan is to establish the basic parameters for the physical development of the City of Flint. The format is designed to present the general community goals, objectives, recommendations, and steps or processes for implementation. Additional detail is included as background information or as suggested studies. The Plan has intentionally presented only the basic framework and not specific areas of control. This allows for maximum flexibility and change as well as input from all necessary sources in making final decisions and in taking specific actions.

Benefit of a Plan

A master plan can only become an effective instrument for positive physical change if it is used by those for whom it was designed. Basic community goals and objectives outlined can only be realized through consistent application in the daily decision-making processes relative to developmental issues.

o Legislative Body

The Master Plan assists City Council in the decision making process by providing a practical guide for actions on development matters. If followed, private and public interest group pressures can be balanced by general community goals specified in the Plan.

o The Chief Executive

The Plan will assist the Mayor in evaluating existing and proposed policies and effectiveness in achieving long range development goals and objectives.

As the chief coordinator of all governmental activities, it also provides a general framework to assist in coordinating capital improvement activities and the recommendations required to implement necessary programs, priorities and budgets.

o The Planning Commission

The Plan serves as a vital tool in presenting recommendations to the City Council which are based on clearly defined policy. Proposals involving in-depth research may also be more easily directed with established basic parameters.

o Other Agencies

The identification of a basic physical development policy for the City of Flint should facilitate the coordination and implementation of programs by other agencies. Cooperation is emphasized as a vital link in promoting change in a unified and consistent manner.

o Public

The main asset for this varied group is the knowledge that general policy has been established to serve as a guide for future action. The plan should allow both private and public groups involved in developmental activities the ability to forecast basic attitudes towards future proposals and programs.

Legal Ramification

The State Enabling Act 285 of 1931 provides the authority for cities to establish a planning commission and adopt a master plan for the physical development of the municipality. The intent of the plan is to serve as a guide to accomplish coordinated, adjusted and harmonious development in accord with present and future needs.

The City Charter, which became effective in 1975, further emphasized the need for a master plan to be updated on an annual basis. The intent of this plan is to serve as a set of guidelines to assist the Mayor and others in evaluating and implementing specific proposals for the total development of the city and its residents.

History of the Plan

The general Master Plan is the combined effort of citizens, Planning Commission and Department of Community Development staff. It was authorized by the new City Charter and funded through a comprehensive planning grant from the Federal government.

The Plan represents a basic change from prior plans in that it began in 1976 with "grass roots" participation. Citizen involvement at the inception of the plan was accomplished through a series of workshops. The City was subdivided into 12 districts for ease of obtaining and disseminating information. During these workshop sessions the citizens identified problems, and causes associated with their specific districts. Problems were prioritized and goals and objectives were developed, as well as, potential remedies for these problems. This information, which was assembled and coordinated for the total community, provided the basic framework for developing the master plan.

The final document evolved from a series of reviews and revisions involving the Planning Commission and other pertinent agencies and departments. Further direction was provided by data from several major sources: the decennial U.S. Census, a 100% visual survey of all structure in Flint performed by Evidence for Community Health Organization (ECHO), a branch of the Genesee County Health Department, and selected data collected by the R.L. Polk Co.

When all reviews and adoptions have been completed by the legislative bodies this plan will become a valuable tool in directing the inevitable physical change in Flint in a positive manner.

Format

The Master Plan is divided into nine (9) basic components, each essential in promoting a viable community environment: Land Use, Residential, Commercial, Industrial, Facilities, Historical Preservation, Open Space/Recreation, Environment and Transportation.

Each element has been designed to allow for maximum flexibility and separate use. Specific goals and objectives have been identified within each, as well as certain existing conditions, current data and recommendations or studies required for implementation. Combined they provide the basic framework for a unified policy guide.

An Historical Perspective has also been included in the main text to present a brief overview of demographic, economic and land use trends from the beginning of settlement in the Flint area up to the present. The perspective highlights key events in the development of the city and analyses conditions unique to the Flint area.

II. PLAN SUMMARY

It is the intent of this summary to briefly recap the key points and recommendations which are presented in detail in the main body of the Master Plan. It is not intended to replace the Plan, but to allow the user to easily and quickly comprehend the main thrust of the community's desires and the actions required to implement necessary policy decisions regarding the physical development of Flint. The detail and background data provided in the main body will still be required to allow issues to be resolved in an effective and efficient manner.

Proposed Studies:

1. Examine effects of zoning changes and variances.
2. Survey incompatible land uses.
3. Review measures of controlling industrial, commercial and institutional expansion.
4. Develop freeway corridor studies to determine proposed land use and zoning.

THE RESIDENTIAL ELEMENT

Introduction

The purpose of the residential element of the comprehensive master plan is to set the general housing policy of the City under which decisions about specific residential areas and development proposals can be made. In arriving at those policies, the existing composition of housing and the present and future needs of the City have been considered. These considerations are presented in the introductory sections. In developing the analysis and final policies, the following long-term goals and short-term objectives are recommended:

Goals and Objectives

1. Preserve and enhance the stock of decent, safe, structurally sound housing within the City of Flint.

Objectives:

- o Establish a housing data base so that housing-related policy and program decisions can be based on the most complete and recent factual information available.
 - o Continue and expand support of housing rehabilitation programs as a primary means of fulfilling the requirements of the federally-mandated Housing Assistance Plan and enhancing the City's existing housing assets.
 - o Establish and fund a City-wide residential code enforcement schedule in which each dwelling unit is inspected for code violations at least once every five to seven years.
 - o Provide for efficient identification and removal of housing units that cannot be effectively rehabilitated and that represent a blighting influence on surrounding property.
 - o Encourage private group and individual efforts in the field of housing maintenance through educational efforts and the matching of private with public dollars.
 - o Prohibit by ordinance the destruction of any structure with official historic designation, as outlined in the historic preservation element.
2. Preserve the integrity and enhance the livability of residential neighborhoods within the City of Flint.

Objectives:

- o Encourage the formation of citizen action groups in order to increase individual involvement and especially homeowner involvement, in neighborhood problem resolution and constructive neighborhood-oriented activity.
 - o Protect residential neighborhoods from non-residential encroachment through intensified enforcement of zoning, provisions for increased buffering between residential and other uses and encouragement of private investment elsewhere in the city.
 - o Encourage homeownership and decrease the number of absentee owners wherever possible in low density neighborhoods.
3. Provide adequate City services to all residential neighborhoods and dwelling units.

Objective:

- o Adopt the Responsive Municipal Services Program to measure present City service levels by neighborhood or census tract.
 - o Establish a procedure for allocating city resources on the basis of need. All residential areas of the city should be provided with adequate general services with remaining resources going to programs and areas with the greatest need, on a proportional basis.
 - o Improve the City's capital budgeting and programming procedures to incorporate City-wide community development as well as expenditure measures, and input from individual citizens and neighborhood groups.
4. Alleviate racial/low income impaction and promote economic diversity in housing

Objective:

- o Encourage formulation and adoption of a regional "fair share" housing plan through cooperation with other units of government in Genesee, Lapeer and Shiawassee Counties.
- o Encourage the development of private housing to ensure a supply to all segments of the housing market, especially to those segments where housing supply is lacking.

- o Continue present and future housing subsidy programs, which provide assistance to low and moderate income households, to the extent of the need indicated in an annual Housing Assistance Plan.
 - o Continue efforts to promote open access to housing opportunity through fair housing program and ordinance enforcement. Promote private efforts to alleviate discriminatory attitudes and/or practices.
5. Provide for increase in population and residential development in selected areas.
- Objectives:
- o Promote the development of medium and high density apartments in suitable locations.
 - o Allow conversions of larger single family structures on a very limited basis, in accordance with neighborhood standards and with strict code enforcement.
 - o Promote high density housing in the downtown area through the provision of various investment incentives to private developers.

6. Promote energy efficiency and alternative energy source utilization in residential areas.
- o Provide requirements for energy efficient construction practices on all new construction including appropriate site utilization standards.
 - o Promote utilization of solar energy wherever possible by providing for "sun rights" in City codes.
 - o Encourage energy conservation in existing residential structures, through either assistance or incentive programs to homeowners.

Current Conditions and Trends

Housing Market

A brief housing market profile notes that Flint contains not only the majority of older, less desirable housing in the market area (Genesee County), but a disproportionate share of low income households. This combination leads to the perpetuation of Flint's housing problems, especially problems associated with households unable to afford the rental or purchase and maintenance of a suitable housing unit.

Housing Characteristics

Of over 60,000 housing units in the City of Flint, 75% are single family homes with most owned or being purchased. Five percent of all dwelling units are publicly subsidized. About 50% of Flint's housing was built before the Second World War, with construction tapering off to a near standstill in the 1970's. Housing maintenance, with some exceptions on the periphery of the City, has been declining in recent years. Median assessed valuations for housing units in Flint are lower than those for the State of Michigan as a whole.

Equal Opportunity in Housing

While the City of Flint has an Open Occupancy Ordinance, residential segregation, to the extent that it exists in Flint, seems to be due more to economic than to racial factors. Overall loss of population, combined with a shift in racial composition of the population since 1970, has effected patterns of racial concentration in different parts of the City. A regional "fair share" housing plan is suggested.

Existing Housing Needs

While there is no housing shortage per se in the City of Flint, there is a need to alleviate housing problems caused by substandard structures, overcrowding, and dwellings priced beyond the means of low-income households. In general, housing problems are largely limited to low-income households and areas. Further, among low income households, housing problems are concentrated among those with female heads. Black households also make up a larger proportion of those with needs than their numbers among the general population would dictate.

Substandard housing and excessive cost appear to be the most frequent problems and are more frequent among renters than owners. Over-crowding is a much less serious problem, in terms of numbers, but occurs more frequently among owners than renters. Overall, about 25% of all Flint households have one or more housing problems.

Future Housing Needs

Based on projections of population and housing supply, housing need by household type is projected on a yearly basis through 1980. Based on migration patterns, the proportion of Black households is expected to increase from 45% to 54% of all households in need. Female-headed households will increase numerically through 1980, but decrease as a proportion of all households in need. Total need for low-income households will increase by 20-25%, despite a decline in the total City population.

Existing and Future Housing Demand

If demand as a concept is limited to new construction, future housing demand within the City of Flint may be restricted to urban-type apartments units for upper- and middle-class households and "starter" homes for small households.

Housing and Residential Policies

In the final section of the residential element, a number of policies regarding housing issues are presented. These policies, when adopted, will serve as the guide or framework for decisions on housing matters. In brief, they are:

1. It shall be the policy of the City to preserve and enhance the existing housing stock and to safeguard the neighborhoods from undesirable effects and conditions. The City will act to support and promote rehabilitation in viable residential areas and the formation of neighborhood organizations toward these ends. The City shall take no action which will result in physical impaction, social or racial segregation, or which will adversely affect the residential character of an existing viable neighborhood.
2. It shall be the policy of the City to annually assess the housing needs and problems of the residents and to allocate the resources of the City on a priority of need -- the largest proportion of available resources being committed to areas where need is greatest.
3. It shall be the policy of the City to provide for and promote an increased resident population by encouraging the private development of higher density housing structures whenever feasible and in line with neighborhood standards, with special emphasis on the downtown. Whenever possible, stress will be placed on increasing the number of housing units of types in shortest supply on the market.
4. It shall be the policy of the City to promote equality of access to housing opportunities to all residents regardless of race, sex, age, creed or national origin, and to ensure against discriminatory practices through strict enforcement of City ordinances and appropriate laws. The City will take no action, nor permit action to be taken by others, which conflicts with this policy or in any way interferes with a citizens right to safe, sound and decent housing of their choice.
5. It shall be the policy of the City to participate in programs of the Federal or State governments providing construction of subsidy of housing for the elderly, handicapped and low to moderate income families to the full extent that a need for such housing is substantiated, and limited only by the availability of financial and other resources for this purpose.
6. It shall be the policy of the City to require annual inspections of multi-unit residential structures and regular inspection of all residential structures. The City shall strictly enforce the codes and regulations in all residential areas and will act expeditiously to condemn and remove any obsolete and blighting structures from viable neighborhoods.

THE COMMERCIAL ELEMENT

o Introduction

Commercial activity (the sale of goods and services) can be differentiated on the basis of its function(s), service area and physical form. Commercial firms are located in:

- o Linear Commercial Districts
- o Neighborhood Shopping Centers
- o Community and Regional Shopping Centers
- o Scattered Sites
- o Downtown

o Goal

The goal of the commercial element is to provide for an increase in the scale of commercial activity in Flint.

o Policies

The five policies put forth in this element are:

1. Promote the under-developed sectors of the local economy.
2. Encourage the adaptive reuse of vacant commercial buildings and consolidate mutually supportive commercial uses.
3. Promote the downtown as the center of commercial activity.
4. Minimize land use conflicts involving commercial property.
5. Provide for efficient transportation to and from commercial areas.

o Objectives

1. City government should, through its development strategies and resource allocation, lever private capital to strengthen the commercial sector.
2. Expand the Commercial Revitalization Program, now operating as a pilot project in the N. Saginaw Street area.
 - Coordinate the Commercial Revitalization Program with a capital improvement program in the area.
 - Use the tax abatement provisions of P.A. 255 of 1978 in conjunction with the Commercial Revitalization Program.

- Offer the maximum tax abatement period (twelve years) to firms that reuse commercial structures and a lesser period for new commercial buildings.
3. Improve the variety of functions in the downtown.
 - Increase housing opportunities in the downtown.
 - Support legislation to provide tax abatement for downtown apartment buildings.
 - Encourage and assist the Downtown Development Authority's projects, including Riverfront Center and Center City Plaza.
 4. Limit the scale and nature of new businesses locating in linear commercial districts and neighborhood shopping centers.
 - When possible, relocate inappropriate businesses out of residential areas.
 - Where possible, cluster intensive commercial uses together.
 - Require screening, hedging and berming to minimize visual impacts where commercial uses abut neighborhoods.
 5. Ease pedestrian/vehicular conflict within commercial centers.
 - Make commercial centers accessible to the handicapped, pursuant to P.A. 8 of 1973, by constructing sidewalk ramps.
 - When possible, the City should ease parking problems at commercial centers.
 - Continue to upgrade the Mass Transit Authority (MTA) service, retaining downtown as the central point of transfer.

o Trends and Conditions

A. Economic Overview

The number of commercial firms in the City of Flint has declined 12.7% from 1975 to 1978. Local employment in the commercial sector is about 7% below the statewide average due to the dominance of manufacturing industries in the area.

The vacancy rate for commercial and manufacturing units is 19.77%.

When local retail sales are divided by local disposable income (on a per capita basis), the Flint market "captures" only 52.69% of local disposable income. This capture rate is the lowest among comparable Michigan markets such as Lansing, Grand Rapids and Saginaw.

B. Linear Commercial Districts

Many commercial buildings in linear commercial districts are economically or structurally obsolete. These units have a detrimental influence on surrounding residential property. Rehabilitation and reuse of these structures is encouraged.

C. Neighborhood Commercial Centers

Property maintenance is a problem at some neighborhood commercial centers. Through city code enforcement and monitoring by neighborhood residents, this problem can be minimized.

Future land use conflicts involving neighborhood commercial centers can be reduced by ensuring that only firms of an appropriate scale and nature are allowed to abut residential property.

D. Community and Regional Shopping Centers

The principal problem facing shopping centers in Flint is the relative decline in business volume due to changing shopping habits and buying patterns. In-city shopping centers have not remained competitive with the outlying centers. Local centers must stress their advantages (such as close proximity to dense populations of city residents) and develop new marketing concepts.

E. Scattered Sites

An unknown amount of commercial activity is located on various scattered sites throughout the city. In some cases, these businesses are existing non-conforming uses, conditional uses or use variances granted under the zoning code. Scattered site commercial use can have a negative impact on adjoining land uses, especially residential areas.

F. Downtown

The Downtown Land Use Plan relates existing and proposed functions to a geographical area. Riverfront Center, Autoworld, Center City Plaza and expanded housing opportunities are four proposed land uses for the downtown.

Downtown development is emphasized in this element because a dynamic downtown can have many positive ramifications for the entire city and metropolitan region. A good example of this is the development strategy used in the Riverfront Center Project. The Mott Foundation's equity investment in the name of Flint Neighborhood Improvement and Preservation Project (NIPP) will enable NIPP to rehabilitate Flint neighborhoods for years to come.

THE INDUSTRIAL ELEMENT

Introduction

The industrial element has the purpose of describing the existing conditions surrounding industrial land uses and industrial activity in the City. Attention is given to the economic role of industry, and to real or likely problems impinging upon, or created by, industry. Appropriate objectives for industrial activity and development are presented along with recommendations for specific actions in support of those objectives. The element ends with a set of coordinated policies that will guide actions and decisions regarding industry and industrial development.

It is sometimes difficult, and especially so in land use matters, to define "industry". It is difficult to decide where the line between heavy commercial and light industry is to fall. This document will include as industry any business that involves the manufacturing, processing, reprocessing, fabricating, or alteration through chemical or electrical treatment of a product, or products, intended for sale off the premises. A business producing goods or products primarily for sale on the premises will be considered a commercial, rather than industrial activity.

The role that industry plays in a local economy is a central one. In the Flint area that role is totally dominant. The concentration of employment in heavy industry means that most of the personal income of the area stems from this source. Commercial activity, via expenditures of personal income, is at least indirectly dependent on industry. Governmental functions are economically dependent upon both.

General Goals and Objectives

Because industry is the backbone of the Flint economy, its welfare and development are vitally important to the area. A general goal of the City should be to increase the industrial base through the expansion of existing businesses and the encouragement of new industry. A full explanation of why, how, and how much industrial expansion should occur appears in the text. There are, of course, constraining factors that limit such expansion. These center on considerations of other land uses in the City, and competing demands and needs.

What follows below is a delineation of the major problems connected with the City's industries. These are stated briefly here and discussed more fully in the text of the element. Each is followed by a set of objectives or short term actions that might be appropriate for the City to undertake.

- I. The dominance of the automobile industry in the local economy has created problems for both that industry and the area. These include cyclical unemployment inherent in the industry, high wage

rates that discourage smaller businesses, and an unhealthy dependence on automotive employment that is a burden to the industry and a potential threat to the economy.

Objectives:

- A. Non-automotive industries should be encouraged to develop in the City. Positive steps that could be taken to promote this objective might include:
 - 1. Making tax incentives available to businesses that develop or expand employment in non-automotive industry.
 - 2. Providing capital as incentive to development.
 - a. through EDC and Act 62 revenue bonds.
 - b. through local revolving loan funds or loan leveraging.
 - c. through utilization of State and Federal loan programs such as the SBA and the MJDA.
 - d. through encouraging involvement of local lending institutions in economic development.
 - B. Wage rates for non-automotive industries must be kept competitive with other areas of the country. Action might include...
 - 1. Labor force training plans through CETA and other programs coordinated to needs of specific employers.
 - 2. Encouraging active participation of local unions in economic development programs.
 - C. Other business costs should be reduced. This is discussed separately, below.
- II. There are frequent communication problems and a lack of coordination between private industry and government. In the past the conflicting objectives of government and business have caused delays, headaches and hard feelings on many development projects. This should not happen since the goals of government and business do not really conflict and can be easily coordinated with cooperative effort.

Objectives;

- A. Communication between the City and private business must increase so that cooperation can develop.
 - 1. Attempts should be made to involve private businessmen in the governmental planning process in an advisory role.

2. Annual meetings with industrial leaders and top level City officials could be instituted.
 3. No decisions regarding industry, such as changes in regulations or land use opportunity for review and input by the industrial community.
- B. Regulations and various governmental requirements should be reviewed regularly and simplified and streamlined wherever possible.
1. A staff position within City government should be designated to function as a business representative or contact person to assist industries in dealing with the City and vice versa.
 2. Internal procedures on zoning, building inspections, site plan reviews, and other similar City functions could be simplified and a single entry point into the system should be established.
 3. All regulations imposed by the City should be thoroughly reviewed at intervals of no more than five years and judged for need, effectiveness, and appropriateness. Unnecessary regulations should be removed. Ineffectual regulations should be promptly revised.
 4. An annual report of problems encountered with existing regulations should be instituted together with procedures for revising standards.
- C. Attempts at educating business community to value of certain kinds of regulations must occur. This may include publication of reports or the use of conferences on zoning, building codes, site plan review procedures, licensing, etc., aimed at explicating value of these regulations to business and industry.
- III. The costs associated with doing business in the Flint area are very high and the general position of the State in this regard is 48th out of 50.

Objectives:

- A. Reduce to the extent feasible the costs imposed by the City.
 1. Utilize property tax abatements available through P.A. 198.
 2. Explore possibilities of other cost reductions at local level.
- B. Work with State government to reduce state imposed costs wherever possible.

IV. The amount of space available for industrial growth and expansion in the City is very limited. Many major industries are land locked.

Objectives:

- A. The City should take steps to increase the amount of land that can be utilized for industrial purposes, where appropriate.
 - 1. The City should practice land banking so that larger and more useful parcels of land can be assembled in industrial areas.
 - 2. A complete reassessment of land bordering existing industrial areas should be done to determine if any parcels might be better utilized as industrial land.
 - B. The City should make maximum use of existing industrial park land, and other vacant industrial land.
 - 1. Some industry currently land locked should be encouraged, however possible, to relocate to existing parks where growth and expansion would be possible.
 - 2. Vacant scattered industrial sites should be developed and the City should cooperate with and assist private developers.
 - 3. A program of "out reach" and marketing should be maintained by the City at least for the foreseeable future.
- V. Several of the larger industrial complexes of the City are aging and many smaller manufacturing enterprises have obsolescent plants and equipment. When equipment becomes obsolete, competition with more modern plants becomes difficult. When buildings become obsolete it affects production and impacts on surrounding property.

Objectives:

- A. Industry should be encouraged to modernize their plants and equipment through capital investment.
 - 1. Abatements for modernization should be utilized under State Act 198.
 - 2. Financing for modernization should be made available through revenue bonds under P.A. 338 or P.A. 62.
 - 3. Rehabilitation districts should be established.
- B. Industry should be required to meet reasonable standards of plant maintenance to prevent unnecessary deterioration.

1. Standards for exterior maintenance should be formulated, with cooperation and input from industry, along with appropriate enforcement procedures.
 2. Use of maintenance "districts" should be explored and feasibility assessed.
 3. Basic code standards of City should be enforced with annual inspections of industrial property.
- C. Plant maintenance should be promoted as an area of mutual concern between government and industry, and as a primary area of cooperative effort.
1. A cooperative "position report" on plant maintenance should be developed by City and industry working together.
 2. Mutually agreeable goals should be set, preferably on an annual basis.
- VI. Capital investment money is in short supply which makes it unavailable to most new or small businesses and very costly to all businesses. Recent anti-inflation measures will have the effect of driving interest costs even higher and further reduce investment in plants and equipment.

Objectives:

- A. The City should provide access to revenue bond capacity to industry and promote its use.
- B. Assistance should be provided to industry seeking SBA or other governmental assistance with financing.
- C. City should develop new kinds of financing capacity to promote industrial development.
 1. The feasibility of creating a revolving loan fund under the Economic Development Corporation should be explored.
 2. Joint venture projects should not be ruled out and their feasibility explored carefully as a way for government and industry to join together in financing development.
 3. The City should consider undertaking the construction of industrial facilities on a lease or turn-key arrangement.
 4. City owned land could be used as equity to leverage private development funds through the EDC.
- D. The City should work in close cooperation with local lending institutions to promote and coordinate the funding of industrial development through private investment whenever possible.

VII. Very high energy costs, possible energy shortages and ever stricter controls on the environmental impacts of industrial activity will act to curb industrial expansion in the future.

Objectives:

- A. The City should undertake a serious study of energy alternatives and the possibility of energy regulation.
 - 1. The City should act to promote the development of an energy production facility utilizing:
 - a. solid wastes as fuel.
 - b. solar energy.
 - c. wind conversion, or
 - d. some combination of the above.
 - 2. The City should work cooperatively with utility companies to maximize energy supply.
 - 3. The City should develop a comprehensive energy policy & energy management plan as specified in the environmental element of the master plan.
- B. The City should work cooperatively with private industry, utilities and others to promote energy conservation by all users.
- C. The City must act to create a regulatory mechanism to control and utilize air quality off-sets to be created by energy conservation, etc.

THE OPEN SPACE/RECREATIONAL ELEMENT

Introduction

A well balanced public recreation system should include the entire range of recreational activities for all ages. The recreational activities should be sponsored by either public, quasi-public, private, or commercial agencies and provided on public open space and park land, or in conjunction with school properties or by indoor facilities. They should be distributed throughout the community to be conveniently accessible to every resident of the city.

Recreation is not limited to outdoor activities only, so consideration should be given to indoor recreation, such as those requiring a gymnasium or a community center. The activities to take place may be either planned or unplanned, organized or unorganized, active or passive, and include individual or group participation. Because people of different ages require different modes of recreation, recreational areas are of many types which differ widely in function, size, and development.

Definition of Open Space

Open Space, in its broadest sense, includes lands to serve important conservation and urban shaping functions in addition to providing recreation opportunities. There are three primary functions of open space.

1. The recreation function - the provision of recreation resources which meet the positive human needs - both physical and psychological - in providing park and recreation facilities.
2. The protective function - the conservation of valuable natural resources, to enhance and protect the resource base - air, water and plants.
3. The shaping function - the structuring of urban development to form character and quality and a key factor in the efficient use of land.

Open space is undeveloped or predominately underdeveloped land and/or water, which can be either publicly or privately owned and provide either active or passive recreation. The word 'open space' should never be synonymous with vacant or unused land, because open space does not lay idle, but is used and serves important urban functions.

Overall Open Space Commitment

The City of Flint is indeed fortunate to have the amount of acreage set aside specifically for open space recreation. Most cities the size of Flint lack a large open space base to work from at this late a date of urban development. There are several valid open space/recreation

concepts that have been noted in past city plans that should be carried forth and pursued in the Master Plan.

The city has a great potential with the present creek and river system of developing a finger park approach. Just as the fingers on the human's body lead to the hand and make it functional, these creeks and the river, developed as parkways, would lead major recreation facilities and help make them more functional to a greater number of people in the city.

There are, however, several areas of the city that are inappropriate for this approach. These areas include densely populated urban areas without water facilities, or intensely developed areas with little or no recreation facilities in the area and little vacant land that can be developed. Innovative approaches towards urban recreation will have to be exercised to try and meet the needs of these areas. Innovative approaches would include anything other than the traditional ball diamond or playground type development to serve the specific needs of an area. These innovative approaches could include, vest pocket parks, mobile parks, roof top utilization, plaza development, fitness trails, bike paths, free play areas or semi-permanent equipment that can be moved from site to site as the neighborhood needs to change, to name a few.

A questionnaire circulated among the participants of the 1976 Citizens Problem Identification Sessions, indicated many people are not content with maintenance of existing facilities and they feel the need for more new facilities. Unfortunately, poor maintenance was cited as the main reason for not using many of the city parks.

The need for bike trails and hiking trails brought up by the citizen's groups can be developed as part of the finger system approach along the waterways, mentioned earlier. The other facilities mentioned such as nature centers, horticultural gardens, swimming areas, etc., would be function of the major city parks at the ends of the fingers.

Goals and Objectives

The main goal of our recreation system is to provide a wide range of recreational activities, conveniently accessible to every resident of the city. To meet this goal, several objectives need also be achieved. A well-balanced recreation system should:

- o serve all age groups
- o serve both sexes
- o encourage family recreation
- o provide passive as well as active forms of recreation
- o provide activities for varying degrees of skills

- o provide a variety of activities from athletic to cultural
- o assure safe and healthful conditions
- o be available to all ethnic and economic groups
- o provide continued recreation activities throughout the entire year
- o place recreation opportunities within the financial capabilities of the people
- o be sensitive to the changing conditions and needs of the community.

Existing Conditions

Outdoor Recreation

A modern municipal open space recreation system is comprised of several types of areas or properties that differ in function, size, location, service area, and development. A well-balanced open space system is attained only when there is a proper relationship in the number, type, and location of the various recreation areas. After adjusting national outdoor recreation standards to fit local conditions, the principal types of open space categories were established. These categories include:

Playlots	Limited size, limited service areas, located where needed, with playground equipment for pre-schoolers.
Neighborhood Parks	6-15 acres, 1/2 mile service areas, active recreation for predominantly 5 to 15 age group.
Community Parks	15 to 25 acres, 1 mile service radius, active recreation for predominantly 8 to mid 20's age group.
Major City Parks	50 acre minimum, 2-3 mile service radius, active athletic areas with rustic area devoted to passive recreation.
Special Use Parks	Size varies with function, designed to provide and meet the requirements of a specific, specialized, or single purpose recreational activity.

ACTUAL ACREAGE OF FLINT'S OPEN SPACE

	<u>Number</u>	<u>Acreage</u>
Playlots	28	39.25
Neighborhood Parks	39	314.45
Community Parks	14	520.4
Major City Parks	1	57.0
Special Use Facilities (Includes Golf Courses)	15	692.0
<hr/>		
Total Open Space	97	1623.1 acres

The level of development of each individual park is another important aspect of overall city open space/recreation policy. For example, some playlots are nothing more than a monkey bar in the paved area of a parking lot while others have a wide variety of "playground" equipment in a fenced-in green area. Both are shown on the inventory as a playlot, when one is certainly of more use to the neighborhood than the other. It is important when looking at a park in a classification to look at the facilities available to gain some idea of how adequate a particular park is.

The problem of ownership arises in the area of park development because there is little that can be done to force a private park owner to further develop his park for the benefit of the entire city. This is why most future developments will have to take place on municipal or Board of Education property so the public will always have access to this land.

A study of existing parks has revealed that several parks have the potential (as far as land available) to be expanded. To develop and offer new facilities, therefore would upgrade the parks classification and increase the number of people served.

Indoor Recreation

A recreation system is not limited to outdoor activities only. Indoor facilities are need to provide several types of recreation, especially in this particular part of the country, if people are to have the opportunity to engage in recreation activities throughout the entire year. In terms of function, they may range from a simple gymnasium to a complex community center offering a wide variety of facilities.

Many of these types of facilities are highly specialized and are designed to serve, not just the neighborhood residents, but are intended to service larger sections of the city (and sometimes the entire city). Often recreation buildings are established in conjunction with outdoor recreation areas, to provide either complementary or supportive types of facilities in connection with the outdoor recreation. Because of the degree of specialization and sometimes close proximity to other types of recreation facilities, no definite standards or requirements have been set. These facilities are scattered throughout the city and provided by public, school, and commercial agencies.

Recommendations

The specific recommendations contained in this Open/Space Recreation Element were arrived at by input from several sources. All through the summer of 1976 meetings were held with citizens from each of the planning district in the city, who identified goals and objectives for each particular district. The citizens also completed a questionnaire on recreation facilities within the city. The specific goals identified by the citizens and the results of the questionnaire were used to help compile the overall city recommendations. Meetings were held during 1976 and 1977 with the Recreation and Parks Department of the City of Flint, the Flint Board of Education, and the Flint Planning Commission to gain input on the recreation element and to help reach the overall recreation recommendations presented in this section.

1. Emphasis should be placed on the designation of water areas as public open space area.
2. A high priority of public recreation expenditures should be placed on park maintenance.
3. The feasibility of a differential rate schedule should be investigated, that is the charging of higher rates to non-city residents for the use of city facilities or programs where fees are charged.
4. The people who participate in recreational activities should be given a share in the planning and control of recreational activities and facilities (i.e., through user surveys).
5. Recreational programming by the city should be coordinated with the programming of other agencies.
6. Recreation areas should be pedestrian orientated, that is safe and easy access to parks should be provided.
7. Adequate open space should be provided to buffer non-compatible land uses.
8. An evaluation and monitoring system of facilities will be developed to rate parks within each classification to show

levels of development, to be used as an indication of where monies are spent.

Overall Recreation Policy

All city owned and maintained parks are protected by the City Charter. Under this charter provision, dedicated park land cannot divert from park use without a vote of approval by the people of the City of Flint in a general election. Other private or school parks do not have charter protection and can be eliminated or closed to the public at any time. The assured continuance of city parks is an important element when considering long term open space needs in the city.

The removal of any park from the park's inventory list could have a profound effect on the overall parks' needs of the city. On the other hand, the removal of a facility may have very little or no effect if it happens to be in area with a high level of duplication and overlap of park services.

With regards to long range planning, the assumption must be made that most of the privately owned and school parks will remain in existence and remain available to the public. From this assumption, the first priority for new park expenditure would be those areas which are not served by any park.

Of these areas not served, the first priority should be given to those areas that have the greatest need. The criteria for need should be based on: (1) current and projected population for the area, (2) the age composition in the area, (3) the future land use of the area, (4) the housing conditions of the area, (5) average residential lots size in the area, (6) median income of area residents, and (7) the stability of the neighborhood.

Many of these areas can be serviced through one of the following methods: A) major land acquisition for development of new facility; B) upgrading lesser level facilities; or C) innovative approaches to service the needs such as mobile parks, vest pocket mini parks. Attempts should be made to preserve existing housing stock, in other words, no major demolition is recommended to provide park land. Innovative approaches will have to be investigated to fulfill the needs when no land is available.

THE PUBLIC/COMMUNITY FACILITIES ELEMENT

Introduction

While there are many definitions for public or community facilities, this element addresses these: Education (community or K-12 schools, post-secondary or college-university, and vocational schools), child care centers, libraries and other cultural facilities, health care especially major facilities, or hospitals, welfare (social services), protection (fire), and cemeteries.

Such facilities are major consumers of land. In periods of economic depression, the development and expansion of public facilities, along with other public works, are often important economic generators. It is therefore useful to have staged development plans available. Such facilities can also represent the foci of redevelopment efforts, such as the relocation of the University of Michigan-Flint to its new downtown riverfront campus which was made possible by the investment of local public and private funds and other support. Careful planning and control is necessary to avoid wasting local resources. Foresight must be devoted to predicting future needs to optimize such investment.

Goals and Objectives

The principal goal of this element is to assure the availability of adequate facilities to serve properly city populations, and to promote optimal locations according to land use plans, and minimize overlap or excessive separation. Serious deficiencies are generally cited as recommendations. This is typically a physical assessment of location, but other directly related factors will be discussed which relate to placement of facilities. A central theme in the element emphasizes stabilization, recentralization, preservation and re-use of existing facilities and structures in the city.

Public Facility Components

Education - Community K-12

Community K-12 schools, faced with declining enrollments, will not grow and are faced with a variety of problems, notably the re-use of under utilized or vacant plants (which will increase in number). Aside from the continuing decline in school-age population, demographics are uncertain but deserve more study, mainly to assist in planning. Physical plants, at least in terms of site size and location, appear to be adequate in general, and assuming fewer students would remain so. The federal (HEW) plan for school desegregation is unclear but could result in major changes that make comprehensive school physical assessment impractical.

Recommendations: (1) better demographic study, (2) the formulation of a comprehensive master plan for the community school system, possibly to include all facilities within the County Intermediate District, (3) better mechanisms of public participation, especially as to the re-use of closed schools and, (4) consideration of alternatives as to re-use. Non-public K-12 schools play a small and possibly declining role locally.

Post-Secondary Education

Post-secondary schools: Mott Community College and University of Michigan-Flint, continue to grow. This institutional growth creates some conflicts within the city, such as traffic and circulation patterns having adverse effects. Although their basic land needs have been met, these major schools still have some requirements. Schools are regulated by state and federal agencies, so little local control is possible.

Recommendations: (1) monitoring the major institutions, with the city playing an active role resolving or avoiding problems, (2) requiring site plan review of physical plant changes impacting the community, (3) a reappraisal of the city's role relative to these institutions, (4) city sensitivity to school construction without benefit of adequate planning and coordination, (5) establishment of a quasi-public coordinating board or commission, (6) maintenance of an on-going linkage to institutional physical planning and land use.

Vocational Education

Vocational schools: which appear to be growing, also have clear need in a city whose residents have marginal attainments both academically and vocationally.

Recommendations: (1) city encouragement of training to enhance employment prospects, (2) selective city support to focus on neighborhoods of special need, (3) consideration of education as a community development component and resource to re-use facilities.

Child Care

Child care facilities: often ignored in planning, deserve more attention. Recommendations: (1) consideration of these facilities especially to re-use school plants that become vacant, (2) consideration of local regulation tightening control of child care centers.

Cultural

Cultural facilities: extensively developed in the last quarter-century, now form a substantial base for aesthetic and educational growth of residents. The "Culture Center" or facilities complex on the city's near-east side has enjoyed substantial support from community leaders and appears to have no pressing need for city support. The public library system however, operated by the Board of Education, merits support and attention.

Recommendations: (1) better use of school-based libraries, possibly by relocating them to shopping centers, (2) active city participation in the relocation of the downtown branch serving the commercial-professional-government sector. The latter might best be located in the Riverfront Center complex when developed, but an interim site must be found.

Health Care

These facilities studied primarily represent local hospitals, with incidental reference to professional offices and services. Health care deliveries are almost totally controlled by state and federal agencies, but a local control agency has been added (GLS Health Systems, Inc.) which affords a little local control, and which has proposed some reduction in services. This appears to have had no great impact on hospital enlargement plans, and virtually all hospitals have entertained remodeling and new construction in recent years. Such institutional growth has created some problems, including some negative impacts to adjacent neighborhoods (since hospitals are generally located in residential areas). A more critical problem may be in meeting the needs of certain residents, especially those in low income and minority areas. The health of such residents might be improved by bringing primary health care closer to the consumers. This could be accomplished by establishing satellite clinics within neighborhoods.

Recommendations: (1) studying the need and feasibility of establishing satellite health care centers, (2) city encouragement of community health, assuming that such support would focus on physical development, (3) emphasis on the re-use of physical inventory (schools and other buildings that may otherwise be lost), (4) close consideration of the local health care agency (GLSHSI) proposals to meet community health care deliveries, (5) coordination and review of physical development in and about large institutions, including site plan review, (6) review of existing zoning to improve provisions for hospitals and related offices, (7) the city remaining alert to recentralization opportunities for long-term-care facilities (extended care-nursing), and (8) encouraging authorizations for extended care while using existing physical inventory.

Welfare

Social service agencies, were extensively studied, including a questionnaire sent to agencies. An early assumption, that the large number of agencies would have a significant impact physically on the community, proved to be incorrect. Agencies consistently indicated a need for more funding not more space. Analysis of operating structures indicated that such organizations are labor- and capital-intensive but in aggregate consume little space. Further study, particularly as to whether agencies might be consolidated and centralized, as in new developments, may be useful. But the final conclusion, that space needs were small and future needs no different, supported the fact that no recommendations were necessary.

Protective Services

Police was found to have no need for space since operation is totally mobile in the field and centralized in a single structure for administration. Civil defense and emergency planning is a county responsibility. The Fire Department was studied for system deficiencies (station locations, hydrants and water supply) and program needs (fire prevention). Three stations were found to be in need of replacement, two because their locations had handicaps to response time (one having a physical barrier, a busy railway crossing) within their districts. Hydrants were found to be lacking at older mobile home or trailer parks which unregulated developments also had many other deficiencies handicapping fire control. Fire protection was found to be similarly handicapped in other multi-unit residential developments, mainly some built before more comprehensive site plan review required the involvement of the Fire Marshal, as is now the case. Overall, all multi-unit and trailer park housing was found to be in need of more stringent controls. A proposal to require the installation of electronic smoke detectors in both types of housing was found to be of merit city-wide.

Recommendations: (1) city study of the location and adequacy of hydrants relative to both current and projected needs, (2) restudy of the central business district, contiguous developments and the center city in general to assure fire protection, (3) making certain of the involvement of the Fire Department in site plan review required and other features in trailer parks, possibly to take the form of a new ordinance more restrictive than the applicable State Act, and (5) study of the need for smoke detection equipment in all habitable structures city-wide, to include the enactment of a new ordinance requiring such equipment.

Cemeteries

A significant amount of city land (139 acres) is consumed by relatively old cemeteries. Because burial needs are being met outside of the city, and because of the difficulties of re-use of such lands, the recommendation calls for the city not authorizing the development of any more cemeteries.

THE ENVIRONMENTAL ELEMENT

Introduction

The scope of environmental analysis is generally delimited by state and federal authority, the former represented by the Michigan Department of Natural Resources (DNR). State regulation is comprehensive and consistent with federal authority. The few city ordinances applicable were enacted under state and federal enabling authority. This element addresses all required environmental issues, but also includes topics of environmental concern, which while not found in traditional planning documents, seem appropriate to truly comprehensive analysis and review. The element covers: Water quality (management, municipal supply, liquid wastes, surface features); air quality; soil and water-course management (soil erosion and sedimentation, sensitive areas and watercourses, flood plain management and insurance, soil study needs); special environments (noise and lead paint hazard); environmental review and assessment system (a development review process); solid wastes and energy including solar.

Goals and Objectives

The principal goal is to provide a reasonably clean, safe and healthful habitat for human and other desirable lifeforms. Specific goals and objectives are given in each section of the element. Important deficiencies are generally given as recommendations.

The maintenance of high environmental standards in the city generally has not been given priority. This is because of budgetary constraints, the recent recession, changing local government form, and other reasons. Less apparent is the tacit assumption that since the state DNR monitors basic environmental conditions, there is little need for the city to play an active role. One unstated objective of this analysis is to bring forth local roles as a necessary topic of consideration.

Environmental Components

The rising concern for human survival over the long term had led to comprehensive study of environment and the application of suitable controls. There is today, in general, state and federal regulation of all important environmental factors: Air and water quality, plus certain other factors affect our well-being such as noise and flood hazard. This element gives priority to those regulated factors. As a recipient of Community Development Block Grant funds, the City is obliged to comply with the Federal Clean Air and Water Pollution Control Acts, and certain other federal controls such as those seeking noise abatement and compulsory flood insurance.

Water Quality

Environmental water quality deals with (1) domestic municipal supply, (2) liquid wastes, (3) surface water features. Also considered is water quality management planning, applicable authority, state and federal especially the Water Pollution Control Act Amendments of 1972, and Sec. 208 Planning for the latter is being handled by Region V, a tri-county agency, one of 14 statewide. Their 208 report is not complete, so discussion broadly considers the relationship of water quality management to 701 land use plans. (Liaison with the Region is continuing with cooperative development of land use plans.)

Municipal water supply represents no problem for Flint, except possible rising costs (the Detroit system pipelines Lake Huron water to here). Out-county sales of water may be increasing. Liquid wastes, sewage and storm, represent Flint's greatest deficiency. The municipal treatment plant has been overloaded, and like others in the areas, did not meet 1972 standards. Current plant expansion and improvements nearing construction are estimated to cost \$50 million with EPA contributing 75%. The drainage system can't handle storm flows (precipitation) and is being upgraded with State DNR assistance. Drain system completion is given as 1980. Both projects are expected to meet all applicable standards when completed. Surface waters, especially the Flint River, have been marginal in quality but with some recent improvement. Most pollution took place downstream because of municipal plant discharge of inadequately treated sewage, most acute after storms. Industrial pollutants have hurt most surface waters, but have been minimized by County Health Department efforts toward abatement. County efforts give some priority to preserving recreational waters from health hazards. Continuing County efforts seek to eliminate point-source pollution from unsewered suburbs. Comprehensive efforts are required.

Recommendations: (1) city continuation of its program to improve water quality while working with Region on 208, (2) top priority to sewer separation and other elimination of drain deficiencies, (3) restudy of water supply and wastewater treatment plans relative to growth projections and 208 plans.

Air Quality

Environmental air has improved greatly in the city in recent years. This is primarily because of major improvements at the Buick plant, plus a city-wide abatement program. In 1974, the City Pollution Control Officer estimated that federal and state (DNR) air standards would be met in 1975. This was not achieved, although air quality may have approached baseline (best possible) conditions, assisted by the economic decline and reduced industrial activity. More recent (1976) data shows that in general city air is satisfactory, exceeding both primary and secondary standards. However, suspended particulates (e.g., dust) have increased in the north-east quadrant of the city or around Buick and St. John (being redeveloped as an industrial park and with

Interstate construction also taking place). The MDNR attributes elevated particulates to construction, which may indicate that improper work practices generate excessive dust. Other air monitoring shows that Ozone standards were exceeded in 1976, increasing the possible hazard of smog, and high oxidant levels that could lead to an air pollution "emergency" as the city had July, 1975. Sulphur dioxide and nitrogen dioxide, also monitored by the MDNR, have remained comfortably below prescribed standards. Part of the recent setback in air quality is the result of increased economic, largely industrial activities. However, even while industrial pollution sources conform to standards and guidelines, other sources seem to have added sufficient pollution to create marginal air quality.

Illegal residential and commercial incineration of trash may require stronger abatement measures, along with effective enforcement of local ordinance requirements covering construction, to restore air quality.

Recommendations: (1) city formulation of a comprehensive contingency plan with the state DNR in conformance with EPA requirements, (2) reactivation of local pollution control programs to regulate both large point sources and numerous small sources of pollution.

Soil and Watercourse Management

This section covers soil erosion and sedimentation; sensitive areas and water courses; flood plain management and insurance; and soil data development. Erosion refers to the removal of soil when plant cover is disturbed, as by construction, and the deposit of such soil elsewhere, in surface waterways. Enabling legislation facilitated passage of a 1975 City Ordinance to control soil erosion and sedimentation, but enforcement has not been adequate. This is apparent from elevated suspended particulates (dust) in air monitoring data. "Sensitive areas" are tentatively defined as waterfronts, which may require buffering and other control. Flood plain management is required under federal law, since the city established flood insurance eligibility in 1973, and will require the operation of an overall program of corrective and preventive measures for reducing flood damage, and adoption of an ordinance regulating flood plain development. The city currently has the interim "emergency program" which is leading to the establishment of a defined flood plain or Flood Insurance Rate Map in 1978. The program now under development incorporates HUD environmental policies and standards for flood plain management (24 CFR Part 1910) and will culminate in ordinance adoption. Developmental planning and control will be facilitated by study of local top and subsoils, data on which is currently limited and fragmentary. A proposed cooperative study with the USDA Soil Conservation Service seeks to formulate a city-wide soils map.

Recommendations: (1) additional staff to enforce the city's Soil Erosion and Sedimentation Ordinance, (2) studying the need for watercourse regulation as via ordinance controlling these sensitive areas, (3) formulation of a flood plain management program and adoption of appropriate ordinance, (4) development of a city-wide soils map.

Special Environmental Noise and Lead Hazards

Noise and lead paint, represent unique problems that have received too little attention. Because of inadequate research, the significance of noise and its adverse effects on people, is not fully known. Most recent efforts to control noise have been transportation-related, just as most local efforts have been incidental to reviewing the impacts of highway construction, primary state and federal initiatives. Some review has taken place locally to assure state-and federally-assisted housing. Although limited city efforts have been begun to assess and control noise, little is known about local noise conditions. Regulatory guidelines that exist (e.g., HUD Circular 1390.2) have been considered in the drafting of a proposed City Ordinance dealing with noise abatement and control, which seeks to amend zoning by establishing controlled districts or areas within the city. Given current city budgets, enactment of such an ordinance would create a deficiency since no staff exists for enforcement and abatement.

Recommendations: (1) study of noise exposures and enactment of a suitable ordinance, (2) compatibility of controls with state and federal law.

"Plumbism" (lead poisoning) is a very old problem which is devastating and sometimes deadly to children living in older homes, those decorated with lead-based paint. The precise incidence of this public health problem is unknown, however the County Health Department has identified 25 cases of lead poisoning in the city alone and estimates that a larger number is probable. Since nerve and brain damage is often serious and permanent, this represents an important problem. Abatement and control practices are simple but not easy. Afflicted children must be identified along with high-risk households (possibly 30,000 units). Since federal (HUD) control is inadequate and no state control is directly applicable, a local ordinance is desirable.

Recommendations: (1) a cooperative education program focused on high-risk city areas, (2) development of hard data, (3) support of city inspections to identify and control lead-painted interiors, (3) encouragement of public health programs, and the enactment of a City Ordinance controlling lead paint.

The need for environmental policy seems obvious, to help define goals and objectives and to guide actions. It was found that no such statements exist, beyond those found in the 1974 City Charter. The recommendation calls for the formulation of environmental policy, possibly by a citizens task force, with support by City Council Resolution.

Environmental Review and Assessment

The Environmental Review and Assessment System (ERAS) is a proposed project evaluation process. ERAS seeks to establish a systematic, comprehensive analysis of new construction to relate projects to environmental capacities. Beyond meeting important technical requirements, the

process would sensitize and educate developers, their clients and local government units to the needs of existing and projected environment. In an effort to be consistent with federal criteria and guidelines, ERAS is modeled after HUD Program Guide, Environmental Reviews at the Community Level (1975), effectively an extension and elaboration of that process. While physical relationships are featured, soci-economic and other factors are considered. Energy impacts must be discussed. As proposed, the review process is consistent with federal (HUD-EPA) and Michigan State guidelines, requiring only minor augmentation to be usable for review and assessment including environmental impact statement. ERAS is to be applied to all housing having three or more units, government-assisted housing requiring assessment and any development within a "critical zone or area." The latter, addressed elsewhere, are typically flood plains, waterfronts, or land with unstable soil, or zones of high noise or other deficiencies.

Recommendations: (1) further refinement of ERAS (especially its unspecified ranking system for rating impacts), adoption by resolution and ordinance, and (2) consideration of a one-year trial operating period.

Energy

Solar

Energy supply deficiencies had a profound effect on the city, both directly and via sales of its principal industrial base: personal transportation. The crisis continues since no new permits have been granted for commercial or industrial customers of natural gas the last five years. This remains a handicap. Alternative energy sources are seen to be of no immediate value except possibly solar supplements. Both supply and demand must be addressed.

Recommendations: (1) adoption of energy conservation policies and practices, (2) adoption of a conservation code based on ASHRA 90-75, (3) city formulation of a comprehensive energy management plan covering all local needs, (4) support for alternative energy supplies, and (5) adoption of zoning assuring residents "sun rights" to solar energy.

Solid Wastes Management

Solid wastes, or garbage the city must dispose of, is identified as a major problem. General discussion identifies the declining feasibility of continued landfilling of wastes, along with rising environmental standards. Resource recoveries are suggested, emphasizing energy value. The Resource Recovery and Conservation Act of 1976 (PL 94-580) is seen as a possible source for planning funds. Under this Act regional planning by state designation is required. This city and Genesee County may better align with Saginaw County (similarly industrialized) rather than the three-county structure Region V embraces.

Recommendations: (1) assigning high priority to solving the solid wastes disposal problem, (2) establishing local intergovernmental structures immediately whether or not assistance is forthcoming, (3) city action in seeking additional landfill sites, bought or leased, (4) the city to actively seek resource recoveries technology both to reduce landfill bulk and salvage valuable components from wastes, (5) continued involvement of the community as in "recycling" programs, (6) maximum involvement including private sector, (7) restudy of plastic bagged wastes collection for better technology.

THE HISTORICAL PRESERVATION ELEMENT

Introduction

The need for preservation of our American heritage is becoming a national concern, gaining momentum in many communities throughout the country. This awareness is part of a broader concern to better the quality of life and preserve our limited resources.

It is the intent of this effort to provide an instrument for further preservation and neighborhood conservation activities.

Goals and Objectives

The goals of the Historic Preservation element is to provide further emphasis towards preservation and conservation by developing processes to identify historic sites and action to procure them. This can be accomplished by the development of objectives and mechanisms for implementation:

1. Develop preservation policies which express support of the historic concept and approaches to reinforce it.
 - o Authorize procedures which mandate closer cooperation between various city departments.
 - o Develop inventories to identify existing and potential historic elements.
 - o Incorporate identified elements as part of the Master Plan.
 - o Development cooperative approaches with preservation and conservation groups associations, and citizens.
2. Develop educational processes and techniques which will promote historic preservation and conservation efforts.
3. Develop a process which will establish a comprehensive program for historical preservation including surveys and inventories of historical resources, evaluation, program development and implementation.
4. Develop tools which will allow for the implementation of preservation program. Tools such as zoning modification, historic districts, special commissions, tax incentives and the utilization of federal and state programs are but a few of the examples which can be used to promote historical preservation activities.

Current Preservation Activity

During the last few years a growing interest in preservation has occurred in the City of Flint as well as in the metropolitan area. The

following summarize these activities accomplished to date and proposed future goals.

Flint Historical Preservation Study Committee

This committee was formed in 1975 in response to State Enabling Act, Act 169. The goal of this committee is to produce a workable document which will recommend specific areas and sites for historical district designation and an ordinance which will assist in:

- o safeguarding the heritage of the local units, stabilizing improved property values
- o foster civic beauty, strengthen the local economy and promote the use of historic district for education, pleasure, and welfare for the citizens.

Historical District Concept

The Historic District Concept which is defined as a geographical area urban or rural possessing a significant concentration or linkage to the past, offers two major features:

- o The district concept benefits the community neighborhood individual by repainting tax producing property while allowing interior alterations, provides a physical link to our past, fosters community pride neighborhood stability, promote reuse and improvement, help stabilize property values, and provide personal satisfaction to property owners.
- o The second feature is the provision for a view mechanism through the establishment of an architectural review board or commission.

Proposed Districts

Four general areas have been surveyed for architectural significance and core district established within them. These districts have been documented and inventoried. Several individual noteworthy sites are also being included in the initial studies and evaluation process. These districts have been designated as:

Central Park
Water Street District
Civic Park
Grand Traverse South

Whaley House Historic Association

This association was organized as a result of availability of an existing structure. Their main goal was restoration and use of this particular structure for historic purposes. A phased restoration program

is currently being accomplished when completed this structure will not only represent an excellent example of period architecture and its historical association with the automobile industry but the successful results that can be accomplished with cooperative efforts between various organizations working towards the same goal.

County Historical Preservation

Genesee County is currently becoming involved with the preservation effort as a result of Crossroad Village located within a major recreational area north of Flint. When completed the Historic Village will encompass 37 historical structures and begin a living village. Unique to this village is a recent addition of the Huckleberry Railroad complete with historical train tracks and station. Although the idea of a historical village is not a new concept it is one of many ways to preserve a community's heritage. It is becoming a valuable educational tool as well as economic aspect.

Recommendations

If historic preservation effort is to become an effective tool in promoting historical renovation, conservation, economic rejuvenation as well as building community pride, effort must take the form of firm policy and commitment as follows:

Policy

1. Promote the process which allows for the review and approval of redevelopment project or plan within historic areas as allowed by the state enabling Act 169. This act calls for information of historic preservation committee. Intent of this commission is to review plans, buildings, applications in order to maintain the historical integrity of a designated district.
2. Designate the Department of Community Development as the official clearing house for all historical land use activity. This department would be responsible for compiling historical land use data, land use activities with other departments and agencies, working with private and public historically oriented groups.
3. Compile inventories of all potential historically significant elements by using existing inventories in the environmental block assessment (EBA). This assessment is a survey of structural conditions completed by Genesee County.
4. Support the historic district concept as indicated in the master plan and incorporate specific historic districts as part of the official land use policy.
5. Develop monitoring processes which will assure compliance with historical preservation goal and adopted historical ordinances.

6. Coordinate historic districts with current rehabilitation programs to strengthen housing efforts and promote historical conservation and community pride.

Studies

1. Investigate current housing programs and modify where required for application to historic areas.
2. Analyze and evaluate existing land use review and building permit procedures for historical aspects.
3. Investigate and evaluate tax incentive programs dealing with reduced or temporary freeze on assessments of properties within the historically significant area when property improvement occurs.

Citizen Involvement

1. Develop a citizen participation process in areas designated as historic districts through existing block clubs or developing new mechanisms.
2. Coordinate historical preservation activities with existing citizen participation programs as a means of disseminating and receiving information.

Ordinance

Assist the Historical Preservation Study Committee in developing and implementing a historical district ordinance. This ordinance should establish basic framework for designating district standards for redevelopment, architectural guidelines, and administrative policy.

TRANSPORTATION ELEMENT

INTRODUCTION

A brief history of metropolitan transportation planning traces technical developments and legislation of the 1950's, 1960's and 1970's and offers principles for future transportation planning. Resource management in light of population shifts and stabilizing growth has become more significant. The transportation planning process must be sensitive to social, economic and environmental impacts and must be predicated on both user needs and effects of the system on land use. A broad description of a future transportation system is also needed. Various procedures have been developed to facilitate the decision process for transportation planning; these include cost-benefit analysis, cost effectiveness evaluation, capital improvements budgeting and capacity analysis. Various sources of data and information are used to measure and predict effects of the transportation system. Sources of funds include federal, state and local monies.

GOALS AND OBJECTIVES

General Goal

Develop a multi-modal transportation system that complements land use and affords mobility for the community; balance the need for accessibility with the need for a habitable urban environment.

1. GOAL: Provide a safe transportation system.

OBJECTIVES: (To be quantified and evaluated on an annual basis through Transportation System Management (TSM) Program.

- A. Reduce accident rate.
- B. Reduce fatalities.
- C. Reduce conflicts between different modes of transportation.

2. GOAL: Provide an efficient, and economical transportation system.

OBJECTIVES: (To be quantified and evaluated on an annual basis through the TSM)

- A. Reduce congestion.
- B. Minimize energy costs.
- C. Minimize travel time.
- D. Improve coordination of traffic signalization system citywide.
- E. Reduce travel distances.

- F. Distribute peak period assignments of work trips.
 - G. Minimize costs for transportation improvements by implementing low cost TSM options.
 - H. Minimize operating costs.
3. GOAL: Assure environmental, ecological, and aesthetic values in the design, routing, landscaping, and buffering of transportation improvements.

OBJECTIVES:

- A. Minimize air pollutions (emissions).
 - B. Minimize noise levels.
 - C. Reduce visual intrusions to existing land uses, such as residential.
 - D. Minimize loss of street trees.
 - E. Incorporate sufficient landscaping into street project budgets to include appropriate trees, shrubs, grass.
 - F. Preserve visual vistas.
 - G. Minimize disruption of recreational lands.
 - H. Improve buffering of parking lots. Adopt stronger buffering ordinance (see appendix).
4. GOAL: Preserve and stabilize neighborhoods.
- OBJECTIVES:
- A. Avoid disruption of housing.
 - B. Minimize disruption of businesses, hospitals, and schools.
 - C. Avoid displacement of people leading to loss of population and tax base.
 - D. Reduce physical barriers within elementary school boundaries.
 - E. Maintain effective citizen input.
 - F. Restrict through traffic on local streets by design and routing.

- G. Avoid one-way streets which limit local circulation while increasing through traffic in residential areas.
- H. Avoid disruption of historic sites (See historical chapter).

5. GOAL: Coordinate transportation with land use development.

OBJECTIVE:

- A. Provide accessibility between major traffic generators.
- B. Maintain effective communications with agencies and individuals affecting or affected by transportation improvements.
- C. Avoid adverse impacts of street improvements which tend to promote land use changes, i.e. conversion of residential to commercial uses.

6. GOAL: Improve maintenance of street system.

OBJECTIVES:

- A. Continue annual citywide identification system to set priorities. Develop a cyclic program that will schedule street resurfacing by greatest need on a periodic basis.
- B. Identify more funding sources for street resurfacing, curb and gutter replacement.
- C. Increase amount of street resurfacing to bring all streets below an acceptable deficiency rating.
- D. Revise FAUS project evaluation system to place more weight on street maintenance projects to compete with street improvements countywide.

GOAL: Encourage the use of mass transit (i.e. bus services, carpooling and vanpooling).

OBJECTIVES:

- A. Increase ridership.
- B. Improve Mass Transit Authority (MTA) bus services.
- C. Conserve energy.
- D. Reduce congestion.
- E. Afford opportunities for movement to economically and physically disadvantaged.

8. GOAL: Integrate transportation improvement planning with planning for other capital improvements through a capital budgeting and programming process.

OBJECTIVES:

- A. Eliminate duplication or repetition of effort, minimize overall capital investment and replacement costs by adopting a single, six-year capital improvement program for all improvements.
- B. Coordinate street improvements in neighborhoods with scheduled work in housing rehabilitation, sewer and water, parks.
- C. Coordinate routine street maintenance and other scheduled work with major physical development projects (Urban Renewal, et.al).
- D. Coordinate improvements necessary for the promotion of non-motorized transportation with other proposed capital projects.

GOAL: Assist in the improvement of railroad facilities to maintain a competitive position for rail services and reduce conflicts with other modes of travel.

OBJECTIVES:

- A. Reduce number of railroad crossings at grade with major traffic arteries. Program construction of separations based on the Hazard Index Formula (see text).
- B. Improve surfaces and signals at railroad crossings. Rubberized surfaces providing an average ten-year life should be used and constructed to time this replacement with grade separation projects.
- C. Maintain communication with C&O, GTW, AMTRAC to identify problems and opportunities on a continuing basis.

10. GOAL: Upgrade air transportation facilities to meet forecasts for increased demands in passenger and cargo movements.

OBJECTIVES:

- A. Meet objectives of the Bishop Airport Master Plan.
- B. Reduce effects of noise on suburban communities created by expanding facility.

11. GOAL: Encourage non-motorized movement between high-use areas and in neighborhoods.

OBJECTIVES:

- A. Increase bicycle facilities (such as sidewalk ramps, exclusive lanes, designated routes and storage areas).
- B. Increase barrier-free design for pedestrians.
- C. Minimize conflicts between motorized vehicles, pedestrians, and bicycles.

RECOMMENDATIONS

A. Safety

1. Preference should be given to improvements at major roadway intersections in the form of turn-lanes and a modification of signals to reduce intersection accidents.
2. Study various vehicle preemptive techniques at intersections to reduce emergency and fire vehicle response times and reduce accidents between emergency vehicles and other traffic.
3. All posted speed limit restrictions should be studied to determine appropriate vehicle speed levels.
4. Analyze all major railroad crossings and appropriate measures taken to modify unsafe crossings through signal or roadbed projects.
5. Analyze horizontal and vertical alignments of major roadways to determine deficiencies and steps taken to alleviate them.

B. Efficiency and Economy

1. Begin analysis of collector and arterial roadway capacity to determine improvements needed such as parking prohibitions and/or pavement widenings.
2. Promote mass transit option in high-density areas to reduce traffic congestion and pollution. Investigate such options as vanpools, jitneys and MTA bus service.
3. Investigate feasibility of staggering manufacturing plant hours to relieve congestion on major roadway corridors serving these facilities during morning and afternoon peaks.
4. Investigate feasibility of reversing lanes to increase capacity of roadway during "rush-hours".

5. Implement computer-controlled signal network to increase traffic carrying ability and improve flow characteristics of major arterial roadways for both 24-hour and peak periods.

C. Environmental Concerns

1. Evaluate projected air and noise levels of major transportation system improvements to determine potential adverse impacts upon surrounding land uses prior to planned construction.
2. Include Environmental assessment in preliminary planning for major transportation systems improvements in project area(s).
3. Include appropriate, tasteful, organic or inorganic buffering techniques along major transportation system improvements such as the form of landscaping, terracing, berming, etc.
4. Avoid unnecessary removal of street trees in system improvements and replace with appropriate types and sizes if necessary.
5. Avoid unnecessary removal of ground cover and turf patches.
6. Provide for aesthetic buffering of all off-street parking areas to minimize visual intrusion on surrounding land uses.

D. Neighborhood Stability

1. Avoid acquisition and relocation of individuals, families and commercial establishments for major transportation system improvements or modifications.
2. Avoid impaction and/or physical segregation of viable neighborhood units, public and institutional functions.
3. Avoid establishment of one-way pair systems through residential neighborhoods.
4. Implement a program of citizen input and participation in the planning and conceptualization stages of transportation system improvements.

E. Street Maintenance

1. Actively seek alternate funding for major and local street maintenance to include federal Economic Development Administration and Public Works sources.
2. Engage private firms under contractual agreements for street maintenance projects when Department of Public Works manpower is insufficient.

3. Coordinate street maintenance efforts with Department of Community Development in Rehabilitation Target Areas.
4. Continue to set priorities for street resurfacing to provide maintenance in areas of greatest need.

F. Planning and Programing Functions

1. Establish modeling and alternative testing processes to evaluate impact of all proposed transportation system improvements on transportation and land use systems citywide.
2. Continue coordination with Genesee County Metropolitan Planning Commission and Flint-Genesee County 3c planning process to formulate short and long-range transportation goals and improvements.
3. Continue participation in the development of the Unified Work Program (UWP) for intermodal transportation planning.
4. Develop short, medium and long-range proposals for achieving improved circulation and land-use patterns in the Central Business District consistant with current downtown project proposals.
5. Encourage coordination and data proliferation among all the legislative and governmental agencies involved in transportation planning, i.e. federal, state, regional, county and municipal.
6. Adopt a single six-year capital improvements budgeting process through the office of the city administrator.

G. Non-Motorized Activities

1. Investigate potential of using FAUS and other federal sources for building "people mover" types of transit systems, especially near Riverfront Center and Central City Plaza development projects.
2. Promote implementation of bike-paths and other non-motorized projects through FAUS funding sources.

Street System

A successful street system maximizes service to the user while minimizing impacts of the system on surrounding areas. Flint's street system is affected by two major factors (a) the increasing amount of suburban-based traffic generation and (b) completion of I-475. Continued growth of out-county areas will further strain the capacity of the city's roadway network, provided the major employment centers remain in the city. Completion of I-475 should result in a decrease of through-trip volumes on some of the city's major north-south arterials.

Classification of streets by primary service function is used for funding and regulation purposes and can be used to identify where major street improvements will affect land use.

Problem identification and analysis begin in various ways, including citizen participation. Transportation problems generally fall into three categories (1) those that affect the user, (2) those that are affected by the transportation system and (3) those that affect the transportation system. User problems include congestion, capacity and safety issues. Problems affected by transportation are air pollution, noise, visual intrusion, right-of-way and relocation requirements and inappropriate or undesirable land development. Problems affecting transportation include increased population growth and dispersion, increased automobile ownership and peakedness in the amount and timing of travel. Transportation problems outside the Central Business District differ from those within the CBD and require different approaches.

Downtown Parking

Adequate downtown parking is necessary to attract more people from the metropolitan area. Although the present supply is adequate, future developments will generate additional parking demands, requiring construction of additional spaces in the near future.

Mass Transit

Mass transportation is an alternative to the private automobile. Local service, provided by the Mass Transportation Authority suffers from overloads at peak hours, lack of factory service, insufficient numbers of passenger shelters and uncertain funding of programs for the elderly, the handicapped and for students. Additional attention should be given to visibility of transit routes, extension of operating hours and the possibility of special systems for downtown and inter-campus movements.

Non-Motorized

Flint bicycle routes are on existing streets. Many of these streets are designated truck routes, causing safety problems. A coordinated study by appropriate city departments is recommended to examine safety, security and enforcement problems related to bicycle use.

Planning for pedestrian movements has been limited to the downtown area and could be expanded on a citywide scope.

Railroad Facilities

Railroads are an important part of Flint's economy, offering both freight and passenger service. The strong demand for freight service by the automobile industry should continue. Local problems with railroads include land use conflicts, environmental impacts and safety problems at grade crossings.

Air Service and Airport Facilities

The growing need for air service will create a need for expanded facilities at Bishop Airport. Orderly development of the airport will be closely linked to compatible land development and the environmental impact of flight activity.

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III. PROCEDURES

Before the City of Flint Master Plan can become an effective instrument in guiding physical change, it must go through a series of adoption procedures. This process involves all levels of government - local, state and federal. To date, valuable input has been received by citizens and the Planning Commission, as well other departments and agencies.

Federal

Because the Master Plan was enabled through a federal comprehensive planning grant, a series of mandated reviews are required:

Environmental

An environmental review of the master plan has to be conducted which assesses factors of the natural and man made environment, and the interrelations and major problems or assets they present for community development.

Historical

Historical assessment involves those factors within the plan which may create adverse effects or impacts on any properties or districts, in or eligible for, the Register of Historical Places.

General Review and Approval Process

The land use and housing elements, which are considered prime components, must comply with certain federal program regulations. These are intended as assurances that the final plan meets specific federal policy. Such requirements range from broad community goals and annual objectives to specific policy effecting physical development, patterns of land use and programs designed to accomplish objectives.

A-95⁺ Review

The purpose of this process is to function as a clearinghouse for proposed federally-assisted projects for state, area-wide or local units of government. This review allows for appropriate evaluation on the effect and coordination of this plan with those of other units of government, avoiding potential duplication or adverse results. The Genesee County Metropolitan Planning Commission is the local A-95 agency. A-95 comments are forwarded to the federal and state levels for incorporation into their review processes.

⁺A-95 refers to federal circular number A-95, which requires the review process.

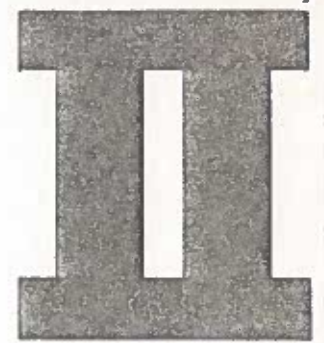
State

The State reviews the Plan through the above A-95 review process. This allows the opportunity to evaluate proposed local policy within the context of adopted state regulations.

Local

The real impact, and final implementation of the plan falls on the local unit. A series of reviews must occur on several levels prior to its adoption. The Planning Commission reviews the final document and forwards recommendations to the Mayor. After the Mayor's review, the plan is then proposed to City Council for their review and final adoption. The final version of the plan could vary depending on the necessary revisions needed to make it acceptable to all parties involved. Certain policy however, as it relates to federal guidelines, must remain intact.

Once Council has adopted the Plan, it becomes official policy for all physical development within the city. Persons in both public and private enterprise participating in physical development activities should then use this document as a guide in their decision making process.



HISTORICAL PERSPECTIVE

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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ABSTRACT

TITLE: HISTORICAL PERSPECTIVE

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: INFORMATION AND STATISTICS RELEVANT TO LAND USE,
ECONOMICS AND DEMOGRAPHICS OF FLINT

DATE: NOVEMBER, 1977

NUMBER OF PAGES: 56

ABSTRACT: THE HISTORICAL PERSPECTIVE SECTION PROVIDES BACK-
GROUND INFORMATION AND STATISTICS IN FIVE AREAS -
REGIONAL INFLUENCES, METROPOLITAN CONDITIONS, LAND
USE/DEVELOPMENT TRENDS, ECONOMICS AND DEMOGRAPHICS -
AS AN INTRODUCTION TO ELEMENTS OF THE COMPREHENSIVE
MASTER PLAN. THE REGIONAL COMPONENT PLACES FLINT IN
THE GREAT LAKES MEGALOPOLIS WITH PAST AND FUTURE
REGIONAL ECONOMIC AND POPULATION TRENDS. METROPOLI-
TAN CONDITIONS ARE ANALYZED FOR DIFFERENCES IN
CENTER CITY AND SUBURBAN DEVELOPMENT SINCE WORLD WAR
II. THE LAND USE PROFILE EXAMINES THE DEVELOPMENT
OF TRACTS OF LAND WITHIN THE CITY FROM 1900 TO THE
PRESENT, WITH EMPHASIS ON GENERAL MOTORS IN ESTAB-
LISHING INDUSTRIAL AND RESIDENTIAL PATTERNS. THE
ECONOMICS PROFILE TRACES THE CITY'S ECONOMIC DEVELOP-
MENT FROM PIONEER DAYS TO THE PRESENT, EMPHASIZING
RECENT (SINCE 1970) TRENDS IN MANUFACTURING, TRADE,
AND LABOR FORCE. THE DEMOGRAPHIC PROFILE OFFERS
POPULATION PROJECTIONS, PLUS ANALYSES OF GEOGRAPHIC
SHIFTS AND SELECTED INDIVIDUAL AND HOUSEHOLD CHARAC-
TERISTICS. MOST CURRENT POPULATION INFORMATION
PRESENTED IN THE HISTORICAL PERSPECTIVE IS TAKEN
FROM RECENT (1975) SAMPLE HOUSEHOLD SURVEYS.

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HISTORICAL PERSPECTIVE

The preparation of a realistic, objective Master Plan for the City of Flint necessitates a critical look at historic precedents as reflected in present-day conditions. The formulation of this plan must consider past changes and trends as an introduction and conceptual framework for future planning. Land-use, demographic, and economic growth patterns have established the form and substance of our urban environment.

I. REGIONAL INFLUENCES

The City of Flint is located in the southeastern portion of Michigan's lower peninsula, 65 miles northwest of Detroit and 50 miles northeast of the State Capital, Lansing. In addition, Flint's position places it within a six hour drive of two other major metropolitan areas, Chicago and Cleveland.

The State of Michigan is included in the East North-Central (ENC) region of the U.S., a region which includes Wisconsin, Illinois, Indiana and Ohio. All five states show similar economic and social characteristics and include what is generally termed the Great Lakes Megalopolis (GLM). The vast urban development of the GLM stretches from Cleveland on the east to the Chicago-Milwaukee area in Illinois and Wisconsin on the west.

The ENC region represents the industrial - manufacturing heartland of the mid-west, a region which is beginning to feel some significant changes. In the late 19th and early 20th centuries this region grew rapidly as a repository for immigrants from other areas of the U.S. and abroad. Rapid industrialization provided jobs and homes for millions of individuals. But in recent years the population and economic growth trends for the region have remained relatively stable for a variety of reasons. Families, individuals and business concerns have all found the attractiveness of the Sun Belt states to be an overwhelming incentive to migrate south. Also, the relative cheapness of transportation costs has alleviated the advantage the region once had in its proximity to raw materials. Rising wages and unemployment and workmen compensation costs have all contributed to the exodus of industrial and manufacturing firms to warmer climes.

Flint, in its central regional location, is experiencing problems similar to the rest of the states in the region. Both population and business activity are declining in the city for many of the same reasons these declines are being seen in the region.

Unlike many of the other manufacturing cities in the region, Flint was not blessed with a prime location or proximity to natural resources. That the city developed as a manufacturing center at all was more a testament to personal foresightedness and individual leadership than to geographic factors. Flint had no direct access to the Great Lakes trading routes, was not located on a body of navigable water, nor was it situated on a major railroad trade line or trading center as was Chicago.

Flint also could be considered to be located in a sub-region which would include Detroit and the Detroit metropolitan area, Lansing, Saginaw and Bay City. All these cities fall within a 75 mile radius of Flint and comprise the major wholesale and manufacturing market area.

Flint is largely dependent on concerns outside the region for fabricating materials and raw goods, since the city's manufacturing operations operate primarily as assemblers or secondary industrial goods users. The influence of Detroit has been manifested in another commercial area. Wholesale sales in Flint have been declining in response to increased trade with the Detroit area. The proximity of this large commercial area makes it unprofitable for Flint to engage in large-scale wholesaling operations.

Flint's major exports can be summed-up in one word, automobiles. This consumer good accounts for a majority of the city's manufacturing output and employment. Fibre containers, dairy products, processed meats and paint products play a smaller role in the city's export trade to the sub-region and region.

Flint's position as an auto manufacturing center should remain unchallenged for at least the next decade. General Motors vast investment in fixed assets would preclude wholesale migration of the auto operations to other states. The basic assembly operations will probably always remain here in the city but as plant expansion continues, new operations, whenever possible, will be established out-state. The trend seems clear. Flint is a basic one-industry city that can no longer compete on a regional basis for new economic growth and expansion.

II. METROPOLITAN CONDITIONS

For many years the area surrounding Flint was rural in character and the land use was mainly for farms. By far, the largest proportion of population growth occurred in the city with only a small amount of "overflow" population going into the townships immediately contiguous to the corporation limits. Since 1930, however, there has been a clear pattern of growth in the out-county areas. Between 1950 and 1960 while the city increased 33,000 in population, the out-county increased by 70,000. Between 1960 and 1970 while the city decreased 3,000 in population, the out-county increased by another 75,000. That trend is continuing today as more and more of the former farm land surrounding the central city is reconverted to residential and commercial uses.

In the past the bulk of out-county population growth occurred as a result of new residents moving into the area from other locations in the state and nation. Recent years, however, have seen the bulk of out-county growth resulting from migration from the city. In the most recent 3 year period, for example, 23,000 individuals have relocated outside of the corporate limits.

Local Migration: 1970-1976

	<u>Flint</u>	<u>Remainder of County</u>	
In migration			
from the out-county	7,585	from the city	39,415
from other places	<u>5,094</u>	from other places	<u>15,266</u>
Total	<u>12,679</u>	Total	<u>54,681</u>
Out migration			
to the out-county	39,415	to the city	7,585
to other places	<u>8,879</u>	to other places	<u>38,478</u>
Total	48,294	Total	46,063

Source: ECHO/DCD

As the table above shows, over 80 percent of the population leaving the city during the past six years has moved to the suburban areas around the central city. At the same time, 75 percent of those new residents who entered the area from outside also settled in the urban fringe. The result has been continuing residential development in the fringe areas and a declining residential concentration in the city.

There are two basic causes for the heavy development of the residential fringe. One very real factor in the evolution of the suburban land was the lack of developable land within the city. Earlier periods of

growth had, for the most part, used up the readily available land within the corporate limits. Further expansion had to take place outside those limits. A second factor, whose influence has been relatively recent, has been a growing desire among people for the kinds of amenities offered by a suburban location. Despite the capacity of the urban housing stock, the decline in population within and the increase of population outside, the city continues on the strength of these new attitudes and preferences.

The combined effect of this pattern of growth, and more recent decline, has been to create an urban county out of land that was still largely in farms at the end of World War II. Within the city, the effect has been to depopulate the very worst housing areas so the land could be cleared and reconverted to new uses. Without some movement of the population, both into and out of the city, the conversion of obsolete areas to new uses could not take place.

If residential development in the out-county was subject to these trends, so also was non-residential development. Businesses in the out-county, prior to World War II, were mainly retail outlets, were relatively small and were clustered in outlying towns and villages from where they could service the surrounding farm communities. As land for development and expansion became more critical in the city, however, other kinds of businesses began to crop up in suburban locations.

In more recent years large suburban shopping centers have been established, outside the city, near the eastern and western edges. Smaller shopping plazas are scattered throughout the county, but most tend to ring the urban center. Along the major North-South arteries, industrial and heavy commercial enterprises such as trucking depots have been established. The same is true along the existing rail transportation lines. The most recent development in commercial land use in the out-county has been the advent of special use "parks" or enclaves. Numerous industrial and professional parks have been created on dispersed sites outside the city.

Business development in the out-county was also subject to two main causal factors the first of which, as with residential uses, was a land shortage within the city. This more or less forced development outside the corporate limits, especially if the development took any sizeable acreage. More recently, however, the factors of preference have held sway in many business relocation decisions. The burgeoning out-county population has provided a market for some retail operations, but market considerations do not seem to affect many relocations (this is discussed more fully in the economic conditions profile). What appears as the predominant reason for recent locational decisions is an attitudinal preference for the types of amenities offered in the suburban location, the same as in residential development.

The net effect of both commercial and residential growth in the out-county has been to push the functional limits of the urban setting well past the corporate limits of the city. Although development has

not been evenly distributed, in some places one can drive three miles from the city limits and still be in an essentially urban setting. What was once a city located in the center of surrounding farm land has become a metropolitan area with a population approaching 450,000.

Conditions for the metropolitan area are not significantly different than those cited for the city alone in the profile sections that follow. There are, however, a few exceptions. In terms of land use the major difference between the city and the metropolitan area is that structures are considerably newer in the outlying areas and property values are commensurately higher. Crowding is less of a problem in the outlying areas, but provision of needed services is somewhat more of a problem because of spatial dispersion.

The moderate differences in land values between the city and the out-county has had the effect of producing some demographic differences. For example, the median income in the out-county is significantly higher than for the city, \$14,000.00 and \$11,000.00 respectively (ECHO figures for 1975). Moreover, the racial composition of the two populations is quite different. The city population is over 35 percent Black and the population of the out-county is only 3.5 percent Black (ECHO, 1975). These two demographic traits produce a number of other slight differences such as variant birth and death rates, unemployment rates, etc.

The economic profile which follows in this section of the city plan delineates the differences between the urban center and the outlying regions. Some variation does occur in that the bulk of heavy industry is within the city, as is the bulk of employment. Generally, however, it is not practical to separate the economy of the city from that of the rest of the area. They are one and the same.

III. LAND USE PROFILE

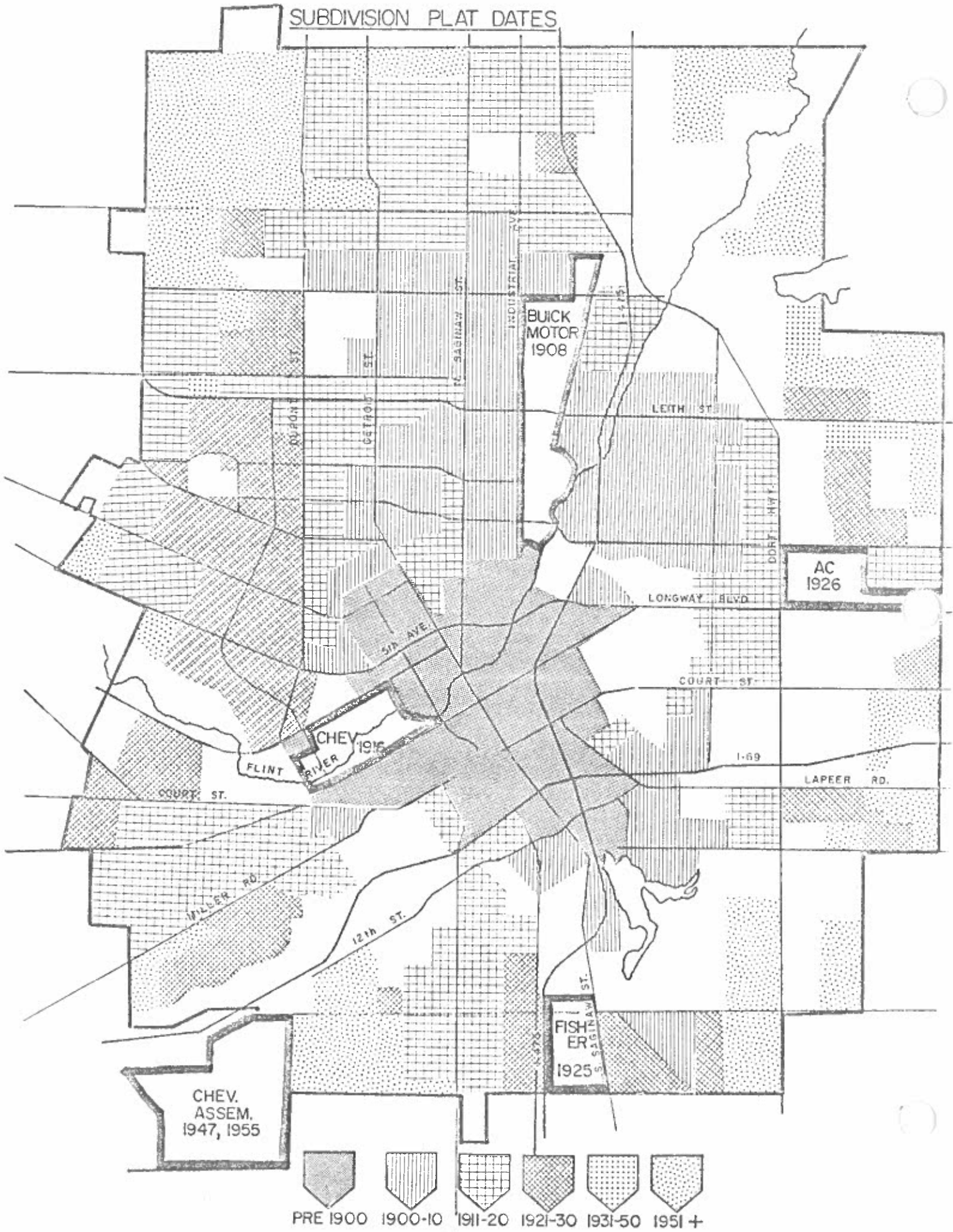
The term "land use" as applied in this section of the Master Plan means the utilization or employment of land so as to derive revenue or benefit from it. The utilization can be commercial (retail establishments, offices, service-providing operations), industrial (manufacturing), residential (single-family dwellings, apartments, etc.), or recreational and open space (parks, playgrounds, golf courses, etc.).

Orderly development, analysis and planning for land use is a relatively new concept. In Flint, only two major studies have been undertaken in the land use area. The Nolen Plan of 1920 attempted to map land uses in the city, but proceeded no further in analysis. The 1960 Master Plan was a more detailed study which outlined land uses as percentages of the total city area and compared them to national figures.

Historic land use information for this profile was obtained from a variety of sources. City directories, dating back to 1866, proved very helpful in determining the extent of commercial uses, and general limits of residential expansion. Old maps provided insight into street alignments and utility services. Early published histories of Genesee County, City of Flint and General Motors Corporation contained much information for this section. A major portion of the background data was obtained from City and County Assessment office and from the Flint Department of Public Work files. Plat maps dating to 1833, provided by the City of Flint's Assessment Division, presented an accurate, documented picture of sub-division platting and growth. Early zoning maps from the zoning division proved especially helpful also. Flint's Department of Public Works through its Engineering and Building Inspection Divisions had recorded building permits and utility hook-ups for every structure in the city since 1920. These proved very valuable in tracing residential construction during Flint's "boom" period. This profile is designed to acquaint the reader with a general idea of the progress of the city's growth as an introduction to the land-use plan presented later.

Residential Growth: 1900-1930

Of all the problems facing the maturing city, housing was the most pressing. The exponential growth of the auto industry in the non-automated era of the 20's and 30's demanded ever increasing supplies of workers. Many came from the southern states looking for work and a new life in the north. The first real influx of Blacks began to be seen then too, drawn to Flint for similar reasons. Local supply had been able to meet the demand in the central city area for a number of years. Now new areas needed to be developed, so the early builders looked to the north and east. Illustration 1 portrays the expansion of sub-divisions to the outlying areas since the original Smith Reservation Plat in 1833.



The first true subdivision development occurred in 1900, in Oak Park, the area adjacent to present-day Buick Motor Division. At the time this area, bounded by Stewart Street on the north, the Pere Marquette R.R. on the east, Hamilton Avenue on the South and Saginaw on the west, was vacant and undeveloped. The Durant-Dort Carriage Company working through the Flint Factory Improvement Association arranged for the opening of this plat. Of the 300 acres, 200 were to be set aside for residential use, and 100 for future industrial use. The receipts from the sale of residential lots were used to attract new businesses to the area. The relocation of the Weston-Mott Company from Utica, N.Y. to Flint was partially financed in this manner. The new Buick Factory on Hamilton quickly generated new housing in the area after 1910, when the city expanded its boundaries to encompass the area. Riverside Subdivision was platted in 1906 in the roughly triangular area bounded by Hamilton, Lewis Street (known as Richfield Road then) and the Flint River. In the next decade this area was quickly built over as were the three Motor Heights Additions in the southern portion of the present-day St. John Industrial Park Redevelopment District. Platting of the Homedale Subdivisions in 1909-10 completed the early industrially influenced residential development surrounding Buick Motor Division.

The Chevrolet Factory along the river also impacted the surrounding areas, but in a slightly different manner. Chevrolet's growth was slower than its predecessor, Buick, and it already had a housing market established in the area from pre-1900 carriage manufacturing days. Additionally, the residences available were mainly of the duplex variety, rather than single family types situated around Buick. Subdivision platting around the Chevrolet complex was begun before 1920 in the triangle formed by the intersection of Miller and Court Streets and along the eastern side of Stockdale Road (now Dupont Street). The Miller/Court triangle remained largely undeveloped until the late 20's when building activity began, although some housing in the Bradley-Corunna Road area was in place by 1917.

A major feature of these early plats was the lack of any overall development scheme. Unlike later developments, these plats were never the center of any building plan. Homes were constructed as demand dictated, on a piece-meal basis by whomever had the resources available at the time.

Residential platting continued in other areas of city through 1920. The two-square miles of land between Carpenter Road and Pierson Road from Dupont Street to Premier was laid-out during the period from 1910 to 1920. Similarly, Fenton Road and Dort Highway (then known as Western Road) received surveyors' attention. Construction was not extensively implemented in these areas until much later because these sub-divisions were outside the city limits. It was not until 1920 that these portions became incorporated as parts of Flint.

To compound the housing shortage, the city had gone heavily into debt by issuing bonds to raise capital for new schools, pavement, sewer and water mains. General Motors stepped in at this point to provide the

needed capital and planning to develop a fully integrated residential development complete with utilities. GM executives had begun to take an interest in the welfare of their employees, so plans were devised to offer the worker the best possible home for the money and provide for liberal payment schedules.

In 1919, the Modern Housing Corporation was launched with an initial capitalization of \$3.5 million and set about the task of constructing homes in Flint, Pontiac and Detroit. A tract of 1,000 acres was chosen for the Flint development, composed of the old Stockdale Farm and portions of the Durant Farm, both in Flint Township. The site of what was to become Chevrolet Park and Civic Park was bounded by Dartmouth to the north, Dupont Street to the east, 3rd Avenue to the south and Brownell to the west. Five-thousand homes were originally planned, but the economic slump of 1920 halted construction after only 950 were built. Building began again in 1923 by independent contractors and by 1927, 620 more houses were constructed. By the end of the depression, when the corporation liquidated its assets, over 3,200 homes were spread over the area. The area supported three schools, Civic Park, Longellow and Durant (later Durant-Tuuri-Mott) the Haskell Community Center and Mott Golf Course. The golf course and community center were deeded to the city in 1923 following passage of a bond issue floated to re-pay the advance made by the Modern Housing Corporation for project improvements in the areas. To date, this project represents the largest, most ambitious, private development in the City of Flint.

The following table illustrates new housing construction totals for the city to 1970, with special emphasis on the first three decades of the century:

<u>When Built</u>	<u>Number</u>
Year Unknown	1499
Before 1910	5277
1910-1914	4296
1915-1919	6396
1920-1924	6332
1925-1928	8578
1929	2059
1930	487
1931	169
1932	73
1933	81
1946 to 1970	15,355

The population and housing explosion in Flint between 1900 and 1930 forced the city to re-appraise other areas of land-use. Schools were constructed in the outlying areas to serve the rapidly expanding population of children growing up in Flint. Central and Northern High Schools were built in this period and served as the only public secondary schools until the early 60's. Northern, located on McClellan near Saginaw Street served the rapidly expanding north and west ends of the city in the 20's. Central reached out to the east and south.

As early as 1905 some business leaders, notably Dallas Dort, presented the city with plans for an elaborate park system utilizing large farms and wooded areas scattered throughout the city. In 1910 Flint contained only 15 acres of city parks, most located near downtown. By 1920, park acreage had increased to over 120, principally due to the addition of Kearsley and Thread Lake parks. Through a process of gifts and outright purchases, the growing city added 13 new areas to the system, increasing the park acreage ten-fold. Most of the large neighborhood parks were established in the 20's as a result of population pressures and influence of the Nolen Plan. Mott, Dayton, Bassett, Forest, Windiate, Whaley and Burroughs were added during this period to serve new neighborhoods being established in the north, west and east sides of Flint. Acquisitions since the 40's have been largely playlots and special use parks serving the adjacent public elementary schools.

The Nolen Plan

The impact of Flint's tremendous, and generally uncontrolled, growth in population, industry and land area during the early decades of the twentieth-century began to generate concern among civic leaders and local officials. As a result, John C. Nolen of Cambridge, Massachusetts, was commissioned in 1919 to develop a plan for the City of Flint. His study analyzed housing, population, street and utility systems, transportation, parks, industries and zoning. The last three items had the most influence on subsequent developments in the city. Nolen's park study recommendations were implemented in principle but not in form. The Plan called for a system of parkways paralleling the main water courses and scattered, integrated neighborhood park areas. Only the scattered park concept was ever actually implemented primarily due to the city's lack of bonding and financial capacity arising from overextension of city services.

The Nolen Plan addressed industrial development and expansion by recommending the establishment of an industrial zone on the city's east side. The expansion of industrial uses had reached its limit in the central area of Flint, so the East Side Industrial District was established along Dort Highway from the AC Plant south to the city limits. A railroad by-pass was also suggested, ultimately resulting in an extension of the Flint and Pere Marquette through this district in the mid 20's. The Belt line benefitted the AC Complex almost immediately, although further industrial development in the area proceeded slowly until after the Second World War.

The zoning scheme advocated in the plan was finally implemented by the city in 1927. It is significant that both the proposed scheme and final adopted zoning regulations were based on historical land use characteristics. The city government attempted to tailor the appropriate zoning to the existing conditions. Restrictions were placed on lot coverage, easements, heights of structures, etc., but use was guided by historical precedent.

The Great Depression, which began in 1929, signaled an end, at least temporarily, to Flint's booming growth and expansion. The social and economic consequences of the thirties are well documented and need not be reiterated here, save that Flint suffered along with the rest of the nation. So severe was the unemployment situation here that the city actually showed a decrease in population, a situation that did not begin to change until after World War II. Industrial and residential expansion was halted as were most other private projects.

Post-War Expansion: 1945 to Present

The post-World War II years were another boom period for the City of Flint, although to a lesser degree than the 20's and 30's. The local GM factories were again producing autos, and in record numbers. So great was this production that three new area plants were opened to meet the new demand. Chevrolet built two adjacent facilities, Assembly and V-8 Engine Production, on Van Slyke and Bristol between 1947 and 1955 while the Ternstedt Division converted the old jet-engine plant on East Coldwater Road north of the city to small parts production. The new plants and increased productivity of the existing facilities contributed to a population increase of over 30,000 from 1950 to 1960, making this period one of the highest growth intervals.

Housing again became a major problem after the war. The platted areas of the city were largely developed. The new home styles of the 50's, ranch and split level types, were not easily assimilated into the existing neighborhood developments. The new prosperity and social consciousness dictated that these homes be single-family detached type suitable for private ownership rather than duplexes or apartments. These two constraints prompted local developers to seek undeveloped areas for the new residential units. At this time, the four extreme corners of Flint provided the only vacant developable areas left for new construction.

The north-west section near Clio-Pierson Road offered large open areas, served by major streets. Crestwood, Cranbrook, Chatham and other subdivisions were developed in accordance with planning concepts developed in the 50's, which featured winding street patterns, closely following local topographic features.

Rollingwood and Webster Wood subdivisions were begun on the city's northeast side near the Flint River from 1956 to 1961. An elementary school with an adjacent park was built soon after to serve the needs of this area.

The southwest area near Atherton Road grew quickly in response to the new Chevrolet plants located on Van Slyke. Two major subdivisions, Westgate and Atherton Terrace, encompassed an area of over 400 acres stretching from near Fenton Road on the east side to Van Slyke on the west.

Expansion on the east side of the city proceeded rapidly near Center Road and Richfield Road. Major subdivisions were located here in an effort to squeeze out as much living space as possible from the narrow confines of the corporate area.

The growth of the peripheral areas further strained the city's educational system. Many new elementary schools and two additional high schools, Northwestern and Southwestern were constructed in the early sixties. Both were designed to serve the needs of the new developing neighborhoods and to reduce the enrollment of the two existing facilities. The addition of a new Northern High School in 1971 allowed the old structure to be utilized as a junior high and serve the western half of the city which was more densely populated.

Commercial Development

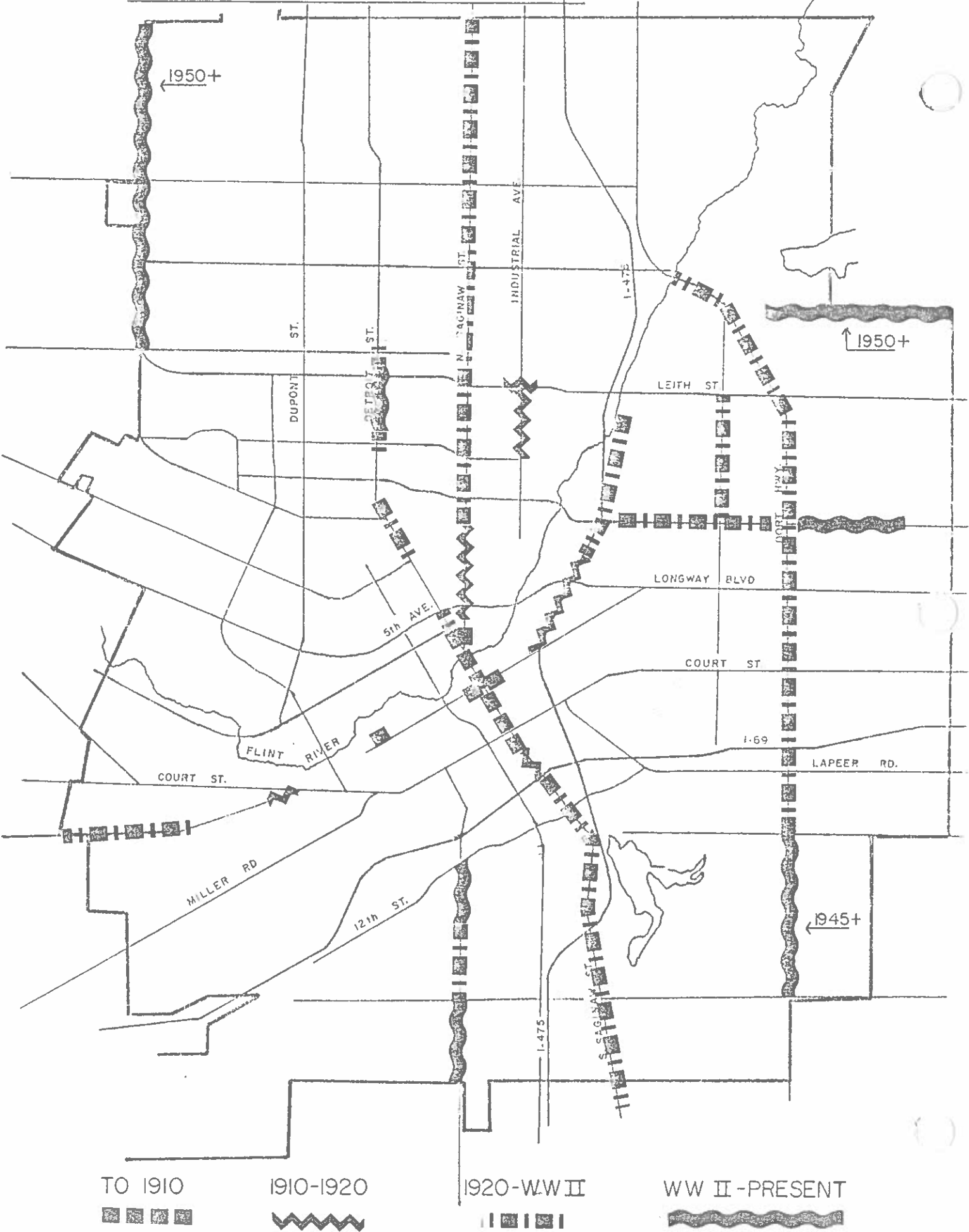
Commercial land-use development progressed roughly in four chronological stages, 1833 to 1910, 1910 to 1920, 1920 to World War II, World War II to present. Each was distinctly characteristic of a certain set of economic impacts, population influences and land usages. Illustration 2 portrays the growth of commercial strip development along the city's principal arteries.

The first stage of development (1833-1910) occurred naturally, by the river. The first cabins, trading posts and tavern were located on the Flint's banks. As the area grew, the Saginaw Trail became the locus for retailers and financial concerns, offering them the most exposure to customers. The lumbering and carriage industries changed the concentration of commercial interests little. By 1910 the commercial-retail hub of the city extended from 2nd Avenue to 5th Street along Saginaw and Detroit Streets.

The next decade (1910-1920) signaled an almost three-fold increase in population but proportionally much less commercial expansion in respect to land area. The number of businesses rose dramatically, but still tended to concentrate themselves downtown. The Central Business District now covered the entire area between Clifford and Beach Streets south to 5th Street. Commercial enterprises were heavily concentrated along Saginaw St. as far north as Page and as far south as 12th Street. Lewis Street began to develop north from Kearsley, housing many of the early plumbing and associated types of businesses. The areas near Leith and Industrial gained prominence as commercial developments, encouraged by their proximity to Buick.

Commercial activity between 1920 and World War II continued along Saginaw Street and started reaching heavy concentrations in some of the built-up areas on the east side. In 1920, Flint accounted for 73 percent of the population of the entire county, therefore a majority of the county retail business was located in Flint. The entire length of Saginaw expanded commercially, functioning as the regional shopping

MAJOR COMMERCIAL STRIP DEVELOPMENT



TO 1910



1910-1920



1920-WW II



WW II - PRESENT



district for the urban area. Davison Road and Franklin Avenue served the growing community area between Buick and Center Road. Dort Highway's extension across the river and subsequent classification as a business loop encouraged business expansion along its length. Two developments along Fenton Road between Cody School and Atherton Road served as community shopping areas for the residents of this locale. Corunna Road from Bradley west to the city limits also developed as a commercial area and drew shoppers from the Miller-Court triangle.

The near-north west section of the city never developed large commercial strip uses. Apparently, the residents carried out the majority of their shopping along the Saginaw strip. Small neighborhood shopping areas grew along Chevrolet, Welch and Dayton Avenues, but these developments seldom contained more than a dozen businesses each.

Commercial expansion after the Second World War was characterized by the growth of the peripheral business areas, closely following the population migrations. Commercial activity in the 30's tended to be concentrated on Saginaw Street because the majority of the population was concentrated there. After the war, large numbers of individuals migrated to the outer extremities of the municipal area, opening up new markets for commercial enterprises. Flint's share of the county population had dropped to 50% by 1960 further influencing development in the area between the city and out-county. Clio Road changed from a scattered, residential area to a full-fledged commercial strip development by the mid-fifties. Northwest Shopping Center was added in 1962 and pulled more businesses from the Saginaw Street area. A contemporary, South Flint Plaza drew shoppers from the Fenton-Atherton area as well as Flint and Burton Township.

Expansion of housing in the surrounding townships lowered Flint's share of the county population to 43 percent in 1970. The construction of Eastland Mall, Burton Township, and Genesee Valley Center, Flint Township, in the period around 1970 drew more business away from Flint's central city commercial area. Large portions of North Saginaw now contained vacant or transient businesses. Fenton, Clio and Dort Highway may soon suffer the same fate as the retail trading centers move out farther into the out-county.

Summary

Flint's present land-use characteristics are a direct result of the city's development as an industrial-manufacturing area. While some cities developed as residential communities or trading-commercial centers, Flint's growth was largely determined by the automobile manufacturing industry. The great dependence on one major industry in Flint precluded to some extent establishment of a diversified manufacturing base. As a result, Flint has shown a lower percentage of land area devoted to industrial activities than most other comparably-sized cities.

Early in the city's history, Flint became a locus for major east-west and northsouth rail lines which did much to encourage industrialization. Residential development followed industrial development very closely. Many early subdivisions were platted to allow workers to live in close proximity to their place of work. Provisions were made for schools, commercial centers and open space. Expansions into the peripheral areas of Flint after World War II were in part functions of increased auto manufacturing production and plant expansion and desire by families for a more modern living environment.

IV. ECONOMIC PROFILE

Historic Development of the Economy

Flint's economy has undergone a number of transitions since the City's founding by Jacob Smith in 1819. The original "Flint River Settlement" was begun on the strength of fur trade in the region. This period was short-lived since by 1830 fur trading had reached its peak and was beginning to decline. Fur, however, was not the only natural resource of the area for it was also blessed with seemingly inexhaustible stands of white pine. By the time the fur trade had peaked, other early settlers had begun to realize the value of this timber and several small saw mills were built along the Flint River. The transition from fur to lumber had already begun when "Flint" was only 10 years old.

The early mills produced lumber mostly for local consumption. In 1856 a much larger commercial mill was built by Henry Crapo on capital he had acquired from whaling. Soon, Michigan lumber was being shipped to markets all over the world. By 1862 Flint mills were producing lumber at the rate of nine million board feet a year. During these years, many new settlers arrived in the area and began other businesses catering to the needs of the lumbermen and the farm families that had begun to work the land around Flint. These businesses included many retail establishments and other enterprises such as flour mills and a quite prosperous woolen mill. Lumber, however, was far and away the chief product of the area and the mainstay of the local economy.

The Second Transition

At first the vast stands of white pines seemed as though they would last forever, but by 1876 lumber production was declining due to the depletion of the forests. As the distances between the lumbering camps and the mills increased, profits began to fall. The City was headed for its second economic transition. Three factors were important in that conversion. First, a local industry had developed on a small scale to produce farm wagons and logging carts. Even before the Civil War there were several wagon making concerns operating in Flint. The second factor was the opening of the Western territories to agriculture. This produced an ever increasing demand for wagons. Finally, there was a ready supply of local capital, a benefit of the logging era, to finance the expansion of the wagon and carriage making activities.

By 1870 there were a half-dozen manufacturers in Flint supplying vehicles to an ever expanding market. By modern standards, they were relatively unpretentious enterprises requiring only a small number of workers and craftsmen, but they were phenomenally successful. The products of the Flint factories began to acquire a reputation for being both durable and innovative. In the year 1900 the City's factories produced over 150,000 carts, buggies, carriages and wagons. In the same year, a Federal census indicated that Flint's population had grown to 13,000, largely on the strength of the carriage trade. Flint had come to be known as "the Vehicle City."

The Third Transition

Around the turn of the century many people, including a few of the carriage makers in Flint, were experimenting with self-propelled vehicles. Gasoline engines had shown their worth in a number of other applications and European manufacturers were already producing serviceable automobiles. As a hedge against the future, local manufacturers began to consider the possibility of creating their own automobiles. Although sales of horse-drawn vehicles were still very strong, and would continue to be for many years, the groundwork was being laid for the metamorphosis of Flint's economy from carriages to the production of automobiles. All the necessary ingredients were available locally including, again, a supply of local capital.

The first automobile manufactured in Flint was the Flint Roadster produced by A.B.C. Hardy in 1902. In late 1903, however, Hardy was forced out of business by a legal dispute over patent rights after having produced only 52 vehicles. At about the same time another group of local investors had arranged for a Detroit inventor named David Buick to begin producing an automobile in Flint. The Buick Motorcar Company started operations in 1903 and it was a less than auspicious beginning. After two years of work the company had produced a total of 20 cars. However, a change of management and additional capital from the local investors, proved to be all that was needed to spur the company's development. By 1928 the Buick company had produced and sold over two million automobiles and had fostered the creation of the General Motors Corporation.

Development and Growth After 1930

Automobile production was different from the carriage trade in some very important ways. It was much more capital intensive and required vast amounts of money for the necessary plants and very large numbers of workers. A Federal census in 1930 indicated a City population for Flint of over 156,000. Almost all of this astonishing population growth was attributable to the development of the automotive industry and its need for workers. As a source of investment income and, more importantly, as a source of employment and wages, the automobile industry came to dominate the local economy in a way that neither lumbering nor the carriage trade had ever done. By 1950 about 92 percent of Flint residents employed in manufacturing were working in General Motors plants. Of the total county work force, over half of the workers were directly employed by General Motors and about one-third of the remaining workers were employed by plants supplying General Motors.

Flint was not without other commercial and industrial development during the years between 1900 and 1950. The preeminence of automobile production in the local economy was due more to the phenomenal rate of growth in that industry than to a lack of other enterprises. Retail trade developed at a steady pace and, to a much lesser degree, wholesale establishments began to appear. Other manufacturing enterprises were also established, but generally speaking they were small concerns that

primarily catered to local consumption demands. Certainly, General Motors did nothing to discourage, and in a few instances actively encouraged, other industries in the area. Yet, in some indirect ways the very strength of the auto industry proved inhibiting to the local development of other manufacturing not directly related to auto production. For example, firms that did not share a wage-price structure similar to the auto plants found it difficult to compete for laborers in the local market and maintain a competitive position for their products.

In the latter part of the 1950's the degree to which the local economy depended on its major industry was crystallized by a severe national recession. The automobile companies were one of the industries hardest hit by the effects of the recession. Between 1956 and 1958 employment in transportation equipment manufacturing in the area was reduced by over 15,000.* Many of those on lay-off had exhausted their employment benefits long before being recalled to work and spent months without any steady income. Sales fell drastically in the area, many small businesses closed, and mortgage and land defaults were so numerous that local lenders were forced to make special accommodations for the unemployed workers. Only the Great Depression of the thirties had a more harsh impact on the area and, occurring when it did, not even the Depression did as much to underscore the potential problems associated with a single-industry economy as did the recession of 1958.

By 1960 an economic recovery was underway and factory employment began to climb. This continued through 1969 when total General Motors employment reached a peak of over 80,000.+ Generally, throughout the nation, the 1960's were boom years. Development in the Flint area reflected this. Retail and wholesale trade were up and many new commercial enterprises were added to the area. Unemployment was lower than at any time except for the war years. Incomes, in terms of buying power, also peaked in this period and provided the stimulus for several economic surges including a sizeable increase in construction and new home sales. Certain trends remained unchanged during the sixties including the continuing dominance of, and dependence upon, the automotive industry in the area.

EMPLOYMENT COMPARISONS 1967

SMSA	Percent Manufacturing Employment	Percent Employment In Transportation Equipment
Detroit	46.35	15.26
Bay City	46.06	--
Saginaw	50.19	16.01
Flint	56.54	47.12
Lansing	42.55	27.85
Ann Arbor	53.28	18.25

*MESC Monthly Reports

+GCMPC Report on the Best Industries for Genesee County

Recent Trends and Conditions in the Economy

In the past, employment in the automotive industries has been a function of automotive sales. As sales went up or down, so too did factory employment. Since 1970, however, there appears to be a break in this traditional pattern. Despite relatively healthy sales of auto products, employment has declined.

Flint SMSA: Auto Production and Transportation Equipment Employment

<u>Year</u>	<u>Vehicles Produced+</u>	<u>Average Employment++</u>
1972	526,506	
1973	712,883	56,900
1974	510,211	57,000
1975	611,865	54,600
1976	817,841	53,200
		54,100

+ Flint Marketing Journal, Dec. 1976

++ Michigan Monthly Labor Reports. Data for 1976 averaged for months January through October.

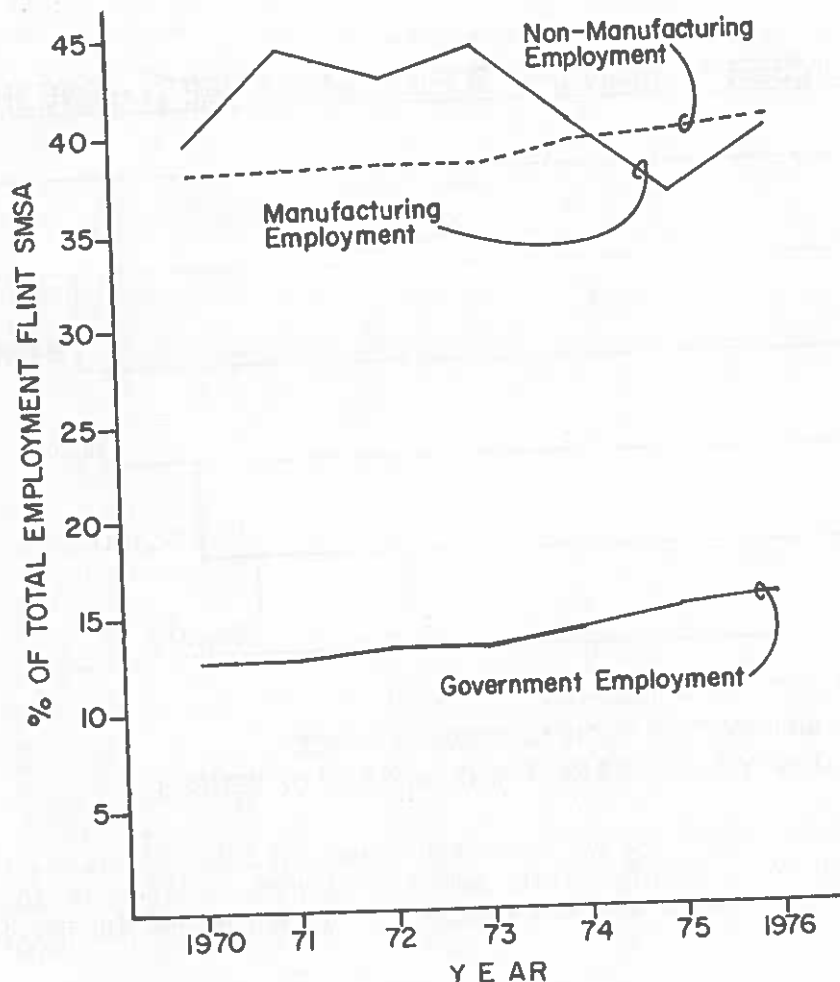
Since 1965 the total work force of General Motors plants in the area has been reduced by roughly 10,000 positions. These reductions are not a temporary response to a period of weak sales. Most are permanent reductions that are a result of technological improvements in production methods and materials. The minimizing of model change-overs, the introduction of new materials and processes, and the installation of automated equipment have all contributed to the decrease in employment positions. An example of one such production change is the adaptation of the plastic fender-liner. Steel fender liners were once produced by an entire series of large presses. Each machine would perform one task, punch a hole or put in a bend, and the piece would be passed to the next machine. Special dies would have to be made for each press and each machine needed an operator as well as maintenance and repair personnel. Today, plastic fender liners are produced in a single operation on one machine, thus eliminating the need for many operatives, die-makers, die and machine repair personnel and other "maintenance" workers. If the new machines are expensive to purchase and install, that expense is more than off-set in the long run by savings in labor and raw material costs, and by the fact that the cost of the equipment can be depreciated on taxes.

The rising cost of labor has been an important factor in the decisions to invest in new machinery and production methods. Currently

the average auto employee is earning \$7.70 per hour with fringe benefits that push the cost to the employer to over \$11.00⁺ per hour. At such levels, labor costs begin to make many investments in new machinery and processes an economically attractive proposition. Moreover, the cost of fringe benefits also makes the scheduling of overtime work more economically attractive. Since standard overtime rates are "time and one-half", as fringe costs exceed 50% of base pay rates, it becomes cheaper to run two shifts on overtime than to hire a third shift. This has meant longer hours and more pay for those working, but it has tended to reduce the overall work force.

ILLUSTRATION 3

MANUFACTURING, NON-MANUFACTURING, AND GOVERNMENT EMPLOYMENT (FLINT SMSA)*



⁺Flint Marketing Journal, February, 1977

*Michigan Monthly Labor Reports:MESC

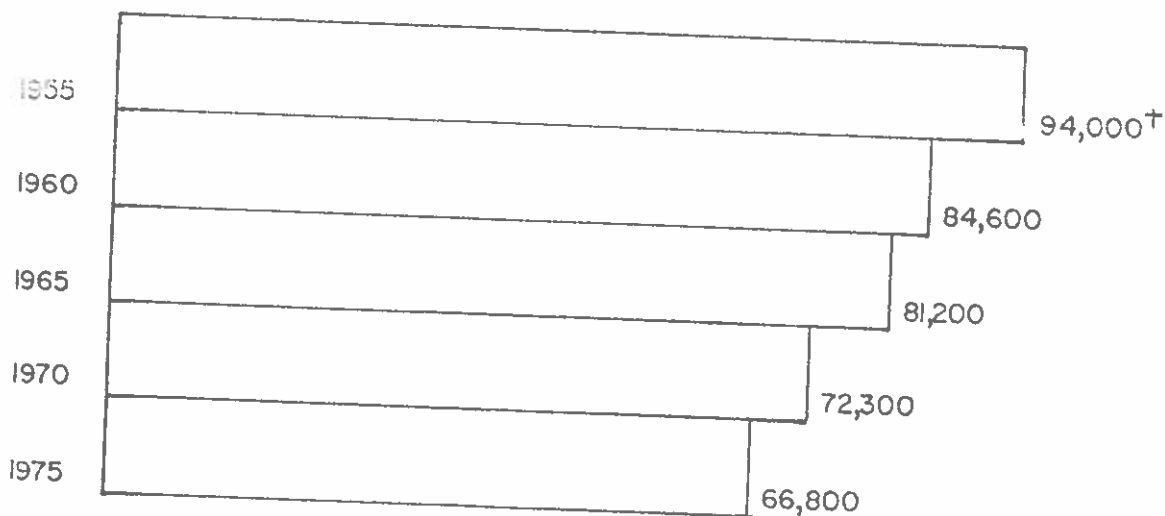
The work force reduction in area plants has had the impact desired by management. Total production pay in 1976 was \$2.9 million less than in 1973 when computed in constant dollars.[†] Despite higher production and a longer average work week, actual labor costs declined due to the reductions in the total number of employees.

The reductions, although accomplished mainly through attrition and without resorting to permanent lay-offs, have had a sizeable impact on the local economy. For the first time manufacturing employment is comprising a slightly smaller percentage of the work force than is non-manufacturing employment.

As Illustration 3 shows, the changeover in the local economy is due more to the decline in manufacturing employment than any major increase in non-manufacturing enterprises. Illustration 4 shows how the decrease in manufacturing employment has progressed since 1955.

ILLUSTRATION 4

TOTAL NUMBER OF MANUFACTURING EMPLOYEES: GENESEE COUNTY



FLINT SMSA: 1955-75.

[†] 1960 MASTER PLAN: LADISLOW & SEGOE

COUNTY BUSINESS PATTERNS: BUREAU OF CENSUS

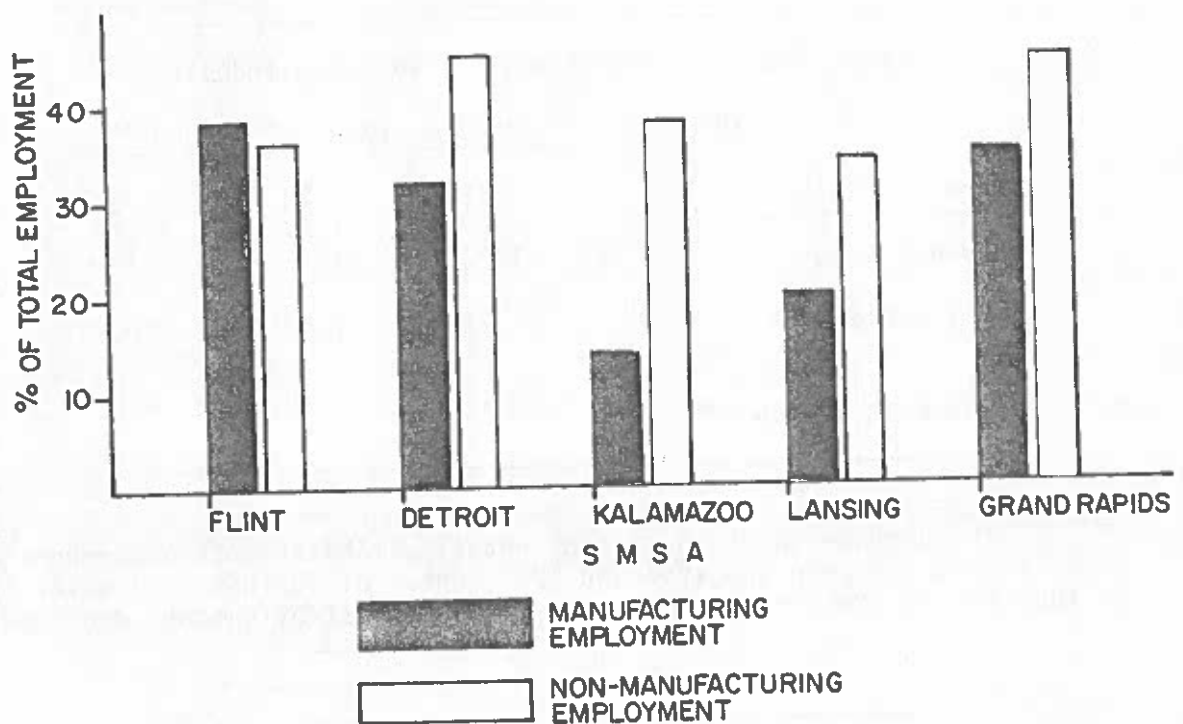
The trend suggested by the percentages in Illustration 3 is made very clear above. Manufacturing employment has declined in the Flint area, the bulk of this decline occurring in employment in the automotive industries.

[†] Flint Marketing Journal, February, 1977

Still, the Flint area remains somewhat anomalous in its heavy dependence on manufacturing employment. When compared to other SMSAs across the state, Flint continues to show a much higher concentration of manufacturing employment, as seen in Illustration 5.

ILLUSTRATION 5

MANUFACTURING AND NON-MANUFACTURING EMPLOYMENT: SMSA COMPARISONS



SOURCE: M.E.S.C; MICHIGAN MONTHLY LABOR REPORT, OCT.1976.

These figures do not result from a lack of manufacturing enterprise in other areas of the State. Kent County (Grand Rapids) had over 800 manufacturers listed in the 1967 Census of Business compared to Genesee County's 286, and the two SMSAs were of roughly equal size. What has produced the disparity is the lack of a comparably strong non-manufacturing component in the Flint area economy, and the smaller scale of manufacturers in Kent County compared to the enormous employment capacity of Flint's General Motors plants.

Retail and Wholesale Trade

Retail and wholesale trade in the Flint area has traditionally been the second largest source of employment. Moreover, there is some reason to believe that, although not subject to the phenomenal growth rates of early automobile production, retail and wholesale trade have shown a much more steady pattern of growth. Between 1940 and 1970, using industry employment as an indicator, growth has maintained a fairly steady rate in the trades but has demonstrated a declining rate in the manufacturing industries.

Growth Ratios in Employment by Selected Industry

	<u>1940-1950</u>	<u>1950-1960</u>	<u>1960-1970</u>	<u>1940-1970</u>
Manufacturing	1.45	1.12	1.10	1.77
Wholesale trade	1.68	1.47	1.67	4.15
Retail trade	1.40	1.20	1.27	2.13
All employment	1.39	1.22	1.20	2.038

Source: Bureau of Census

An increase in the number of retail establishments occurred in the Flint area between the 1967 and 1972 Census of Business. However, when the City is considered alone, the number of establishments declined.

Retail Establishments

	<u>1967</u>	<u>1972</u>	<u>Change</u>
Genesee County	2,841	3,358	+ 517
City of Flint	1,591	1,554	- 37

Source: Bureau of Census

This same pattern is reflected in figures for sales tax collections for the area. Although the tax collections are a combination of wholesale and retail, the number of returns, comparable to the number of businesses, has shown a decline. This is shown in the decline of the

RATIO OF WHOLESALE & RETAIL BUSINESS IN THE CITY TO COUNTY TOTALS

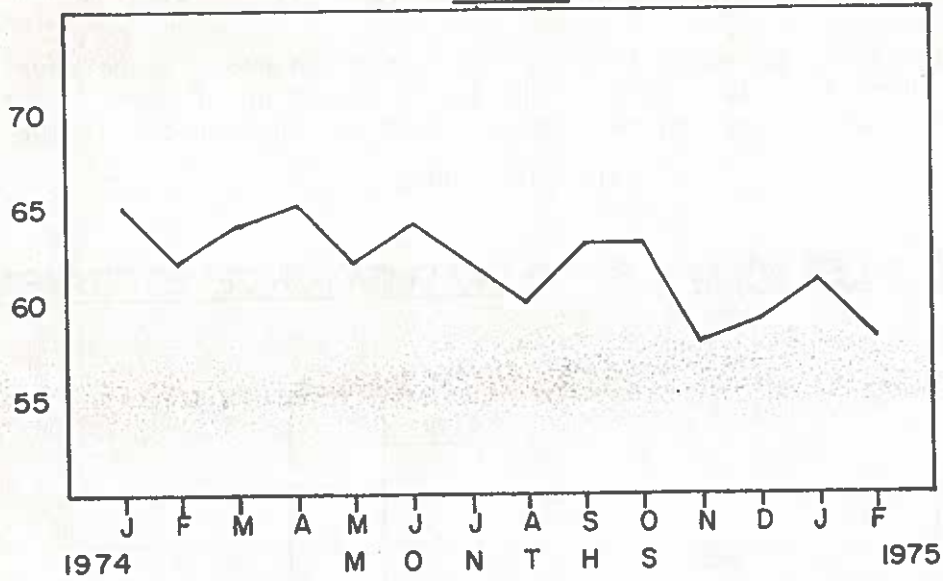
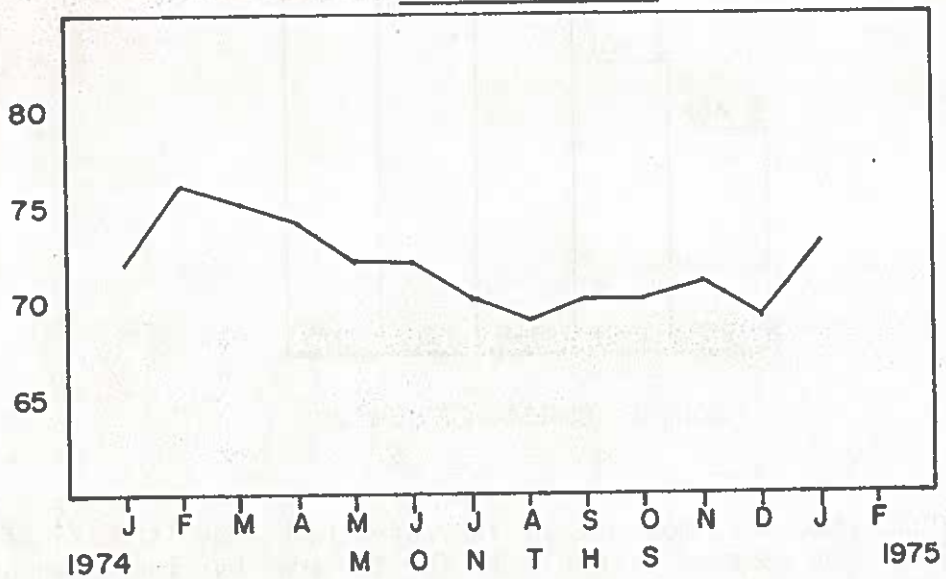


ILLUSTRATION 7

DOLLAR VALUE OF SALES IN THE CITY AS A PROPORTION OF TOTAL COUNTY SALES



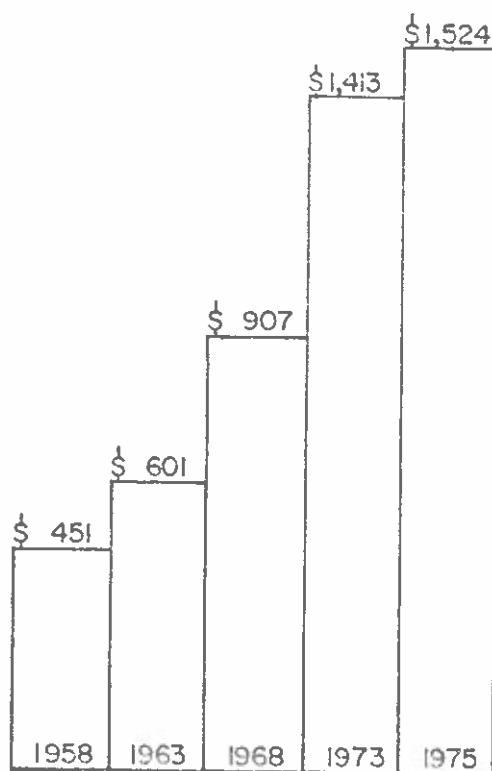
MICHIGAN DEPARTMENT OF TREASURY: MONTHLY RESEARCH AND STATISTICAL BULLETIN.

proportion of total county businesses within the City limits (see Illustration 6). At the same time, however, there has been no clear pattern of decline in the dollar value of sales (see Illustration 7).

The sales increases in both retail and wholesale trade have been large. Retail trade comprises the largest portion of this. It has enjoyed a 300 percent increase since 1958 and an increase of 168 percent

ILLUSTRATION 8

RETAIL SALES VOLUME FOR FLINT SMSA FOR SELECTED YEARS



SOURCE: BUREAU OF CENSUS

since 1968. However, most of the increase since 1968 is attributable to inflation. The cost of living index for the area has increased at almost the same rate as sales during this later period. The increase between 1958 and 1968, in contrast, represents a real and significant gain. Inflation was much lower during this period and the nation as a whole was experiencing an economic boom.

All Sales by Category: Flint and the State

<u>Item</u>	<u>Flint: Percent of Total Retail Sales</u>	<u>State of Michigan</u>
Building materials	6.23	7.09
General merchandise	13.23	13.80
Food	35.11	35.58
Automotive	23.46	22.16
Apparel	5.98	5.84
Furniture	4.62	4.54
Miscellaneous retail	11.16	11.75
Non-retail	14.25	16.70

Source: Michigan Department of Treasury, Monthly Research and Statistical Bulletin, January 31, 1975

Slightly over 50 percent of all sales in the area are for food or automotive products. For comparison, the figures for the State as a whole are also presented above. They indicate that overall in the State, people spend slightly less on cars, apparel and furniture than in the Flint area, and slightly more on food, general merchandise, building materials and other miscellaneous items. The differences, however, are slight in the retail categories.

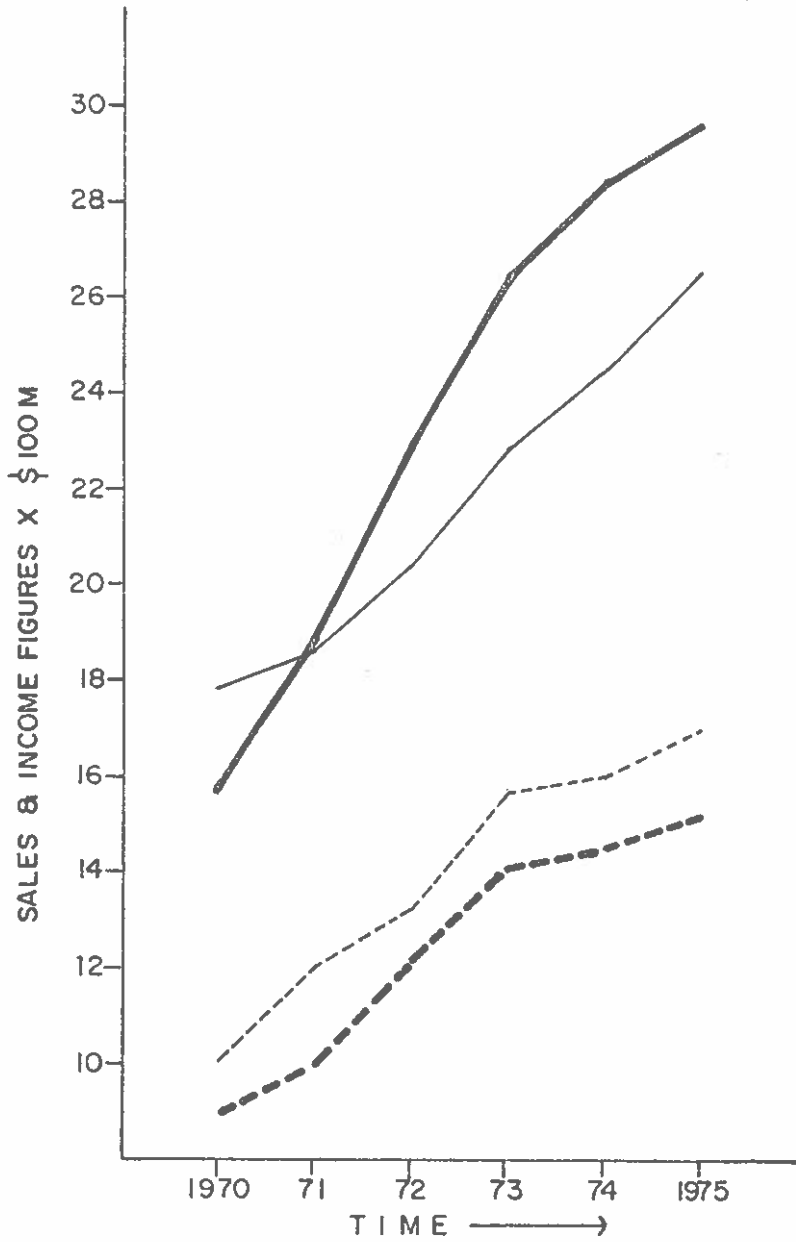
Sales in the Flint area do appear to be lower than in other areas. The following table displays per capita retail sales for selected counties in Michigan.

Per Capita Retail Sales for Selected Counties

Oakland	\$327
Kent	\$314
Saginaw	\$291
Kalamazoo	\$290
Washtenaw	\$276
Ingham	\$268
Macomb	\$258
Genesee	\$255
Jackson	\$251

Source: MESC/Michigan Labor Market Review/October 1976

INCOME AND RETAIL SALES COMPARISON



- EFFECTIVE BUYING INCOME: FLINT SMSA
- - - RETAIL SALES: FLINT SMSA
- EFFECTIVE BUYING INCOME: GRAND RAPIDS SMSA
- . - . RETAIL SALES: GRAND RAPIDS SMSA

SOURCE: SALES & MARKETING MANAGEMENT ANNUAL SURVEY OF BUYING POWER.

When considering the median income of Genesee County is the second highest in the State, its position in retail sales seems quite low.

Illustration 9 indicates the same relationship described in the previous table. The income levels in the Flint SMSA suggest that retail sales in the area could be expected to be considerably higher. By way of comparison, the distance between buying income and sales is much less in the Grand Rapids SMSA than in the Flint area. This suggests that a potential retail market remains untapped in the Flint Area.

Wholesale trades in the area have also shown increases as reflected in the 5 year Census of Business:

Wholesale Trade in Genesee County

<u>Year</u>	<u>Establishments</u>	<u>Sales (x \$1,000)</u>
1958	336	\$324,556
1963	374	362,871
1967	365	536,137
1972	386	635,080

When compared to the inflation factor for these same years, wholesale trade has not increased and, like retail sales, has not kept pace with inflation-produced rises in the cost of living. Moreover, as a proportion of total sales for the area, wholesale trade in Genesee County is well below the State average.

Wholesale Trade as a Percentage of All Sales

<u>Genesee County</u>	<u>Michigan</u>	<u>Kent County</u>	<u>Wayne County</u>
14.25%	16.70%	18.21%	20.72%

Source: Michigan Department of Treasury / Monthly Research and Statistical Bulletin / Jan. 31, 1975

The usual explanation for this relatively low level of wholesale trade in our area is its proximity to Wayne County and Detroit. A good portion of wholesale goods come into our area from dealers in the Detroit SMSA. The establishment of wholesale trade areas based in Detroit has tended to discourage competing businesses in the Flint area.

Recent Trends in Business Relocations

Of growing concern in the Flint economic picture is the decline of business in the central City. For example, during a period of relatively strong increase in retail activity, between 1958 and 1963, retail sales in the SMSA increased by 33% while sales in the City went up only 20% and sales in the Central Business District went up by only 11%.⁺ The pattern of increasing economic activity in the periphery of the City and a corresponding decline within, stems from a number of factors. The movement of major population growth to the suburbs tends to stimulate the development of retail and service activities there. The relatively more favorable tax and property values in the periphery may have stimulated other kinds of businesses to locate there and in some instances to move there from location within the City.

Figures provided by the R.L. Polk Company in their Profiles of Change series indicate that relocations among businesses occur very frequently.

Business Relocations	
Total Businesses & Professional Firms '75	4,195
Total number of relocations '74 to '75	1,187
Net change due to relocations	- 247
Manufacturers - total '75	176
relocations	38
net change from '74	+ 2
Non-manufacturing - total '75	4,019
relocations	1,149
net change from '74	- 249

Source: R.L. Polk, Profiles of Change

A further breakdown of moves among non-manufacturing firms reveals that the most frequent relocations occur among retail and service enterprises.

⁺Bureau of Census: Census of Business, 1967 & 1972

Non Manufacturing Relocations

<u>Type of Business</u>	<u>Total in 1975</u>	<u>Businesses Relocating</u>	<u>Net Change '74 to '75</u>
wholesale	130	30	- 8
retail	1,191	368	-84
finance, insurance, etc.	529	135	-33
service & professional firms	1,854	514	-96
other businesses	274	89	-21

Source: R.L. Polk, Profiles of Change

Differences in definitions and data gathering methodology prevent any direct comparison with census counts. The figures do reveal some internal patterns of interest, however. First, manufacturing is much more stable than non-manufacturing enterprise. This is hardly surprising considering the nature of relocation costs for most manufacturing operations. Secondly, considerably more business relocations take place within the City than between the City and the out-county area. Still, the recent trend is for businesses to move out to the suburbs and this is of concern since it reduces the economic base of the the City even though the business may remain in the area.

A recent survey of 115 businesses that have relocated from the City to the out-county area was conducted by the Genesee County Metropolitan Planning Commission in an agreement with the Flint Department of Community Development. It indicates that businesses that have relocated tend to be relatively small, over two-thirds employing less than 10 people either full or part-time. The survey also shows that very few of the businesses relied on anything other than the personal judgment of the manager or proprietor in making the decision to relocate. Eighty-eight percent of the respondents indicated their own judgment was the single important consideration. The types of businesses covered by the survey reflect the same general breakdown as the Polk figures.

Three reasons cited by the respondents for choosing to relocate are worth noting. The three most frequent responses when asked "why did you leave your previous site" were:

1. no room for expansion
2. inadequate parking
3. concern for safety/security

Significantly, among the least frequently chosen responses were rent increases, lack of compatible businesses nearby, decline in business and distance to customers. The businesses relocated, not because they were losing trade where they were, but because they felt they could do better in the new location.

Slightly over half of the respondents indicated that they had considered relocating within the City. Among the reasons most frequently cited for not doing so were the lack of available, suitable buildings and sites. The general feeling among this segment of the respondents seemed to be that a City location would have been fine if an appropriate one could have been found.

The decision by a business to relocate outside of the city appears most frequently to be based on issues of convenience than upon economic issues related to a loss of trade at the previous location. The results are probably flavored by the predominance of small businesses in the survey sample. This is especially true in the service categories, the bulk of which are doctors, dentists and lawyers offices.

The Labor Force

Employment in the Flint area dipped in 1974 and 1975 in response to the short term national recession. Generally, though, it has enjoyed a fairly steady increase over the years. Information from the decennial census reveals that the increase has been very pronounced:

Employment by Year for Genesee County

	1940	1950	1960	1970
Total employed	78,270	108,602	132,467	159,476

More recent years have not shown so clear a pattern. In Illustration 10, information from the Michigan Employment Security Commission reveals that employment in the Flint SMSA has generally increased, but fluctuates a great deal. There has been an increase in both total employment and in the total labor force in the SMSA. In the most recent three years, however, increases in employment have not kept pace with increases in the labor force. Consequently, unemployment is currently very high in the area.

Some other patterns are discernable in the data. Manufacturing employment has waivered but generally declined while non-manufacturing jobs have increased. Within the non-manufacturing category constuction and wholesale employment are declining while retail, financial and especially services have shown a clear pattern of increase.

The increases in retail, financial and service industries employment can, of course, be attributed to increased sales of their respective products. The reasons behind the boost in sales are not so easily explained. Population gains, expanded income levels, changing tastes in consumerism, increased market penetration and improved accessibility

ILLUSTRATION 10

Employment in the Flint SMSA (x 1000)

	<u>1976^{tt}</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>	<u>1972</u>	<u>1971</u>	<u>1970</u>
Civilian Labor Force	206.8	211.0	209.8	204.0	197.4	193.9	196.8
Employment	186.0	182.1	185.5	192.8	184.3	181.0	181.9
Unemployment	20.8	28.9	24.3	11.2	13.1	12.9	14.9
Wage and Salary Employment:							
In Manufacturing (Transportation Equipment)	74.1	66.8	73.1	85.2	78.6	79.7	72.3
In Non-manufacturing (Construction) (Wholesale) (Retail) (Finance, Insurance, Real Estate) (Services)	75.5 4.1 8.1 28.0 5.1 23.8	72.4 4.1 8.1 26.2 4.9 23.8	72.8 4.5 8.3 26.7 5.0 22.9	74.0 5.5 8.3 26.5 5.1 22.2	71.5 5.5 8.6 26.1 4.7 20.3	69.2 5.3 9.4 25.5 4.6 18.1	69.3 6.0 10.4 24.7 4.5 17.4
In Government	28.9	27.9	24.9	24.8	24.0	22.5	22.7

t labor strike reduced figure in this year
 tt 1976 averaged for first 11 months only
 () sub-categories in parentheses

Source: Michigan Labor Market Reviews

have all contributed, but none of these can be touted as solely or even chiefly responsible for the employment expansion.

The final category of employment in Illustration 10, government employment, has also shown an increase. Included in this category are all public school teachers and administrators, whose numbers predominate in the statistic. The gains in the ranks of public educators is easily explained as a direct consequence of increases in the numbers of school age children. However, if the current trend toward lower birth rates continues, and the population does not increase through migration, the recent expansion in educational employment can be expected to dissipate at some point in the future.

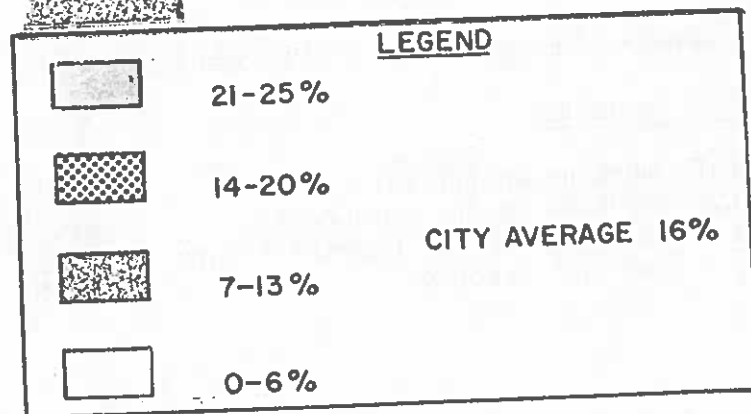
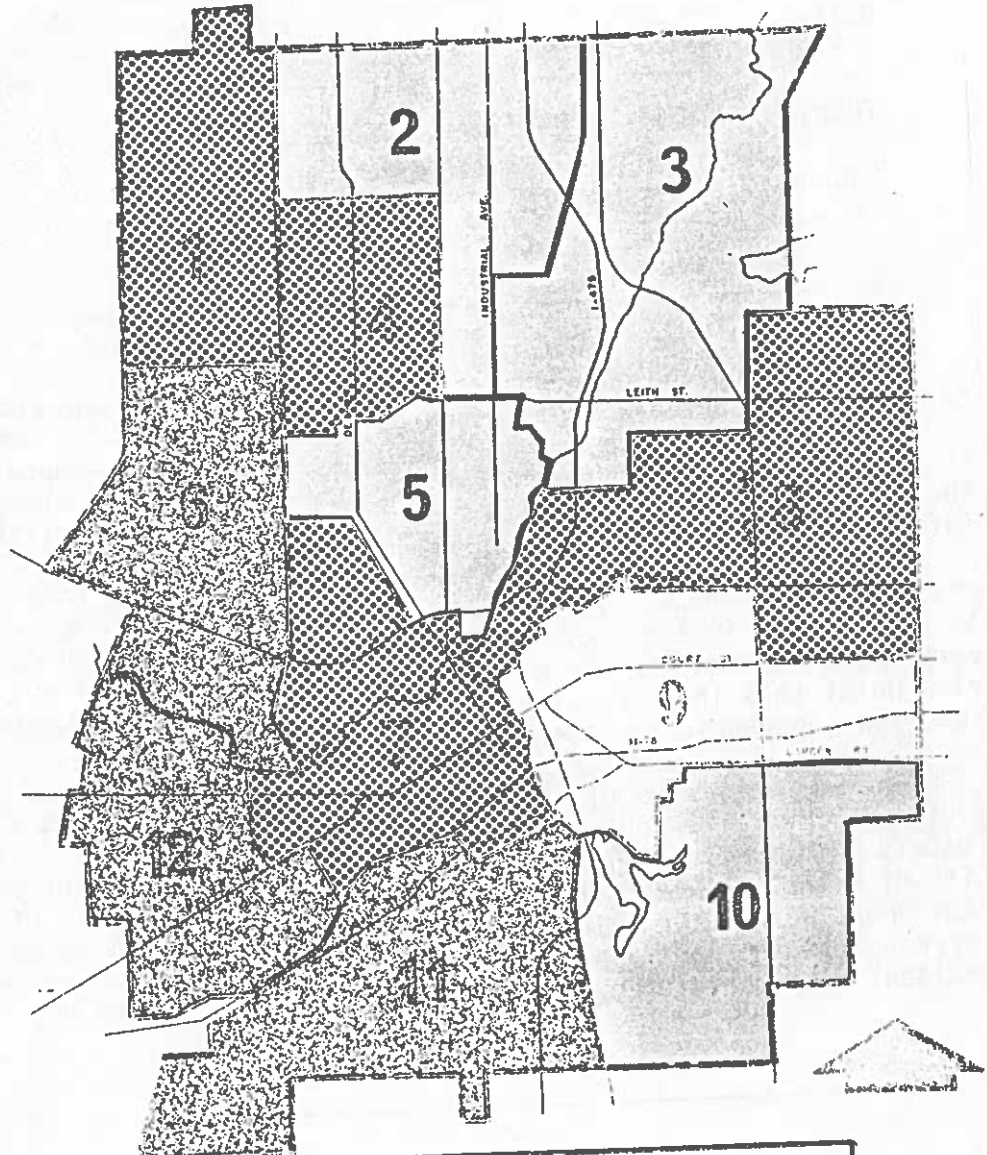
Unemployment in the Flint SMSA has been consistently above the national average since 1973. The figures peaked in March of 1975 when unemployment rose to over 32,000. Yet today over 20,000 members, or slightly over 8% of the labor force, are out of work according to official M.E.S.C. figures. The problem is even more severe in the Central City where Community Development surveys indicate unemployment rates over 20% in some areas of the City (see Illustration 11). These extremely high rates in the area are not a result of significant decreases in employment so much as a failure of employment to keep pace with increases in the local work force. The local economy was expanding, the total number of jobs continued to increase, but it wasn't expanding fast enough.

There were two basic reasons for the inflated work force. First, the birth cohorts reaching post high school and post college ages between 1970 and 1975 were quite large. They created a certain amount of problems for the economic system as they entered it and their presence, by sheer weight of numbers, will continue to cause changes in the economic system as their working careers continue. Even in retirement, these cohorts will persistently be a force on the economic system, straining the capacity both of the social security system and many private pension funds.

A second source of increase in the work force has been the growing number of women now entering the ranks of labor on a more or less permanent basis. Partly this is a response to the changing attitudes of women over their traditional societal roles and partly it is due to economic necessity as inflation reduces the value of the income of many families.

Although active in the labor force in increasing numbers, women are somewhat more susceptible to unemployment than their male counterparts. In the same way, Blacks are more frequently unemployed than whites in the labor force. This may partly explain the higher unemployment rates in the City, since almost all of the County's Black population resides there.

PERCENT UNEMPLOYMENT BY PLANNING DISTRICTS



Employment by Race and Sex in Flint

	Male Labor Force Employed-Unemployed	Female Labor Force Employed-Unemployed	City Total
White	87.9%-12.1%	83.9%-16.1%	86.4%-13.6%
Black	80.6%-19.4%	73.9%-26.1%	77.4%-22.6%
Total	85.8%-14.2%	80.0%-20.0%	

Source: Flint DCD/Flint Data Book 1976

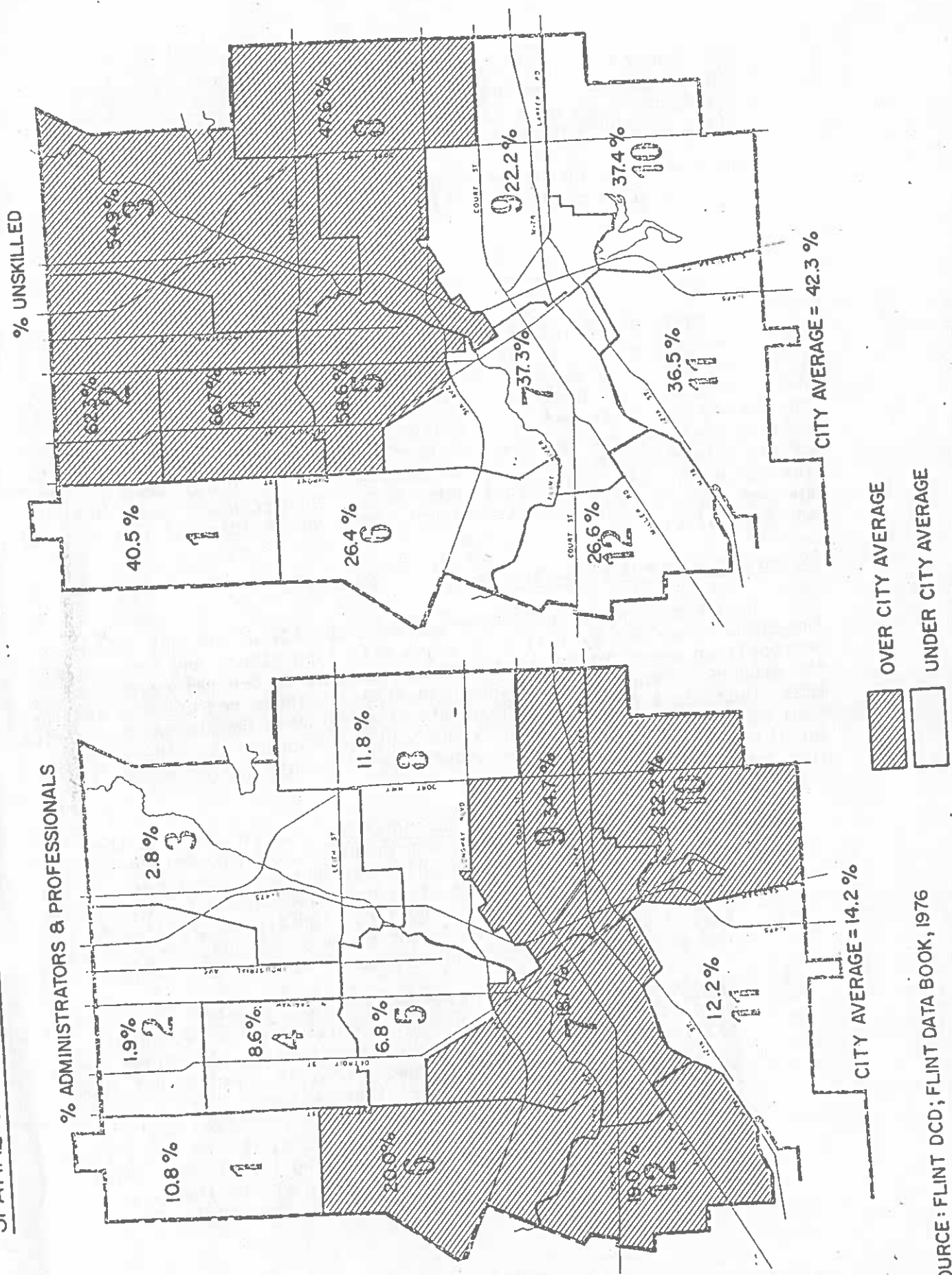
Race is not the only characteristic of the work force that tends to correlate with the place of residence. Unemployment also does, as shown on Illustration 11. So too do characteristics such as educational attainment levels, dependency ratios, income levels and a host of other social and economic characteristics. All these characteristics are inter-related. One such factor which can be used as a social indicator of the other characteristics is the occupational skill level of the resident labor force. Illustration 12 displays how the City work force is distributed in terms of the highest and lowest skill levels and a very clear pattern of spatial segregation appears. From an economic view point this indicates the existence of identifiable labor pools with specific geographic location.

The work patterns of the County work force reflect the increased mobility of workers and their geographic redistribution. In 1970 approximately 67.8% of the all employed workers in the County worked in the City of Flint. By 1976 that figure had increased to 76.1% of the total employment work force. In raw numbers, the County work force has increased in the last years from 158,000 to over 170,000 while the resident City work force has gone down from 74,000 to 64,000.

Genesee County Employed Civilian Labor Force

<u>Place of Residence</u>	<u>1970</u>	<u>1976</u>
City L.F. working in the City	78.9%	88.3%
City L.F. working in the Out-County	20.1%	9.0%
City L.F. working outside Genesee County	3.2%	2.7%
Place of work not reported	8.3%	-

SPATIAL DISTRIBUTION OF CITY WORK FORCE BY SELECTED SKILL-LEVEL CATEGORIES



SOURCE: FLINT DCD; FLINT DATA BOOK, 1976

Out-County L.F. working in the City	58.7%	68.4%
Out-County L.F. working in the Out-County	40.8%	26.7%
Out-County L.F. working outside Genesee Co.	5.6%	4.9%
Place of work not reported	4.9%	-

Source: 1970 Census of Population
1976 ECHO survey for D.C.D.

The table above indicates some changes that have occurred since 1970. The percentage of City residents working in the out-county has gone down and the proportion of out-county residents working in the City has increased. The position Flint holds as the center of employment for the County has increased as a result. This also serves to indicate that despite business relocations that have seriously affected some segments of the County's economy, its overall position in the County has improved. The danger in this situation is more social than economic as a continuance of these trends could conceivably ruin the residential integrity of the central City.

Summary of Current Economic Trends

The recent trends in Flint's economic conditions are not unique to the area. They are typical of changes affecting other, and far larger, metropolitan areas in the Northeast and East North Central regions of the country. Generally, metropolitan areas in these regions are declining. There is a clear pattern of migration of both people and industries from these regions into areas in the South and Southwest. The reasons for this are myriad and complex, but generally they can be associated with the following major factors:

1. The lowering of transportation costs. In relation to the other costs associated with production, transportation costs have been greatly reduced which has had a strong impact on the former economic advantage of centralized manufacturing facilities. As a consequence, many large industries are finding it more profitable to build factories on scattered, and cheaper, non-metropolitan sites and ship parts between the plants.
2. Obsolescence of older housing and physical plants. This has long been a problem in housing. Families who were economically able to do so would leave aging housing structures for better housing in suburban areas. Now, it appears that industry is beginning to follow a similar pattern. Partly this stems from the inability of metropolitan areas to accommodate the changing needs of housing and industry, due to the enormous land and property investments in existing structures. Also, in the past whenever one group of people or one industry vacated structures, there were others to take their place.

This appears to be no longer the case. The economic incentives for re-use of aging structures are largely gone, as are the successive waves of immigrants.

3. Automation and rationalization of production processes.⁺ Many formerly labor intensive industries have reduced their payrolls through automation and the introduction of new materials and processes requiring less manpower. This has contributed to a loss of population in metropolitan areas where dependence on manufacturing employment is heavy.

These regional trends have impact in the Flint area in a number of ways. Certainly, there is a proportion of housing stock that is, frankly, obsolete and a like proportion of commercial property that has outlived its principal economic value.

Occupants of these structures have left, and will continue to leave, when they are economically able to do so. Also, there has been an apparent reduction of the work force in the major industry of the area, due to automation and new production processes, of about 10,000 jobs. This has stimulated out-migration and has decreased the total revenues of the area. Finally, many plants and facilities that might have been built in the area (if the old economies of scale of the 1930's had not changed) were ultimately built in far scattered locations across the country. Most recently several G.M. parts-manufacturing facilities have been built in the South where land, energy and labor costs are far less than in the Flint area, or anywhere else in the Northeast regions.

The regional economic shifts which have led to stagnation and decline in the older metropolitan areas are relatively new, but already their impact has been great. How long these trends will continue is an open question, but there is nothing in the immediate future to indicate that they will be short-lived. Rather, these metropolitan areas face a period of economic stagnation or even decline that shows every indication of being the pattern for some time to come. The metropolitan area of Flint is already in a "no-growth" condition. The change in County population, an increase of only 2000 since 1970 when births alone should have produced an increase of 28,000, offers strong evidence of just such a "no-growth" condition. The effects are already being felt in a decline in construction, the loss of younger and better educated workers who tend to be highly mobile, increases in housing and business vacancies, a decline in the fiscal capacity of local units of government and an increase in the per capita costs of government services.

Moreover, Flint is in the unenviable position of seeing somewhere on the horizon an eventual end to automotive production at least as it now exists. Supplies of oil and gasoline, once thought inexhaustible, have proven to be very finite at current rates of consumption. Rogers Morton, then Secretary of Commerce, in a speech in 1975 indicated that if consumption continued at its presently ever increasing levels, crude

⁺Sternlieb, G. & Huges, J. in Post Industrial America: Metropolitan Decline and Inter-Regional Job Shifts - pg. 3

oil, as a source of fuel, would be gone in 25 years.+ Conservation measures may succeed in pushing that day back, but they cannot prevent its ultimate arrival.

It is clear that in the long run both General Motors and the Flint metropolitan area are facing a period of transition. Flint is again in a position not far removed in its potential consequences from that of a century before. The natural resource of that earlier period, white pine, was beginning to play out in the face of ever increasing consumption. The main industry of the area was threatened and Flint could easily have become a ghost town, which was the fate of many other one-industry boom towns of that era. From that earlier period of economic transition a whole new industry arose which was to make Flint the "Vehicle City" to the world. What will come from the impinging economic transition remains to be seen, but if history is a guide there is reason to be hopeful and perhaps even optimistic.

+Department of Commerce: Industrial Opportunities 1976, Introduction

V. DEMOGRAPHIC PROFILE

In order to prepare a sound plan for the future development of the community, it is necessary to establish the present characteristics of the population. Then, based on past changes and trends, a thorough appraisal of the future characteristics of the community can be made.

Population - Trends and Projections

Historically, the economy of Flint, and consequently its potential for growth, has been based almost entirely upon the manufacturing of durable goods, mainly transportation equipment. As can be seen in the table below, the population growth trends in Flint have fluctuated greatly over the years. From the time of the lumber trade in the mid-19th century until the beginning of the 20th century, the city experienced steady growth, reaching a population of 13,103 in 1900, when Flint's carriage factories were flourishing. During this period, the city's population growth rate was about two and one-half times that of the nation as a whole.

Population Growth Trends In Flint*
1860-1975

<u>Year</u>	<u>Population</u>	<u>% Change</u>
1976	170,650	(-) 2.5
1975	175,003	(-) 9.5
1970	193,317	(-) 1.8
1960	196,940	20.7
1950	163,143	7.7
1940	151,543	(-) 3.2
1930	156,492	70.8
1920	91,599	137.6
1910	38,550	194.2
1900	13,103	33.7
1890	9,803	16.6
1880	8,409	56.1
1870	5,386	82.6
1860	2,950	--

*Sources: 1860-1970 U.S. Census of Population
1975 and 1976 Genesee County Evidence for Community
Health Organization (ECHO) Estimates as of February, 1977

But, it was not until after the turn of the century that the city was to experience its era of spectacular growth. The Buick Motor Car Company was founded in 1903, and by 1930 over 35,000 jobs had been created in manufacturing industries alone. The effect on population growth was tremendous. The rate of increase was 17 times greater than the national rate for the same period.

With a high proportion of its labor force engaged in the manufacture of durable goods, Flint proved to be notoriously vulnerable to fluctuations in the national economy. The City of Flint was hard hit by the depression of the 1930's, and during this period its population declined 3.2 percent. However, at the same time, Genesee County experienced a modest population increase paralleling a similar increase in the U.S. as a whole.

Certain related factors have exerted a continuing influence on Flint's population growth trends. These include: population growth in the state of Michigan, as compared with the United States; the rapid urbanization of southeast Michigan's industrial corridor; and the relationship of Genesee County to this industrial corridor. Among the more recent factors affecting Flint's population growth and distribution have been the evolving pattern of decentralized residential development within the city and its environs and a variety of economic conditions further discussed in the economic profile section.

Prior to 1910, Michigan witnessed a steady decline in its share of the United States population. The new auto industry, by spurring growth in Flint and in other industrial centers, reversed this trend and by 1930, 3.9 percent of the U.S. population lived in Michigan. According to U.S. Census estimates, at present about 4.4 percent of the United States population resides in the state of Michigan.

Since the 1960's, Flint, like other cities across the country, began to lose segments of its population to the suburbs. A small decline was encountered between 1960 and 1970 despite the flourishing economy and increased automobile production.

Between 1970 and 1975, Flint experienced one of the most unstable periods in its history. Besides the flight to the suburbs, the area was affected severely by the oil embargo during 1973 and the recession that soon followed in 1974 and 1975. Accompanying the sluggish economy were slumping automobile sales. Major layoffs were encountered in area factories and many people left Flint to seek employment elsewhere. During this six year period, the City of Flint lost over 18,000 residents.

Despite the loss in the city population since 1960, Genesee County grew substantially between 1960-1970, and maintained a moderate rate of growth from 1970-1975. The decline in the city population accompanied with growth in the out-county has accelerated the decrease in the city's share of the total county population. In 1930 nearly three-quarters

(73.9%) of the people resided in Flint, whereas by 1975, Flint's percentage of the county population had dropped to 38.2 percent.

This loss in the city's share of the total county population is not a problem peculiar to Flint. Comparisons with other major cities throughout the State of Michigan show that they, too, have suffered a decline in the percentage of people residing within their respective city limits. While the proportion of residents living in the urbanized areas outside the central cities has increased, the number of individuals within Michigan cities has remained around 2.5 million since 1950. Nationwide, however, the actual number of city residents has shown a moderate increase during the last 25 years.

Because population growth trends in Flint have fluctuated greatly over the years, projecting its probable future growth or decline is not a simple task. All projections made prior to the early 1970's have indicated consistent growth. However, none of these anticipated the recession during 1974 and 1975, which had a devastating affect on Flint.

Population projections adopted in May, 1977, by the Genesee-Lapeer-Shiawassee Region V Planning and Development Commission show a slow decline in the City of Flint's population over the next twenty years:

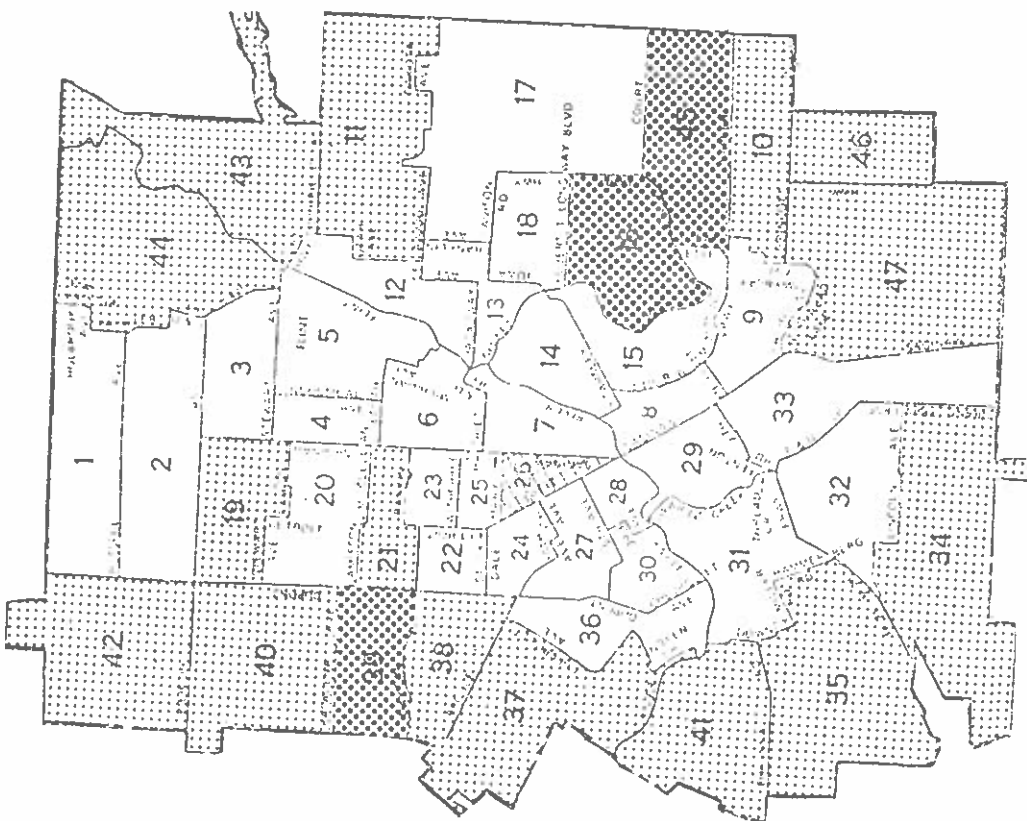
	<u>1970</u> <u>Census</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
Genesee County	445,589	472,975	480,103	488,302	496,109	499,055
City of Flint	193,317	166,739	164,872	163,263	163,076	162,521

The City's population is projected to drop from 35.3% of the County total in 1980 to 32.6% of the County total in the year 2000.

Geographic Changes in the Population

The distribution of Flint's population is much different today than it was some 35 years ago. As can be seen in Illustrations 13, 14, 15 and 16, the concentration of residents within the city has shifted outward. Between 1940 and 1975, Flint's population fluctuated up and down. However, regardless of the overall growth or decline, the areas on the periphery of the city have shown moderate to substantial increases in population. At the same time the center of the city was losing residents.





From 1940 to 1950, the city recorded a moderate growth of 12,000 individuals. Nearly all of these additional residents can be accounted for by growth in the census tracts in the outskirts of the city. During this decade, no area was affected by substantial out-migration. Consequently this growth outward can best be explained by the housing needs of the population. Once the center of the city was built up, to increase the housing stock meant expanding outward.

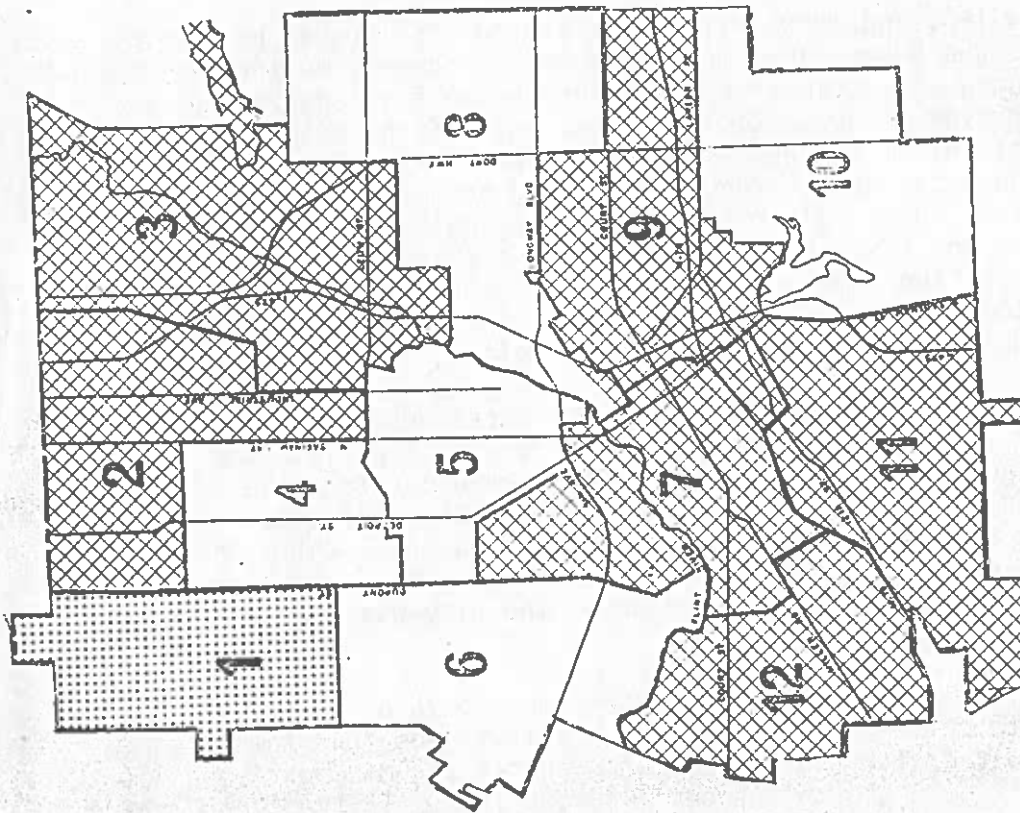


POPULATION CHANGE 1940-1950

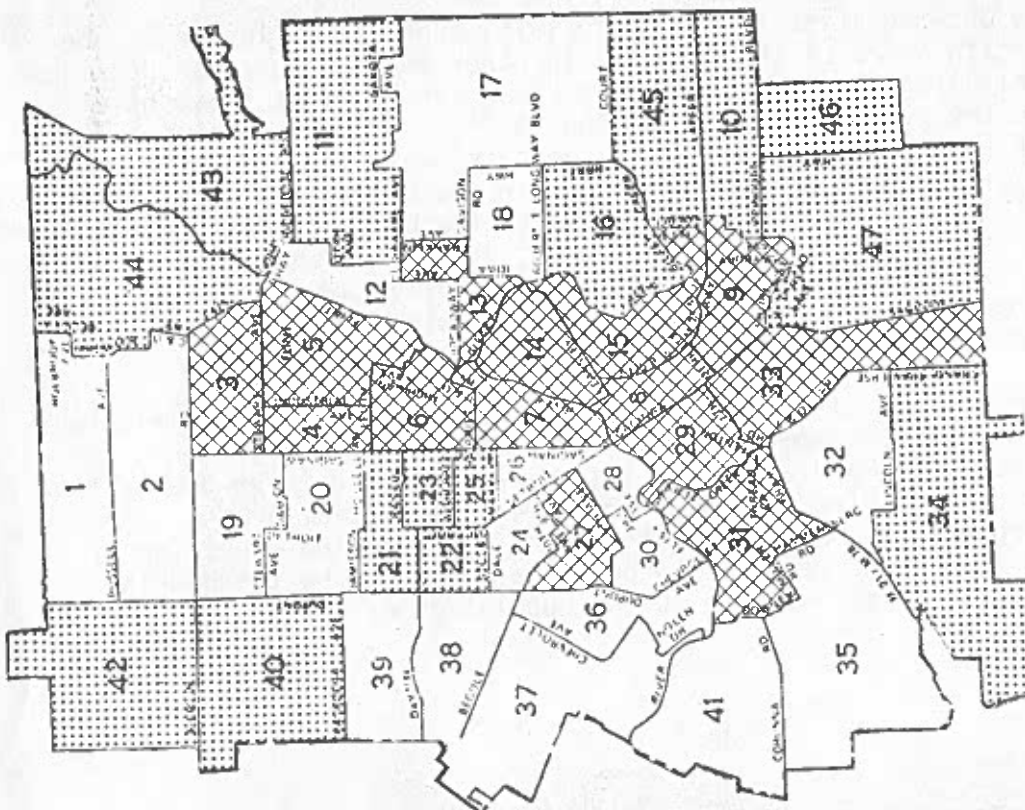


POPULATION CHANGE 1950-1960





-  10% OR MORE DECREASE
-  LESS THAN 10% CHANGE
-  10-49% INCREASE
-  50% OR MORE INCREASE



POPULATION CHANGE 1970-1975



POPULATION CHANGE 1960-1970

-  10% OR MORE DECREASE
-  LESS THAN 10% CHANGE
-  10-49% INCREASE
-  50% OR MORE INCREASE

Between 1950 and 1960, Flint experienced its largest period of growth since the depression. Areas in the northwest, northeast, southeast and southwest sections of Flint were being developed as new neighborhoods for over 33,000 additional residents of the city. During the 1950's a substantial number of residents were moving out of areas in the center of the city, neighborhoods which had been developed 40 to 60 years earlier. These neighborhoods were beginning to show signs of deterioration and residents may have moved seeking new and better housing. Together, the in-migration and the movers from the inner city areas resulted in nearly 42,000 additional individuals residing in neighborhoods around the perimeter of the city.

Similar types of movement were experienced between 1960 and 1970. Although the total population declined during this period, the distribution of the population was continuing to spread out from the center. Like the previous decade, people were leaving the older, deteriorating neighborhoods seeking new and better quality housing. While the growth in the outlying areas was not as significant as the decade earlier, the movement of residents from the center of the city was just as substantial.

This movement away from the center and growth of the out-lying areas was not confined within the city limits. The four townships contiguous to the city (Burton, Flint, Genesee and Mt. Morris) all experienced extreme growth between 1940 and 1970. In the three decades since 1940, the populations in three townships bordering the city have more than tripled, while Mt. Morris Township's population has increased nearly five-fold.

Due to out-migration from 1970 to 1975, substantial losses can be seen in certain areas of the city, while other geographic areas remained stable. Only Planning District #1 has shown any signs of substantial growth over the first five years of the 1970's. Planning District #1 consists of the northwest section of the city, which was the last area of major housing development within the corporate limits. From 1970 to 1975, about 300 housing units were added to the housing stock in that district. The hardest hit of all planning districts were #2 and #7, which lost more than 20 percent of their respective populations. Planning Districts #3, 9, 11 and 12 all suffered losses between 14 and 19 percent over the five year period from 1970 to 1975.

The uneven loss of residents throughout the city can be attributed partially to four development projects (The Doyle Housing Project, the St. John Industrial Park, the I-69 Interchange and the Right-Of-Way for I-475) that have required major clearance of residential areas. These clearance projects accompanied by the layoffs during the recession of 1974-75 and the exodus to the suburbs to find new and better housing, have contributed to the decline in the population of Flint since the 1960's.

Current Population Characteristics

With a marked loss in population between 1970 and 1975, the city saw the characteristics of its residents change dramatically. The remainder of this section will give a brief overview of the existing characteristics of Flint's population, along with the changes it has undergone in the past four decades.

Despite the fact that the population decreased from 1960 to 1970, the number of households residing in Flint increased by about 2,000.* At the same time, however, the average household size declined. Nearly 4,500 households were lost from 1970 to 1975, while the average household size shrank from 3.13 to 3.07. Household size has been declining due to factors such as an increased percentage of women in the work force, an increase in the number of unmarried children establishing separate residences, and a reduction in the number of elderly parents residing in the homes of their children.

Along with changes in number of households over the years, the entire composition of households has changed. Changes have taken place over the past four decades which alter the characteristics (age, sex and race) of the household heads.

The number of elderly household heads (65 and older) has shown a gradual increase from about nine percent in 1940 to 17.4 percent by 1970. However, a larger increase was witnessed over the next six years when the proportion of elderly household heads had reached over 25 percent of all households. Concurrently, the number of single-person households had shown a moderate increase from 15.5 percent in 1950 to over 20 percent by 1975. Statistics show that a large porpotion of these single-person households are in the 65 and older category.

The male/female breakdown of household heads remained relatively stable between 1940 and 1970. However, by 1975 a sizeable shift in household responsibilities had taken place. During this six year period the number of female household heads increased nearly threefold, from 11.3 percent in 1970 to over 30 percent by 1975.

Over the past four decades racial composition of household heads has also undergone some changes. The number of black household heads has shown a consistent increase since 1940. The most substantial increase occurred between 1960 and 1975 when the percentage of black household heads went from 14.4 percent of the total to over 30 percent.

*A household consists of a single person living alone, or a group of related or unrelated persons living together as a single housekeeping unit. (The average household size is obtained by dividing the population living in households by the number of households.)

Racial and Ethnic Composition

In looking at the racial breakdown for Flint, it is quite apparent that the percentage of non-white residents has been on the increase over the years. A closer investigation shows that prior to 1940 the non-white population consisted of less than five percent of the total. However, over both of the next two decades that percentage doubled, and in 1960 the non-white population reached 17.7 percent. Through 1960, nearly all of the non-white population was Black, with less than two-tenths of one percent being of other minority races.

By 1970, Black residents constituted 28.1 percent of the population of Flint. For the first time since 1940, the actual number of white individuals decreased. Prior to 1970, the Black population was increasing at a faster rate than the white population. Over the next five years, the white population continued to decline while the Black population increased, and by 1975 the Black population had reached over 35 percent of the total. Since 1970, minority races other than Blacks have made up one-half of one percent of the total population.

Spanish-speaking persons were not enumerated separately in Flint until the 1970 Census. At that time, 1.7 percent of Flint's population was of Spanish heritage. This proportion had increased to 1.9 percent by 1975.

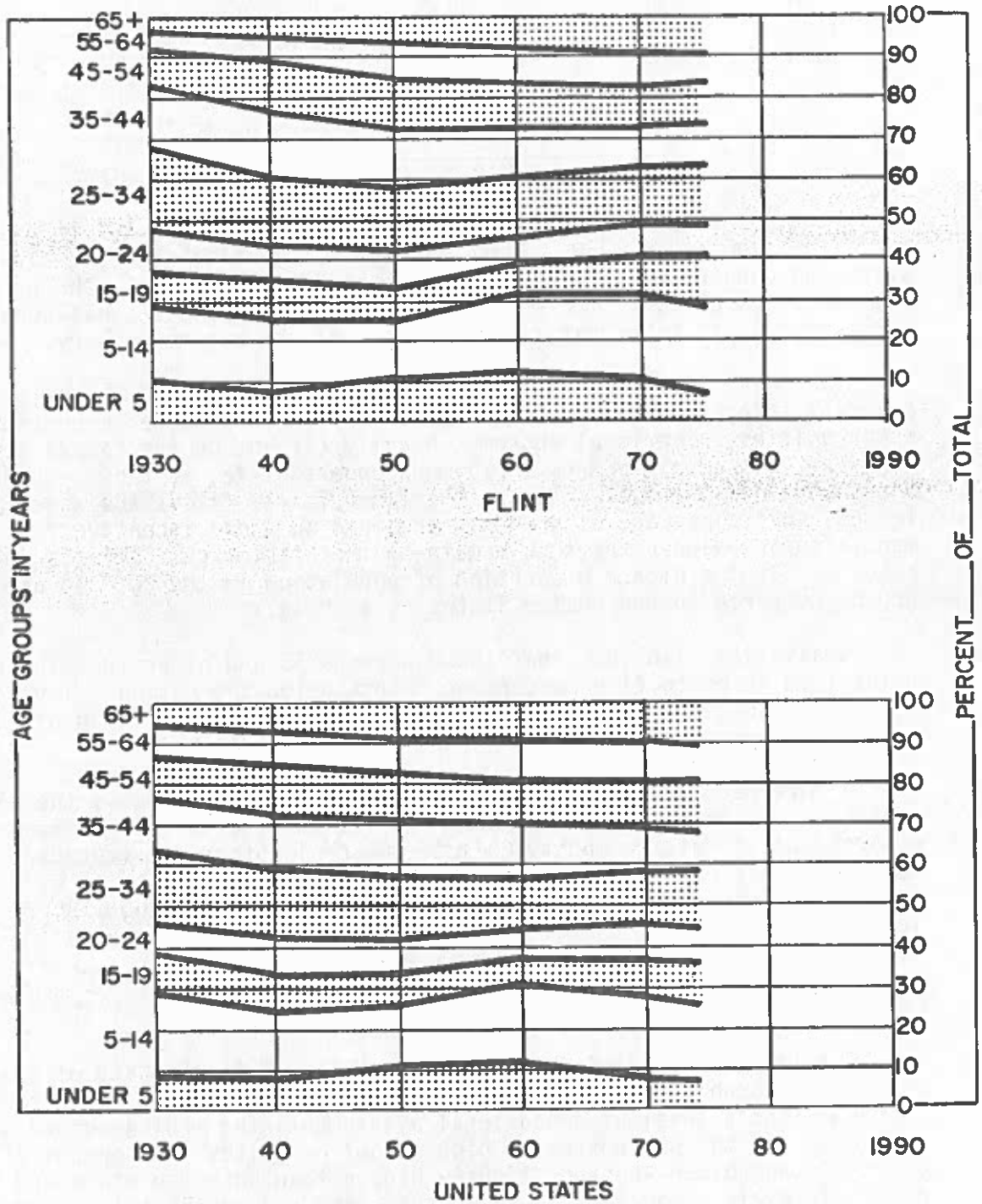
Age Composition

Age composition charts (Illustration 17) for Flint and the United States show that, overall, there has been a substantial decrease in the under 5 age group since 1960. The most pronounced change, especially for Flint, can be seen in the 65 years and over age group, which has shown a consistent increase from three percent of the city's population in 1930 to over nine percent in 1975.

Other trends include a gradual decrease in the 25-34 and the 35-44 age groups for Flint and the United States throughout the time period shown. Also, moderate increase in the 5-14 age group's proportion of the population has occurred since 1950. Despite the increases in the proportion of the total population of the city, only the ages from 5-19 and 65 and over have increased in actual numbers since 1960.

The current median age for the City of Flint is around 25, slightly lower than that of the state and considerably lower than for the entire county. Flint has a history of being a young city, as can be seen from the following table.

AGE COMPOSITION 1930-1975 (Flint & U.S.)



Median Age Comparisons

	<u>Flint</u>	<u>Michigan</u>	<u>United States</u>
1930	25.8	27.1	26.5
1940	27.4	29.3	29.0
1950	29.5	29.8	30.1
1960	28.0	28.3	29.5
1970	25.1	26.3	28.1

In all three areas the median age was on the rise until it reached its highest point in 1950. Since 1950, the median age for the city, state and country has declined considerably. Nevertheless, throughout the twentieth century, the median age of Flint's residents has consistently been lower than that for the state and the entire country.

The relatively young age of Flint's residents may be the result of several different factors, including employment and higher educational opportunities. The local economy, heavily reliant on the manufacturing industry, has supplied many employment opportunities to those younger age groups (20-24) just entering the labor force. Also, the wage and fringe benefit package offered has provided an added incentive for manufacturing wage-earners to remain in the Flint area. This is indicated by Flint's higher proportion of population in the 20 - 44 age group, compared to the United States as a whole.

Statistics also show that those persons 55 and older in Flint have maintained three to five percentage points below the national level. This would suggest that once retired, a significant proportion of Flint's older residents have been leaving the city.

A more recent influence on the mid-twenties age group is the expansion of the higher educational facilities offered in the area. The enlargement of Mott Community College, General Motors Institute and Baker Business University, plus the addition of the University of Michigan - Flint campus have not only kept many of those seeking a higher level of education in the city, but have also brought people to the city.

Educational Attainment

The level of educational attainment achieved in the City of Flint compares favorably with that of the state and the nation. Through the 1960's, Flint's level of educational attainment--the median school years completed and the percentage of high school graduates for persons 25 years old and older--ranked slightly higher than both the state and the national levels. However, by 1970, the state and national levels had surpassed those maintained in Flint.

Median School Years Completed

	<u>Flint</u>	<u>Michigan</u>	<u>United States</u>
1940	9.1	8.6	8.6
1950	10.4	9.9	9.3
1960	10.9	10.7	10.6
1970	11.8	12.1	12.1

Percent High School Graduates

	<u>Flint</u>	<u>Michigan</u>	<u>United States</u>
1940	27.2%	24.7%	24.5%
1950	37.1%	34.9%	34.3%
1960	41.0%	40.8%	41.1%
1970	48.6%	52.8%	52.3%

Source: U.S. Census

Composition of the Labor Force

Flint is recognized as a leading manufacturing center because of its production of automobiles and automobile parts. Since the turn of the century, the Flint area has been very dependent on the manufacturing industry, and differs from most cities because of this high degree of specialization. Flint's economy is comprised of a variety of other important income-producing activities. However, since the founding of the motor car industry, Flint's non-manufacturing employment has never reached its potential in scale with its manufacturing employment.

Flint's ties to the automobile industry have had mixed consequences for the local economy. On the one hand, area production workers have prospered due to the high wage rates and fringe packages they receive. Production workers in the Flint labor market are among the highest paid in the country. When compared to other cities throughout the state, the City of Flint has maintained one of the highest median incomes since 1950.

Median Income* for Michigan Cities

	<u>1970</u>	<u>1960</u>	<u>1950</u>
Michigan	\$9226	\$5534	\$3195
Flint	8565	5595	3663
Ann Arbor	4707	2814	1404
Detroit	8944	5184	3465
Grand Rapids	7474	5006	3193
Lansing	8918	5613	3636
Pontiac	8228	5461	3360
Saginaw	8293	5258	3251

Sources: U.S. Census

On the other hand, because of Flint's interdependence with the automobile industry, employment in the area has proved to be extremely vulnerable to fluctuations in the national economy. Over the 15-year period from 1961 to 1975 shown in Illustration 18, decreases in the Gross National Product were followed by a decrease in total area wage and salary employment, and a substantial decline in the number employed in the transportation equipment industry.

Throughout the sixties, employment in the manufacturing industries averaged around 53 percent of the wage and salary jobs available in the Flint labor market. Jobs in non-manufacturing industry during this same period maintained between 32 and 37 percent of the total wage and salary workers. From 1970 to 1975, however, manufacturing jobs averaged around 44 percent. Meanwhile, non-manufacturing employment increased its proportion of the wage and salary workers to 42 percent. Although manufacturing employment has dropped to the 40-45 percent range, this is still quite high. By comparison, manufacturing employment comprises only 26 percent of total wage and salary employment on the national level.

While the percentage of manufacturing jobs steadily declined from 1961 to 1976, the actual number of manufacturing workers has fluctuated considerably. Manufacturing employment reached a high of 85,400 in 1969, while it presently consists of 74,000 workers, the level it maintained during the early 1960's. Non-manufacturing employment has not only increased its proportion of total employment, but it has also increased the actual number of workers substantially. In the early 1960's, there averaged only around 43,000 non-manufacturing workers. Presently it is approaching 76,000, a 75 percent increase from the early 1960's. A more detailed analysis of labor trends is presented in the economic profile section.

*Figures for all families and unrelated individuals.

CHANGES IN TRANSPORTATION EMPLOYMENT
AND TOTAL WAGE AND SALARY EMPLOYMENT
FOR FLINT SMSA, AND CHANGE IN
GROSS NATIONAL PRODUCT

	<u>Percentage Change in Transportation Equipment Employment in Flint SMSA</u>	<u>Percentage Change in Total Wage and Salary Employment in Flint SMSA</u>	<u>Percentage Change in Constant Dollar Gross National Product</u>
1961-1962	+14%	+ 8%	+ 2%
1962-1963	+ 4	+ 3	+ 7
1963-1964	- 3 +	+ 2	+ 4
1964-1965	+ 5	+11	+ 5
1965-1966	+ 5	+ 5	+ 6
1966-1967	- 6	- 2	+ 7
1967-1968	+ 3	+ 4	+ 3
1968-1969	+ 5	+ 7	+ 5
1969-1970*	-22	- 5	- 3
1970-1971	+14	+ 4	- 1
1971-1972	- 1	+ 2	+ 3
1972-1973	+ 9	+ 6	+ 5
1973-1974	-16	- 7	- 2
1974-1975	- 8	- 2	- 2

* Prior to 1970, the Flint SMSA consisted of Genesee and Lapeer Counties; since 1970 the SMSA consists of Genesee and Shiawase Counties.

PERCENTAGE COMPARISONS BETWEEN
MANUFACTURING AND NON-MANUFACTURING
EMPLOYMENT FOR THE FLINT SMSA

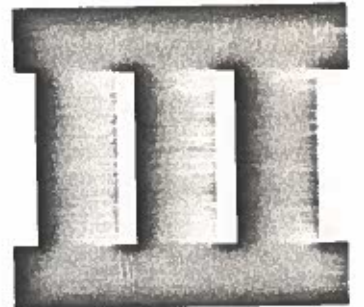
	<u>Percent Manufacturing Employment</u>	<u>Percent Non-Manufacturing Employment</u>
1961	53.8%	33.8%
1962	55.9	32.6
1963	56.3	32.4
1964	55.0	33.8
1965	53.7	36.0
1966	53.5	36.3
1967	51.3	37.6
1968	50.8	36.9
1969	49.6	36.9
1970*	44.0	42.2
1971	46.5	40.3
1972	45.1	41.1
1973	46.3	40.2
1974	42.8	42.6
1975	40.1	43.3

*Prior to 1970 the Flint SMSA consisted of Genesee and Lapeer Counties; since 1970 the SMSA consists of Genesee and Shiawasee Counties.

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MASTER PLAN ELEMENTS

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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1

LAND USE

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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THE LAND USE ELEMENT

Introduction

Uncontrolled growth can lead to a variety of urban problems. Land use planning is one method of dealing with these problems, and of providing for best use of land and other resources. Flint has been losing population and businesses to outlying areas in recent years, but it still is an important part of the metropolitan region. Land use in Flint is typical of a city its size, but growth is restrained both by the scarcity of vacant land and by restrictive annexation policies.

Goals and Objectives

Because Flint is no longer experiencing the rapid growth that characterized past decades, it is necessary to relate land use goals to these conditions, and to an overall policy of growth and revitalization.

The general goal of land use policy is to insure that all activities (residential, commercial, industrial, etc.) have an opportunity to thrive in a healthy and pleasing environment, but that no activity should impair the existence of another. It also means providing an efficient, safe and economical system of land use; one that will enhance the livability of the city, increase its population and property values, while redirecting future reuse potential.

Present conditions make it necessary to stress stabilization and planning in city land use policy. This does not mean stagnation, however, and appropriate growth should be encouraged.

In order to realize the general goals, certain actions must be initiated. These must occur in a timely and efficient manner in order to obtain optimum success. Certain prevailing attitudes and strategies regarding redevelopment and reuse must also change. New development and change at any cost will only perpetuate old problems, voiding the quality of environment needed for long range community viability.

- o Residential - Areas must be protected from traffic and effects of other land uses, and provide potential for new development.
- o Commercial - Promote commercial clustering where appropriate, rehabilitation of existing establishments, and encouragement of new commercial activity.
- o Industry - Must be encouraged to grow and expand in carefully designated industrial areas.
- o Public and Institutional - Services must be made available to the entire community.

- o Park and Recreation - Facilities must be provided where needs exists.
- o Transportation - Systems must be addressed as a part of land use policy.

Historic and Existing Conditions

1960 Master Plan

The 1960 land use plan was based on the concept of dividing the city and surrounding area into communities, primarily residential areas defined by natural features and non-residential uses. This concept is still valid, but it's application was based on the assumption that growth within the city would continue. No provision was made for a decrease in the city's population, as has occurred. Anticipated growth did not take place in parts of the city, and it is now necessary to find means of stabilizing these areas.

Land Use Changes

A comparison of existing land use with 1958 figures shows that the most significant changes took place in commercial, public and vacant land categories. Much of the increase in commercial and public uses was due to annexation; vacant land decreased as a result of development since 1958. Since little vacant land remains, most change within the city will likely be redevelopment of existing uses, which is now taking place in some parts of the city. Care must be taken to assure that redevelopment does not create new problems in the areas.

Land Use Classification

Land use can be divided into residential and non-residential classifications, and subdivided within these by density (residential) and by type of use (non-residential).

1. Residential - About 40% of Flint's land is in residential use, mostly as single-family detached units. A large share of multi-family units in many parts of the city are the result of conversions of single-family dwellings, which can lead to land use problems. Stable residential areas are vital to the future of the city.
2. Non-Residential - This category is comprised of commercial, industrial and public/institutional uses, as well as parks, railroads and streets. The street system accounts for about 1/4 of developed land in the city, and has an important effect on land use patterns.
 - o Commercial - Flint's major commercial concentration is within the Central Business District, which is dominated by businesses providing financial, professional, insurance and real estate services. Major problems of the CBD are parking, traffic circulation and competition from outlying shopping centers.

Lineal commercial districts comprise the second largest share of commercial activity in Flint. There are many problems associated with this type of development including parking, access and signs. Commercial developments of all types must be carefully blended with residential areas.

- o Industrial - Flint's industry is centered around automobile production and the local economy fluctuates with this industry. In the interest of providing suitable sites for industrial activity and to diversify the economic base, the city is now developing two industrial parks. Past development has led to land use conflicts between industrial and residential areas. Inadequate consideration is still given to proper buffering techniques between industrial and other uses.
- o Community Facilities - Community facilities (education, fire, police, cultural and social services) are essential. The basic factors in community facilities planning are finance, coordination and planning. The Master Plan places emphasis on physical plants, land use and community relations involved in facilities planning. Constraints involve institutions that are exempt from site plan review, re-use of vacant structures and the lack of coordination among agencies.
- o Open Space/Recreation - Recreational and open space facilities in Flint appear to be adequate, based on a national standard of acres/population. Open space should:
 - (1) Provide for a wide spectrum of recreational activities and human needs.
 - (2) Protect and conserve the natural environment.
 - (3) Provide the basis for economic development and quality of the urban environment.

Properly planned open space along with environmental and land use controls is needed to realize these goals. Techniques must be developed to educate both public and private concerns in the value of open space and good site design.

Urban Renewal

Urban renewal describes a variety of activities based on federal legislation over the past three decades. This legislation generally allowed cities to acquire, clear and sell private property for redevelopment, using federal subsidies.

- o History - Urban Renewal in Flint began in the early 1960's, upon recommendation of the 1960 Master Plan. Flint eventually adopted 9 projects, but could not implement all of the plans. In recent years, activity has been limited mostly to completion of the Doyle Project and St. John Industrial Park.



- o Overview - According to a study done for HUD in 1974, urban renewal in Flint has had few positive effects beyond clearance of dilapidated structures, relocation of families and individuals into sound housing and rehabilitation of certain neighborhoods.
- o Plan Highlights - Most of the urban renewal plans call for both rehabilitation and redevelopment activities, except for St. John which has been totally cleared of residential activity for industrial re-use.
- o Problems - Although several of the plans are outdated, legal requirements make them extremely difficult to change.

The Pereira Study

The Pereira University Impact Study was commissioned after the decision to relocate the University of Michigan-Flint campus downtown. The study identifies an impact area that includes most of the central city, and provided a land use and transportation plan for this area.

- o Goals and Objectives - Goals of the study relate to transportation, physical environment, economic development, education, housing and social development. Objectives include a basic modification of the transportation system, river beautification as a major theme downtown, new office, hotel and retail space, intown public schools, new downtown housing and increased space for social interaction.
- o Land Use Plan - A basic consideration was to provide large land bays to promote development. The plan proposes several features designed to complement the university: An auto hall of fame, a central commercial area, Flint green (a combination of public buildings and open space) and various residential areas, including Doyle.
- o Present Status - Although the plans basic concept is valid, parts of it are outdated. The transportation plan should be reviewed in the transportation element of the Master Plan. Adoption of the plan is not advised, although it may serve as a basis for a revised downtown plan.

Incompatible Land Use

A consistent theme throughout much of the analysis accomplished for the Master Plan is that of incompatible land use. Incompatible land use can be defined as uses that can not exist in a harmonious manner.

- o Problems:
 1. Blighting effects, such as traffic, visual pollution, environmental pollution and crime.

2. Inefficient use of land, such as duplication of parking facilities.
 3. Time conflicts, between residential areas and activities operating into late hours.
- o Rationale: A large number of incompatible uses exist in Flint. Reasons for this include:
1. Unplanned land use in older areas of the city.
 2. Zoning variances to allow incompatible uses.
 3. Nonconforming uses in existence at the time of adoption of the present zoning ordinance.
 4. Inadequate enforcement of codes and ordinances.
 5. More zoning changes and variances granted in unstable neighborhoods.

Zoning

Zoning is the basic device for implementing a community's land use plan. Zoning separates land uses that are incompatible, helps provide for government services and insures adequate space, light and air for each development. Flint's present zoning ordinance was adopted in 1968, and is organized into residential, commercial and industrial categories. Enforcement of the ordinance is charged to the Building Inspector, amendments, supplements or district boundary changes are done by City Council after recommendation by the Planning Commission. The Zoning Board of Appeals is empowered to grant conditional use permits, special exceptions and variances. The granting of variances, especially "use" variances, can be harmful to the ordinance if not controlled.

Rezoning - Frequent rezoning or rezoning inconsistent with community goals may indicate zoning requirements that are too restrictive or may indicate a failure to carry out the intent of the adopted ordinance. In recent years, a high percentage of rezoning requests have been approved. Some of these may be in conflict with the proposed land use plan. Prior to revising the zoning ordinance, a study must be done of rezoning practice over the past ten years.

Rezoning occurs by:

1. Comprehensive revision of the zoning text or map.
2. Text changes in zoning requirements.
3. A change in the zoning map.

Recommendations

1. Establish policy of granting zoning changes only when consistent with the Master Plan.
2. Reinforce ties between land use and transportation planning.
3. Support neighborhood preservation programs.
4. Establish a coordinating committee composed of the City and major public and institutional concerns.
5. Allocate capital improvements consistent with identified needs and priorities.
6. Revise urban renewal land use plans to meet Master Plan objectives.
7. Avoid large scale demolition projects without proper re-use planning.
8. Promote commercial cluster development.
9. Encourage industry to develop in industrial parks.
10. Allocate park and recreation resources consistent with needs identified in Master Plan.
11. Survey waterways and flood plans and devise ordinance to control development in these areas.
12. Control freeway related development.
13. Promote re-use of vacant non-residential structures.
14. Establish a process to monitor Master Plan implementation.
15. Encourage business, professional and merchant groups to participate in decisions concerning maintenance standards, signs, parking problems.
16. Improve administrative procedures involved in the development process; development manual.
17. Revise zoning ordinance.
18. Revise site plan review ordinance.
19. Revise zoning map.
20. Strengthen sign ordinance.

ABSTRACT

TITLE: LAND USE ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: LAND USE IN FLINT

DATE: NOVEMBER, 1978 (revised)

NUMBER OF PAGES: 75

ABSTRACT: THIS REPORT DESCRIBES USE OF LAND WITHIN THE CITY OF
FLINT AND EXAMINES CURRENT CONDITIONS AFFECTING LAND
USE. PROBLEMS INHERENT TO VARIOUS TYPES OF LAND
USES ARE IDENTIFIED, AND INCOMPATIBLE LAND USE
RELATIONSHIPS DEFINED; AN ANALYSIS OF EXISTING PLANS
IS DONE TO PROVIDE A BACKGROUND TO EXISTING CONDI-
TIONS: EFFECTS OF THE 1960 MASTER PLAN ARE DISCUSSED;
CURRENT POLICIES AND IMPLEMENTATION DEVICES SUCH AS
ZONING ARE ASSESSED; GOALS AND OBJECTIVES FOR EFFEC-
TIVE LAND USE POLICY ARE DEFINED; AND RECOMMENDATIONS
MADE FOR ACHIEVING THESE.

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FROM THE
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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I. INTRODUCTION

"Growth is Progress" was once a familiar phrase associated with most urban areas across the nation. Since the 1960's, however, many of our cities have been experiencing a reversal in population trends while the suburban and rural areas are now feeling the impact of the rapid growth that the cities once realized. One of the major factors of decline, although certainly not the only one, was the inability to provide adequate planning. When cities do not plan ahead for their future needs, rapid growth can create major and often irreversible problems. Transportation problems, declining air and water quality, housing decay, inadequate storm and sanitary sewers, high unemployment, business decline, high vacancy rates and high taxes are often the results of this rapid and uncontrolled growth. Once these problems have set in, the task of revitalizing a community becomes monumental, extremely costly in terms of dollars, and often painful in terms of human sacrifice.

Land use planning, then, is one way of preparing for the optimum use of land, water, air, and human resources and assisting in providing a healthy, aesthetically and economically stable community environment.

The term "Land Use" is used to describe the nature and physical distribution of the activities in a city--housing, business, schools, parks, industry, transportation--and the interaction of these activities. An orderly and well balanced use and reuse of this land is recognized as being a key to a vital, livable community.

Flint is the center of a metropolitan area that includes much of Genesee County. Like many other cities, it has been declining in importance in relation to its outlying areas, holding a smaller portion of the area's population and commercial activity. The city is no longer playing the dominant role in the housing market, as people move out into the county to seek suburban amenities seemingly not available in the city.

Flint remains, however, an important part of the metropolitan area, it contains the major share of the area's industrial activity, as well as most of the health care and higher educational facilities. The Central Business District remains a major center for offices, banking, retail trade and government, despite developments in the county.

Land use patterns in Flint reflect certain economic and transportation determinants which have had a marked effect on the city's development (see Historical Land Use Section). These factors continue to be important, along with newer concerns such as freeway construction and urban renewal, and Flint's declining population.

Compared to outlying areas, the city's housing stock and non-residential structures are relatively old, leading to problems of maintenance and obsolescence.

Flint's land is now about 90% in use, with most of the vacant land in small scattered parcels or identified for use in specific projects, such as the St. John Industrial Park. Density of land use has declined over the past two decades, from about 8600 persons per developed square mile in 1958 to just over 6000 at present. This decline reflects not only a drop in population but also the annexation of large non-residential areas such as Bishop Airport and Chevrolet Van Slyke. Residential use accounts for the largest portion of land use in Flint, about 34% of the total land. Over 20% of Flint's total area is in street use, 5% commercial, 6% industrial, 7% for recreational use, 14% is used for public institutions and utilities, including railroad property. These figures are not unusually high or low for a city of Flint's size; a comparison with land use in other cities is given in Illustration 1.

In terms of area, the city has little opportunity left for expansion, annexation of additional land is no longer likely because of legal and political restraints. This restricts the city to growth either by development of the little vacant land remaining within it's boundaries, or by redevelopment of existing uses. These restrictions make efforts to conserve existing resources even more important, in order for the city to compete with surrounding areas in providing a livable environment.

ILLUSTRATION 1

LAND USE AS PERCENT OF TOTAL LAND 1967-68

	Residential	Commercial	Industrial	Recreation	Public Inst., Util.	Streets	Vacant
Flint	34.0	5.2	6.1	7.1	14.2	22.7	9.9
Grand Rapids, Mich.	34.4	4.2	5.5	4.4	9.4	20.0	22.1
Gary, Ind.	16.1	2.3	14.5	-	15.9*	14.6	36.6
Fort Wayne, Ind.	52.7	11.3	3.7	5.0	8.6	11.3	7.4
Kansas City, Kans.	31.6	5.6	16.3	1.6	15.1	17.5	12.0
Austin, Tex.	46.2	4.3	1.1	4.0	6.4	20.2	17.8
Salt Lake City, Utah	19.9	4.7	3.3	3.1	14.9	13.5	40.8

*includes recreation figure

✓

The population loss experienced in the city has not been the only historical trend that has made an impact on Flint's quality of life. In the last ten years many commercial, professional and industrial firms have left the city as markets and populations shift to the out-county areas. These out-county regions have shown a steady increase in population since 1970 reflecting further suburbanization in Genesee County.

Meanwhile, the county's major employer, the General Motors Corporation, has been shifting emphasis to non-human, automated types of operations to combat increasing labor and compensation costs. In a similar manner, GM finds it cheaper to schedule overtime for the existing work force than to add new employees. While auto-related employment in Flint and Genesee County has fluctuated widely in the last seven to eight years, the general trend seems to be a stabilization of employment in this category. Indeed, many national economists are predicting a leveling-off or peaking of automobile production into the next decade. For Flint, this means that the prime manufacturing employment in the county will not show significant gains and that increases in manufacturing jobs will have to come from other areas.

The increasing age of the city's housing stock has and will continue to be an area of concern. In some portions of Flint, 90 percent of the residential dwelling units were constructed before the Second World War. These units are approaching obsolescence every year, depending on degree of maintenance. Rehabilitation efforts can do much to extend the life of these structures but eventually a point is reached where rehab no longer is cost-effective. This has already occurred in some areas of the City. At this point, clearance and new construction may need to be addressed.

As was pointed out earlier, some vacant land is still available in the city's urban environment. Unfortunately, the vacant land is composed of many small, disaggregated parcels unfit for large-scale development. A typical development needs a large land area to facilitate the project and to this end the master plan is oriented.

In line with population shifts, a change is occurring in household incomes in the City of Flint. It appears that higher income individuals and households are leaving Flint to be replaced by those of lower income. As a consequence, the median household income in the City of Flint has not kept pace with the out-county, state or nation.

Population and disposable income decreases also have an effect on the city's tax base. As more residential and commercial units become vacant and/or demolished the available tax revenues also decrease. Tax abatement schemes popular now in various states could also have a deleterious effect on these tax revenues.

The land use policy described in the next section is designed to halt population loss, increase employment and maintain the City of Flint as a viable, livable community.

II. GOALS AND OBJECTIVES

Flint is no longer experiencing the rapid growth that characterized past decades. In recent years, it has been recognized that the city's population has been declining and the city no longer captures as large a share of the area's new commerce. It becomes necessary then to adopt a unified policy aimed at reversing these trends by promoting efforts to increase and diversify the population of the City, to encourage economic and industrial diversification with an aim toward increasing Flint's commercial market share and employment potential.

A. Goals

The general goal of land use policy is to insure that all activities (residential, commercial, industrial, etc.) have an opportunity to thrive in a healthy and pleasing environment, and to guarantee that no activity shall impair the existence of another. This will reduce the erosion of Flint's housing, industrial and commercial activity. It will also provide an efficient, safe and economical system of land use; one that will enhance the livability of the city, increase its population and property values, and redirect future reuse potential. The city must continue to strengthen efforts to develop and redevelop areas suited for such activity. Although opportunities for growth may be limited within the city, they do exist and must be pursued in an orderly and efficient manner, one characterized by its high quality, and by its ability to ensure the rights of all landowners and residents.

B. Objectives

In order to realize the general goals stated previously, certain actions must be initiated. These must occur in a timely and efficient manner for optimum success. Certain outdated attitudes and strategies regarding redevelopment and reuse must also change. New development and change at any cost will only perpetuate old problems, voiding the quality of environment needed for long range community viability.

1. Pursue efficient, safe and orderly land use policy

Strengthening and promoting viable land use policy should minimize physical land use conflicts and hazards in the day to day operations of a city. The efficient identification of private and public uses will not only assist in providing the necessary goods and services to its residents but help create viable neighborhoods free from unnecessary intrusions.

- o Development a revised land use policy to promote objectives

- a. Residential: Neighborhoods should contain a desirable mix of land uses and should be free from excessive traffic and adverse environmental conditions. Viable residential neighborhoods provide decent neighborhoods for Flint citizens, tax base support for the City itself, and clientele for the City's commercial and industrial enterprises.

b. In order to maximize land use and increase resident population, efforts should be directed to develop higher density residential areas through conversion or reuse.

- o Allow conversions from 1 to 2 family units in carefully designated areas.
- o Non-viable residential structures should be demolished and the vacant parcels aggregated to form larger, developable land bays wherever practical.
- o Allow for converting residential property to other types of uses in areas where physical deterioration and proximity to competing land uses has seriously eroded the residential value of the property and recovery is unlikely.
- o Institute a policy of land banking for future reuse.
- o Develop policies and mechanisms to alleviate or minimize residential/non-residential land use conflicts.
- o Develop coordination between responsible city departments to insure preservation of residential neighborhoods in matters of land acquisition, provision of public services, traffic planning, and public works construction.
- o Preserve existing viable residential neighborhoods, housing stock and neighborhood oriented commercial land uses, through emphasis on structural rehabilitation programs, citizen involvement in neighborhood problem resolution, and private-sector involvement and investment in Flint's neighborhoods.

c. Commercial: As trends and services change, promote commercial clustering where appropriate, rehabilitation of existing establishments and encouragement of new commercial activity.

- o Promote more efficient use of existing commercial space by increasing commercial density where feasible.
- o Analyze and identify potential areas of land use conflict between commercial and other uses.
- o Identify potential areas for future development or redevelopment, emphasizing utilization of existing vacant structures.
- o Analyze and identify areas within current policy as well as mechanisms which must be strengthened, revised or eliminated to promote objectives.

- o Strengthen regulations controlling commercial land uses to prevent intrusion into and conflicts with residential neighborhoods.
- o Promote conversion and reuse of obsolete commercial property.

c. Industrial: Industry must be encouraged to grow and expand in carefully designated industrial areas.

This promotes the concentration of needed services and employment and assists in preventing further incompatible land use arrangements. Expansion must also be encouraged in an orderly manner, one that is sensitive to the surrounding areas.

- o Promote conversion of residential or commercial uses to industrial or commercial uses to industrial where appropriate and "best" use is determined.
- o Identify potential areas feasible for industrial expansion or development.
- o Identify potential conflict between industrial use and other land uses, especially as it relates to residential, and develop appropriate controls.
- o Develop mechanisms and policies to prevent or minimize future conflict.
- o Develop and promote policy or programs, which support industrial development and diversity in industrial employment.
- o Develop policy which limits industrial expansion to those areas identified as suitable for industrial use.

d. Public and Institutional: Adequate public and institutional services must be accessible or made accessible to all city residents in as equitable and economic a manner as possible.

Health, education, fire and police protection and other basic services are vital to a community. Location of new facilities, expansion of existing facilities and potential reuse of an occupied site must be identified if the optimum intended use is to be realized.

- o Identify potential problems (i.e., inadequate facilities, over saturation of services or facilities, intrusion of physical plant into residential areas, transportation conflict, vacant or obsolete facilities).

- o Assure adequate level of services as population changes by developing mechanisms and policies which will minimize and alleviate existing land use conflicts and assure coordination between agencies.

e. Open Space and Recreation; Adequate open space and recreational opportunities must be provided to all residents of Flint.

- o Emphasis should be given to providing adequate municipal park and recreation areas of sufficient size and quality and in proximity to population concentrations.
- o In areas of heavy physical impaction (over building) lots created by spot demolitions should be left vacant to improve supply of passive green space, where feasible.

2. Reduce existing land use problems

- o Most land use problems and conflicts occur where different types of uses abut one another, or are intermixed in an area.
- o Stress should be placed on consolidating land uses within specific areas and on the orderly transition of areas from mixed to compatible types of uses.
- o Renewed emphasis should be placed on screening and other site related techniques of separation where unlike uses abut one another.
- o Incentive should be provided to private land owners to solve or reduce impacts of differing land uses, through site improvements, etc.

3. Develop policy and mechanism to alleviate future land use conflict:
- o Identify areas for potential new development.
 - o Identify potential conflict as a result of new development.
 - o Analyze current policy and site plan review procedures.
 - o Identify both strength and weaknesses as related to alleviation of land use conflict.
 - o Identify potential problems related to enforcement of current environmental policies.
 - o Develop mechanisms and review procedures to assure adequate protection of environment and alleviation of future land use conflict.
4. Encourage the development and City-wide adoption of appropriate environmental standards in review processes to meet the minimum current federal guideline.
- o Investigate environmental review procedures.
 - o Investigate state, local and federal environmental regulations.
 - o Identify potential problems.
 - o Develop a standard environmental review process.
 - o Develop and adopt policies which assure adequate levels of environmental protection and alleviate existing and potential conflicts.
 - o Identify existing state, federal and local agencies responsible for environmental protection and enforcement. Develop coordinating mechanisms to insure adequate coordination and enforcement.
 - o Insure that the necessary revisions to the zoning ordinance, in accordance to the adopted master plan, will occur when necessary.
 - o Identify potential items which will require amendments to the zoning ordinance, as indicated in the adopted master plan.
 - o Develop work plan indicating the necessary steps and procedures involved in implementing revisions to zoning ordinance.

III. LAND USE POLICIES

In the final section of the land use element, a number of policies regarding land use issues are presented. These policies, when adopted, will serve as a guide or framework for decisions on land use matters. In brief, they are:

- o It shall be the policy of the City of Flint to establish land use control ordinances to provide for the preservation and insure the quality of all areas of land use in the city.
- o It shall be policy of the City of Flint to make maximum utilization of the available land area for whatever use is economically, socially and environmentally feasible and a benefit to the city and its residents.
- o It shall be the policy of the City of Flint to promote land banking in order to provide land area and flexibility for future land use development.
- o It shall be the policy of the City of Flint to encourage higher density residential, commercial and industrial uses in appropriate areas to provide increased population, commercial activity and employment opportunities.
- o It shall be the policy of the City of Flint to promote and encourage the segregation of major types of land uses and discourage the intrusion of incompatible uses especially in areas where no prior incursion has taken place.
- o It shall be the policy of the City of Flint that areas where mixed uses occur be designated for conversion to the pre-dominate use where appropriate.
- o It shall be the policy of the City of Flint that conversion and reuse be encouraged in areas where existing uses are obsolete and/or not economically rehabilitatable.
- o It shall be the policy of the City of Flint that screening, landscaping, provision of green space and aesthetic considerations be promoted through ordinance and incentives for all new and existing uses and for the purpose of separating and insulating incompatible land uses.
- o It shall be the polciy of the City of Flint to provide public services in a timely and efficient manner, and that such re-sources that are necessary be allocated in those areas where greatest need is demonstrated.

IV. LAND USE IMPACTS

One element of the planning process that needs to be addressed is the impacts of land use policy on the environmental, social, economic and transportation systems.

The following list describes those impacts (with positive or negative effects) for the four main areas of concern. In addition to the Environmental Review Process, detailed in Section 7, this list of impacts should be addressed for every significant planning action proposed in this document or policies adopted in the future.

The list indicates those impacts that should be of serious concern to policy-makers and city administrators.

1. ENVIRONMENTAL

- | | |
|--------------------------|--|
| A. Soils/Geology | a. slope stability |
| | b. erodibility |
| | c. permeability |
| | d. foundation support |
| B. Special land features | a. wetlands |
| | b. "visual content" |
| C. Water | a. groundwater quality |
| | b. hydrologic balance |
| | c. drainage |
| | d. sedimentation |
| | e. flooding |
| D. Air | a. generation and dispersion of contaminants |
| | b. shadow effects |
| E. Energy | a. energy requirements |
| | b. conservation measures |
| | c. environmental significance |

2. SOCIAL

- | | |
|--------------------|--------------------------------------|
| A. Public Services | a. education |
| | b. health care/social services |
| | c. waste disposal (solid and liquid) |
| | d. water supply |
| | e. storm drainage |
| | f. recreation |
| | g. police |
| | h. fire |
| | i. snow removal |

- B. "Sense of Community"
 - a. community organization
 - b. homogeneity and diversity
 - c. community stability and physical characteristics
- C. Physiological well-being
 - a. noise
 - b. vibration
 - c. odor
- D. Psychological well-being
 - a. physical threat
 - b. crowding
 - c. nuisance

3. ECONOMIC

- A. Employment opportunities
- B. Changes in land values
- C. Changes in housing values
- D. Changes in rental rates
- E. Monetary costs
- F. Retail/Wholesale Trade
- G. Household Incomes
- H. Economic Diversification
- I. Tax Base

SOILS/GEOLOGY (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
SLOPE STABILITY	Property and personal Safety	Will there be a risk of losses due to slope instability caused by the project or policy itself? Will the project be exposed to such dangers?	<ol style="list-style-type: none"> 1. Nature and strength of soil 2. Slope gradient and length 3. Analysis of structural load
ERODITY	Property and personal Safety	Will there be a substantial loss of soil due to construction or post construction activities?	<ol style="list-style-type: none"> 1. Soil exposure 2. Degree of weathering 3. Soil slope

SOILS/GEOLOGY (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
PERMEABILITY	Public health	Will the permeability of soils associated with the project or policy present adverse conditions relative to well or septic tank development?	<ol style="list-style-type: none">1. Coefficient of permeability2. Soil percolation rate3. Ground water level4. Nearness to streams or other bodies

FOUNDATION SUPPORT Property damage

Will there be risk to property or life because of excessive deformation of materials?

1. Soil samples

SOILS/GEOLOGY (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
WETLANDS	Protect plant and animal life, natural water purification systems, groundwater recharge, recreation and aesthetic values.	Will the project or policy spoil or significantly impair existing wetlands through filling, dredging draining, waste discharges or other detrimental land use practices?	<ol style="list-style-type: none"> 1. Geographic location 2. Direction and flow of surface and ground water 3. Waste disposal plans
VISUAL CONTENT	Sense of time and place; social and civic attachment.	Will the content of the visual scene perceived by residents of the surrounding area be adversely affected by the project or policy?	<ol style="list-style-type: none"> 1. Project site plan(s) 2. Signing 3. Building design 4. Pictorial images, etc.

WATER (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
GROUND WATER	Ground water supply for public needs.	Will the project or policy affect the quality or quantity of ground water supplies?	<ol style="list-style-type: none"> 1. Location of recharge area 2. Area development patterns 3. Project water demands 4. Aquifer characteristics
HYDROLOGIC BALANCE	Vegetation and animal life, public water supply needs.	Will construction or policy decisions alter the hydro-logic balance?	<ol style="list-style-type: none"> 1. Inflow of ground water 2. Outflow of ground water 3. Construction and paving
DRAINAGE	Protection of property and life.	Will construction alter or impede the natural drainage pattern?	<ol style="list-style-type: none"> 1. Construction activities 2. Soil erosion 3. Map of drainage ways
SEDIMENTATION	Public health and safety.	Will construction in the area result in major sediment influx into adjacent water bodies?	<ol style="list-style-type: none"> 1. Soil erosion potential 2. Slope gradient 3. Rainfall intensity 4. Construction intensity and duration.

WATER (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
FLOODING	Public safety and property protection.	Will there be risk of loss of life and property due to flooding?	<ol style="list-style-type: none">1. Location of site and floodplains2. Type and extent of construction activities



AIR (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
GENERATION AND DISPERSION OF CONTAMINANTS	Protect public health and welfare.	<p>Will there be generation and dispersion of contaminants</p> <ul style="list-style-type: none"> - by project or policy related activities - in proximity to the project which will exceed national, state, or local air quality standards? 	<p><u>Energy</u></p> <ol style="list-style-type: none"> 1. Requirements 2. Source 3. Type of fuel 4. Air pollution control equipment <p><u>Vehicles</u></p> <ol style="list-style-type: none"> 1. Traffic generation 2. Traffic mix 3. Model year mix 4. Travel - speed and distance <p><u>Refuse Incineration</u></p> <ol style="list-style-type: none"> 1. Amount of solid waste 2. Incinerator type 3. Air pollution control equipment
SHADOW EFFECTS	Comfort, public health energy conservation.	Will project structures cause perpetual shadows over large areas?	<ol style="list-style-type: none"> 1. Geographic latitude 2. Dimensions of project 3. Dimensions of surrounding structures

ENERGY (ENVIRONMENTAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
ENERGY REQUIREMENTS	Human health, well-being and comfort.	Are there potential problems with supply of energy for project or policy level decision. Will energy requirements exceed present capacity of service utility company(s)?	<ol style="list-style-type: none"> 1. Service area 2. Number of housing units 3. Annual energy consumption
CONSERVATION MEASURES	Consumer benefit	Does project planning and design employ available energy conservation technology?	<ol style="list-style-type: none"> 1. Conservation techniques
ENVIRONMENTAL SIGNIFICANCE	Protection of human environment	Will the amount and sources of energy consumed by the project foster environmental degradation through the consequences of energy supply development?	<ol style="list-style-type: none"> 1. Projected energy requirements 2. Available energy supply

PUBLIC SERVICES (SOCIAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
EDUCATION HEALTH CARE/ SOCIAL SERVICES	Will there be an adequate supply of and access to these services for the project?	1. Location, type and size of existing facility.	
WASTE DISPOSAL (SOLID AND LIQUID)	Will the policy level action preclude the development of any of these services?	2. Socio-economic characteristics of existing and future population	
WATER SUPPLY STORM DRAINAGE	Health, education and welfare	3. Traffic access, existing and proposed	
RECREATION		4. Transit availability	
POLICE		5. Service area of existing facilities	
FIRE			
SNOW REMOVAL			

"SENSE OF COMMUNITY" (SOCIAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
COMMUNITY ORGANIZATION	Community strength Provision of sufficient meeting spaces.	Is there an existing structure in the community with which the project or policy will have to interface?	<ol style="list-style-type: none"> 1. Type and number of existing organizations and groups. 2. Location of existing structures which serve as formal or informal meeting places. 3. Community opinion
HOMOGENEITY AND DIVERSITY	Preserve and maintain ease of communication within the community.	Will the project or policy change the character of the community in terms of the distribution or concentrations of income, ethnic, racial, or age groups?	<ol style="list-style-type: none"> 1. Census blocks and tracts surrounding area. 2. Projected and existing ethnic, racial and age makeup of area residents. 3. Projected and existing income and educational levels of area residents.

"SENSE OF COMMUNITY" (SOCIAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
COMMUNITY AND PHYSICAL CHARACTERISTICS	Preserve neighborhood quality and structural soundness; adequate provision for housing need.	<ol style="list-style-type: none"> 1. Will the project be in an unstable area? 2. Will the policy produce an unstable area? 	<ol style="list-style-type: none"> 1. Census blocks and tracts surrounding the area. 2. Sale and rental turnover rates. 3. External appearance of existing housing stock.

PHYSIOLOGICAL WELL-BEING (SOCIAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
NOISE	Physical discomfort, pain, hearing loss.	Will the project be exposed to interior and exterior noise levels which exceed local, state or federal standards? Will the project or policy create unacceptable noise levels?	<ol style="list-style-type: none"> 1. Land use inventory 2. Traffic characteristics 3. Duration of impact or impulse noise
VIBRATION	Discomfort, distraction, physical injury, property damage.	<p>Will the project be exposed to annoying vibrations?</p> <p>Will the project or policy cause damage to nearby property?</p>	<ol style="list-style-type: none"> 1. Location of project 2. Construction techniques 3. Soil type 4. Source of vibration
ODOR	Distraction, annoyance	Will the project be exposed to or cause annoying odors?	<ol style="list-style-type: none"> 1. Location of project 2. Location of odor-causing activities

PSYCHOLOGICAL WELL-BEING (SOCIAL)

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
PHYSICAL THREAT	Fear of physical harm.	Will the project or policy decision create a feeling of insecurity among the residents and users of the facility?	<ol style="list-style-type: none"> 1. Building types and sizes 2. Locations of doorways, windows, etc. 3. Crime statistics 4. General perception of crime in area 5. Incidence of drug or alcoholic addiction in area
CROWDING	Physical and mental health, lack of privacy.	Will the residents and users be exposed to stressful situations in their living environment?	<ol style="list-style-type: none"> 1. Number of persons in area 2. Number of housing units in area 3. Number of rooms, excluding bath and kitchen
NUISANCE	Physical and mental health	Will the project or policy decision be exposed to or generate factors that may be considered nuisances?	<ol style="list-style-type: none"> 1. Information on proposed site 2. Examination of proposed land use plan for possible conflicting uses

TRANSPORTATION

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
TRANSPORTATION	Mobility, access, safety.	Are the transportation facilities which serve the project or policy action a well-integrated multi-modal system to accommodate the project's travel demands?	<ol style="list-style-type: none">1. User travel time2. User safety3. Capacity/volume4. Access to economic, social, cultural, recreational and educational facilities5. Service frequency6. Modal split7. Local traffic and pedestrian circulation8. Sight distances9. Posted speed limits10. Gradients11. Parking (on and off-street)



ECONOMIC

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
EMPLOYMENT	Income source	<p>Will the project have an adequate supply of and access to various types of jobs?</p> <p>Will the project or policy action destroy or relocate any existing jobs?</p> <p>Will the project or policy action create a demand for more area jobs?</p>	<ol style="list-style-type: none"> 1. Number and type of jobs by the project 2. Distance to employment 3. Existing jobs on project site 4. Transportation availability
RETAIL/WHOLE-SALE/MANUFACTURING SALES	Jobs/Income/Tax revenues	<p>Will the project or policy action contribute to the area economy in terms of increasing activity?</p> <p>Will the project or policy reduce commercial activity?</p>	<ol style="list-style-type: none"> 1. Number, type and location of existing establishments 2. Area trade statistics 3. Sale projections 4. Employment projections

ECONOMIC

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
ECONOMIC DIVERSIFICATION	Reduce effect of cyclical economic downswings on local economy.	Will the project or policy action increase the diversification of the local economic structure? Does the project or policy promote non-auto related industries?	<ol style="list-style-type: none">1. Inventory of existing manufacturing firms2. Analysis of growth or high technology industries3. Area trade statistics4. Future employment projections

TAX BASE	City revenues	Will the project or policy action increase or decrease the tax base of the City? Will the proposed project or policy action require economic incentives or abatement techniques?	<ol style="list-style-type: none">1. Existing tax base2. Projected tax base3. Revenue streams
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ECONOMIC

ISSUE	GOAL/OBJECTIVE	IMPACTS	DATA NEEDS
LAND VALUES	Maintenance of values.	Will the project or policy action decrease the value of adjacent land, housing and commercial establishments? Will the project or policy action encourage speculative market practices?	<ol style="list-style-type: none">1. Real estate sales history2. Projected real estate transactions3. Existing market values

V. HISTORICAL AND EXISTING CONDITIONS

The land use plan is intended to serve as an effective guide to orderly and efficient redevelopment and reuse of the land within the confines of established goals and policies. In order to achieve this, a review and comparison of existing conditions as they relate to prior expectations is necessary. This section will be devoted to looking at established plans and policies already being implemented, their effectiveness over the last fifteen years, their potential and inherent problems, and the means to update them as they apply to current trends and forecasts.

A. 1960 Master Plan

The land use section of the 1960 Adopted Master Plan is primarily based on the concept of the organization of activities and land use areas into separate communities and neighborhoods.

The communities (approximately 17) are composed of residential areas generally bounded by four basic non-residential corridors (Illustration 2): (1) Business and industrial, (2) Transportation, (3) Large open areas - parks, public land, etc., (4) Natural features such as lakes, rivers, etc.

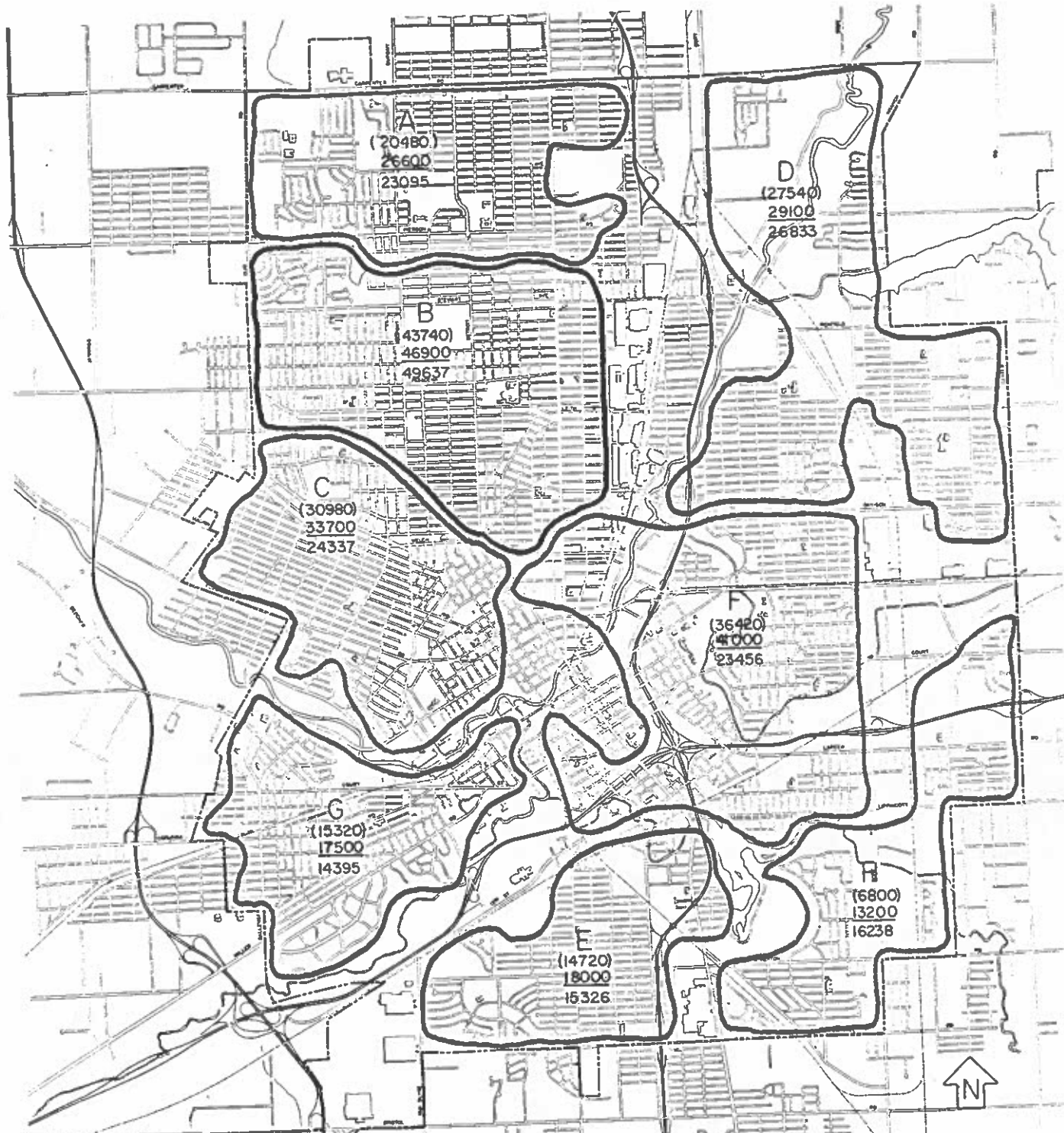
Each community, several of which extend beyond the city limits, range in population from 20,000 to 40,000 and is composed of smaller neighborhood units from 2,000 to 9,000 residents. Ideally, the smaller units contain an education facility, park, and neighborhood shopping.

Although still a valid concept, its application was based on a sustained or a continuing growth rate. No consideration was given to the possibility of population decline or its implications. The population projection ranged from 195,000 to a maximum of 225,000.

Another element which reinforced this concept was the "filling up" of vacant city land. This occurred partly as a result of the continued unavailability of public sewer and water, which forced development within the city; if utilities did become available, the "filling up" still tended to occur, though at a slower rate, as a result of population increase. A comparison of the 1960 projections with 1970 conditions is indicated in Illustration 2.

During the last 15 years conditions which favored a growth situation within Flint's urbanized area changed, causing a reverse in projected trends.

Utilities needed for development in outlying areas became available, income rose approximately 65% during the 60's, allowing the middle income group a greater purchasing power; renewal and



COMMUNITY AREAS 1960 MASTER PLAN

(00000) 1958 POPULATION
00000 HOLDING CAPACITY
 00000 1970 CENSUS

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 AND URBAN DEVELOPMENT; CPA-MI-
 05-28-0386.

major construction, such as I-69 and I-75, displaced many residents and allowed access and egress from the city to other areas, new shopping facilities were constructed near or at the city limits. Homes constructed in the 40's and 50's no longer fitted the needs of the 1960's and 70's, because of lower birth rates. Concurrently, many of the problems of an older urban environment climaxed, adding to the urban flight.

Many of the population projections used as a basis for application of the concept did not materialize. The change which was expected to occur as the result of growth did not take place in many of the areas of the city. Other means must now be found to assure services and amenities necessary for community stabilization and neighborhood vitality. The availability of energy will also play an important role in supplying future needs.

B. Land Use

The City of Flint is comprised of approximately 21,137 acres or 33.03 square miles of land. This land is broken down into the following uses:

<u>Use</u>	<u>Acres</u>	<u>% Total Land</u>	<u>% Total Devel. Land</u>
Residential	7215 ac.	34.2%	38.8%
Commercial	1106	5.2	5.9
Industrial	1296	6.1	7.0
Pub/Inst/Utl	3003	14.2	16.1
Rec/Open Sp.	1503	7.1	8.1
Railroad	292	1.4	1.5
Streets	4200	19.9	22.6
	<hr/>	<hr/>	<hr/>
Total Dev. Land	18,615	88.1	100.0
Vacant Land	2,097	9.9	
Water	425	2.0	
	<hr/>	<hr/>	
Total Land Area	21,137	100.0	

In comparing the existing land uses with the 1958 land inventory indicated in Illustration 3, the most significant changes can be seen in the commercial, public and vacant land categories. A major portion of the changes within commercial, industrial, and public land uses can be attributed to annexation of several commercial facilities, (Northwest Shopping Center, South Flint Plaza), combined with Northern and Northwestern High Schools, Chevrolet Van Slyke Plants, and Bishop Airport (Illustration 4).

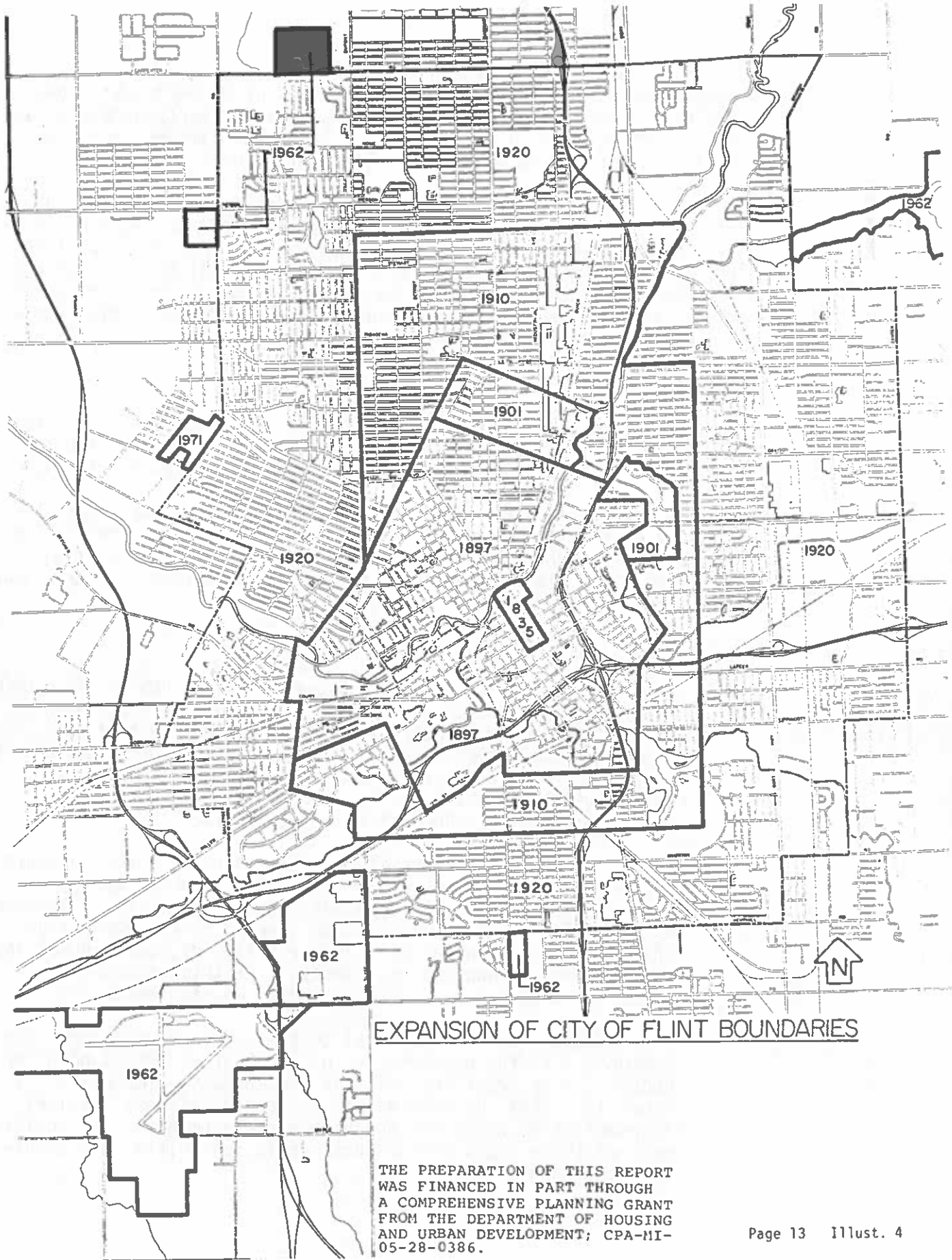
ILLUSTRATION 3

LAND USE, 1958-1976

	1958 Acres	1976 Acres
Residential	6,280	7,215
Commercial	632	1,106
Industrial	979	1,296
Public/Inst./Util.	1,299	3,003
Recreation and Open Space	1,282	1,503
Railroad	292	292
Streets	<u>3,818</u>	<u>4,200</u>
Total Developed Land	14,582	18,615
Vacant Land	4,166	2,097
Water	<u>361</u>	<u>425</u>
Total Area	19,109	21,137

During this period approximately 50% or 2074 acres of vacant land was developed. The major portion of this development (43% or 906 acres) occurred in the residential category.

As most of the vacant land has now been developed, there appears to be little likelihood of any major single development occurring on a scale either similar to preceding periods, or similar to what is still occurring in the outlying areas. Coupled with the city's low probability of further annexation, most development will now likely be the result of a reuse of existing land.



EXPANSION OF CITY OF FLINT BOUNDARIES

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Flint is already experiencing this reuse pattern with several redevelopment projects - Riverbank Park, U of M, Doyle, St. John and Bishop Industrial Parks, and the proposed Riverfront Center and Autoworld projects (Illustration 5). These and similar projects will play a major role in the revitalization of Flint.

As a result of this change in direction from expansion and growth to one of reuse, caution must be exercised to avoid recreating past problems and conflicts of uses, and to insure compatible projects of a high quality. Each development must be reviewed not only on its own merit, but on the effect it has on the surrounding area. Assurances must be developed and enforced which will create and preserve the quality of life.

C. Land Use Classifications

Land use in Flint as in other cities can be divided into two major classifications - residential and non-residential, each of which can be further divided into more specific classifications.

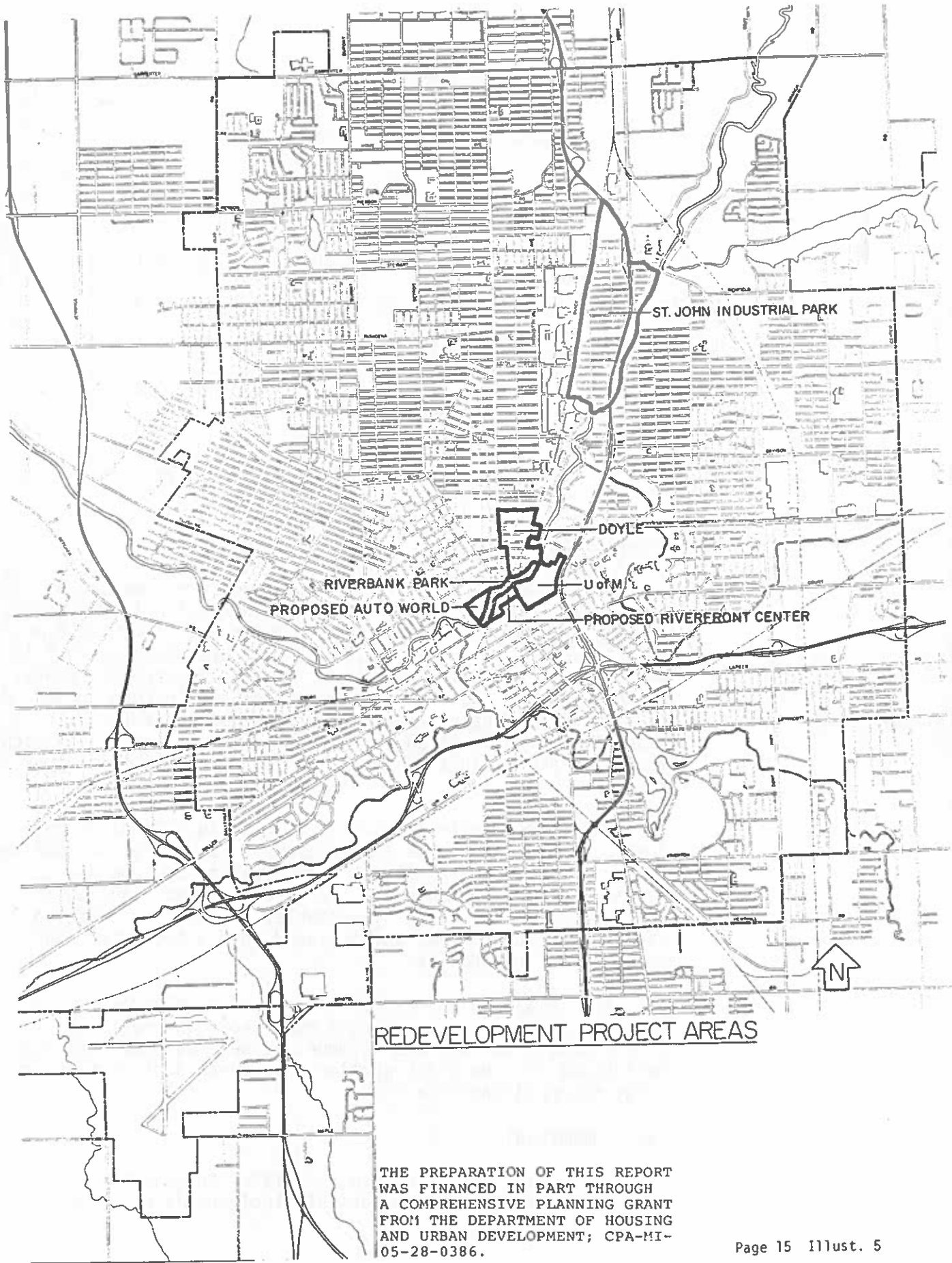
Residential land is composed of single family low and medium density districts, two family, multi-family walk-up apartments, and multi-family high density apartment districts. Non-residential includes commercial, industrial, public, institutional, streets and railroads, and open space/recreational uses.

1. Residential

Residential areas comprise approximately 40% of the total developed land. Although this is comparable to other similar sized cities (see Illustration 6), it differs in that the major portion is devoted to single family detached residential units. This leaves a smaller portion for two family and multi-family use which has resulted in a lower density per acre than that in other cities of equal size.

A continued decrease in the birth rate, and the concomitant decrease in family size, will create a demand for the smaller units of the metropolitan residential market. However, a demand for larger units will be created by the population shifts within urban centers and the influx of lower income and slightly larger households. Analysis of this situation is discussed in the housing element under Housing Needs.

Another factor, essential to the future stability of the community, is the preservation of viable residential neighborhoods. These areas must be free from negative impacts of other land uses, have access to proper facilities, services, transportation corridors and viable environments. The achievement of these goals will reduce population shifts, and stabilize the neighborhoods.



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ILLUSTRATION 6

Percentage of Housing Units by Type

	1 Unit	2 Unit	3&4 Unit	5+ Unit	Mobile Homes
Flint	72.2	10.3	5.8	9.1	2.6
Ann Arbor	49.0	7.5	6.3	37.3	-
Detroit	54.5	20.4	5.2	19.9	0.1
Grand Rapids	64.7	17.9	8.0	9.4	-
Saginaw	72.5	12.4	7.2	7.8	-
Lansing	71.5	9.4	5.6	12.7	0.7

2. Non-Residential

The predominate non-residential uses are composed of public and institutional facilities, recreational/open space, industrial and railroads/streets. These uses comprise almost half (48.3%) of the developed land, and are predominantly in public or semi-public ownership. Aside from streets several of these public facilities (the College and Culture Center, U of M, Medical Centers, etc.) are the major focus in their respective areas. As these facilities change and expand each must be examined in the context of the surrounding neighborhoods.

The street system comprises almost 1/4 (22.6%) of the developed land and plays a major role in the effective use and reuse of the land. As streets are modified or expanded to accomodate needs, changes in land use patterns along their perimeters, become almost inevitable. Impacts on existing uses must be considered and included in the total transportation planning process.

The remaining non-residential uses are divided into the following categories, playing a major role in providing the city's total tax base and revenue, as well as providing the employment for the major portion of the residents within the Flint metropolitan area.

(a) Commercial

Commercial land use activities involve the sale of goods and services by private individuals or groups,

including wholesale and retail operations. Approximately 1106 ac. or 5.2% of the total land area is devoted to this use.

The major commercial concentration is within the Central Business District (CBD) (see Illustration 7). This area is dominated by service businesses with the majority providing professional, financial, insurance and real estate services. During the last decade this district has shifted from a balance of goods and services to one primarily of service.

The major problems that the CBD faces are inconvenient parking, poor traffic circulation and competition with newer developments in the outlying areas. Projects such as Riverfront Center, Center City Plaza, and U of M, coupled with easier access from I-475, should assist in solving many of these problems.

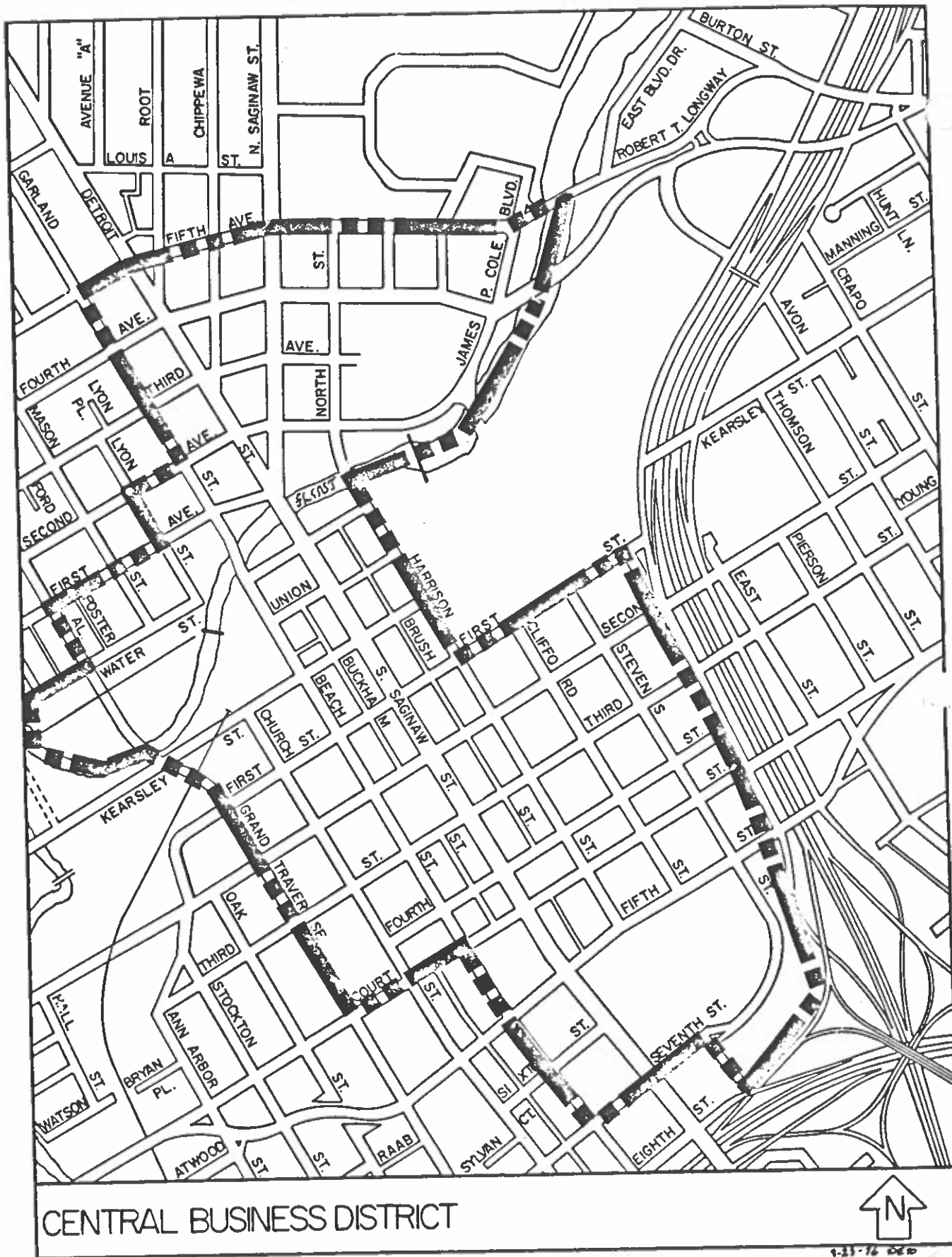
Lineal (strip) commercial district comprise the next largest portion of this land use. Although this type of development provides the necessary services to large segments of the population, there are many problems inherent in this concept. As these districts are often designed as individual and separate facilities access and egress are a major concern; added to this is the problem of duplication of effort, as well as the confusion to the user created by poor site plan design and signage. These problems may be alleviated by further investigation and development of proper signage, combined or limited ingress and egress, improved site aesthetics, and clustering of future commercial development and expansion.

Interfacing of commercial land use with other uses, particularly residential must be avoided, unless a positive result can be assured. The erosion of viable areas and loss of the very clientele which supports the commercial use is too often the end result of an improper relationship between the various uses. Proper site plan design, including adequate parking, access and egress, and buffering, will provide greater capabilities and long range vitality to the entire community.

(b) Industrial

The industrial element plays a dominant role in the economic growth of Flint's metropolitan area providing a major tax base for the City.

Flint's present industrial base is uniquely tied to automotive production and is subject to cyclical fluctuations typical of this industry. One of the major problems



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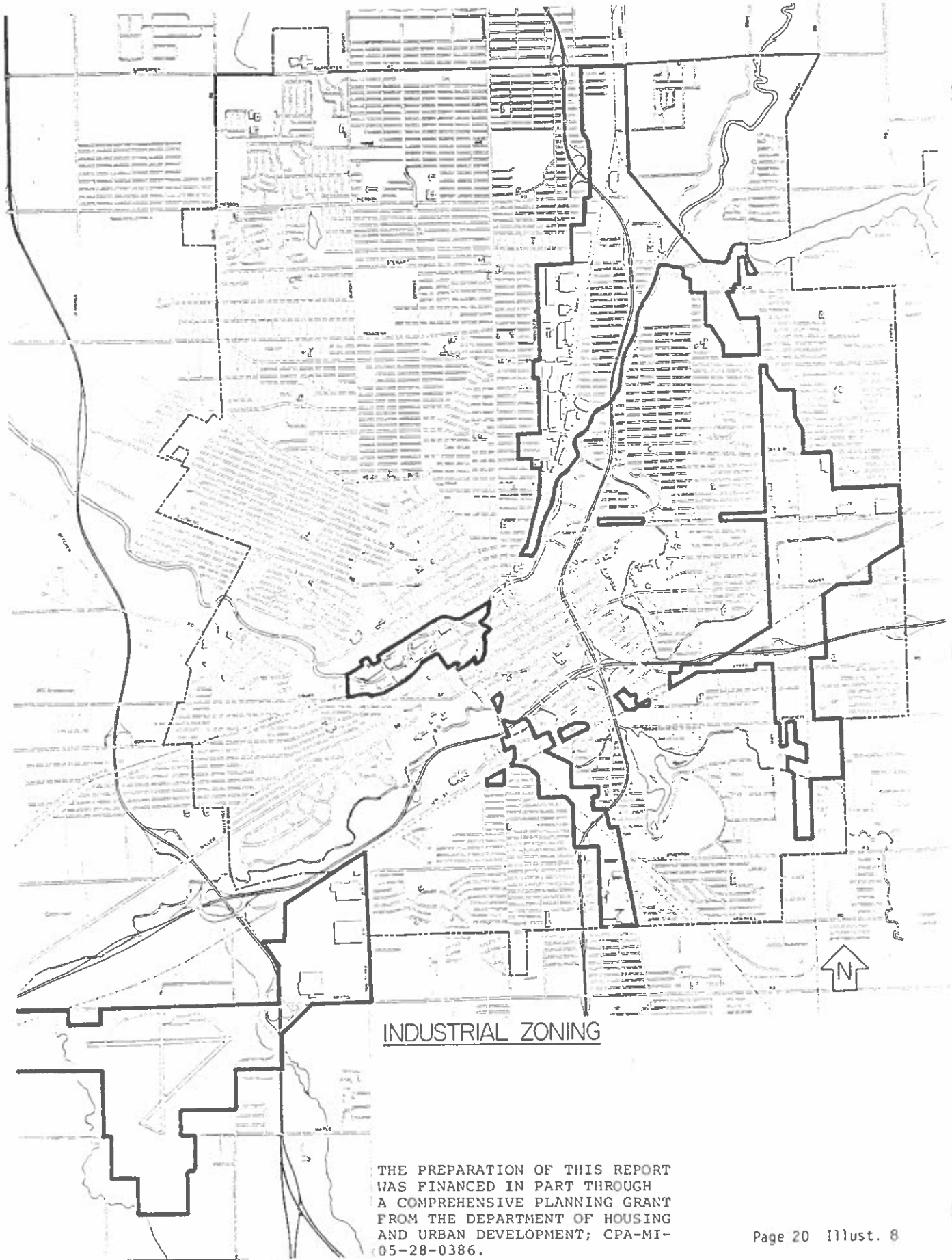
is the negative impact of sagging automotive sales coupled with future energy shortages. A stable and balanced economic base must be provided in conjunction with compatible industrial land use. A diversity of industry coupled with an adequate supply of suitable and properly located industrial sites, is required in order to convince existing industry to continue to operate and expand and new industry to locate within the city.

There are presently 1296 acres of land devoted to an industrial use with an additional 410 acres zoned industrial and available for development. This includes about 225 acres within two newly developed industrial parks, St. John and Bishop Airpark (Illustration 8).

The current location of Flint's industrial corridors is basically that indicated in the 1960 Master Plan, including the addition of St. John area as recommended in the plan. Significant industrial expansion has not occurred since adoption of the plan however, partly because of the problems of the automotive industry, lack of market potential and high labor-related costs. Providing economic incentives and attractively packaged sites for industrial development may help offset this problem. The St. John Industrial Park and Bishop Airpark are good examples of Class A parks² being provided as incentives for industrial developments.

A review of many of the prime industrial facilities indicates many potential or existing conflicts with surrounding uses. The most serious problems occur with residential incompatibility, either through industrial encroachment or lack of proper controls regulating both industrial and residential development. Many of these problems were created earlier in Flint's history, as a result of tremendous growth over a short period of time (i.e. poor residential and industrial site plans, residential development too close and without proper buffering from other existing land uses, lack of pollution and general environmental controls, inadequate circulation, parking, aesthetics, etc.). There is still, however, inadequate consideration given to these facilities. Only through the development and encouragement of uniform design criteria and site plan controls, both with reuse, new development and expansion, will these problems be reduced.

²Certified by the Director of the Michigan Department of Commerce as meeting site and service requirements for industrial parks. Class A denotes highest certification.



INDUSTRIAL ZONING

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(c) Community Facilities

Community facilities, such as private and public educational institutions, fire and police protection agencies, and social and cultural facilities are essential to the viability of all communities. They provide those needed services which add immeasurably to the quality of urban life.

³As cities expand and change, the demand for certain types of services increase and change, as living standards and expectations do. Traditional methods may become outmoded and demand updated technological systems. Service demands, such as education and health, increase as the clientele become more educated and expect more sophisticated approaches. With the increasing demands for more advanced techniques and systems, greater demand is also placed on the public planning service agency.

Three basic factors are essential in the planning of community facilities: (1) finance, (2) coordination, and (3) planning. Each is essential in order to construct new facilities or systems that will provide the best service within specified budgets, and to create an environment that is suitable to the user and compatible with the surrounding land.

The major emphasis on community facilities in the Master Plan is placed on assessments of physical plants and surrounding uses, as well as consideration of community needs.

The developed land devoted to this use comprises approximately 943 acres or 5% of total developed land and is divided into several basic classifications: (1) Education - primary, secondary and post-secondary; (2) Child Care Facilities; (3) Cultural Facilities; (4) Health; (5) Welfare (fire and police).

All of these provide specialized services to the community at various levels of activity and by a variety of public and quasi-public agencies. Due to the variation and complexity of these service oriented agencies, the need for involvement and coordination in the development of their plans within the context of overall community goals becomes a vital concern.

³International City Manager's Association Principles and Practice of Urban Planning.

One of several constraints related to certain state supported institutions is their exemption from local development controls, such as site plan review. This may at times prevent the proper coordination of development, expansion or reuse, and create adverse impacts on the adjacent land use. This become especially critical as it effects circulation patterns in relation to surrounding neighborhoods. This problem becomes compounded in proportion to the size of the development (i.e. U of M, Mott Community College, and various governmental units).

Another problem becoming more serious as population trends change and older facilities become outmoded concerns the need for reuses of older, vacant but structurally sound, buildings. Because of financial constraints it is often impractical to continue the maintenance or renovating of these vacant facilities. This liability often results in their demolition. Many of these structures were at one time, and often still are, the focal points of a community, a vital thread in the social fabric. Alternate solutions and uses must be investigated to reduce further eroding of community life by preserving these heirlooms of our city.

The breakdown in communication and coordination among various agencies involved in providing service is also a constraint. Coordination is an important element in order to assure that adequate and appropriate services are available to citizens as well as preventing the saturation of any one service.

(d) Open Space/Recreation

According to national standards, which are based on acres per population, the land required to service the recreational and open space needs for the City of Flint is approximately 1750 acres. Based on current inventories the approximate amount of land devoted to this use in Flint is 1739.0 representing approximately 9.3% of the total developed land. This use is divided into six basic categories: playlots, neighborhood parks, community parks, major city parks, special use, and public green space. These uses are further defined in the open space recreational element.

Although the City of Flint appears to provide adequate land for this use, depending on which standard is used, the number of acres is not as important as the actual need of the community that land fulfills. Open sapce should perform these important basic functions:

- o A balanced recreational system that provides for a wide spectrum of recreational activities.
- o Protect and conserve the existing natural environment and resources.
- o Provide the basis for effective economic development and quality of the urban environment.

1. Human Needs

⁴The need for open space has been justified over the years on the basis of health. Allowing enough sun, fresh air and open space is a necessity for the physical and psychological well being of every individual. Only recently has research been initiated on the important role open space plays in providing a complete viable environment. Properly planned open space can not only provide the physical amenities such as clean air, sun, water, etc., but can bring people of diversified background together in pleasant surroundings. It will also provide the necessary buffer device between indifferent land uses. More research into this area will create a more effective tool for predicting "human space" needs.

Although Flint fares quite well in the quality and quantity of recreation it provides, and the amount of available land devoted to this use, it is only beginning to use open space as an effective tool for creating a better overall environment.

2. Protection & Conservation

During the last decade we have slowly begun to realize the value of our natural resources such as air, water, trees, and wildlife. Once these are abused, the resulting damage is often irreversible. This abuse has cost us enormously in terms of dollars, and although difficult to measure the cost in terms of social discord is probably even greater.

With man's needs and technology constantly expanding the drain on these resources is becoming tremendous. We must learn through the use of proper controlling mechanisms (i.e. land use controls (zoning) environmental assessments, water management,

⁴International City Manager's Association Principals and Practice of Urban Planning.

site plan controls, etc.) to preserve these resources. Many of these controls, such as the Federal Water Pollution Control Act and the State Erosion and Sedimentation Control Act already are in effect, with some success. Water quality has been steadily improving over the last few years due to proper legislation. Cures, however, are a great deal costlier than preventive methods. Methods for regulating and improving future reuse and redevelopment must be developed. Reviews, as suggested by the Environmental Review Assessment System (ERAS) in the Environment Element, are one way of assisting and assuring proper development. Existing zoning regulations must be improved, site plan review requirements must be researched, and existing regulations must be strengthened and enforced.

3. Quality of Urban Life

The emphasis on preservation and conservation of existing open space and natural resources must occur concomitantly with the reuse and development of the land. Concern for items such as water and water sheds, topography, soil and soil erosion, vegetation, etc., should serve as the basis for planning reuse or new development of structures, streets, etc. Too often these items are last on the list - or overlooked completely - resulting in lower quality development or in a negative impact on the environment. Examples of this can be seen in many surface parking areas, which often lack or disregard proper site planning and buffering techniques necessary for complimenting the surrounding area, resulting in blight. This implies a lack of sensitivity by private enterprise for proper site development, resulting in erosion of viable neighborhoods and eventual loss of clientele. Areas that have been declared blighted serve as but another example of insensitive land use planning and enforcement resulting in tremendous corrective costs. In looking at older, stable neighborhoods one can realize the differences that open space and mature vegetation can make in contributing to the livability of the neighborhood.

Techniques must be developed which will educate not only the citizens and entrepreneurs, but the public officials as well, to the positive long range effects of open space and good site design. This must be accomplished in conjunction with evaluation and revision of existing mechanics, (site plan review) policy coordination, and enforcement of current regulations (ordinances codes etc.).

D. Urban Renewal

1. Intent

Urban renewal is a term used to describe a variety of activities that are based on federal legislation enacted over the past three decades. The first of these acts, the 1949 Housing Act, provides for the clearance of slum areas and for their redevelopment as housing, a process then known as "urban redevelopment". This act expanded the principle of eminent domain⁵ to allow cities to acquire blighted areas, for sale or lease to private developers, for residential redevelopment. Federal subsidies were provided for property acquisition, and cities were allowed to write down the cost of land to attract private developers.

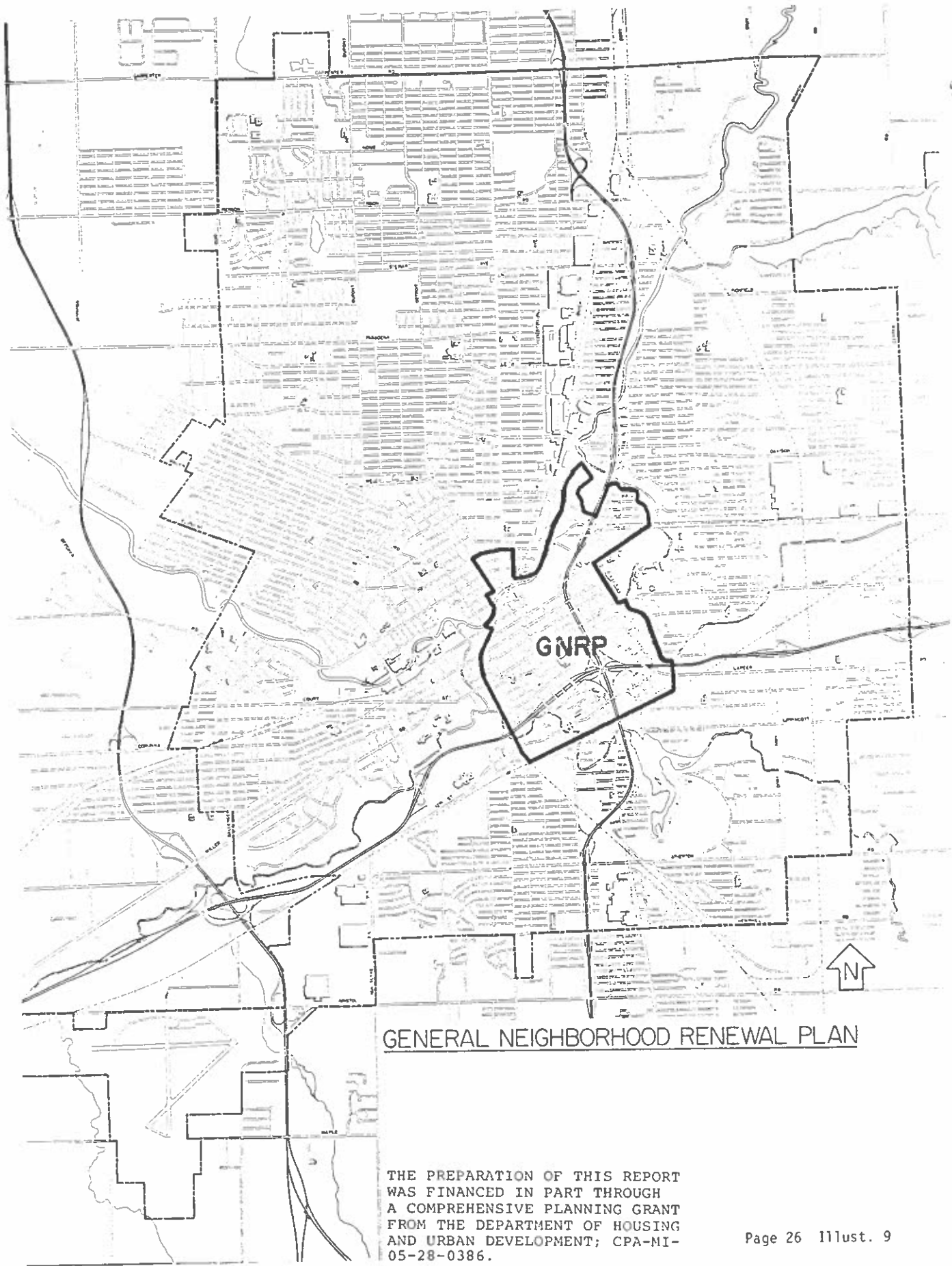
The 1954 Housing Act broadened the concept into what became known as "urban renewal", to include emphasis on conservation and rehabilitation of neighborhoods. The act encouraged communities to undertake long range programs for prevention of urban blight, and expanded the renewal concept to include non-residential projects. Later legislation in the 1950's and 1960's added innovations to the basic program, such as General Neighborhood Renewal Plans and the Neighborhood Development Program; this additional legislation further tended to broaden the approach from clearance and redevelopment of blighted areas to community wide concepts.

Under the Housing and Community Development Act of 1974, funding for most of the programs was replaced by the "block grant" approach, whereby communities apply for funds for a total program instead of assistance for specific projects. This approach allows local determination of spending of federal grant funds, with the requirement that local governments adhere to national goals.

2. History

Urban renewal began in Flint in the early 1960's. One of the items recommended by the 1960 Master Plan was that priority attention be given to developing a community renewal program and specific renewal plans. In 1963, the city received funds to plan the General Neighborhood Renewal Project, which included downtown and the surrounding area (Illustration 9). Out of this general area, the first project, Central Park, was planned and had federal funding approved in 1965. Central Park is primarily a rehabilitation project and was chosen because of the large amount of public improvements in the area

⁵The right of government to acquire private property for public use.



GENERAL NEIGHBORHOOD RENEWAL PLAN

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that could be used to cover the city's share of the total project cost. Other parts of the city were recognized as needing renewal action, particularly the St. John area, which was identified in the 1960 Master Plan as the first priority for clearance and redevelopment. However, difficulties with providing the necessary local share of the cost of these projects delayed action.

By 1972 the city had adopted plans for 7 projects, and had begun activity in each of the areas (Illustration 10). An eighth plan, Martin-Jefferson, was never approved for federal funding although declared a blighted area under the States statute. Doyle, once a part of Oak Park, received federal approval in 1973. This project was funded under conventional urban renewal legislation, which meant that its source of funds was separate from that of other renewal areas. Activity in all areas except St. John virtually stopped in 1973 when a decision was made to concentrate funds toward completion of the St. John project.

With completion of clearance in St. John in 1974, the city has shifted emphasis in spending federal funds away from clearance activities toward neighborhood preservation programs. Some clearance has continued in Oak Park and projects funded by sources separate from block grant money have proceeded in the various renewal areas, such as the River Beautification and Flood Control projects.

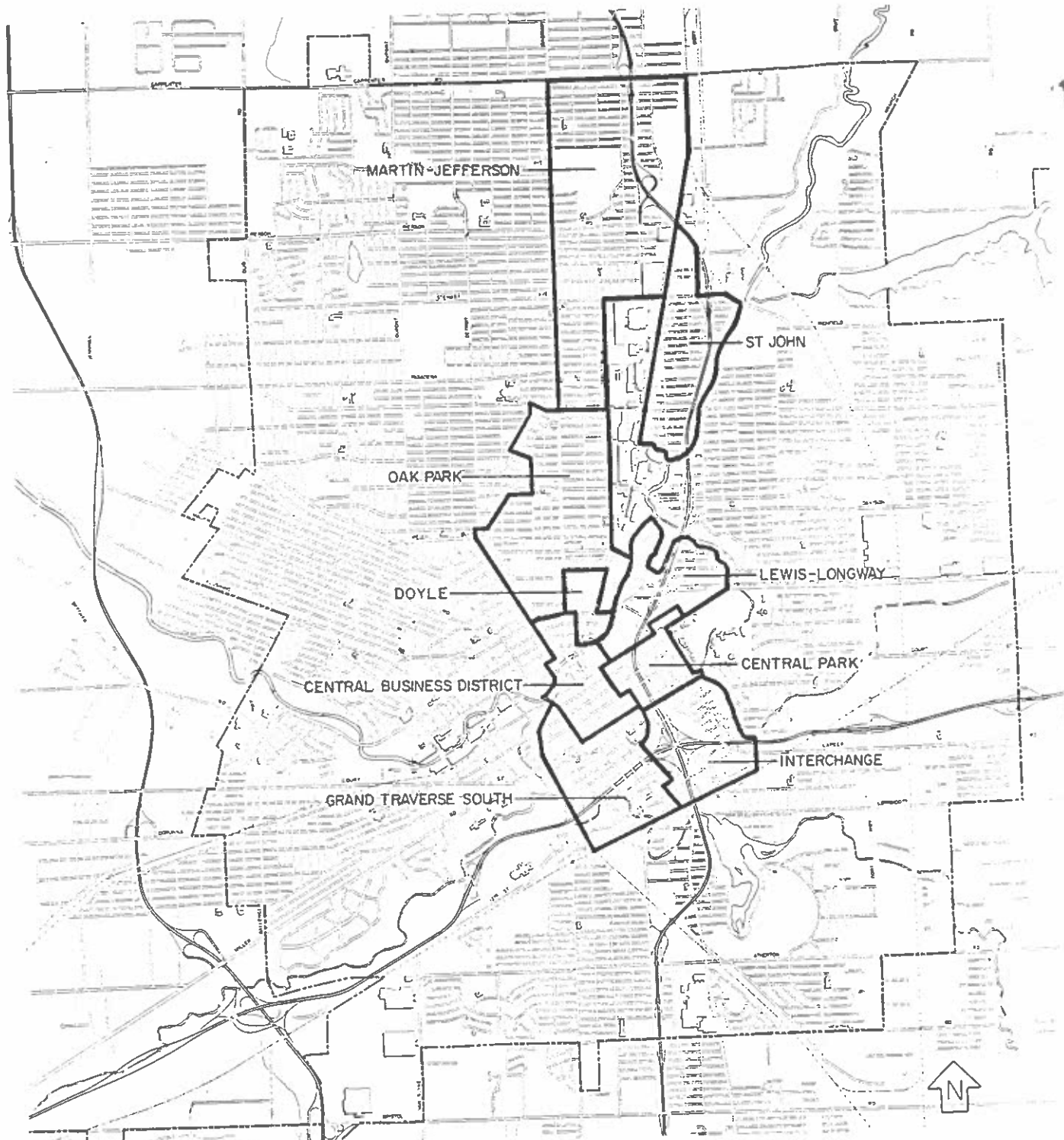
3. Overview

The program is generally concentrated on the oldest sections of the city. Most of the area comprising the General Neighborhood Renewal Plan, which includes 5 renewal projects, was platted and developed before 1900.

The entire program including Martin-Jefferson which was never funded, covers nearly 3000 acres, or 14%, of total city area. The 1970 population of these areas was nearly 35,000. Plans for the projects, excluding Martin-Jefferson, identified over 1300 substandard structures, about 700 of which have been cleared, mostly in the St. John area. Rehabilitation of commercial and residential structures has occurred to some extent in all funded areas except St. John; the most visible results of residential rehabilitation can be seen in the Central Park and Interchange projects.

According to a 1974 study,⁶ urban renewal has had the following impact on Flint:

⁶Real Estate Research Corp. Urban Renewal Land Disposition Study Flint, Michigan Prepared for U.S. Department of Housing & Urban Development.



URBAN RENEWAL AREAS

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- o The most widespread positive impact of urban renewal in Flint has been the clearance of dilapidated structures and the relocation of families and individuals to sound structures.
- o The high relocation benefits paid to homeowners have tended to accelerate the trend to suburbanization in Flint and thus have contributed to overall central-city decline.
- o Urban renewal has failed to generate any major new developments in Flint. In the major developments that are proposed, renewal plays a secondary role, but has been one of the incentives available to encourage the projects.
- o Rehabilitation and other renewal activities have reversed the trend toward decline in several neighborhoods.

The study also stated:

The renewal process has been to include as many neighborhoods showing a need and having organized support and to disregard any strategy focusing on a much smaller scale program that would be manageable. The philosophy of giving a little something to everyone prevails in Flint, and the result is that the expectations of many persons are raised. However, accomplishments have been few due to the scale of the program and the necessary dispersal of resources.

4. Plan Highlights

Central Park: The general objective of this plan is to conserve Central Park as a residential area. Major clearance that has occurred has been for the freeway and in the area south of Court St. Considerable residential rehabilitation and project improvements have been accomplished, and the Central Park is the project closest to completion in terms of meeting plan objectives.

Central Business District: Among the original objectives of the CBD plan were the creation of a Saginaw St. Mall, River Beautification, removal of railroad tracks downtown and the removal of blighted structures. Although parts of the plan have been implemented, changing conditions caused primarily by the relocation of the University of Michigan to the downtown area have made the plan obsolete.

Interchange: This project is physically dominated by the I-69/I-475 Interchange. A major objective in planning this area was to minimize the effects of freeway construction.

Considerable clearance and housing rehabilitation have been completed, as well as project improvements. Clearance activity, however, has left large tracts of vacant land that the city has been unable to dispose of.

Grand Traverse South: The basic objectives of this plan are to stabilize the area for residential activity through rehabilitation, removal of blighted structures, and clearance of certain areas for development of new housing. Street improvements have so far constituted the only major activity in the project; areas identified for clearance and redevelopment remain untouched.

Lewis-Longway: This project contains the new University of Michigan-Flint campus and is divided by the I-475 freeway. A pocket of housing west of the freeway lies within the flood plain of the river: the plan identifies this for clearance. The residential area east of I-475 near Kearsley Park has had spot clearance and rehabilitation activity, and is now designated as a neighborhood preservation target area.

St. John: St. John was identified in the 1960 Master Plans as top priority for clearance and redevelopment. At present, clearance of this area for redevelopment as an industrial park is complete, and project improvements are proceeding.

Oak Park: The Oak Park project is divided by North Saginaw St.: generally, the plan calls for clearance to the east of Saginaw and rehabilitation to the west. Construction of a major north-south boulevard is proposed to the east, to separate industrial from residential areas. Limited clearance has been completed, and housing rehabilitation is proceeding in the area west of Saginaw Street.

Martin-Jefferson: The plan for this area was adopted by the city but was never approved for federal funding. The basic intent was to retain the area for residential use, with continuation of the proposed Oak Park boulevard to separate residential from industrial areas. At present, part of Martin-Jefferson has been designated as a neighborhood preservation target area.

Doyle: Doyle was originally part of the Oak Park area, but was approved as a separate project in 1973. Clearance for redevelopment of housing has been completed in the area north of Fifth Avenue and construction of improvements has begun.

5. Problems

While the plans represent an attempt to improve conditions and reorganize land uses in the various areas, they are severely outdated in several areas and given existing conditions,

unrealistic. Confusion as to when plan changes are required, and the lengthy process of notification, public hearings and official action has made plan changes difficult, even when they are obviously in order. The plans are written to be in effect from 20 to 30 years after adoption; keeping an area under such restrictions when there has been little or no action taken on the project, is more likely to promote blight than to prevent it.

E. Pereira University Impact Study

A major planning document, "The University Impact Study" was commissioned after the decision was reached to relocate the University of Michigan-Flint Campus downtown. The purpose of the study was to determine the impact of the University on the central city: the impact area defined by the study covers the central business district and surrounding areas (Illustration 11).

This impact study identified the University as a means of promoting renewal of the downtown, in conjunction with other projects planned for the area, such as Doyle, River Beautification and I-475. In line with this, the study's basic proposal is a total approach to downtown redevelopment known as Michigan Center: this concept links the University with surrounding plans and proposes additional features to create a continuous development area from the Doyle Project north of the river south to the city-county complex (Illustration 12).

Included in the study are land use and transportation plans for the impact area, which are discussed in the following sections along with the goals and objectives of the study.

1. Goals and Objectives

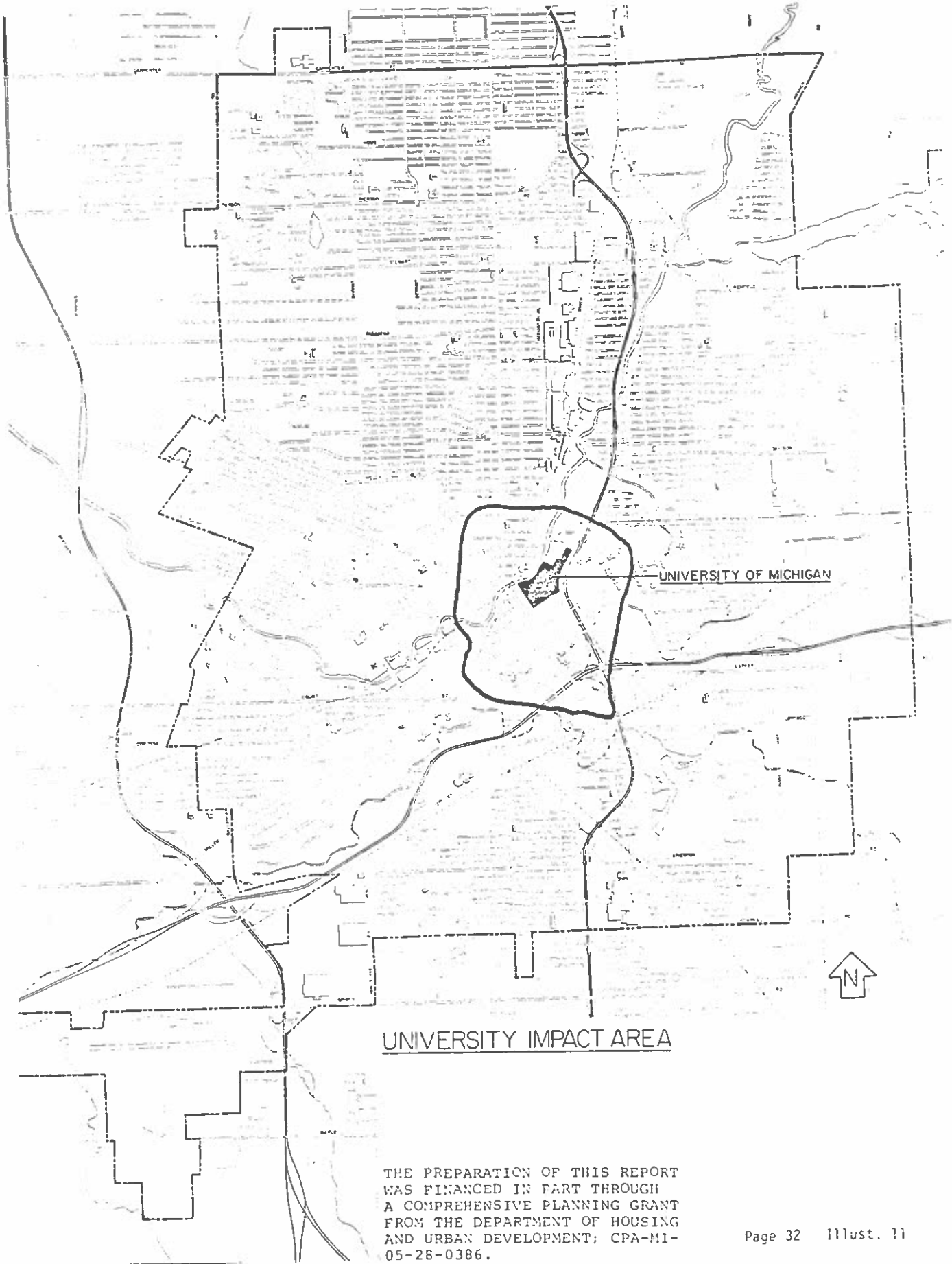
Goals of the impact study relate to transportation, physical environment, economic development, education and social development. The goals are of a general nature and are reflected in the objectives as discussed below.

Transportation

In addition to a basic modification of the downtown circulation system, transportation objectives call for locating a comprehensive transportation center near the central city (a proposal defeated by MTA's move to Dort Highway) and improved parking facilities, including remote parking areas served by a downtown transit system.

Physical Environment

Objectives recommend using River Beautification as a major theme for downtown. Also, various types of small



UNIVERSITY IMPACT AREA

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MICHIGAN CENTER



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recreation and open space areas are recommended, along with street furniture, lighting and landscaping.

Economic Development

Objectives recommend new office and hotel space, additional department store and retail space, a university service area to meet university commercial needs, plus an area for university related development such as research, fraternities, etc. Expansion of the city-county complex to include state and federal buildings plus the Auto Hall of Fame is recommended, thus adding impetus to the promoting of the central business district. Projected figures for additional office, retail and hotel space may be overstated as they were based on population projections that have since been revised.

Education

Objectives are concerned with coordinating Mott Community College needs into land use and transportation plans, providing for in-town public schools and adult education and minimizing traffic congestion created by the University. The plan considered Oak and Walker Schools as fixed land uses and recommended a new school in Doyle.

Housing

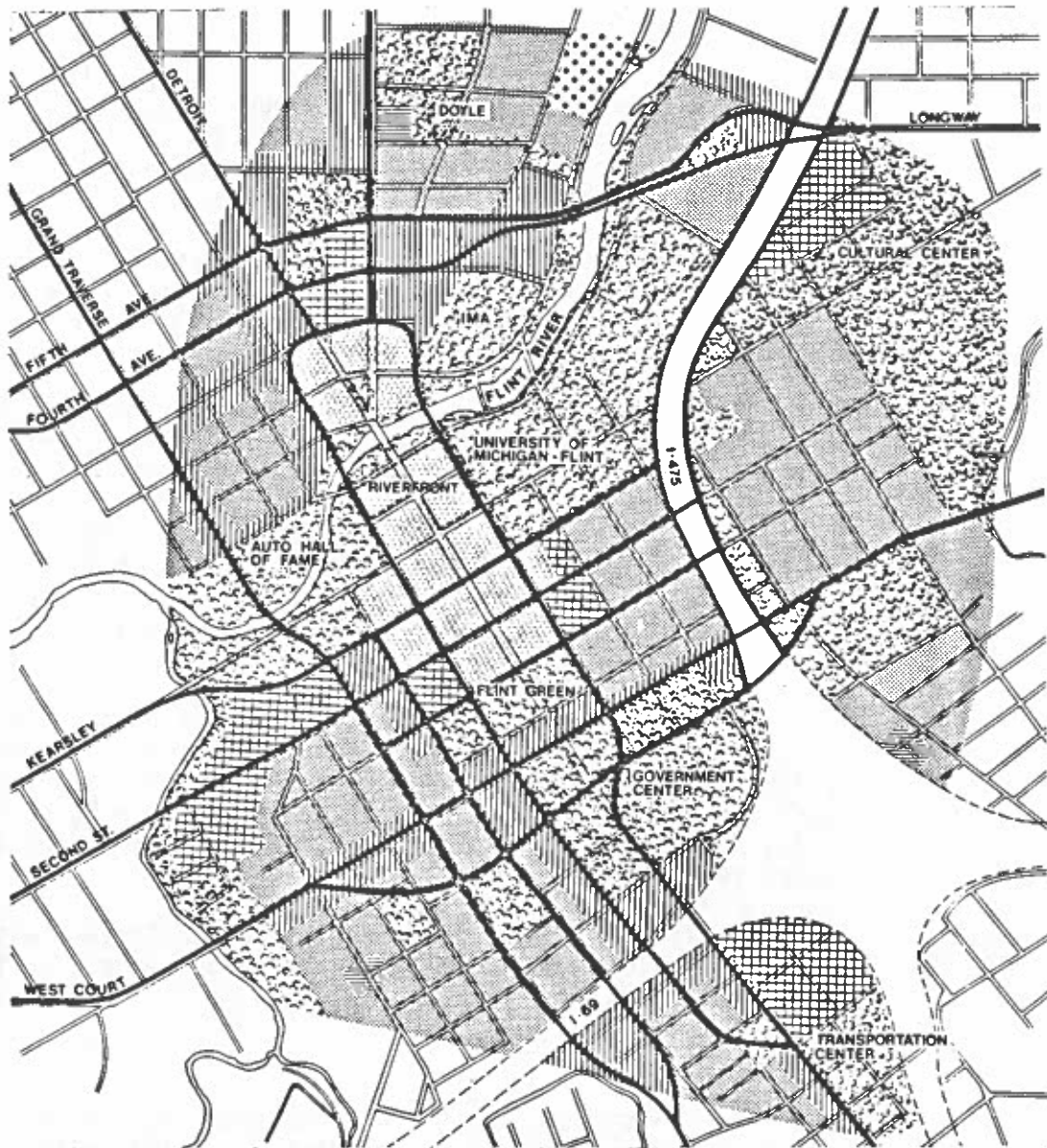
The housing objective is to develop 4,200 new in-town units by 1980 (including Doyle). Projection includes a need for 1,000 to 1,500 units for student housing (at 10,000 FTE) plus an additional 195 units for University staff. Additional elderly housing is also recommended.

Social Development

Objective is to provide "places" in the impact area to promote social interactions.








2. Land-Use Plan

A basic consideration in both Pereira's land use and transportation planning was the formation of large land bays to encourage development (Illustration 13). This is reflected in the street system, which is built around the mall concept for Saginaw St.: there are few unusual features of the system except for the loop proposed north of the river. As noted, the transportation center identified south of I-69 is unlikely because of MTA's new Dort Highway facility. Expansion of the government center to include three additional blocks between Court and Fifth Streets is indicated, and state and federal office buildings are recommended for this area.



PEREIRA LAND USE PLAN



-  Commercial Core
-  Service Commercial
-  Neighborhood Commercial
-  Parking
-  Public / Semi-public
-  Residential
-  Industrial

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The area identified as Flint Green is seen as a combination of open space and public buildings to provide a balance to the open space along the river. These blocks contain three major downtown churches, which would remain.

The Riverfront Development in the plan is similar to the present Riverfront Center Project, and serves as the north anchor for a concentrated downtown commercial core (Montgomery Wards would be south anchor).

The Auto Hall of Fame is located at the present recommended site for Autoworld and is seen as reinforcing the Riverfront Development, as well as other plan elements.

Besides Doyle, the plan recommends residential development in various areas around the central core. High density housing is recommended directly south of the campus in the area west of I-475 and north of Court Street. Rehabilitation and conservation is suggested for Central Park and Grand Traverse South.

The plan recommends the area northeast of the campus near Longway Boulevard be zoned residential; however, the plan allows an alternative: the earmarking of this land for university expansion. Under this alternative, the Court Street site, now assigned to university development would be designated for residential use.

The linking of the River Beatification Project with park facilities along Swartz Creek is also recommended, to form a continuous open space belt.

3. Present Status

Pereira's basic concept of complementing the University's downtown campus with various projects is still valid. However, much of the economic and financial information is outdated, as is housing information.

The study's transportation plan, and its planned parking, facilities, should be reviewed in the transportation element of the Master Plan. The Michigan Center Plan, Pereira's basic proposal for downtown, includes most of the projects now planned or being implemented, such as Doyle, River Beautification and Riverfront Center. The mall concept for Saginaw Street and the Flint Green proposal may be workable on a smaller scale.

Adoption of the land use and transportation plan as recommended in the study is not advisable, but can serve as the basis for preparing a revised downtown plan.

F. Incompatible Land Uses

A consistent problem throughout much of the analysis accomplished to date is that of incompatible land uses.

The term "incompatible" is defined by Webster as "incapable of existing side by side⁷." Incompatible land uses may therefore be defined as uses which, due to their nature or function, are incapable of existing side by side, in a harmonious manner.

Effects

There are several problems that occur as a result of incompatible land uses arrangements: Each in itself can be serious, and when combined can be disastrous by causing neighborhood decay.

1. Blighting Effects -

No piece of land exists as an island sufficient into itself; the use of any particular parcel of land will affect the surrounding parcels. Therefore, incompatible uses will result in neighborhood blight.

- o Traffic Impact - certain uses, such as commercial or industrial, generate more concentrated traffic patterns. This problem is compounded if adequate ingress and egress is not provided for each site, or if provision is not made to improve streets to handle increased traffic.
- o Traffic Spill Over - if the site or major street is not able to accommodate automobile traffic, vehicles are forced into the adjacent local streets and residential areas. Examples of this problem are evident in almost all neighborhoods.
- o Visual Pollution - poorly planned uses often generate debris, litter, dissonant flashing signs and bright lights. They display a general disregard for site aesthetics, such as landscaping, harmony with neighboring sites, etc.
- o Environmental Pollution - There are some controls on pollution, but not enough. Unplanned and uncontrolled uses of land are still causing the pollution of air and water, increased noise levels, soil erosion, and the destruction of vegetation and wildlife.
- o Crime - incompatible land uses cannot be considered to be the cause of crime, however areas containing congested traffic, blighted residences, and visual and environmental

⁷Webster's Dictionary

pollution do create an atmosphere of unconcern. This lack of concern reflects itself in a higher crime rate within the area.

2. Inefficient Use of Land

Certain land uses require specific types of sites and amenities. An industrial use for example, requires predominately flat land, ease of access, availability of services, and often a location adjacent to a supportive industry. The improper use of designated industrial land may discourage new development or expansion due to the unavailability of appropriate sites with the proper amenities.

Certain uses, especially commercial, require sufficient areas for parking and service. Improper placement of these commercial uses may result in the duplication of facilities, such as parking areas, ingress and egress, routes, and service streets, thus wasting valuable land.

3. Time Conflict

Certain types of uses require activities which may be inconvenient or disruptive to adjacent uses. Industry, for example, employs varied shifts, which causes traffic congestion and increased noise levels at peak periods during the day and night. Commercial establishments such as bars or restaurants may operate into late hours, causing problems with adjacent residential areas. These activities have a tremendous impact on a residential environment when consideration has not been given to adequate precaution and buffering techniques. These problems, compounded with other social and economic problems, severely effect viable communities, leading to their eventual decay and dissolution.

Causes

Data compiled in 1975-76⁸ indicated approximately 500 incompatible land uses existing throughout the City of Flint. Only those that exhibited flagrant misuse were identified (i.e. residential adjacent to industrial or commercial uses, or mixed industry and commercial).

There are several reasons for the continued existence of incompatible land uses.⁹

⁸ECHO Data

⁹International City Manager's Association Principles and Practice of Urban Planning

1. Unplanned Land Uses

Land use planning and controls have a fairly recent history in Flint, and much of the city was developed without benefit of a comprehensive plan. This has led to a number of incompatible land use arrangements, especially in older areas of the city. The problem of arrangement is compounded in many cases by inadequate streets, lot sizes and utilities.

2. Zoning Variances

Incompatible land use arrangements can also be caused by granting of variances to the zoning ordinance (especially use variances), which allow uses otherwise prohibited by the ordinance. This practice has led to land use problems by legitimizing uses in districts where they would normally be considered inappropriate. Variances of all kinds are now the responsibility of the Zoning Board of Appeals; State Enabling Legislation now under consideration would redefine procedures and restrict the granting of use variances at the local level.

3. Nonconforming Uses

Certain land uses which do not conform to the terms of present zoning ordinances, but which were in existence at the time of adoption of the ordinance, have a legal right to remain. These are often incompatible with the surrounding area. The present zoning ordinance makes no provision for removal of nonconforming uses. State Enabling Legislation now allows cities to eliminate these through condemnation procedures, and consideration is being given to allow for amortization (elimination after a period of time) of these uses as well.

4. Enforcement

Inadequate enforcement of city codes and ordinances can promote incompatible land use by allowing code violations or illegal uses to continue. An effective enforcement program depends on support of the public and the courts, and an adequate and efficient city staff.

5. Neighborhood Instability

Zoning changes and variances are more likely to be granted in parts of the city that are blighted, since almost any change in these areas is considered positive. This has the effect of introducing incompatible uses, which may eventually result in further deterioration of the surrounding area.

In most instances the intent of each of these changes or lack of change, based on individual merit was usually to promote a positive effect. Collectively, however, the impact has been negative in fulfilling overall long range community goals.

G. Zoning

Zoning is the most common device used to implement a community's land use plan. It is concerned with the regulation of private property, in respect to three basic categories: residential, commercial and industrial. The intent is to separate the three uses, by way of providing districts for each. This is done in order to avoid incompatible land use relationships, and to insure that uses requiring heavily paved streets or extensive utility systems are located where these facilities either exist, or are planned.

A main concern of zoning is that land uses be properly situated in relation to each other, providing adequate space for each. Zoning, also plays a role in providing government services such as schools, utilities and streets, by controlling population densities, and in protecting existing property, by requiring adequate space, light and air for each development.

Flint's first zoning ordinance was adopted in 1927. The present ordinance was adopted in 1968, following adoption of the 1960 Master Plan. The basic structure of zoning practice in Flint is controlled by the State of Michigan enabling legislation.

Under the present zoning ordinance there are three main districts - residential, commercial and industrial - with fourteen subdistricts.

Residential districts in Flint are divided into single, two-family and multi-family categories. Single family zoning predominates, with large tracts of two-family and multi-family districts in older areas of the city. Related uses, such as schools, churches and parks, are allowed in all residential districts. Other uses, such as offices and insitutions allowed in some districts on a conditional basis.

Commercial districts in the zoning ordinance are designed to accomodate wholesale, retail and service commercial uses, as well as certain light industry. Most of the commercial zoning in Flint is concentrated in or around the central business district, in shopping center areas, or in strips along major streets.

Flint's present industrial zoning is limited to the major automotive plants and to areas abutting railroads. The present zoning ordinance prohibits residential use in all industrial classifications and prohibits most of the other non-industrial uses in the intermediate and heavy industrial districts.

Enforcement of Flint's zoning ordinance is charged to the building inspector. Amendments, supplements or district boundary changes are effectuated by action of the City Council, after recommendation by the Planning Commission. The Zoning Board of Appeals is empowered to grant conditional use permits and special exceptions and variances, subject to restrictions of the ordinance.

Variances are exceptions to the ordinance which are granted when its literal enforcement would cause practical difficulty or unnecessary hardship. The Zoning Board of Appeals is empowered to grant relief in such cases: This is a necessary administrative practice that covers special situations that cannot be written into the ordinance without making it unduly complicated. However, the Board must exercise sound judgement in its actions, since any exception weakens the ordinance. This is especially true in the granting of "use" variances, that is, variances authorizing property to be used for purposes prohibited by the zoning ordinance. The granting of a large number of "use" variances seriously impairs the integrity of the zoning ordinance by introducing activities into areas where they are prohibited by the ordinance.

Enforcement practices and official policy toward adopting amendments to the zoning map are also important in maintaining public confidence in zoning. These practices and policies must be fair and consistent, reflecting the public interest.

Rezoning

Rezoning is a change or amendment in the existing zoning ordinance. It may occur for one of three reasons: 1. A comprehensive revision or modification of the zoning text and maps. (i.e. changes as a result of a new or revised master plan.) 2. A text change in zoning requirements. (i.e. changing the definition of a duplex allowing them under multi-family or single family use.) 3. A change in maps (i.e. changing a parcel of land from one zoning classification to another).

Rezoning is the legal mechanism for change. Reasons for change must be carefully considered however, since frequency or inconsistency might not be consonant with over-all community goals. Original zoning requirements may not contain the flexibility needed to adapt to physical, political or economic change. In a case like this the intent of the adopted ordinance is not being carried out to the benefit of the entire community. Changes should be made with the intention of implementing the original intent of the zoning ordinance - rather than subverting it.

As indicated in Illustration 14 and 15, 83 zoning requests were initiated between 1972 and 1977. 56 were granted and 27 denied. Many of these requests merely reflect a change from existing zoning to a new zoning classification, in compliance with the proposed master plan. Others, however may be in conflict with the intent of the proposed land use plan.

Due to the complexity and time involved in reviewing the zoning cases during the last ten years, no analysis has been made here. However, prior to revising the zoning ordinances an in-depth study must be carried out which analyzes the implications and philosophy of rezoning over the last ten years. This should provide the directions for further revisions to both the zoning ordinances and procedures.

ZONING CHANGES

	Approved	Denied	Total
1972	16	7	23
1973	12	8	20
1974	8	6	14
1975	12	5	17
1976	<u>8</u>	<u>1</u>	<u>9</u>
Total	56	27	83

CONDITIONAL USE PERMITS

	Approved	Denied	Total
1972	9	3	12
1973	9	1	10
1974	14	2	16
1975	8	0	8
1976	<u>11</u>	<u>2</u>	<u>13</u>
Total	51	8	59

USE VARIANCES

	Approved	Denied	Total
1972	34	6	40
1973	24	8	32
1974	27	10	37
1975	20	4	24
1976	<u>23</u>	<u>9</u>	<u>32</u>
Total	128	37	165

YARD AND AREA VARIANCES

	Approved	Denied	Total
1972	21	6	27
1973	31	7	38
1974	30	4	34
1975	40	0	40
1976	<u>42</u>	<u>7</u>	<u>49</u>
Total	164	24	188

MISCELLANEOUS VARIANCES

	Approved	Denied	Total
1972	8	3	11
1973	8	1	9
1974	5	3	8
1975	8	0	8
1976	<u>6</u>	<u>2</u>	<u>8</u>
Total	35	9	44

Review of Zoning Ordinance

The zoning ordinance of the City of Flint was adopted in 1968. There have been amendments to the ordinance, however, none have been of a major or sweeping nature. There are five residential categories, six commercial categories and three industrial categories. The zoning ordinance is basically a pyramidal ordinance, that being that the uses allowed in any more restrictive zone are allowed in the following less restrictive zone. As an example, single family residences, first allowed in the most restrictive district "A-1", would be allowed in all the other less restrictive districts up to "D-6". A "D-6" use, such as truck sales, conversely would not be allowed in any zoning category from "A-1" to "D-5", which are more restrictive. The ordinance is presently worded in such a way that it says all of the uses in the previous district plus the following. It might be easier and make the ordinance more workable if all of the uses were listed in each section.

The Residential Zoning Categories

The residential section is blanketed throughout the city. It does not take into account neighborhood differences. There are a large number of dwelling units in the city that do not meet the minimum standards of the present zoning ordinance. It is also impossible to meet the density potential of the ordinance with the minimum lot size requirements as they are presently outlined in the ordinance. The number of dwelling units for a given amount of area should be retained in the zoning ordinance. The minimum lot size provision should be subjected to some review. The ordinance may want to consider, in the residential district, a doubling of density with each change in residential district. Simply in the "A-1" Single Family Residential District, a 10,000 sq.ft. of lot area for each dwelling unit would be required. In the "A-2" district, 5,000 sq.ft. of lot per each dwelling unit; in the "B" district, 2,500 lot area per dwelling unit; in the "C-1", 1,250 for each dwelling unit and in the "C-2", 600 sq.ft. of lot area for each dwelling unit.

Mobile homes are only allowed in the "D-6" General and Highway Commercial District. This is our least restrictive commercial district. Other types of commercial activities allowed in the "D-6" district often have an adverse effect on mobile home parks and the esthetic appeal of mobile home parks. Since mobile homes are a legitimate type of dwelling unit, the ordinance should review the mobile home provisions and perhaps put them in a district where the other land uses will not have an adverse affect on them. Buffering requirements between all types of residential land uses and all other land uses should be strengthened. Institutional uses in the residential district need to be reevaluated, if additional conditions need to be attached. All conditional uses need to be reviewed, especially the minimum requirements to approve a conditional use permit.

The Commercial Zoning Categories

One of the main problems with the commercial zones in the present zoning ordinance, is where they adjoin a residential district and want to

expand by encroaching into a residential district. There are also problems with the hours of operation to an adjoining residential district and buffering requirements where commercial and residential districts meet. Snow removal and disposal problems exist in this climate and should be looked at in the parking requirements of the commercial district. The uses allowed in each commercial district, "D-1" through "D-6", need to be looked at in relation to existing buildings and potential adverse affects on other commercial and residential uses that they adjoin. The minimum number of parking spaces required for various commercial uses seems to be inadequate for todays demand and should be looked at, studied and revised if necessary.

The Industrial Zoning Categories

The industrial zones should be protected from commercial and institutional encroachment. Present zoning ordinance does provide protection of the industrial districts from commercial and residential encroachment. It does not protect the industrial districts from institutional encroachment. Uniform developmental standards should be encouraged in the industrial zone, industrial park development and plan development should be encouraged in the industrial zone. A minimum lot size requirement may want to be considered for the industrial district.

Conclusion

Basically, the ordinance does seem to function to meet the needs of the community. One of the complaints and issues that has been raised is the issue of buffering between land uses. Consideration of the different characteristics of various neighborhoods in the city should be considered in the different residential districts. This may require the creation of additional districts. If the city is to continue to gain in population, provisions must be made to allow the conversion of dwelling units from single-family to two-family or from single-family to multi-family depending on the area of the city. To do this, it may require that the minimum lot size provision be waived as long as the density requirement of the ordinance is maintained. Zoning can be the tool that protects and separates incompatible land uses and still allow for the growth and the development of an urban area.

One other major criticism of the present ordinance is that it is out-of-date. This is actually a criticism of the mechanisms for updating the ordinance. More care should be given to keeping the ordinance in tune with the changing demands and needs of land use control. An annual review should be instituted for this purpose.

JR:gwa:S/8

VI. RECOMMENDATIONS

- A. Exercise conservative policy toward zoning changes and variances. Establish official policy of granting zoning changes only when consistent with the goals and objectives of the adopted Master Plan. Develop a manual which interprets zoning and Master Plan policy, to serve as working guidelines to assist public officials in decision making.
- B. Reinforce ties between land use and transportation planning. City Planning should stay in contact with the Traffic Engineering Division, the Michigan Department of State Highways and Transportation and County and Regional Planning in order to represent city land use concerns in transportation issues. Upon completion of the transportation element, the Master Plan should be revised to incorporate its policies and recommendations.
- C. Support of neighborhood preservation, including activities of Neighborhood Improvement and Preservation Project Incorporation. Encourage this body to coordinate its program with the Master Plan. Identify measures to provide land use support of the program, including strict control of zoning changes and variances and possible rezoning.
- D. Establish a land use coordinating committee composed of the City of Flint, University of Michigan-Flint, Mott Community College, Flint Board of Education and other major public and institutional concerns. This should be done to promote cooperation between these bodies, and should be initiated by the Chief Planning Officer upon approval of the Mayor.
- E. Allocate capital improvement funds consistent with needs and priorities, and establish a program to monitor the effects of capital improvement spending (see Appendix for proposed systems). A complete description of the systems as they relate to neighborhood preservation can be found in the section of the Housing Element.
- F. Revise land use plans for urban renewal areas to meet objectives of the Master Plan. Assess progress toward objectives of these plans and feasibility of continued activity in these areas. Coordinate revised plans with city-wide plans and related programs.
- G. Large scale demolition should not be considered unless coordinated with a practical reuse plan including at a minimum: financial feasibility, funding source, and short and long range implications on the Master Plan.
- H. Adopt policy of promoting cluster development of commercial activity and control of strip developments. This should include appropriate revisions to ordinances controlling signs, buffering, parking and landscaping, as well as adequate code enforcement and possible rezoning.

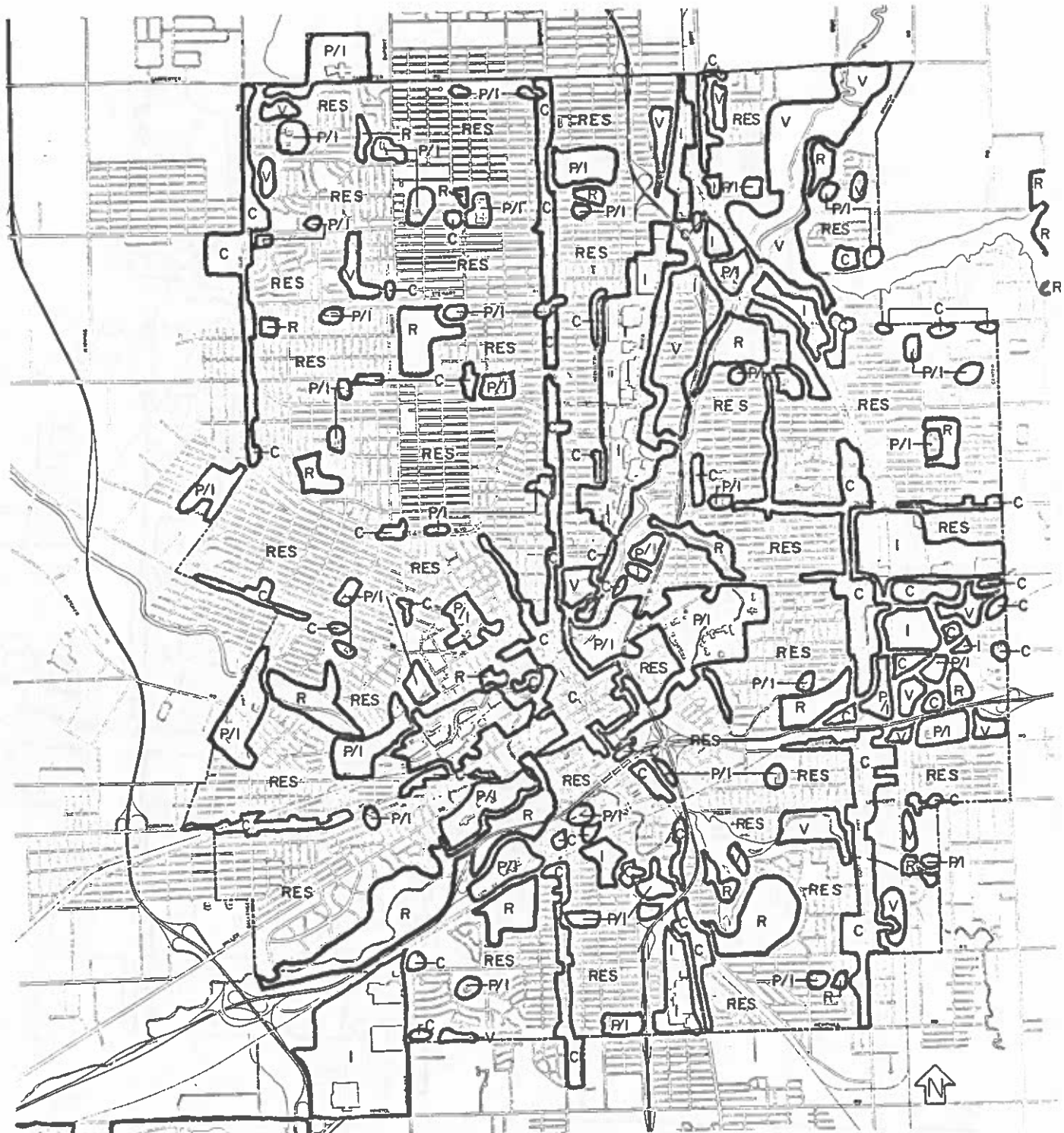
- I. Encourage development of industry in industrial parks, by using existing incentives such as Public Act 198 and other incentives that may be available. Develop criteria for industrial expansion, consistent with land use objectives of the Master Plan, to control traffic, noise, blighting effects, etc.
- J. The city should survey waterways and flood plains to formulate an ordinance controlling flood plain development (see Environmental Element).
- K. Control development around freeway access points and along service drives by use of zoning, site plan, sign and environmental regulations. Develop freeway corridor studies to determine appropriate land use and zoning for these areas.
- L. Promote re-use of vacant non-residential structures. These should be surveyed to determine locations and possible re-use. Records of demolitions of non-residential structures should be made available to Planning.
- M. Establish and maintain a yearly review process to determine if the goals and objectives of the Master Plan are being met. This is the responsibility of the Chief Planning Officer, and should include a yearly report to the Mayor and Planning Commission, as mandated by the City Charter.
- N. Encourage business and professional associations and merchant groups to participate in discussions with planning officials on matters such as maintenance standards, signs, and parking problems.
- O. Review administrative procedures involved in the development process (building permits, site plan review, etc.) to determine possible improvements. To increase public understanding of procedures, a development manual should be produced to identify the various steps, forms, public officials and offices involved in the process.
- P. Planning staff should work with the planning commission to review and revise the zoning ordinance to meet requirements of the Master Plan. Consider illustration of the ordinance for easier interpretation and implementation.
- Q. Planning staff should work with the Planning Commission to revise and strengthen the site plan review ordinance, especially as it relates to types of projects requiring site plan review.
- R. Revise zoning map where necessary to meet plan objectives. This should include, at a minimum, certain areas in renewal projects and a review of existing nonconforming uses.
- S. Planning staff should continue to work with the Planning Commission to strengthen ordinances controlling safety hazards and blighting effects of signs.

Proposed Studies

1. Examine the extent of erosion of the zoning ordinance by rezoning and variances. Identify specific problems and their effects on surrounding land use.
2. Survey incompatible land use relationships to determine which can be controlled and alleviated by land use regulations.
3. Review existing measures for controlling industrial, commercial and institutional expansion to determine if improved or additional controls can be implemented.
4. Develop freeway corridor studies to determine appropriate land use and zoning for these areas. Studies should include sign and environmental controls, as well as means of preventing overzoning for commercial purposes.

VII. EXISTING LAND USE

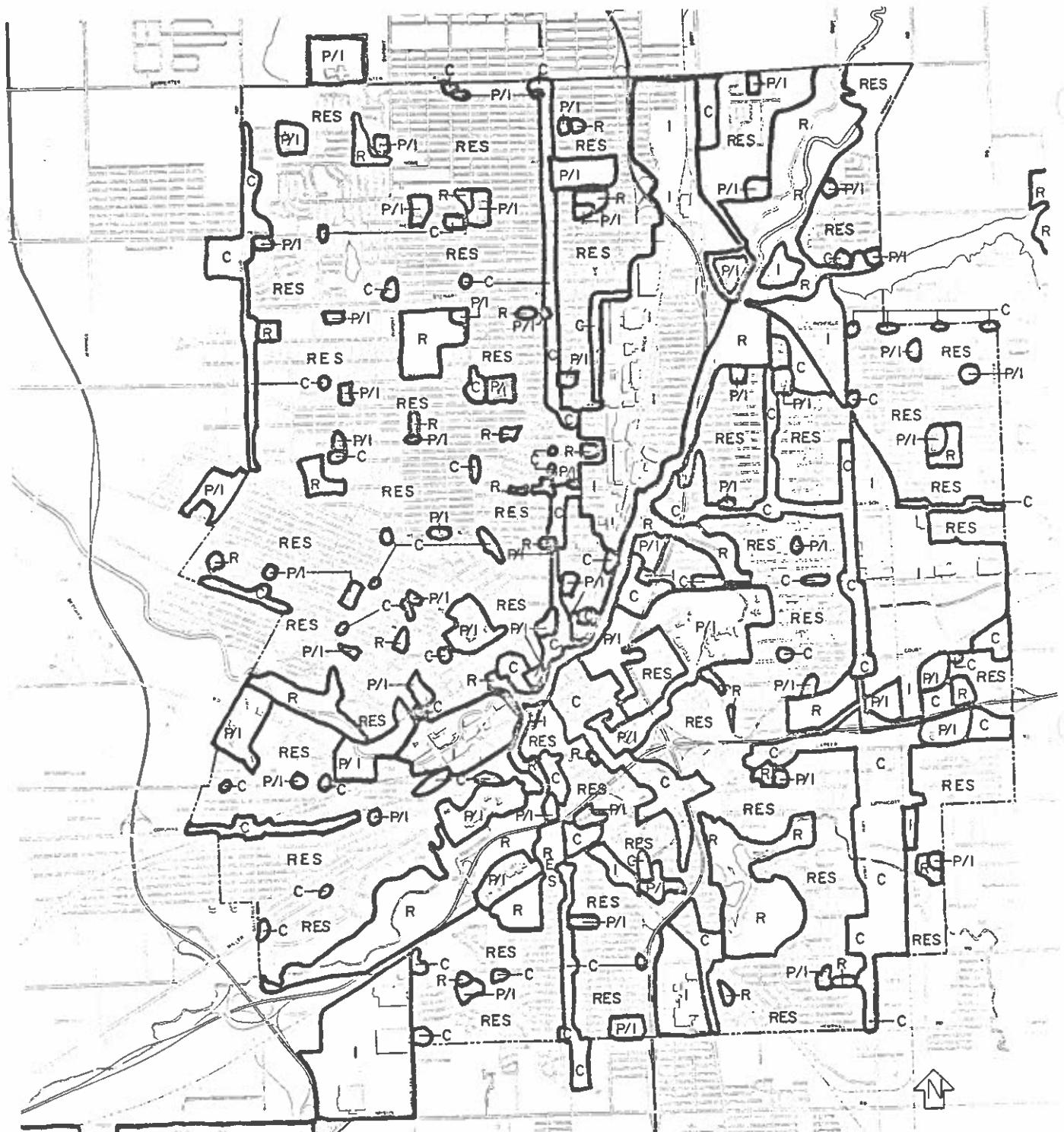
The following illustration (16) presents existing land use in generalized form. This is done to describe current conditions and to reflect goals and objectives of the Master Plan. The Plan also reflects the policy of stabilization and preservation of Flint's resources as outlined in this element.



EXISTING LAND USE

- RES-RESIDENTIAL
- V-VACANT
- P/I-PUBLIC-INSTITUTIONAL
- I-INDUSTRIAL
- C-COMMERCIAL
- R-RECREATIONAL

THE PREPARATION OF THIS REPORT WAS FINANCED IN PART THROUGH A COMPREHENSIVE PLANNING GRANT FROM THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT; CPA-MI-05-28-0386.



PROPOSED LAND USE

- RES-RESIDENTIAL
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2

RESIDENTIAL

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

THE PREPARATION OF THIS REPORT
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AND URBAN DEVELOPMENT; CPA-MI-
05-28-0386.

ABSTRACT

TITLE: RESIDENTIAL ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: HOUSING IN FLINT, MICHIGAN

DATE: NOVEMBER, 1978

NUMBER OF PAGES: 100

ABSTRACT: THE PURPOSE OF THE RESIDENTIAL ELEMENT OF THE CITY OF FLINT'S COMPREHENSIVE MASTER PLAN IS TO DETERMINE THE COMPOSITION OF HOUSING STOCK AND RESIDENTIAL NEIGHBORHOODS WITHIN THE CITY OF FLINT, TO ANALYZE PRESENT AND FUTURE HOUSING NEEDS AND DEMANDS, AND THEN TO SET FORTH GOALS AND OBJECTIVES TO BE CARRIED OUT THROUGH A SERIES OF POLICIES AND RECOMMENDATIONS FOR CITY ACTION. EMPHASIS IS PLACED ON FINDING SOLUTIONS TO HOUSING PROBLEMS THROUGH MORE EFFICIENT AND EFFECTIVE PROVISION OF URBAN SERVICES, THROUGH THE CITY'S ROLE AS A COMMUNITY DEVELOPMENT AGENCY, AND THROUGH REFINING PUBLIC-PRIVATE STRATEGIES.

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SUMMARY

The purpose of the residential element of the comprehensive master plan is to set the general housing policy of the City under which decisions about specific residential areas and development proposals can be made. In arriving at those policies, the existing composition of housing and the present and future needs of the City have been considered. These considerations are presented in the introductory sections. In developing the analysis and final policies, the following long-term goals and short-term objectives are recommended:

Goals and Objectives

I. Preserve and enhance the stock of decent, safe, structurally sound housing within the City of Flint.

Objectives:

- A. Establish a housing data base so that housing-related policy and program decisions can be based on the most complete and recent factual information available.
- B. Continue and expand support of housing rehabilitation programs as a primary means of fulfilling the requirements of the federally-mandated Housing Assistance Plan and enhancing the City's existing housing assets.
- C. Establish and fund a City-wide residential code enforcement schedule in which each dwelling unit is inspected for code violations at least once every five to seven years.
- D. Provide for efficient identification and removal of housing units that cannot be effectively rehabilitated and that represent a blighting influence on surrounding property.
- E. Encourage private group and individual efforts in the field of housing maintenance through educational efforts and the matching of private with public dollars.
- F. Prohibit by ordinance the destruction of any structure with official historical designation, as outlined in the historical preservation element.

II. Preserve the integrity and enhance the livability of residential neighborhoods within the City of Flint.

Objectives:

- A. Encourage the formation of citizen action groups in order to increase individual involvement and especially homeowner involvement, in neighborhood problem resolution and constructive neighborhood-oriented activity.

- B. Protect residential neighborhoods from non-residential encroachment through increased enforcement of zoning, provisions for increased buffering between residential and other uses and encouragement of private investment elsewhere in the City.
- C. Encourage homeownership and decrease the number of units held by absentee owners wherever possible in existing low density neighborhoods.

III. Provide adequate City services to all residential neighborhoods and dwelling units.

Objectives:

- A. Adopt the Responsive Municipal Services Program to measure present City service levels by neighborhood or census tracts.
- B. Establish a procedure of allocating City resources on the basis of need. All residential areas of the City should be provided with adequate general services with remaining resources going to programs and areas with the greatest need, on a proportional basis.
- C. Improve the City's capital budgeting and programming procedures to incorporate City-wide community development as well as expenditure measures, and input from individual citizens and neighborhood groups.

IV. Provide for increase in population and residential development in selected areas.

Objectives:

- A. Promote the development of medium and high density apartments in suitable locations.
 - B. Allow conversions of larger single family structures on a very limited basis, in accordance with neighborhood standards and with strict code enforcement.
 - C. Promote high density housing in the downtown area through the provision of various investment incentives to private developers.
- V. Alleviate racial/low income impaction and promote economic diversity in housing.

Objective;

- A. Encourage formulation and adoption of a regional "fair share" housing plan through cooperation with other units of government in Genesee, Lapeer and Shiawassee Counties.

- B. Encourage the development of private housing to ensure a supply to all segments of the housing market, especially to those segments where housing supply is lacking.
 - C. Continue present and future housing subsidy programs, which provide assistance to low and moderate income households, to the extent of the need indicated in an annual Housing Assistance Plan.
 - D. Continue efforts to promote open access to housing opportunity through fair housing program and ordinance enforcement. Promote private efforts to alleviate discriminatory attitudes and/or practices.
- XI. Promote energy efficiency and alternative energy source utilization in residential areas.

Objectives:

- A. Provide requirements for energy efficient construction practices on all new construction including appropriate site utilization standards.
- B. Promote utilization of solar energy wherever possible by providing for "sun rights" in City codes.
- C. Encourage energy conservation in existing residential structures, through either assistance or incentive programs to homeowners.

Housing Market

A brief housing market profile notes that Flint contains not only the majority of older, less desirable housing in the market area (Genesee County), but a disproportionate share of low income households. This combination leads to the perpetuation of Flint's housing problems, especially problems associated with households unable to afford the rental or purchase and maintenance of a suitable housing unit.

Housing Characteristics

Of over 60,000 housing units in the City of Flint, 75% are single family homes with most owned or being purchased. Five percent of all dwelling units are publicly subsidized. About 50% of Flint's housing was built before the Second World War, with construction tapering off to a near standstill in the 1970's. Housing maintenance, with some exceptions on the periphery of the City has been declining in recent years, and more rapidly among rental than among owner-occupied units. Median assessed valuations for housing units in Flint are lower than those for the State of Michigan as a whole.

Equal Opportunity in Housing

While the City of Flint has an Open Occupancy Ordinance, residential segregation, to the extent that it exists in Flint, seems to be due more to economic than to racial factors. Housing for some segments of market, notably upper income, is in extremely short supply forcing those buyers to other areas. Overall loss of population, combined with a shift in racial composition of the population since 1970, has effected patterns of racial concentration in different parts of the City. A regional "fair share" housing plan is suggested.

Existing Housing Needs

Although some types of housing are in short supply, there is no "general" need for substantial new construction. There is, however, a need to alleviate housing problems caused by substandard structures, overcrowding, and dwellings priced beyond the means of low-income households. In general, housing problems are largely limited to low-income households and areas. Further, among low income households, housing problems are concentrated among those with female heads. Black households also make up a larger proportion of those with needs than their numbers among the general population would dictate.

Substandard housing and excessive cost appear to be the most frequent problems and are more frequent among renters than owners. Overcrowding is a much less serious problem, in terms of numbers, but occurs more frequently among owners than renters. Overall, about 25% of all Flint households have one or more housing problems.

Future Housing Needs

Based on projections of population and housing supply, housing need by household type is projected on a yearly basis through 1980. Based on

migration patterns, the proportion of Black households is expected to increase from 45% to 54% of all households in need. Female-headed households will increase numerically through 1980, but decrease as a proportion of all households in need. Total need for low-income households will increase by 20-25%, despite a decline in the total City population.

Existing and Future Housing Demand

If demand as a concept is limited to new construction, future housing demand within the City of Flint may be restricted to urban-type apartment units for upper- and middle-class households and "starter" homes for small households.

Housing and Residential Policies

In the final section of the residential element, a number of policies regarding housing issues are presented. These policies, when adopted, will serve as the guide or framework for decisions on housing matters. In brief, they are:

1. It shall be the policy of the City to preserve and enhance the existing housing stock and to safeguard the neighborhoods from undesirable effects and conditions. The City will act to support and promote rehabilitation in viable residential areas and the formation of neighborhood organizations toward these ends. The City shall take no action which will result in physical impaction, social or racial segregation, or which will adversely affect the residential character of an existing viable neighborhood.
2. It shall be the policy of the City to annually assess the housing needs and problems of the residents and to allocate the resources of the City on a priority of need -- the largest proportion of available resources being committed to areas where need is greatest.
3. It shall be the policy of the City to provide for and promote an increased resident population by encouraging the private development of higher density housing structures whenever feasible and in line with neighborhood standards, with special emphasis on the downtown. Whenever possible, stress will be placed on increasing the number of housing units of types in shortest supply on the market.
4. It shall be the policy of the City to promote equality of access to housing opportunities to all residents regardless of race, sex, age, creed or national origin, and to ensure against discriminatory practices through strict enforcement of City ordinances and appropriate laws. The City will take no action, nor permit action to be taken by others, which conflicts with this policy or in any way interferes with a citizens right to safe, sound and decent housing of their choice.

5. It shall be the policy of the City to participate in programs of the Federal or State governments providing construction of subsidy of housing for the elderly, handicapped and low to moderate income families to the full extent that a need for such housing is substantiated, and limited only by the availability of financial and other resources for this purpose.
6. It shall be the policy of the City to require annual inspections of multi-unit residential structures and regular inspection of all residential structures. The City shall strictly enforce the codes and regulations in all residential areas and will act expeditiously to condemn and remove any obsolete and blighting structures from viable neighborhoods.

I. INTRODUCTION

Housing in Flint

In the past, residential areas in Flint have been constructed in response to a variety of needs and demands. Before the automobile became commonplace, before massive Federal and State highway expenditure was initiated, the most important need in residential location was proximity to work. From the farmer living on the land he worked, to the shopkeeper living above or behind his store, to the factory worker living in a house a few blocks away from his job, all except the very well-off lived within walking or public transit distance of work. Most residents were not in an economic position to demand much more than a small amount of living space. Amenities such as a back yard, or an extra bedroom were economically infeasible for nearly all households.

Another type of demand, the demand for profit maximization on the part of land investors and home builders, was and still is an important factor in construction of housing. In less complicated times, this meant a minimal initial investment in land, public improvements (if any) and structures. Supply of most residential structures was geared solely to meet demand based on affordability for home owners and a second layer of profit maximization for investor-owners who rented or leased their properties. Market studies and advanced planning were limited to individual entrepreneurs' guesses as to who might buy and at what price. There were few reasons to think about the future disposition of land and structures. Abundant resources and vacant land for new beginnings rendered unused potential and previous mistakes as negligible losses.

But conditions changed. Supply and demand of housing became more complex as various levels of government took on responsibility for safeguarding the public "health, safety and welfare" through initiation of building and sanitation codes, and residential area public works projects such as street paving, sidewalk placement, and street lighting. Housing construction required more money "up front" to accommodate these new demands. Methods and materials changed. Trade unions formed.

Consumer demands changed with rising incomes, rising expectations, and especially following World War II, increased mobility. Combined with greater awareness of possible living environments, these changing demands led to the development of suburban areas, the promotion of a wide variety of housing types, and new approaches to housing finance.

Today, conditions are changing again. Demands for consumer protection in housing construction, tenant rights, and protection or enhancement of overall environmental quality, reflect a recognition of the value of quality materials and workmanship, the right of individuals to decent shelter and, most of all, a limit on the use of natural resources.

The "energy crisis" and related environmental concerns have had an impact on at least two important housing variables. The costs of non-

renewable, resource-based fuels, costs which are reflected both in building materials and in fuel used in heating and cooling homes, are forcing some basic changes in the way housing units are built, priced, sold, and maintained. The increasing costs of fossil fuels also must be balanced by the benefits of commuting back and forth from work in or near a city to a house in the suburbs. At this point it is impossible to foresee exactly what future impacts energy availability, pricing, and regulation will have on housing in the Flint market area. Because the economic base of the area is so closely related to automobile production, energy issues effect both supply and economic demand for housing.

Perhaps even more important nationally and locally than environmental-energy concerns is the political question of whether older urbanized areas can remain viable living environments. The City of Flint believes that one of the keys to the revitalization of the City is the provision of ample decent and safe housing in pleasant neighborhoods with adequate levels of public services. While the comparative nature of housing needs has changed due to changing economic conditions and technology, the basic requirement of a decent home and living environment for each household has not. The purpose of this residential element of the comprehensive master plan is to examine housing problems and priorities in light of what the City of Flint can do to ensure the meeting of basic housing requirements for all residents.

Role of the Federal Government

Federal government interest in housing concerns is not new. Federal mortgage programs and investment in the Federal interstate highway system, which opened many new areas to home development, are outstanding examples of Federal influence upon who may buy a home and where they may buy it. However, these two programs were intended, respectively, to directly benefit individual home buyers (especially veterans), and to facilitate interstate travel. Neither was specifically designed to institute a comprehensive national housing policy.

In the activist 1960's, the recognition of serious urban, and especially urban housing, problems led to the formulation of the Department of Housing and Urban Development (HUD) in the Executive branch and introduction of housing problem-oriented legislation in Congress.

One of the latest major pieces of legislation dealing with housing is the Housing and Community Development Act of 1974, PL 93-383, which reiterates a long-standing Federal goal: "...to provide a decent home and a suitable living environment for all persons," and adds to that phrase "but principally those of low and moderate income." The Act states that this may be done through the development of a comprehensive plan, of which this residential element is a part. There is presently recognition on the Federal level that alleviation of housing problems created by years of neglect and by unrestrained, and sometimes imprudent, development will take more years of concentrated effort. Comprehensive planning is the first step.

Physical Shelter v. Home and Living Environment

In Flint, there are few persons who have no shelter at all or who are only sheltered insofar as basic protection from the elements. There are, however, many more persons who are inadequately housed due to substandard housing, e.g., dangerous structural defects or overcrowding, and even more whose housing needs at least one major repair, such as repair of a leaking roof or replacement of plumbing fixtures.

Many persons, while not living in a home in need of major repairs, would rather live in a different type of housing or in a different location. Their choices may be limited by income, by racial discrimination, or by low supplies of desirable types of housing.

Echoing Federal goals, the Charter of the City of Flint states, "City officers shall pledge themselves to assure residents decent housing..." Above and beyond simple physical shelter, a decent home and living environment in urban areas such as Flint may be defined, at minimum, by the following characteristics, which parallel the "minimum property standards" used in City of Flint code enforcement activities:

1. Adequate physical space in which to conduct day-to day activities such as sleeping, preparing and eating food, carrying out personal hygiene, resting; adequate privacy.
2. Adequate, code-standard plumbing, electrical wiring, heating.
3. Freedom from health hazards, whether these be structural, sanitary, or induced by outside environmental sources.
4. Access to public improvements (streets, sidewalks, sewer systems, etc.), public facilities (parks, recreation areas, schools, etc.), and public services (police and fire protection, etc.).
5. Freedom of choice in housing.

This definition might be extended to include such factors as a suitable social environment in which to raise a family, an aesthetically pleasing environment, and access to cultural facilities. However, these characteristics are secondary to the five main points listed above. It is in the context of these five characteristics that the adequacy of housing supply for the present and future will be discussed on the following pages.

Importance of Citizen Involvement

Flint is fortunate in having citizens who are aware of housing problems and who are involved in seeking solutions to those problems. Based in block clubs and civic organizations plus private individuals with interests in urban problems, citizen opinion on housing concerns has been actively articulated through participation in comprehensive

master planning workshops during 1976 and 1977 (described in other sections of the comprehensive master plan), through the Mayor's City-wide Advisory Committee on the Community Development Block Grant, and through the Mayor's Housing Rehabilitation Task Force.

Private groups such as the Northwest Area Improvement Association and the North Cook Neighborhood Improvement Association have helped to focus a previously diffuse demand for housing rehabilitation and neighborhood stabilization. The Flint-based Mott Foundation is interested in school councils for expenditure on neighborhood needs.

Any consideration of housing need in the City of Flint cannot fail to take into account facts and opinions already expressed by citizens. Implementation of housing plans must incorporate existing mechanisms and seek new means of citizen involvement.

Information Sources

In planning for residential areas, three sets of information are needed: 1) information about physical structures (How many, of what type? Where are they located? What condition are they in? How much are they worth?), 2) information about the population which is housed (What size are the households? How much can households afford to spend for housing?), and, 3) how physical structures are occupied, or the interaction between structures and population (What are the characteristics of housing need in Flint? Does demand exceed supply?). In addition, it is desirable to have information available through time in order to identify and judge past trends, to take stock of present realities and to plan for future housing needs.

Information on the physical condition of structures has been taken from two major sources, the decennial U.S. Census of Housing and a visual survey of all structures in Flint, performed each year by the Evidence for Community Health Organization (ECHO), a branch of the Genesee County Health Department. Population information, including statistics on owner-renter breakdowns and income, has also been taken from the Census, from an ECHO sample survey of Flint households, and from selected data collected by the R.L. Polk Company, pursuant to the production of its commercially-distributed city directories. The Polk information is helpful in determining out-and in-migration trends.

Information on present and future housing need, and on the supply and demand characteristics of the Flint housing market is somewhat difficult to obtain. Some conclusions can be made through statistics kept by realtors and newspapers concerning the listings and sales of real property. General trends can be traced through statistical comparisons with other urban areas and with the suburban areas of Genesee County. Changes in housing need can be inferred through comparing past population and housing statistics with the present numbers and with future population and household size projections.

II. GOALS AND OBJECTIVES

I. Preserve and enhance the stock of decent, safe, structurally sound housing within the City of Flint.

Objectives:

- A. Establish a housing data base so that housing-related policy and program decisions can be based on the most complete and recent factual information available.
- B. Continue and expand support of housing rehabilitation programs as a primary means of fulfilling the requirements of the federally-mandated Housing Assistance Plan and enhancing the City's existing housing assets.
- C. Establish and fund a City-wide residential code enforcement schedule in which each dwelling unit is inspected for code violations at least once every five to seven years.
- D. Provide for efficient identification and removal of housing units that cannot be effectively rehabilitated and that represent a blighting influence on surrounding property.
- E. Encourage private group and individual efforts in the field of housing maintenance through educational efforts and the matching of private with public dollars.
- F. Prohibit by ordinance the destruction of any structure with official historical designation, as outlined in the historical preservation element.

II. Preserve the integrity and enhance the livability of residential neighborhoods within the City of Flint.

Objectives:

- A. Encourage the formation of citizen action groups in order to increase individual involvement and especially homeowner involvement, in neighborhood problem resolution and constructive neighborhood-oriented activity.
- B. Protect residential neighborhoods from non-residential encroachment through increased enforcement of zoning, provisions for increased buffering between residential and other uses and encouragement of private investment elsewhere in the City.
- C. Encourage homeownership and decrease the number of units held by absentee owners wherever possible in existing low density neighborhoods.

III. Provide adequate City services to all residential neighborhoods and dwelling units.

Objectives:

- A. Adopt the Responsive Municipal Services Program to measure present City service levels by neighborhood or census tract.
- B. Establish a procedure of allocating City resources on the basis of need. All residential areas of the City should be provided with adequate general services with remaining resources going to programs and areas with the greatest need, on a proportional basis.
- C. Improve the City's capital budgeting and programming procedures to incorporate City-wide community development as well as expenditure measures, and input from individual citizens and neighborhood groups.

IV. Provide for increase in population and residential development in selected areas.

Objectives:

- A. Promote the development of medium and high density apartments in suitable locations.
 - B. Allow conversions of larger single family structures on a very limited basis, in accordance with neighborhood standards and with strict code enforcement.
 - C. Promote high density housing in the downtown area through the provision of various investment incentives to private developers.
- V. Alleviate racial/low income impaction and promote economic diversity in housing.

Objective:

- A. Encourage formulation and adoption of regional "fair share" housing plan through cooperation with other units of government in Genesee, Lapeer and Shiawassee Counties.
- B. Encourage the development of private housing to ensure a supply to all segments of the housing market, especially to those segments where housing supply is lacking.
- C. Continue present and future housing subsidy programs, which provide assistance to low and moderate income households, to the extent of the need indicated in an annual Housing Assistance Plan.

- D. Continue efforts to promote open access to housing opportunity through fair housing programs and ordinance enforcement.
Promote private efforts to alleviate discriminatory attitudes and/or practices.

VI. Promote energy efficiency and alternative energy source utilization in residential areas.

Objectives:

- A. Provide requirements for energy efficient construction practices on all new construction including appropriate site utilization standards.
- B. Promote utilization of solar energy wherever possible by providing for "sun rights" in City codes.
- C. Encourage energy conservation in existing residential structures, through either assistance or incentive programs to homeowners.

III. HOUSING MARKET

Introduction

Prospective buyers and renters look for housing which both meets their space needs and is within what is determined to be their economic limits. While a great variety of social, psychological and economic factors determine choice of housing, the most important of these remain:

- 1) household size and composition
- 2) household income
- 3) availability of housing which falls within the constraints created by 1) and 2)

The following discussion will deal with City and metropolitan market conditions as the product of the above three factors, and will consider other, less quantifiable factors in a series of brief market scenarios illustrating possible housing choices of hypothetical Flint area households. Numerical supply-demand relationships and need determinant criteria and calculations are presented in subsequent sections.

Household Size and Household Income

Household size is an important factor in selection of housing. In the 1970's, in the United States, most families of four, given a choice, would prefer a private, multiple-bedroom housing unit. Most single individuals would require something smaller. Very large households need more room. Space requirements relate back to the first characteristic of a decent home and living environment in Flint (page 7). (It should be noted that the Census Bureau defines "overcrowding" as more than one person per room. That is the definition which will prevail throughout this section of the comprehensive plan.)

Some general observations with regard to changing patterns of household size and household income in Flint and Genesee County, the Flint housing market area, can be made by referring to Illustration 1.

As can be seen from median income figures for 1970, Michigan and Genesee County, largely due to high wages in the automobile industry (and despite high unemployment rates), are comparatively prosperous. More recent figures¹ indicate that the income gap between Genesee County and the rest of the country is beginning to close.

The out-county area can be differentiated not only on the basis of income, but by the following characteristics²:

	<u>% White</u>	<u>% Over 60</u>	<u>% Female</u>
Flint	62.7	12.5	54.1
Out-County	94.3	8.0	50.9

¹Internal Revenue Service per capita income relative figures 1967-74.

²1975 ECHO Statistics

Illustration 1

Comparisons of Household Size and Incomes

	1970 ¹		1975 ²		Number of Households ³
	Average Household Size	Median Income	Average Household Size	Median Income	
U.S. (total)	3.57	\$ 7,699	na	na	na
U.S. Urban Areas	3.05	\$ 7,974	na	na	na
Michigan	3.69	\$11,032	na	na	na
Genesee County (total)	3.39	\$11,255	3.23	\$13,072	138,573
Genesee County (out-county)	3.63	\$12,021	3.40	\$14,269	82,121
Flint (total)	3.13	\$10,161	3.07	\$11,276	56,452
Black households	3.74	\$ 7,863	3.58	\$ 8,565	17,292
Female-headed households	na	na	2.49	\$ 4,761	18,078
(with children)	na	na	(3.89)	na	(8,091)
(without children)	na	na	(1.36)	na	(9,987)
Elderly-headed households	na	na	1.79	\$ 6,102	14,425

na = information not available

1 U.S. Census

2 Genesee County ECHO

3 Subtotal figures for Flint may represent households counted more than once, such as household headed by a black female.

All indications (differential birth rates, migration estimates, etc.) point to a short-term continuance of trends toward an over-balance of black-, female-, and elderly-headed households within the City of Flint as compared to Genesee County as a whole. Figures on in-migration to the City of Flint point out that black- and female-headed households seem to be on the increase, while elderly-headed households are decreasing numerically but remain a high proportion of the City's total number of households.

In 1975, black- and female-headed households (with children) had the largest average household sizes and the smallest median income of any groups. An average per capita income for blacks would be about \$2,392, or about 59% of the County average per capita income; for all female-headed households, about \$1,912, or about 47% of the County average, and even lower for female-headed households with children. These low income figures indicate that black- and female-headed households might be in a difficult situation with regard to finding decent housing within their income limitations.

Elderly households are in a slightly better financial position than other City household subgroups, but average per capita income is still about 16% below that of the County average. Inflation may effect this group of households more drastically than any other, as fixed income from savings and pensions fails to keep up with increases in the cost of living. Even those elderly home owners with mortgages paid off may not be able to keep up with home maintenance costs.

Illustration 1, while comparing only the years 1970 and 1975, points to short-term household size trends which will have impact on the housing market for at least the next five to ten years. The figures for Genesee County and Flint show a decrease in average household size. A decrease in household size would reflect, on the average, in a stable population, social changes resulting in a greater number of two-person and single person households, and therefore, a greater total number of households to be housed. However, population loss in the City of Flint from 1970 to 1975 (Genesee County's population has remained stable) has led to a decrease in the total number of households. So not only does the City have fewer households, but on the average, somewhat smaller households as well. It is presently unclear as to how population decline will effect future average household size. A more complete discussion of household size changes is included in the Historical Perspective section of the comprehensive plan.

Illustration 1 reveals an increase in median income from 1970 to 1975 of 11% for Flint, 18.7% for the out-County areas, and 16.1% for the County as a whole. For Flint's black households median income increased 8.9%. However, the percentage increase in overall cost of living during this period was 43%. The cost of housing is an important component in increases in cost of living.

¹Genesee County ECHO, 1975.

²U.S. Census, 1970.

Housing Availability

The total number of housing units in the Flint market area (Genesee County) is divided roughly 40%/60%, City/Out-County, as is the County's population. The following Table offers some comparisons between housing in the two areas:

	<u>% well-maintained¹</u>	<u>% structures built prior to 1939²</u>	<u>vacancy rate¹</u>	<u>% owned or being purchased¹</u>
Flint	75	45.5	8.8	72.5
Out-County	85	23.8	7.9	83.6

The statistics are composite and do not reflect the fact that both newer, well-maintained neighborhoods as well as older, dilapidated unit groupings exist in both Flint and the out-County. Housing in Genesee County is by no means uniform in any one or any set of characteristics.

A complete inventory and description of housing supply within the City of Flint can be found in the section of this document entitled Housing Characteristics. Housing in the out-County can be placed in four very general categories: older single family, intermediate single family, mid- to high-income multiple rental units, and mid- to high-income single family. Some housing will fall outside these categories. Older single family housing is that which was constructed prior to 1939 either as farm houses, in villages, or along "mile roads" outside small towns. Intermediate single family can be defined as those units built after 1939 which now sell for under \$25,000.³ (Mobile homes might be included here). Mid- to high-income rental units are newer apartments and townhouses with rents from approximately \$180 per month up to \$350 and above. Mid- to high-income single family is usually newer housing, selling for above \$25,000, on large (quarter acre or more) lots.

Given the criteria used in setting up these categories, a to-the-unit inventory would be impossible. However, density studies and building permit records kept by the Genesee County Metropolitan Planning Commission⁴ offer a count of single and multiple family structures, while the Flint Board of Realtors' Multiple Listings give an indication of price ranges for different market areas. These sources should be referenced for exact figures.

¹Genesee County ECHO, 1975

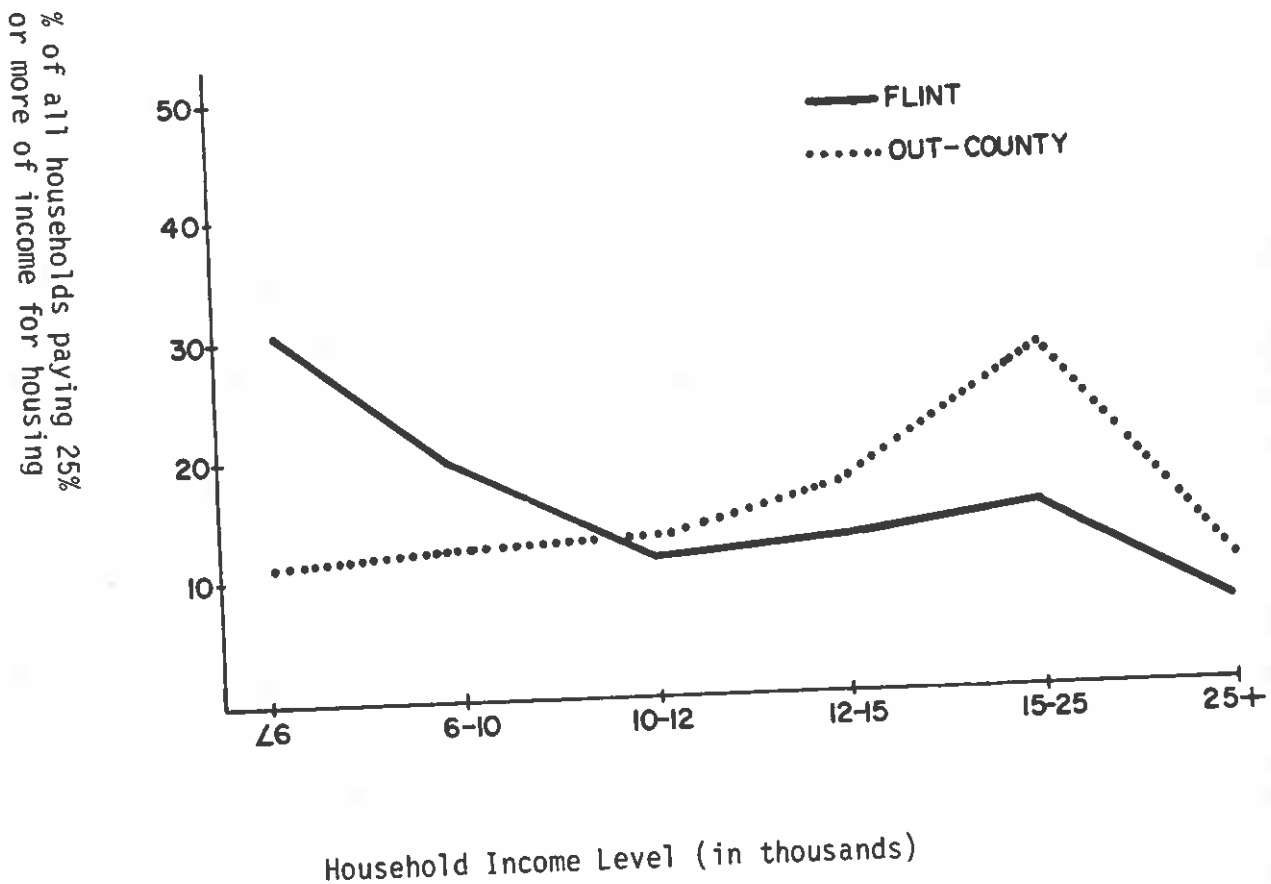
²U.S. Census, 1970.

³An "affordable" unit for a household with a median income of \$13,072, see above, based on an expenditure of 25% of gross income on shelter.

⁴Genesee County Metropolitan Planning Commission Density Study, 1974, and Residential Construction, Summary Report 1970-75 plus 1976.

The general statement that out-County housing is more expensive than housing within the City of Flint can be verified by checking "Homes for Sale" listings in the classified advertising section of the Flint Journal. In addition, a comparison of income level and housing expenditures of households within and outside the City limits indicates that those high-income households who have chosen suburban housing are willing to pay a greater percentage of their household income for it. Illustration 2 shows the percentage of households paying 25% or more of their gross income for housing by level of income, for both City households and out-County households. For example, of those City households with incomes at or below \$6,000, approximately 30% spend more than a quarter of that income on housing.

Illustration 2



A comparison of Flint and Genesee County households paying more than 25% of gross income for housing. Source: 1975 Genesee County ECHO household surveys.

Housing Choices Within the Flint Market Area

The following scenarios represent Flint area housing market conditions as seen by six hypothetical households of various sizes and incomes. It is assumed that each household desires to spend about 25% of its gross income on shelter costs, and that a monthly housing payment represents about 1/100 of the total cost of a unit. Down payments, deposits, financing terms, City-County tax differentials, and leases, while important in considering shelter expenditures, are not considered here. Simple supply and demand relationships are considered.

Household A is composed of a single person making about \$8,000 per year, a representative wage for clericals and service workers. At 25% of gross salary or wages, Household A can afford a monthly housing payment of \$166 - enough to rent a decent, but not luxurious apartment or house within the City limits or to make monthly payments on a very modest house in the City or in one of the older suburbs. Apartment rentals in newer complexes outside the City and payments on newer single-family detached homes would be beyond the budgetary limitations of Household A.

A number of single persons potentially similar to Household A may be "doubling-up" with others in the same situation or with relatives due to lack of available, affordable, desirable housing in the Flint area. Distance to work site and recreational amenities may be important variables in choice of location and type of housing for Household A.

Household B consists of two persons with a combined income of a little less than \$6,000 per year. This Household may be typical of elderly persons living on Social Security, of a single parent in a minimum-wage job, or of another small household living on some form of public assistance.

With approximately \$125 per month to spend on housing, Household B is limited to the least expensive housing in the market area - older housing within the City and possibly public housing. Single-family, detached dwellings are out of Household B's range, with the possible exception of an older couple with a paid mortgage. Even then, maintenance and fuel costs may strain Household B's budget.

Primary considerations for Household B in choosing housing may be easy access to public transportation, medical facilities, jobs or job prospects. Optional amenities such as garage space, yard areas, and interior decoration of a housing unit are secondary to B's need for adequate space and decent living conditions.

Household C consists of seven persons with a primary wage earner making about \$8,000 per year. This household is typical of the large, sometimes extended, family which finds that housing units large enough for them are priced beyond their means. With about \$160 per month to spend on housing, Household C has two general options: purchase or rent an older home, probably in poor condition, within the City which provides enough space for all household members, or purchase or rent a smaller unit and put up with overcrowded conditions.

As with Household B described above, primary considerations for Household C include adequate space and decent living conditions, although one of these requirements may be sacrificed to fulfil the other.

Household D consists of four persons with a primary wage earner making about \$11,500 per year, slightly less than the median income for the Flint market area. With about \$240 to spend per month on housing, Household D can afford modest, single-family detached housing either in the City of Flint or in the less expensive, out-County suburbs.

Household E represents two persons who, singly or together, earn about \$14,000, slightly more than the Flint market area median. This household may be a recently married couple who will spend money on travel and entertainment before starting a family. With almost \$300 per month budgeted for housing, Household E could afford a luxury two-bedroom apartment anywhere in the market area or could opt for a reasonably nice "starter home" or moderately-priced condominium. It is likely that such amenities as proximity to recreational facilities (pools, tennis courts) and modern conveniences (garbage disposals, garage space, dishwashers) may be important here. When affordability is not a question, market "extras" become critical factors. The newer housing in out-County areas, because of the "extras" offered, may be more attractive to Household E.

Household F consists of five persons with the primary wage earner's salary at \$21,000 - middle-management level. Household F has about \$425 per month to spend on housing. If this household is composed of parents with three children, school-aged or younger, it is likely that the following criteria will be important in choosing a single-family detached house:

- Affordability
- School district/general location
- Size of unit and lot
- "Modernness" of unit

Household F will be looking for something in the \$35,000 to \$50,000 range, which might include the better neighborhoods within the City limits and the moderate- to expensively-priced suburban areas. Flint has been steadily losing households of this type since 1970¹ (also, see Historical Perspective section of comprehensive master plan). This loss can be attributed partially to the lack of modern housing on large lots and to a decline in the perception of Flint as a good place to raise a family (based on quality of schools and upkeep of neighborhoods).

¹Demographic trend analysis, Flint Department of Community Development and Genesee County ECHO, unpublished, 1977.

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IV. HOUSING CHARACTERISTICS

The present composition of Flint's housing is typical of most major Michigan cities.* The homes in Flint are about the same size as those in other major Michigan cities, averaging about five rooms each. Also, of the housing in Flint and comparable cities, nearly 50% has three or more bedrooms.

General Characteristics

Some of Flint's characteristics do differ from other Michigan cities. Flint has one of the largest percentages of single-family residences, and conversely, one of the lowest percentages of structures containing five or more units. The mobile home count makes up nearly 3% of all residential units in Flint, much higher than any of the comparison cities.

Flint recorded the lowest number of rental units, 30%, of any of the comparison cities. Ann Arbor has nearly 55% of its housing being rented. The number of housing units built prior to 1940 was over 60% of the total housing stock in Detroit, Grand Rapids and Saginaw, while Flint's early construction included only 45% of the total.

Nearly 40% of the land area of the City is taken up by residential housing, while an additional 15% is devoted to schools, churches and open spaces. Of this residential land area, most of the residences are single-family structures. Currently over 75% of all housing units in Flint are single-family dwellings, with only 7% in duplexes and 13% in multiple-family structures. Most of the remaining units are in mobile homes.

Further detail on housing characteristics by geographic area of the City can be found in Appendix A.

Building Activity and the Age of Housing

According to the 1970 Census, 45.6% of the existing housing stock in Flint was built before 1940. An additional 16% was built during the 1940's, with 23% more being built during the decade of the 1950's. During the 1960's, residential housing construction began to taper off. The decade of the 1960's added only 8,000 units to the housing stock of the City, of which less than half were single-family units. Similar building patterns were recorded in 1970 and 1971, however, in 1972 residential housing construction came to a standstill in Flint. From 1972 through 1976 only 284 new residential units were authorized for construction, of which 172 were single-family.

*All state-wide comparisons are based on 1970 Census of Housing data. The comparison cities include Ann Arbor, Detroit, Grand Rapids, Lansing and Saginaw.

There has been substantial building in the areas surrounding the City. Construction in the out-county area maintained a constant pace throughout the 1950's and 1960's. Of all building activity in Genesee County during the 1960's, only 29% took place within the City. This movement of new residential developments to the suburbs surrounding the City was even more pronounced in the 1970's. Although construction throughout the county has fallen below the level of the 1960's, the City has been able to keep only 12% of the building activity within its boundaries.

Maintenance of Housing

The condition of Flint's housing units has been deteriorating seriously over the past few years, and more rapidly among rental than among owner-occupied units. This is evident when looking at the Environmental Block Appraisals, an exterior housing maintenance survey, done annually since 1972 by a branch of the Genesee County Health Department. At the inception of this program in 1972, the City recorded 82% well-maintained housing units. The latest survey in 1976 reported only 71% well-maintained units, an 11% decrease in 4 years. This decline, however, is not uniformly spread throughout the City. Several areas, mostly around the periphery of the City, have shown increases in the number of well-maintained units, while others remained relatively unchanged between 1972 and 1976. Many areas in the central core of the City and the area to the north and south have shown severe deterioration. Illustration 3 depicts the change in housing maintenance by census tract.

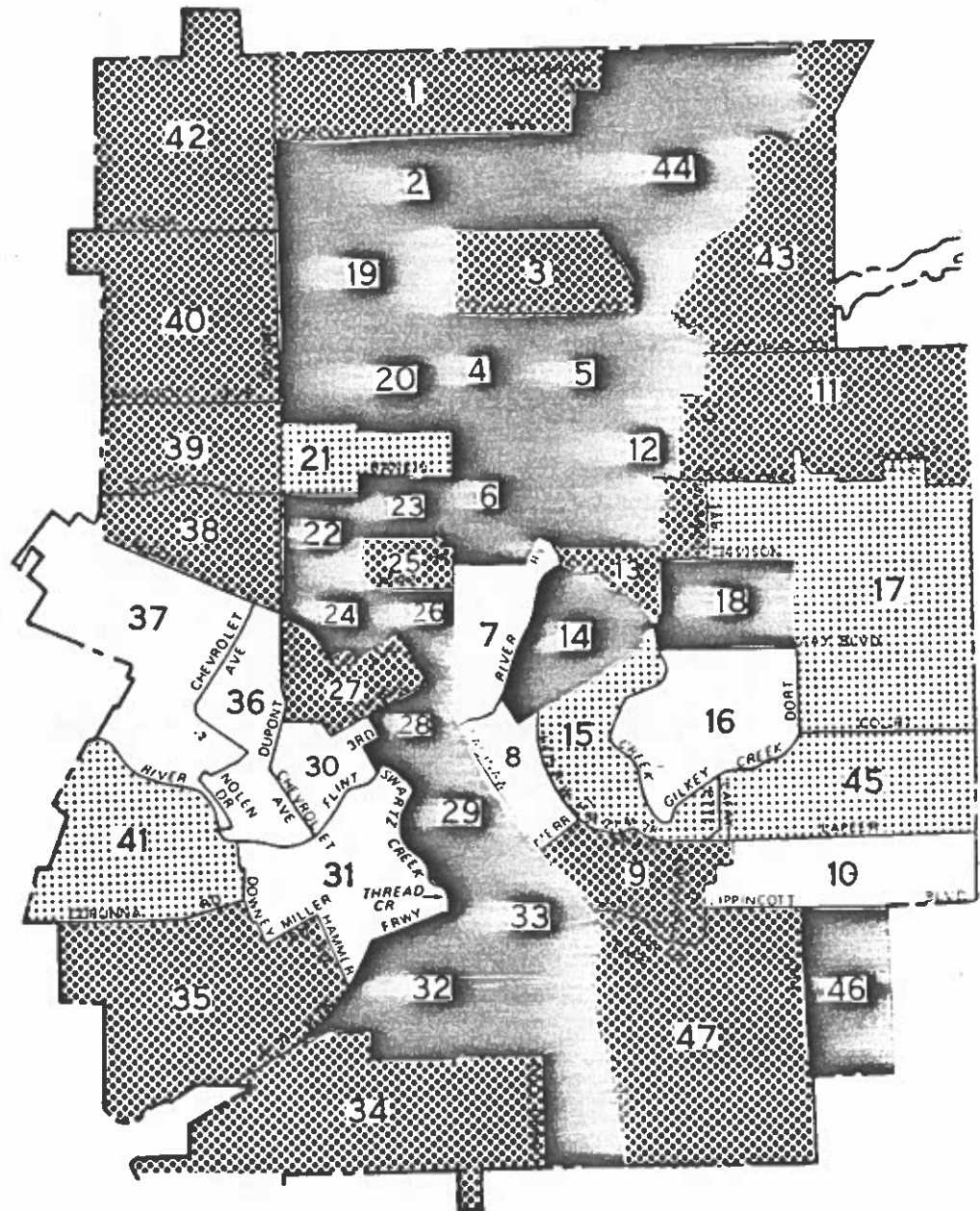
Housing Values





The value of residential housing varies considerably throughout the City. Average values are the highest in the area southeast of the college and cultural center and in the southwest area of the City around the Swartz Creek Golf Course. Values tend to be the lowest in the north central section of the City. In general, higher values tend to coincide with the newer residential areas while the lowest values are in the central core and the older developed neighborhoods. This is not the case, however, in the two areas mentioned earlier, the college and cultural center and Swartz Creek Golf Course. These areas were developed in the 1920's and consist of mainly two and three story, three and four bedroom houses on oversized lots. Based on the 1970 Census, the median housing value for the State of Michigan was \$17,600. Flint, however, had a much lower median residential housing value, \$14,600.

Housing Unit Count

As the table on the following page shows, in 1975 there were 58,915 housing units in the City of Flint. There is an additional 1843 units not included in this table which represent the mobile homes within the City. The mobile homes are distributed among fourteen mobile home parks

PERCENT CHANGE IN WELL-MAINTAINED HOUSING UNITS
1972-1976



-  20%+ DECREASE
-  5-20% DECREASE
-  0-5 % DECREASE
-  1-16% INCREASE

in Planning Districts[†] 3, 8 and 10 (refer to Illustration 4 for a map showing the planning district boundaries). This brings the total units available for residential housing in the City to 60,758 as of 1976.

Two hundred seventy-five of these units were identified as being dilapidated by the ECHO evaluators. These unsound (or dilapidated) structures are not included as part of the total housing stock because they are not habitable nor are they worthy of rehabilitation.

City of Flint
1976 Housing Unit Count
By Planning District

<u>Planning District[†]</u>	<u>Total Housing Units*</u>	<u>Unsound Units</u>	<u>Total Housing Stock</u>
1	5,263	9	5,254
2	5,951	29	5,922
3	3,978	158	3,820
4	4,468	9	4,459
5	3,895	46	3,849
6	6,436	-	6,436
7	5,556	17	5,539
8	6,108	1	6,107
9	4,189	1	4,188
10	4,562	1	4,561
11	4,506	4	4,502
12	<u>4,003</u>	<u>-</u>	<u>4,003</u>
TOTAL	58,915	275	58,640

*Does not include mobile homes

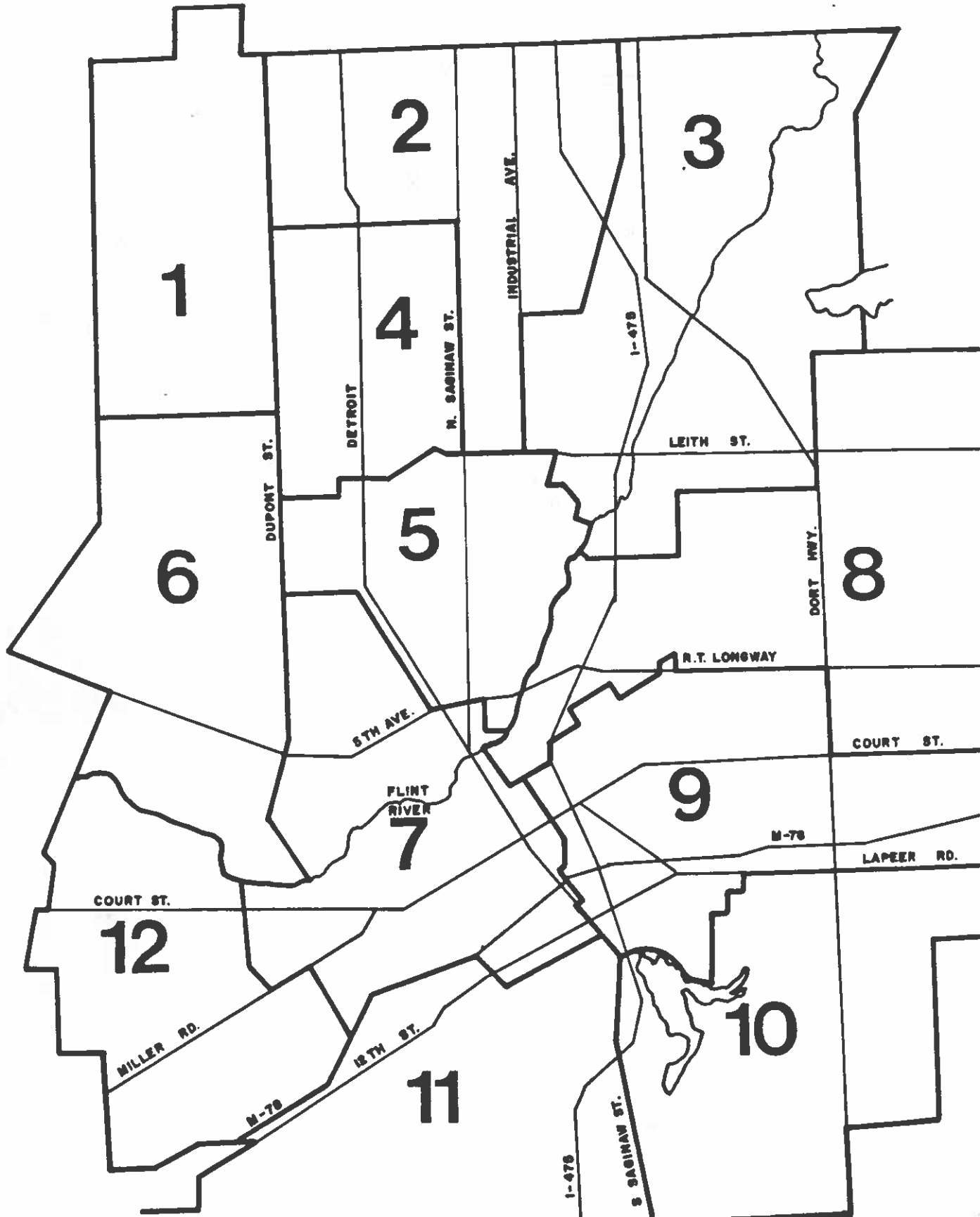
Source: 1975 ECHO

Subsidized Housing

Illustration 5 showing the number of federally assisted housing units in the City identifies the number of housing units sponsored under each federal housing program within each planning district. The information in this illustration was derived from several sources. The number and location of public housing units was given by the Flint Housing Commission in April, 1977. All of the 202,221(d)(3), and 236 complexes were individually contacted in March, 1977, to obtain the most current information on them.

[†]Twelve planning districts have been established in the City of Flint for data aggregation purposes (see Appendix A).

CITY OF FLINT PLANNING DISTRICTS



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V. EQUAL OPPORTUNITY IN HOUSING

The Flint City Council adopted an ordinance in 1967, entitled the Open Occupancy Ordinance, which prohibits discrimination in real estate transactions on the basis of race, color, religion, national origin, or ancestry. The passage of this ordinance was meant to halt the practice of excluding blacks from all-white areas of the City and to integrate and stabilize neighborhoods. While it is now illegal to bar racial minorities from renting or purchasing housing anywhere within the City limits, expansion of minority populations away from central City residential areas, to the extent that this has been the case, seems to be due to factors other than fair housing policies and legislation. The latest available annual report (1975-1976) of the City of Flint's Human Relations Commission, the enforcement agency for the Open Occupancy Ordinance, states, "Housing complaints, which were expected to increase, did so, by 64% (from 14 to 23), apparently due to greater numbers of landlord/tenant disputes and deterioration in services, rather than to overt discrimination in sales, rentals or leases."

Residential segregation, to the extent that it exists within the City of Flint, does not seem to be a product of lax law enforcement or of willful neglect on the part of the City government. In fact continued efforts to alleviate racial impaction and physical housing problems through urban renewal, combined with newer, more expensive housing supply in the out-county areas and high correlations between race and employment/income/education seem to be prime factors.

RACIAL FACTORS IN HOUSING

Combined with the larger size of black households (3.58 persons compared to 3.07 city-wide)¹, the limited income of most black households seems to restrict their choices to older or less expensive neighborhoods, most of which are within the City limits. Planning districts with the highest concentrations of minorities in 1975 also had the highest concentrations of unemployed.² City-wide in 1975, the average household income was \$9,480, but median income for white households was \$9,812, while median income for black households was \$8,656.³

Illustration 6 provides comparisons of the racial distribution of persons by City planning district from 1970 to 1975. Of all districts, Planning District 1 has experienced the most pronounced change in racial composition. This district is the only one in the City which experienced any notable increase in population, and it appears that the increase is attributable to a large influx of blacks. Outmigration of whites from this area, while proportionately not the greatest outmovement of white population, is numerically the largest shift of white population in any area of the City.

1,2,3 ECHO 1975 Household Survey

Some loss of population in Planning District 2 is attributable to clearance activities for the I-475 right-of-way. In Planning District 3 some of the worst housing in the City was demolished for the construction of the St. John Industrial Park; the 29.4% drop in black population for this planning district is largely attributable to this urban renewal clearance. Planning Districts 7 and 9 have also lost both black and white residents due to expressway construction.

Within those planning districts which appear to be integrated, there are in fact few stable, integrated neighborhoods. Obviously, the residents of the City need more than codification of open housing goals to enable them to freely choose housing to meet their needs. The City should continue efforts to promote open access to housing opportunity through it's Fair Housing Program and by ordinance enforcement.

Flint's Fair Housing Program contains activities to address negative factors supportive of discrimination. These activities range from affirmative counseling and affirmative marketing agreement with the private sector. Educational programs to address discriminatory attitudes on a community wide basis are also a component of the program.

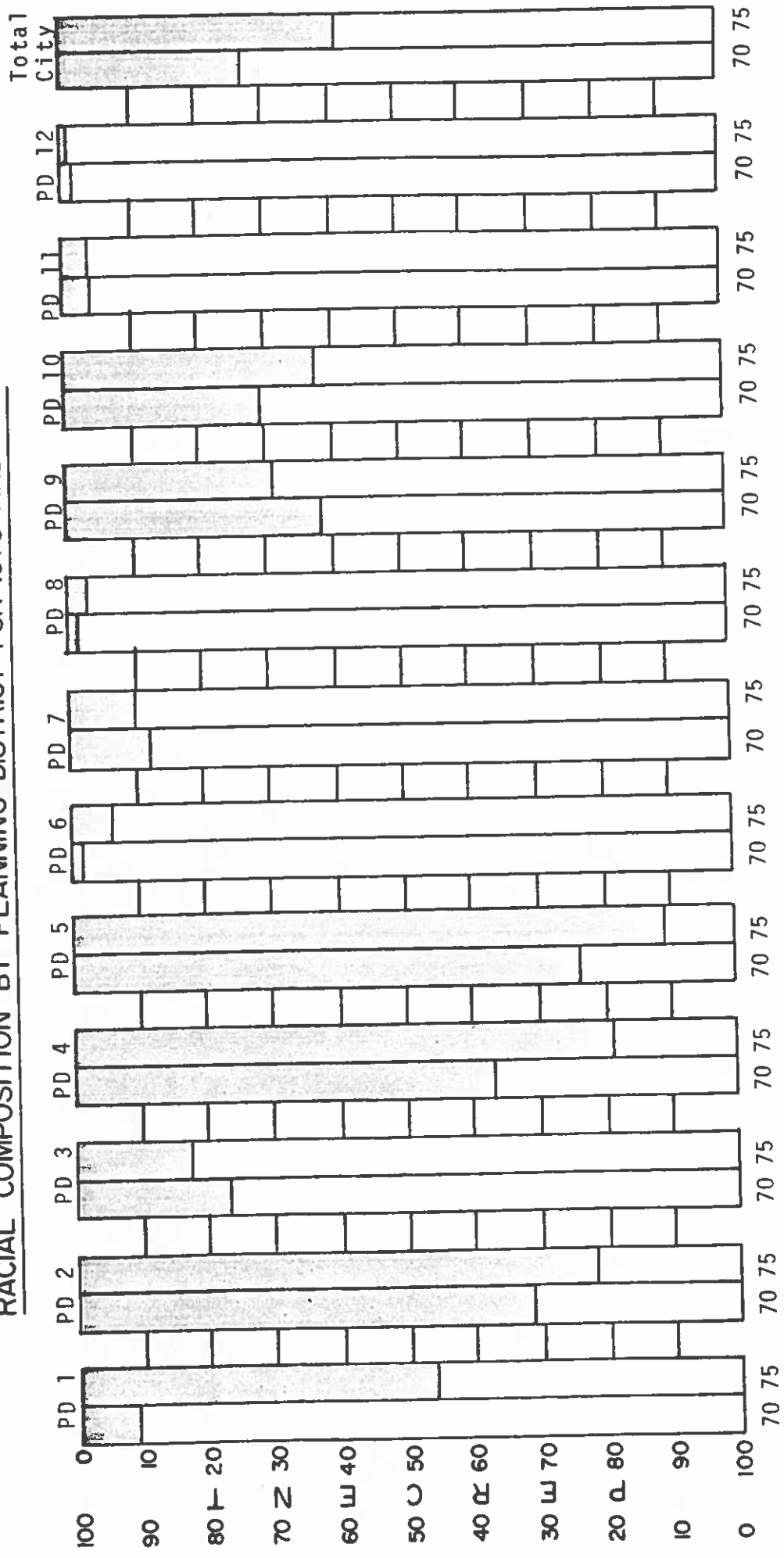
In addition to housing programs sponsored by the City alone, Flint can join with surrounding units of government, through the GLS Region V Planning and Development Commission, to establish and maintain a regional "fair share" housing plan. The plan would assign each community in Region V (Genesee, Lapeer, and Shiawassee Counties) its fair share of low- and moderate-income housing. The intent of such a plan would be to reduce undesirable concentrations of subsidized housing in Flint and to afford low-income and minority households housing choices in suburban areas.

The housing market section of this document points out that Flint housing concerns extend past the City limits. In addition, recent court cases in Illinois and New Jersey have emphasized that subsidized housing should be a regional, not an exclusively local responsibility. The U.S. Department of Housing and Urban Development provides monetary and programmatic incentives to communities who participate in regional housing plans; HUD's Housing Opportunity Plan finances extra expenditures for housing and community development in participating communities and Community Development Block Grant Housing Assistance Plan (HAP) guidelines may be waived if the local HAP meshes with the regional plan.

For all these reasons, the City of Flint members of the Region V Commission should initiate discussions on formulation of a "fair share" plan for this area.

ILLUSTRATION 6

RACIAL COMPOSITION BY PLANNING DISTRICT FOR 1970 AND 1975



BLACK %
 WHITE %

NOTES ON ILLUSTRATION 6:

Changes reflect an unadjusted total of the entire population for each planning district. Differences in birth and death rates by race, City in- and out-migration, and inter-district moves have not been figured separately into the totals. Birth and death rate differentials should account for one percent or less of the total change per planning district, with intra-City or inter-area migration accounting for the remainder.

Included in the definition "white" are all persons other than those enumerated as black. In 1970, those persons enumerated in categories other than white or black totalled 1015, or 0.5% of the population; in 1975, 4259, or 2.3% of the population. A large majority of those in categories other than white or black are Spanish-speaking.

While 1970 figures were taken from the U.S. Census survey, 1975 figures were taken from a statistically valid sample of Flint households. Small errors in the sample might be reflected in cases such as the reporting of zero percent black in Planning District 12. This simply indicates that black population here is so small that blacks have an extremely low probability of showing up in any sample.

VI. EXISTING HOUSING NEEDS

Magnitude of Housing Needs

The City of Flint has some special needs in the area of housing. There is no housing shortage in the usual sense; that is, there are more housing units than there are households. This condition exists solely because the City's population is declining. Between 1970 and 1976 the average annual loss of population was 8049 while the average annual immigration was only 2213 per year. This represents a net loss per year of roughly 6000 persons or almost 2000 households. Consequently, and despite considerable demolition and clearance, the City's vacancy rate has increased from slightly over 5 percent in 1970 to slightly over 7 percent today.

Although some types of housing are in short supply, there is no "general" need for substantial new construction. There is, however, housing need in Flint. Many households are living in substandard structures in need of repair. Others are paying too large a portion of their incomes for the housing they occupy. Still others are forced, for a variety of reasons, into housing that is too small for their needs. A few have two or more of these problems. The following table indicates the magnitude of these problems.

	All hshlds	Low income hshlds
Living in substandard	6,742	6,691
Overcrowded	2,002	1,971
Paying over 25% of income	8,956	8,189
Total with one or more problems	14,426	13,932

There are a number of things that should be noted about these figures. First, the columns do not sum to the total at the bottom because double counting has been eliminated in computing the totals. That is, households are only counted once in the total even though they may have two, or even all three, of the problems. Secondly, low income households are those whose annual incomes are below 80 percent of the median income for the area.⁺ This means all households with incomes below \$11,000.00 and this definition will remain the same in all tables to follow. Finally, the table indicates that overcrowding is the least frequent problem while overly expensive and substandard units are far more numerous.

⁺The Flint area is defined by HUD as the Flint Standard Metropolitan Statistical Area (SMSA), composed of Genesee and Shiawassee Counties.

The information for this, and subsequent tables in this section, is derived from a survey administered to a sample of almost 3000 Flint households. The interviews were conducted by the Evidence for Community Health Organizations (ECHO) program during 1975 and 1976 with specific tables and data format designed by the Department of Community Development. Information for the City based on this sample is statistically accurate to within 5 percent. This means, for example, that actual total need reported in the table at 14,426 could be as high as 15,147 households or as low as 13,705 households. This information is also the basis for preparing the annual Housing Assistance Plan for the City of Flint.

Variability by Household Types

Tables in this section of the analysis point to the fact that need is variable for different household types. For example, although renters comprise only about 27 percent of all households, they make up well over half of the households with housing problems. Other relationships are revealed in the following table.

Low Income Households				
	Elderly Hshld	Family (1-4 persons)	Large Family (5 or more)	Total
Owners	1,152	2,533	2,429	6,114
Renters	2,042	4,792	4,792	7,818
Total	3,194	7,325	3,413	13,932

The column of households with an elderly head has been restricted to one and two persons in size, and a household head is considered elderly if over 62 years of age. This category comprises about 23 percent of all low-income households with housing problems. This is about the same proportion of all households which are headed by elderly individuals. On the other hand, households with five or more members comprise only around 19 percent of all households, yet they make up almost 25 percent of those low-income families with housing problems.

Other categories of households, by household head, appear in the next table.

Low Income Households

	Female households	Black households	Male households	Non-Black households
Owners	2,654	3,014	3,460	3,100
Renters	4,549	3,355	3,269	4,463
Total	7,203	6,369	6,729	7,563

From this, it can be seen that 52 percent of all low income households with housing problems are female-headed and that 63 percent of these female-headed households are renters. Likewise, 46 percent of these low income households are Black, yet Black households comprise only 31 percent of all households in the City. Only among low income male householders do the owners outnumber renters.

Variability by Geographic Area

Housing problems and needs are not evenly distributed throughout the City, but rather tend to cluster and create impacted areas. The tables in this section display the information on housing need for twelve planning districts in the City. In some instances the data is not statistically reliable at the planning district level and so a set of six combined districts contains two contiguous planning districts. These are displayed in Illustration 7.

Total housing need is highest in Planning Districts 2, 5 and 8 as shown in the following table:

Low income households with one or more housing problems

	1	2	3	4	5	6	7	8	9	10	11	12
Owners	588	1072	379	607	853	550	360	644	95	360	322	284
Renters	152	1042	834	512	1080	190	1183	1194	493	569	398	171
Total	740	2114	1213	1119	1933	740	1543	1836	588	969	720	455
% of City Need	5.31	15.17	8.71	8.03	13.87	5.31	11.08	13.18	4.22	6.67	5.17	3.27

Districts 5 and 2, which rank the worst in frequency of housing problems, also rank 11th and 12th among all districts on median family income levels. Moreover, they also rank in the same positions on average valuation of residential property. The position of the other planning districts on these items shows no such clear pattern.

Type of housing problems by planning district

	Low Income Households			All Households		
	Substandard	Overcrowded	Excess Cost	Substandard	Overcrowded	Excess Cost
1	114	171	512	115	153	559
2	1024	437	1156	1028	440	1160
3	644	189	776	650	190	905
4	398	227	815	402	237	865
5	1127	228	796	1340	230	801
6	284	152	436	285	155	436
7	1137	114	778	1143	121	851
8	834	170	1214	841	171	1357
9	209	19	474	209	19	518
10	190	208	588	191	209	713
11	341	18	379	349	19	511
12	189	38	265	189	38	280

The sample sizes for overcrowded households were very small, therefore accuracy for an actual household count by planning district is questionable. However, the figures are sufficiently accurate for comparison among planning districts over the relative concentration of all three problems. Also, the comparison of all households to low income households indicates very few changes, either in totals or in the distribution by planning district. Substandard units are concentrated in Planning Districts 2, 5 and 7. Overcrowding is predominate in 2, 4 and 5 with a relatively large number in Planning District 10, also. Households paying over 26 percent of their income for rent or housing payments are most numerous in 2 and 8.

When the planning districts are combined into six geographic areas, more detailed analysis of housing needs is possible. The following table displays the distribution of need among low income households by race and sex of household heads and by tenure.

Here a consistent pattern appears with the exception of area IV, where only 6 percent of low income households with housing problems are in the large family category. Area I, by contrast, has a much larger portion of need comprised of large families.

Summary

Housing needs in the City do not appear to vary greatly when restricted to households with incomes below 80 percent of the area median, leading to the conclusion that housing problems are largely limited to low-income households and areas. Further, among low income households, housing problems are heavily concentrated among those with female heads. Black households, likewise, make up a much larger proportion of those with needs than their numbers among the general population would dictate. In a few areas, over 80% of households with needs are Black.

Substandard housing and excessive cost appear to be the most frequent problems, and are more frequent among renters than owners. Overcrowding is a much less serious problem, in terms of numbers, but one that occurs more often among owners than among renters. Overall, renting households make up slightly over half of those with housing problems.

VII. FUTURE HOUSING NEEDS

Factors Determining Needs

Future housing needs in the City of Flint will depend largely on two factors, the number of households and the supply of housing units. The number of households at any future time will depend on the rate at which new households are being formed, through either natural increase or in-migration, and the rate at which existing households are lost, through either natural decrease or out-migration. The number of housing units at any future time will depend upon the rate at which new units are being created, through construction or division of large units, and the rate at which units are being lost through deterioration and demolition. This section will attempt to predict what the impact of these factors will be between now and 1980.

Projections of Housing Supply

The population projections which appear in the table below are based on what the trends in population change have been since 1970. The model employed is a simple one based on the idea of a constant rate of change. This rate can be found by taking the size of the population at two points in time and employing the following formula:

$$\frac{P_2}{P_1} = (1 \pm r)^n$$

Where P_1 = population at time one
 P_2 = population at time two
 r = rate of change annually
 n = number of years between P_1 & P_2

Using a 1970 population of 193,317 as P_1 and a 1976 population of 170,650 as P_2 , the formula yields an annual rate of change of .02057. The negative value of the change rate indicates a declining population. Projecting that rate of change forward several years produces the expected populations indicated in the following table.

Population and Housing Unit Counts

Year	Population	Decrease	Housing Units	Average Family Size	Vacancy Rate
1970+	193,317		63,309	3.13	5.10
1973	185,000	4.3%	62,549	na++	na
1975	175,003	5.4%	61,137	3.07	7.00
1976	170,650	2.49%	60,268	3.05	7.16

Population and Housing Unit Projections

Year	Population	Decrease	Housing Units	Average Family Size	Vacancy Rate
1977	167,139	2.06%	59,776	3.01	7.10
1978	163,720	2.05%	59,287	3.00	7.95
1979	160,334	2.07%	58,803	2.99	9.11
1980	157,035	2.06%	58,322	2.98	9.60

+ Data for 1970 taken from the decennial census. All other years are estimated from local surveys by ECHO and DCD.

++ Not available

The population estimates for 1977 through 1980 derived from this model are not expected to be entirely accurate as many things may happen to change the rate of annual decline. However, in the short run the estimates seem reasonable. The City has experienced a net loss through migration alone of roughly 6,000 individuals per year and there is little in the immediate future that is likely to reverse this trend.

The housing supply projections are, likewise, generated from the experience of recent years. Two other factors are also considered: the extent and magnitude of housing deterioration and the planned construction of additional units. Similarly, recent declines in birth rates and family size were used as the basis for predicting the future average family sizes.

The housing supply projections may prove to be slightly conservative. That is, as rehabilitation programs recently begun start to have an effect, the number of demolitions predicted may not occur. Also, the average family size may not actually get much below 3 persons. If either of these conditions came to pass, the vacancy rate would become even larger than predicted, other things being equal.

The one figure that might cause a decrease in the predicted vacancy rates would be an increase in the population. This is not anticipated before 1980. No major increase in employment is expected in the area, nor are any other events which might cause an unexpected population increase. However, by 1980 the vacancy rate is projected to be approaching 10%. Vacancy rates of this magnitude may generate market pressures which would work to stabilize migration patterns.

Probable Housing Needs by Household Types

The comparison of housing supplies with numbers of households provides one aspect of need. However, housing needs are sometimes created by mismatching units and households even though the overall supply appears adequate. The table below utilizes the three categories of housing need established in the section on Existing Housing Needs, which are households in substandard units, households in over-crowded units and households paying over 25% of their annual income for housing. The table is restricted to low-income households who need some type of assistance to solve housing problems.

Projections of Low Income Housing Needs

	Projections						
	1974	1975	1976	1977	1978	1979	1980
Black hshlds	5,433	5,618	6,369	7,993	8,684	9,116	9,396
Female hshlds	5,678	6,969	7,203	8,306	8,350	8,428	8,352
Elderly hshlds	2,209	2,805	3,194	3,134	3,507	3,784	3,654
Small Family	4,985	6,305	7,288	8,113	9,018	9,116	9,420
Large Family	2,443	3,014	3,450	4,425	4,175	4,300	4,326
All hshlds	9,637	12,124	13,932	15,672	16,700	17,200	17,400

An increase in total number of households needing assistance is anticipated in each of the next four years. This is expected as a result of established migration patterns. The typical out-migrating household is above average in income while the typical in-migrating household is at or below the median income for the area. Existing programs of assistance, plus the increasing latitude in housing supply, are expected to mitigate the increase in need so that the rate is expected to go down even though the actual count will continue to rise through 1980.

Also, based on past and expected patterns of migration, the proportion of black households with specific housing needs is expected to increase. Female-headed households are expected to increase in numbers through 1980, but decrease in terms of their proportion of total households. Those households with 1 to 4 members will continue to be the most frequent largely because of their predominance among all households. This is reflected in recent and projected changes in average household size discussed above.

VIII. EXISTING AND FUTURE HOUSING DEMAND

Housing demand is defined as the number of units that will be absorbed at a specific pace.¹ It is concerned primarily with new units entering the market and only secondarily with exchanges in the existing housing stock. While the construction of new housing units in the Flint market area (Genesee County) has tapered off to less than half of what it was in the early 1970's, construction in Flint is almost non-existent (See Illustration 8 and further detail in Housing Characteristics section). Flint's population is declining and little vacant and developable land remains within the City limits. Very limited and specialized new construction (elderly high-rise units, the Doyle redevelopment project, possibly some luxury units) is expected in the future.

Because Flint's population is expected to decline slowly within the next twenty years, while the population of Genesee County as a whole remains fairly stable², it is logical to assume that new housing construction in the out-County areas will satisfy future housing demand.

Exceptions include:

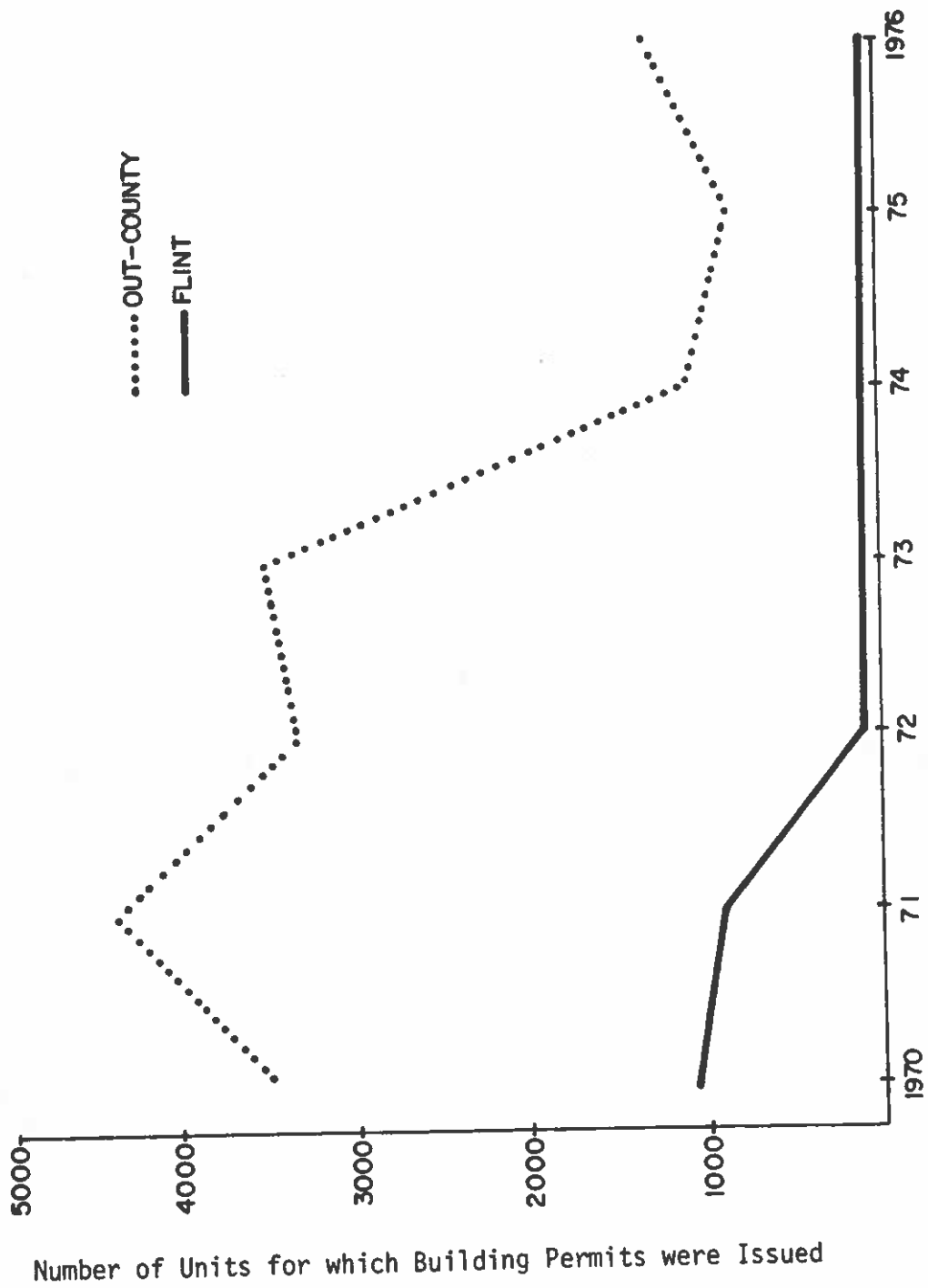
- 1) The demand for well-built, expensive older housing. Few out-County areas can duplicate the estate areas of Flint, Woodcroft Estates on the west side and the area around Burroughs Park. These and a few other areas contain well-built Tudor-, Colonial- and Contemporary-style homes on very large lots, with exceptional interior features and "extra" rooms such as libraries, sitting rooms, pantries and formal dining rooms. Although many sales in these areas are on land contract terms between private parties, from existing records of sales it can be determined that these homes will sell for up to \$250,000.
- 2) Urban apartments for small upper- and middle-income households. A 1975 Department of Community Development survey³ revealed that many apartment dwellers in out-County areas would move back into the City if apartments with modern interior appointments (garbage disposal, laundry facilities) and amenities such as good security arrangements and adequate landscaping were available. The Doyle project may absorb some apartment dwellers who desire a truly urban atmosphere. Downtown hotel conversions, provided units converted are modernized and sufficiently roomy, may also take up some of this demand.

¹FHA Techniques of Market Analysis, HUD, 1970.

²GLS Region V Planning and Development Commission, Population Projections for the 208 Water Quality Program dated May, 1977.

³Department of Community Development, City of Flint, Michigan, 1975. On file in Department Offices.

ILLUSTRATION 8



A comparison of Flint and out-County residential construction activity as indicated by building permits granted by 1970-1976. Source: Genesee County Metropolitan Planning Commission

- 3) Starter homes for younger families. This demand category may overlap the previous category and may also include more "need" than "demand" situations. Affordable, modern two- and three-bedroom homes and the previously-mentioned modern apartment units are more in demand as household sizes decline and as decisions on starting families are postponed. Recent response to the City of Flint's Property Release Option Program (PROP) indicates a demand for units which could be rehabilitated and remodeled to modern standards.

It seems that demand for units in all three of the above categories will continue into the future, regardless of population change. While the City can do nothing to effect the supply of older, well-built units, it can encourage the addition of modern apartments in the downtown area and promote programs which tend to maintain or increase the stock of "starter" units within the City.

IX. HOUSING DEVELOPMENT POLICIES

This section will concentrate on identifying what type of housing is needed to adequately house families in specific geographic areas throughout the city. Households with one or more housing problems (those living in a substandard structure, those living in overcrowded conditions, or those paying more than 25 percent of their income on housing expenses) were identified both demographically and geographically in the section on existing housing needs. The analysis here will center around how to reduce the number of households with some type of housing problem. Also, these solutions will be directed at low-income households, since less than 4 percent of the households with a housing problem were in higher income brackets.

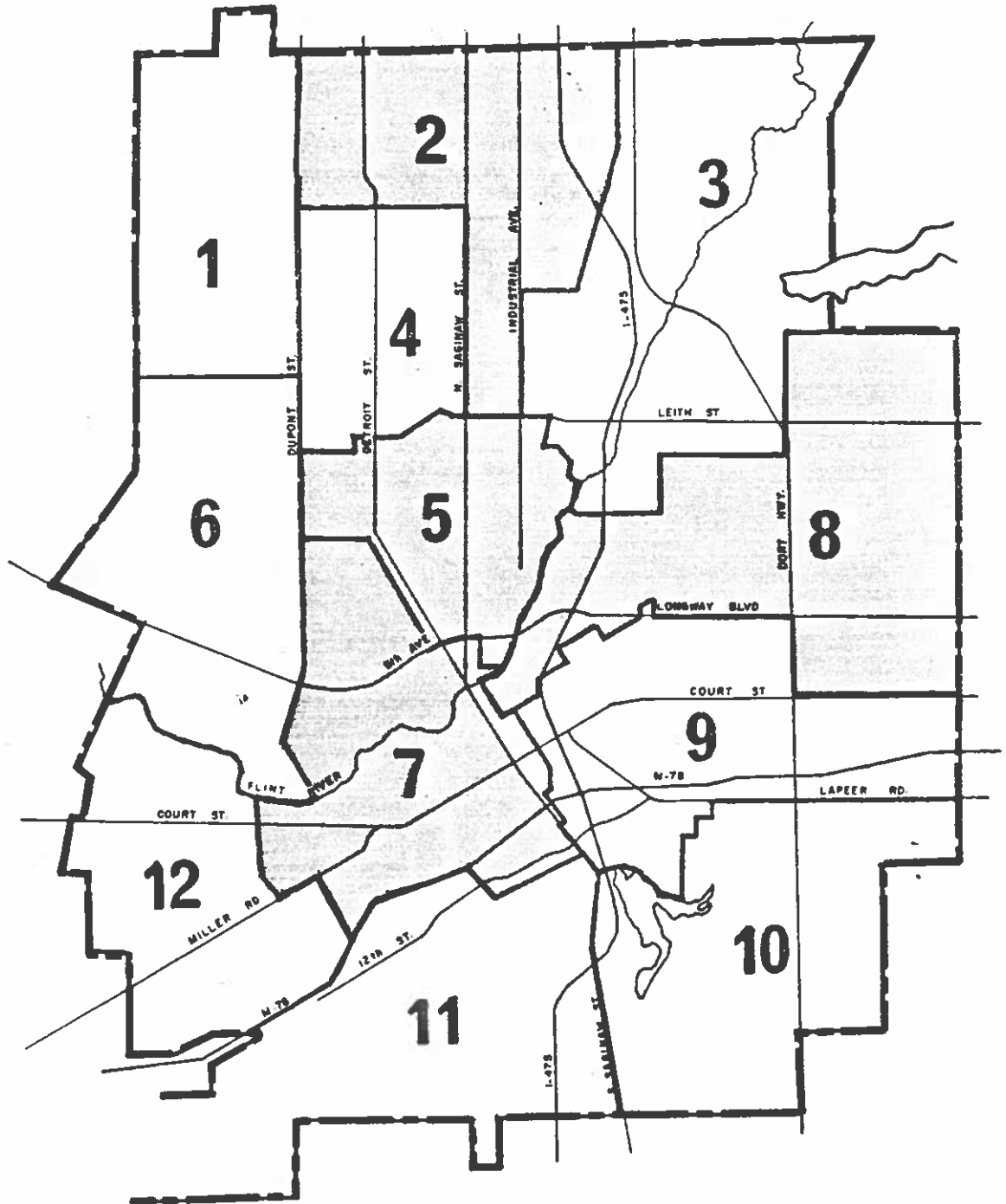
The least serious housing problem arises from overcrowding, only 14 percent of the low-income households with problems. This would indicate that the size of homes and apartments throughout the city are, in most instances, adequate to serve the needs of the households. Forty-eight percent of the households with some sort of housing problem live in substandard housing. This suggests the need for rehabilitation programs. Although beneficial to the neighborhood and the city as a whole, a problem arises. Because these are predominantly households with low-incomes, it is difficult for them to obtain a conventional loan for rehabilitation purposes. It is also sometimes difficult for the household to repay even a subsidized low-interest loan sponsored by an organization such as the Flint Neighborhood Improvement and Preservation Project Incorporated. Therefore, in some cases only a grant will enable some households to rehabilitate their property. The majority of the households in need are those paying more than 25 percent of their income towards housing expenses (59 percent of the low-income households with housing problems). This implies that a substantial number of families are in need of some sort of housing assistance, either as rental assistance or purchase subsidy.

With all three types of housing problems combined, Planning Districts 2, 5, 7 and 8 show the greatest concentration of households with problems (see Illustration 9). Together these three planning districts include over 53 percent of the total existing need. The composition of the households differ significantly. Three-quarters of those in need are made up of small families one to four individuals. One-quarter of these are elderly households of one or two persons. These small families and elderly households are made up of 65 percent renters. Large families (those with five or more persons) which make up one-quarter of those in need, are primarily owner occupants, about 71 percent.

From this, assumptions can be made as to the type of assistance needed to best serve the low-income households currently living in a situation with one or more of the defined housing problems. Households living in substandard dwellings and those paying more than 25 percent of their income for rent or housing payments are the most numerous of the problems indicated, and therefore assistance should concentrate on alleviating these situations.

ILLUSTRATION 9

HIGHEST CONCENTRATION OF HOUSEHOLDS WITH HOUSING PROBLEMS



Throughout the City there are about 5,100 dwelling units that are in substandard condition, according to the 1976 ECHO Environmental Block Appraisals. Five percent of these units were considered dilapidated and cannot be rehabilitated. Of the units that could benefit from rehabilitation, over 98 percent are occupied by low-income households. Rehabilitation programs, offering grants and low-interest loans, would be beneficial to these neighborhoods. Planning Districts 2, 5, 7 and 8 show the highest concentration of low-income households living in substandard dwellings.

The most serious of Flint's housing problems is that of households paying over 25 percent of their income for housing expenses. The need for increased government-assisted housing programs is evident. Currently all programs sponsored for the elderly are at full occupancy, with about a two-year waiting list. Public Housing sites are also completely utilized, with a similar waiting list. Other federally subsidized rental units have very high occupancy levels.

Although some types of housing are in short supply, there is no "general" need for substantial new construction. Concentration should be given to acquiring existing units that could be rehabilitated if necessary and used as subsidized residences. Because there was about a 50/50 split between owners and renters in need, not only should rental units be acquired, but consideration should be given to purchase subsidies.

From the household characteristics detailed in the section on existing need, the size of needed units can be determined. Rental units should be predominately two bedroom units to accommodate small families and elderly persons, who make up the majority of the rental need. On the other hand, homes to be used in an ownership subsidy program should be larger units (predominately 3 and 4 bedroom homes) because large families demonstrate the most interest in purchasing a home.

The 265 program, an extension of the previous 235 homeownership subsidy program, will allow subsidies to existing substantially rehabilitated homes as well as new construction. This program could provide assistance to many of the homeowners in need. Priority for new construction should be centered around one and two bedroom units for the elderly, who make up a large proportion of the rental assistance need. With long waiting lists at existing sites, the demand is evident.

Some of this needed new housing is presently being developed on a site just north of downtown Flint. The Doyle Residential Project was an urban renewal area acquired and cleared by the City of Flint. When completed, it will provide 495 housing units in townhouses, garden apartments, patio houses, and an elderly high-rise. The Doyle Area was designed to create a neighborhood that would attract many different types of families. Some of the apartments, along with the elderly complex, will be federally subsidized, while the remainder of the rental units would rent conventionally.

There may be other opportunities for new construction in or near the downtown area. Additional housing for the elderly, students and employees of the University of Michigan, and those otherwise employed downtown is a possibility. High-rise units could be built given purchase and clearance of presently under-utilized commercial and residential sites. The City of Flint should not attempt further clearance and construction activities downtown due to already heavy financial commitments to the Riverfront Center, Doyle, and Flood Control projects. However, the city can take steps to ensure that zoning, site planning, and permit procedures are expedited for private developers and that public services provided (streets, utilities, security, etc.) are of the highest calibre.

Other specific geographic locations for new construction are limited to currently undeveloped property. At the present time, within the city limits, there are a few major tracts of land, totalling some 300 acres, that could be developed as residential neighborhoods (see Illustration 10). The majority of this undeveloped land is presently zoned for residential uses, either as single-family or some type of multiple-family use.

Most of this land is owned by private developers, therefore the City has minimal control over how and when the property is developed. Currently the City of Flint owns only one of the smaller sites. So if any major subsidized residential developments are to take place, the City would have to acquire land from, or contract with, the individual property owners.

These tracts of undeveloped land may be suitable for the type of luxury apartment or townhouse development which has drawn middle- and upper-income households to the out-County areas in recent years. Every effort should be made to promote attractive, modern, well-landscaped development. In attempting to solve problems of low income households, the City should not spare efforts to attract higher income households back to the City. This secondary goal will assure long-term residential tax base stability and the socio-economic diversity which makes the urban environment culturally stimulating and attractive.

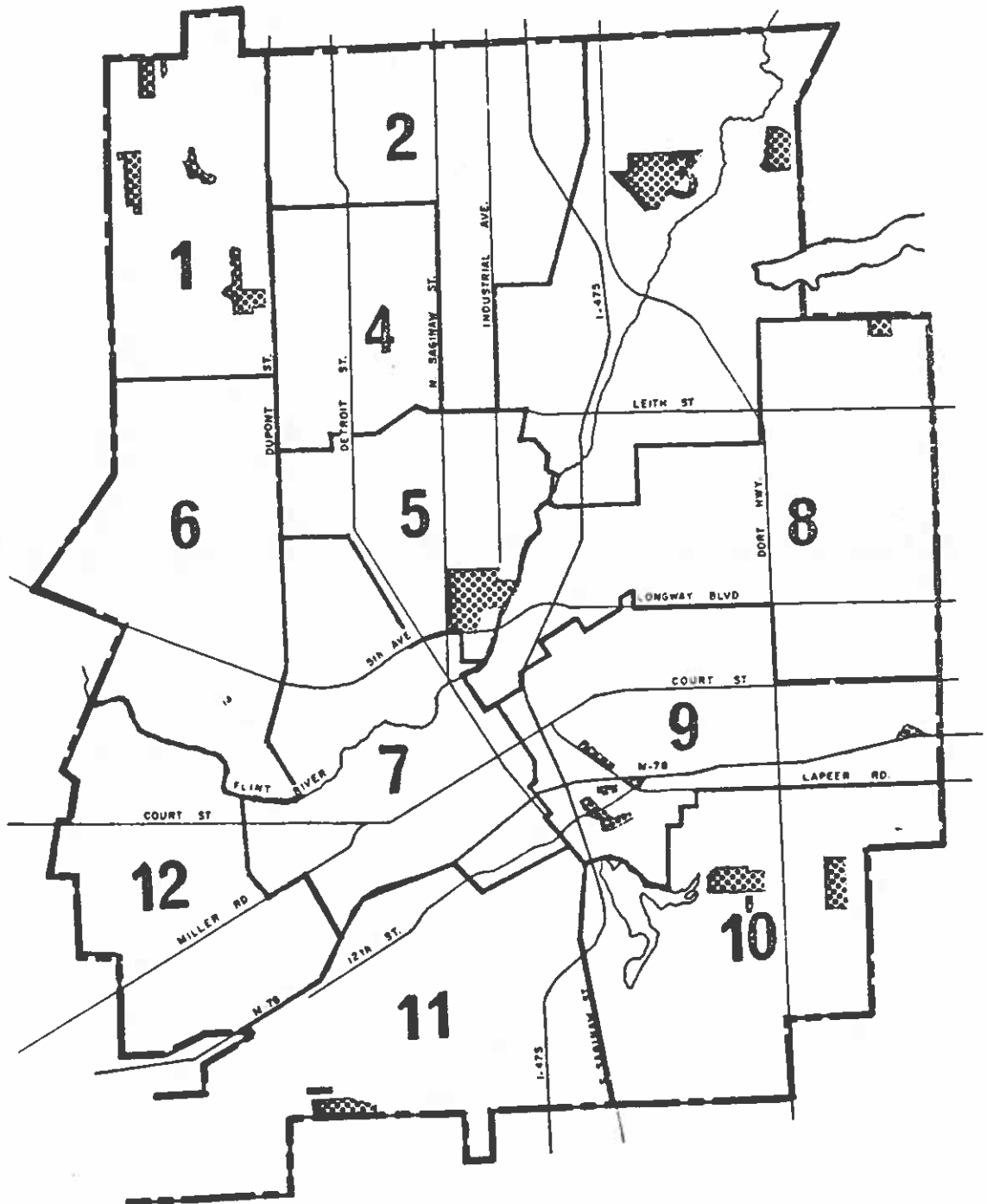
Summary

Summarizing the discussion above, the following policies should guide housing decisions in the City of Flint:

Housing and Residential Policies

1. It shall be the policy of the City to preserve and enhance the existing housing stock and to safeguard the neighborhoods from undesirable effects and conditions. The City will act to support and promote rehabilitation in viable residential areas and the

POTENTIAL AREAS FOR NEW RESIDENTIAL DEVELOPMENT



formation of neighborhood organizations toward these ends. The City shall take no action which will result in physical impaction, social or racial segregation, or which will adversely affect the residential character of an existing viable neighborhood.

2. It shall be the policy of the City to annually assess the housing needs and problems of the residents and to allocate the resources of the City on a priority of need -- the largest proportion of available resources being committed to areas where need is greatest.
3. It shall be the policy of the City to provide for and promote an increased resident population by encouraging the private development of higher density housing structures wherever feasible and in line with neighborhood standards, with special emphasis on the downtown. Whenever possible, stress will be placed on increasing the number of housing units of types in shortest supply on the market.
4. It shall be the policy of the City to promote equality of access to housing opportunities to all residents regardless of race, sex, age, creed or national origin, and to ensure against discriminatory practices through strict enforcement of City ordinances and appropriate laws. The City will take no action, nor permit action to be taken by others, which conflicts with this policy, or in anyway interferes with a citizens right to safe, sound and decent housing of their choice.
5. It shall be the policy of the City to participate in programs of the Federal or State governments providing construction or subsidy of housing for the elderly, handicapped and low to moderate income families to the full extent that a need for such housing is substantiated, and limited only by the availability of financial and other resources for this purpose.
6. It shall be the policy of the City to require annual inspections of multi-unit residential structures and regular inspection of all residential structures. The City shall strictly enforce the codes and regulations in all residential areas and will act expeditiously to condemn and remove any obsolete and blighting structures from viable neighborhoods or incentive programs to home owners.

X. IMPLEMENTATION MECHANISMS

While satisfaction of housing needs and demands may be dependent upon a number of factors beyond the City's control, from prevailing mortgage lending rates to the price of fuel, the City of Flint can influence the meeting of housing goals by actively carrying out the policies described above. Three sets of mechanisms, the City's provision of traditional urban services, the City's role as a community development agency, and the city's ability to influence and/or coordinate with private-sector decision-making, can be utilized to carry out housing policy.

HOUSING AND THE IMPORTANCE OF URBAN SERVICE PROVISION

The quality of life in Flint neighborhoods is dependent not only upon the availability of decent housing but upon the efficient provision of basic urban services,¹ which include:

- Community schools
- Protection from crime against persons and property
- Fire protection
- Sewer and water provision
- Code enforcement
- Street maintenance and traffic control
- Provision of parks and recreation opportunities
- Sanitation services
- Animal control

The City of Flint administers all these services, with the exception of community schools, the province of the Flint Board of Education, and animal control, which is handled by Genesee County.

Provision of these services relates back to the definition of a decent home and living environment. In addition, provision of satisfactory levels of such services tends to stabilize residential property values and serves as an attraction to potential in-migrants.

While departments within the City of Flint have done an adequate, and in some cases, exemplary, job of providing these basic urban services, service provision has been determined largely by general professional standards or by year-to-year funding availability. No coherent set of goals or policies, specifically formulated to meet Flint's needs, has guided all departments. Preserving the integrity of residential neighborhoods can serve as a guiding policy.

In addition to the absence of a set of guiding policies for service provision, there has been a failure to adequately evaluate the effectiveness and efficiency of some urban services with regard to such criteria as future year budget constraints, equity of service to all areas of the city, and inter-service impacts (that is, the effects of provision of one service upon provision of another, for example, what level of street lighting may deter crime in what section of the city?).

Both the setting of service provision goals and monitoring and evaluation of progress toward these goals are activities internal to City Hall, and under the control of the City Hall Administration. The institution of two programs, one mandated by State law and the other functionally necessary to set rational service priorities, will enable the city to provide basic services in a more efficient and effective manner. This cannot help but enhance the attractiveness and stability of Flint's neighborhoods.

¹Such other urban services as the visiting nurse program, senior citizens' centers, and provision of public transportation are very desirable but usually not considered basic to the operation of a City.

Capital Budgeting and Programming

A capital budgeting and programming process must be initiated for the City of Flint. A capital program describes, roughly costs out, and prioritizes by year, all major, non-recurring improvements (e.g. sewers, streets, parks, etc.) contemplated by a city five to six years into the future. A capital budget details the funding sources and expenditures to be made during the first year of the program. The State of Michigan Municipal Planning Act of 1931 mandates this process for all cities in the State. The Charter of the City of Flint states that the Chief Planning Officer is charged with the responsibility of preparing "the annual capital agenda and capital budget." The Mayor's office, the Finance Department, and implementing departments for capital projects all play critical roles in the process. A more detailed proposal for initiating a capital improvements budgeting and programming process is contained in Appendix C.

The Responsive Municipal Services Program: A Budgeting and Evaluation Tool

Perhaps the most important (and often the most overlooked) part of budgeting for public service provision is determination of the actual effects of dollars spent. Usually no attempt is made to quantify the effects of services and improvements with regard to the needs of individual neighborhoods and the needs of the city as a whole. Quantification involves measurement and evaluation of the level of service provided so that continuance of or improvements in a certain service can be made. The Responsive Municipal Services Program (RMSP) is proposed by the Department of Community Development to complement the capital programming process by objective measurement of effects of services rendered and improvements constructed.

The RMSP would divide the city into monitoring areas, consistent with census tracts. The present configuration of separate service districts for each city service (e.g., garbage pickup, snow removal, etc.) is necessary for purposes of actual operation, but does not lend itself to evaluative efforts. Operating service districts may split neighborhoods, or even take in one side of a residential street and not the other.

Monitoring would take place on a yearly basis. A "score" would be assigned to each of the monitoring areas for each type of city service, and an average "score" computed for the city as a whole. Those areas with "scores" deviating significantly from the city average would receive increased attention in budget allocations and/or higher priority in regular service delivery.

A more complete explanation of the workings of the RMSP can be found in the description of the capital improvements programming process in Appendix C.

Code Enforcement: A Special Case

The RMSP would provide a rational context for the re-evaluation of one city service which is critical to the preservation and upgrading of housing stock: code enforcement. This service has a particularly stormy history in the City. There are those who claim that code enforcement discriminates against the lower income household and serves, in general, to raise property taxes for all homeowners. However, uniform enforcement of building codes is absolutely necessary to the health and safety of the community. The RMSP would enable decision-makers to set realistic, equitable code enforcement goals for all areas of the City.

Presently, residential housing code enforcement is limited to the following categories (with approximate percent of all cases):

- o Inspection upon sale of single-family and duplex structures (mandated by City ordinance) (25%)
- o Yearly inspection of all multi-family structures (10%)
- o Yearly inspection of vacant vandalized or fire-damaged dwellings (20%)
- o Investigation and inspection as a result of complaints (45%)

While cases in the first three groups must be dealt with by necessity, complaints, representing the largest single source of code inspection work, may arise due to lack of enforcement or lack of uniform enforcement.

A rotating schedule of residential code enforcement, based on the Responsive Municipal Services Program would be likely to have the following effects:

1. Ensure decent and safe housing in all areas of the City.
2. Reduce the total number of code-related complaints.
3. Provide interior condition information and comparative data for decision-makers and housing policy planners.
4. As a "preventive" City service, reduce the caseload, and therefore the cost, of other public services, such as fire protection and sewer servicing.

A rational schedule, in order to be effective, should be based on a cycle no longer than five to seven years. During this time period, a unit exposed to average occupant wear and tear plus Michigan winters can be expected to show some signs of use. The extent of possible code violations would depend, of course, on the age of the structure, the amount and quality of maintenance, and other factors.

In the past, proposals for a City-wide code enforcement program have run into a number of political and administrative obstacles. It is therefore recommended that the Director of Building and Safety Inspections conduct an informational study on the feasibility of establishing a rotating residential code enforcement schedule. The study should include, but not be limited to, the following factors:

- 1) Length of inspection cycle to be instated.
- 2) Availability of adequate budget and personnel to perform schedule.
- 3) Type of criteria education program to accompany code enforcement effort.
- 4) Expected long-term increases in residential tax base following establishment of code enforcement.
- 5) Relation of code enforcement scheduling to other City programs and services (e.g., housing rehabilitation, urban renewal plans, capital improvements investments).

Summary

Establishment of the capital improvements programming and budgeting process and concurrent initiation of the Responsive Municipal Services Program would insure adequate service levels in all city neighborhoods thereby, as mentioned previously, effecting 1) tendencies for persons to become and remain homeowners in the city, 2) increases in property values, and 3) pride of neighborhood, resulting in better upkeep of housing and less need for extensive public investment to upgrade neighborhoods. The two programs provide an excellent opportunity to relate public improvement needs to public and private housing rehabilitation efforts in selected target areas.

The two programs, providing a context for both goal-setting and evaluation of progress toward goals, require a minimal dollar investment, plus some retraining of present City staff. The programs can be effected through the Department of Community Development or directly through the Mayor's Office, in conjunction with review by the Chief Planning Officer.

THE CITY'S ROLE AS A COMMUNITY DEVELOPMENT AGENCY

As a community development agency, the City of Flint can advance housing goals and carry out housing policy directly through application of local ordinances and through various urban renewal and other physical development efforts. While new construction of housing units (either through the Flint Housing Commission or through State or Federally-subsidized programs, such as part of the proposed Doyle development) can be very desirable, it is impractical to rely heavily upon the construction of new units to alleviate housing problems within the City of Flint. Vacant parcels are scattered throughout inner city neighborhoods; land assemblage on a moderate to large scale is infeasible. The types of incentives needed in order to lure a great deal of new construction to the City (massive tax breaks, an assured market, provision of public improvements at nominal cost) are, for the most part, beyond the City's legal and fiscal capacities.

The City is currently placing emphasis on housing rehabilitation in selected target areas and on limited demolition of unsound housing as the two most suitable short-term methods of insuring an adequate supply of decent and desirable housing to its residents.

Over the long term, the City must use its statutory zoning and planning powers to the fullest in order to preserve the best qualities of attractive neighborhoods and to prevent further residential deterioration. Neighborhood preservation can be affected by changes in the zoning ordinance and by adherence to strict standards in the granting of use variances and other special exceptions.

Housing Rehabilitation

The City of Flint has experienced a marked decline in the relative housing quality of residential structures over the last five years. Since 1972 the City has experienced a drop of 11% in the category of well-maintained housing units, in spite of urban renewal and redevelopment projects that cleared large numbers of substandard dwellings. Concurrently, the numbers of slightly deteriorated and generally deteriorated structures have grown to 28% of the stock. Clearly the general maintenance of the residences in the City has deteriorated and, projecting along current rates, by the 1980's we could expect no more than one-half the structures to be in a well-maintained condition.

Rehabilitation of existing housing units appears to be one method to stem the tide of deterioration. But the situation is complicated. A majority of householders owning in deteriorated dwellings are in low-income ranges, making it extremely difficult to arrange home improvement financing. The task of implementing and perpetuating a viable housing rehabilitation program is problematic.

The following discussion describes the current rehab program, alternative funding sources and program guidelines and projections.

Recent Rehabilitation Trends

The implementation of Rehabilitation Programs in Flint has been visible only in the last five or six years. Federal Section 312 Rehabilitation Loans have been sporadically applied to the original Neighborhood Development Program (NDP) areas since 1970. But the levels of loan funding have been low and time of funding uncertain. For the most part, the homes rehabbed with 312 monies have been maintained in good condition.

Recently, the City of Flint's Department of Community Development (DCD) has embarked on a large-scale rehab program in selected target areas scattered throughout the City. A pilot program was begun in late 1976 using first-year Community Development Block Grant (CDBG) funds in a loan/grant disbursement schedule. Thirty-five to 50 households will be served, depending on individual loan/grant needs, in Census Tract 25, a portion of the deteriorated Oak Park NDP. A larger program, developed through the Flint Neighborhood Improvement and Preservation Program, Incorporated (FNIPPI), a City-funded, non-profit corporation, will be described later.

Housing Maintenance and Housing Rehabilitation Programs

A housing up-grading program can be divided into two areas or approaches, maintenance and rehabilitation. A maintenance program would be formulated to assist home owners with minor types of home maintenance, generally such items as the average resident would undertake on his/her own. These items could include the replacement of a broken window pane, repair of a missing porch railing or stair tread and minor painting projects. Generally, these projects would necessitate the advice or technical assistance of individuals in building or home repair trades, but not necessarily active participation. A maintenance program in selected areas would be designed to offer residents technical assistance on home repair projects and possible arrangements for discounts on building materials. These areas would be categorized as Monitoring-Maintenance tracts and would be closely watched by the City Department of Community Development staff on a year-to-year basis to detect early signs of deterioration in housing quality. Maintenance activities would not include code-related types of deficiencies.

A formal rehabilitation program would concentrate on improving the livability of an individual or family residence that has shown marked deficiencies and/or deterioration. Rehabilitation, in this context, would refer to home repair activities not normally undertaken by an owner or resident on his/her own, and would generally involve code-related deficiencies. The services of a contractor would be sought for such repairs as a new roof, major plumbing or heating projects, replacement of exterior siding or extensive exterior painting. The cost for these repairs could span the spectrum from a few hundred dollars to several thousands, necessitating some type of financing program. Federally subsidized loans or grants would be made available to individuals who meet specified eligibility requirements.

Housing Rehabilitation Target Area Selection

Census Tracts appear to present the most usable geographic configuration for housing quality analysis, inasmuch as these areas offer the greatest amount of available data. Additionally, the tracts are of small enough size to allow for some degree of homogeneity within. In a few instances, housing quality is not uniformly distributed within a tract, but inferences can still be established on the basis of the data. While Census Tracts do not always match what residents consider neighborhood boundaries, they are the best substitute available.

Target area selection and the prioritization of housing rehabilitation programs within the City of Flint should follow the guidelines and formula presented in the Flint Community Development Block Grant application for 1977-78. The criteria used include: age of housing, median household income, housing quality, proportion of owner-occupied and proportion of single-family units for each Census Tract in the City. The five criteria represent residential attributes that can be easily quantified. Other potential criteria such as code violations and average assessed housing valuations are recorded but are either generally not in an aggregate form or lack other quantifiable factors. Two variables, average assessed housing valuation and incidence of well maintained structures, are statistically highly correlated but contain other relationships such as dwelling and lot size that are impractical to determine.

The target area selection process should be formulated to assist low and moderate income home owners in deteriorating dwellings and to meet the guidelines mandated by the Federal Department of Housing and Urban Development (HUD). State of Michigan House Bill No. 4251 currently under discussion, would enable the Michigan State Housing Development Authority (MSHDA) to administer its own Neighborhood Improvement Program (NIP) throughout the State in selected rehab target areas. MSHDA's preliminary eligibility criteria almost exactly parallel those of HUD, at least on a quantitative basis. Adoption of the rehab criteria suggested here will allow flexibility in the program to accommodate the pending State legislation as well as existing Federal guidelines.

Previous Federal housing programs encouraged municipalities to designate their most severely deteriorated and dilapidated areas as redevelopment districts. After enormous expenditures of funds, success seemed to elude the planners. The focus in housing rehabilitation efforts in Flint should be to place limited funds and resources into areas where substantial impact can be made, i.e., transitional neighborhoods that show evidence of incipient deterioration and where livability, visibility and marketability may be enhanced through rehabilitation.

A priority ranking should lead to categorization of tracts in three groupings. The first category would be a Monitoring Group and would contain those tracts exhibiting high degrees of housing quality and

and household income and which are not in immediate danger of advancing blight or major deterioration. These tracts would be monitored on a year-to-year basis to spot initial signs of neighborhood transition or incipient decline.

A second category would contain those areas that because of extreme age, very low household income, extreme structural deterioration or other factors make rehabilitation an impractical investment. Inasmuch as housing market value is related to supply-demand and resale value within a neighborhood, the impact of a few rehabilitation jobs would be minimal. This second category would be termed a Non-Rehabilitation Group in that no tract-wide rehabilitation program would be developed. Instead, spot clearance and reuse plans would be proposed for the neighborhoods in this category in an effort to remove the most deleterious blighting influences. Rehabilitation loans/grants might be provided based on an individual homeowner's ability to maintain the structures in a post-rehab condition and with due consideration of income levels.

The last category, Rehabilitation Groups, would include all those tracts that could profit by rehabilitation programs offered on the neighborhood level, and ones that would manifest the greatest degree of visibility for the program. These tracts all show common attributes in that they all exhibit moderate amounts of deterioration, high owner-occupancy rates and low-to-moderate income levels. Loans and grants would be offered in these areas on a tract-wide basis.

All data used for the prioritization process should be updated on an annual basis as conditions in individual Census Tracts change. Monitoring is required at least yearly to help pinpoint changes that may warrant reassessment of a particular area in relation either to its City-wide ranking or influence upon an adjacent tract.

Ongoing Rehabilitation Efforts

The present City of Flint-sponsored rehabilitation program is administered by the Flint Neighborhood Improvement and Preservation Program, Incorporated (Flint NIPP Inc.). This organization, under the name Genesee Community Development Conference, was actively involved in the early 235 and 236 programs during the late 60's and early 70's and established a good reputation in housing development areas. Flint NIPP has adopted, as a non-profit corporation, the goal of improving housing conditions in the City through studying factors which affect the supply of decent, safe, and sanitary housing, preparing comprehensive public and private housing programs for the City, encouragement of citizen participation activities, and participation in program authorized by the Michigan State Housing Development Authority, the National Housing Act and Federal Housing Administration regulations for mortgage and loan insurance. A performance contract, executed by the Flint Department of Community Development, allows Flint NIPP to operate during 1977-78 with funding of over \$2 million from Flint's Community Development Block Grant.

The contract with the City specifies the conditions, goals and performance criteria that Flint NIPP must meet. Additionally, the City reserves the right to select rehabilitation target areas. Flint NIPP must work toward the goals and objectives of the Housing Assistance Plan (HAP) as specified in the Community Development Block Grant.

Because of the need for grants and low interest loans to low- and moderate-income households, future rehabilitation programs for the city will hinge on continued subsidies from the Department of Community Development, private foundations or State programs. The Michigan State Housing Development Authority (MSHDA) is currently formulating housing and neighborhood improvement programs geared to loan/grant applications in the State. Preliminary eligibility criteria reflect a concern for low-and moderate-income households.

A potential problem arises if and when Flint NIPP is no longer funded solely through the City of Flint. At that juncture, the corporation will be free to pursue its own goals as related to housing development and rehabilitation in Flint. Potential private or foundation monies would replace the HUD pass-through funding and create a situation where the City of Flint would not be able to control selection of target areas. Operating as an autonomous entity, the corporation would be guided largely by the wishes and demands of the new funding source. In other words, movement toward the goals and objectives of this Plan would no longer be determined solely by the public body, the City of Flint.

Funding for City-sponsored housing rehabilitation in coming years is neither inexhaustible nor certain. Decreasing funding levels from the federal government may necessitate a modified program. A revolving loan fund arrangement would allow Flint NIPP to generate additional financing. The longevity of the corporation must be assured, inasmuch as the loans will run for 12 year terms and the corporation will have the payments assigned to it by the lending institutions.

Magnitude of Housing Rehabilitation Problems

At this time 28% of the housing unit stock in the City of Flint is in need of rehabilitation and/or refurbishing. Included in this are 11,971 units that ECHO has categorized as slightly deteriorated and another 4,827 that have been classified as generally deteriorated. The total of 16,798 units represents a need that must be met as soon as possible in light of the ever-increasing rate of deterioration in the City.

The rehabilitation program administered by Flint NIPP under FY 77 Block Grant funding has targeted 250 units for its first year efforts. Given present staffing levels this represents the maximum number with which the corporation can effectively deal. A target projection of 250 per year until 1980 would impact a total of 1,000 units or approximately 6% of the need. Given the rate of deterioration of approximately 2% per year, this program funded at present levels could not keep pace.

Recent experience in the City-sponsored Oak Park Pilot Rehabilitation Project has emphasized the wide range of rehab costs involved. The generally deteriorated dwellings have been costing approximately \$10,000 to refurbish, the slightly deteriorated approximately \$5,000 each. If these same cost breakdowns were applied to each target area, 125 generally deteriorated and 125 slightly deteriorated units could be served within present funding levels.

Since 1972 the numbers of slightly deteriorated and generally deteriorated structures have increased over 60% with a paralleled decrease in number of well-maintained units. In spite of the loss of some 1,500 housing units in the last five years through urban renewal clearance efforts the general quality of housing continues to decline. Every year 2% of the well-maintained structures fall down into one of the two lower categories. Any rehab program designed to neutralize this loss must serve approximately 400 to 500 units per year, twice the number currently proposed. A program of this scale would require a funding level of nearly \$3.8 million, almost \$1.8 million more than budgeted for the current program. The \$3.8 million includes the added inspections, rehabilitation and enlarged staffing necessary to meet a goal of 500 rehabbed units per year.

Clearly Flint's Department of Community Development cannot maintain this level of funding through Block Grant funds for coming years without seriously jeopardizing other programs and commitments. Other funding sources must be found.

Demolition of Substandard Structures

Past Demolition Actions

Although expressway and urban renewal clearance had taken place in the sixties, City funds, embarked on a City-wide effort to eradicate hazardous, unsafe, substandard dwellings. In three years over 750 structures, most of which were vacant or fire-damaged, were demolished. Today, the Building and Safety Inspection Division of the Department of Public Works is charged with the responsibility of removing from the City these types of structures. In the last ten years, a total of approximately 2,500 dwellings have been razed City-wide.

Present Demolition Programs

The present demolition program functions as an adjunct to code enforcement activities. Potential demolition cases are brought to the attention of Building and Safety Inspection through various means. Complaints from residents taken by the Citizens Action Center are forwarded and placed on a list to be field checked. Also, during a real estate transaction, an inspector may discover a sub-standard structure as he is inspecting the property. All premises "for sale" must be inspected for code violations before the transaction can be completed. The inspection division also conducts an annual survey of all vacant residences in the City of Flint to ascertain their general condition.

The Building and Safety Inspection Division follows the guidelines in the universally used Building Officials Code Administrators (BOCA) Basic Building Code and Property Maintenance Code - 1975, for housing and code inspections. Determination of a structure suitable for demolition is based solely on the BOCA standards.

A sub-standard structure can fall into one or all of three general categories; unsafe, hazardous or sub-standard. The distinctions are not clear among the three since any number of code violations in the aforementioned categories can constitute a sub-standard structure. The following section from the BOCA code provides a definition:

SECTION 124.0 UNSAFE STRUCTURES

- 124.1 Right of Condemnation: All buildings or structures that are or hereafter shall become unsafe, unsanitary, or deficient in adequate exitway facilities, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which by reason of illegal or improper use, occupancy or maintenance, shall be deemed unsafe buildings or structures. All unsafe structures shall be taken down and removed or made safe and secure as the building official may deem necessary and as provided in this section. A vacant building, unguarded or open at door or window, shall be deemed a fire hazard and unsafe within the meaning of this code.

The relative condition of the structure is assessed by the inspector making the inspection. He notes the code violation and prepares a report which details the deficiencies and determines cost estimates for the repairs to correct the violations. Sections 106.2 and 106.3 of the BOCA code specify that a material alteration of a structure that involves repair totaling more than 50 percent of the fair market value must follow BOCA guidelines for new construction. Many owners are unwilling or financially incapable of rehabilitating their property under new construction specifications. Additionally, recent code changes may have raised minimum standards beyond those which were in existence at the time the structure was built.

After proper notification to the owner of the property, a hearing on the property in question is held by the Appeal Board (selected from local licensed builders, architects and engineers). Testimony from the owner is solicited at the hearing by the Board and a decision is made to either allow the owner sufficient time to correct the deficiencies or uphold the order to demolish the structure. If demolition is upheld, the property address is then placed on a demolition list and submitted to City Council for approval, allowing the costs to be billed to the owner. Approval by City Council signals the placing of properties on demolition bid lists.

At any time after the notice of violation the owner may seek to have the condemnation process enjoined by Circuit Court. In most cases, the owner is absent or otherwise unavailable and the procedure culminates in condemnation.

The total cost of the condemnation proceedings, which include the actual demolition, administration and mailings, is charged to the owner of the property, who is given up to four years to repay the expense. This can run as high as \$1,000 per structure, including incidental costs.

Since 1975, when Building and Safety Inspection began city-wide demolition, 381 structures have been razed. An additional 113 are awaiting final bid approval from City Council.

Effects of Demolitions on Housing Quality

Comparisons of 1970 Census and 1976 ECHO-EBA data indicate a net decrease in all housing structures (single and multi-family) of approximately 2,608 dwellings. This represents a decline from 52,366 housing structures in 1970, to 49,758 in 1976.

In spite of the over 3,200 demolition permits issued by Building and Safety Inspection, housing quality continues to decline in the City of Flint. According to the ECHO-EBA, which, measures exterior conditions only, since 1972 (first comprehensive EBA) the percentage of well-maintained structures in the City has fallen by over 10 percent. This decrease is reflected in increases in both the slightly and generally deteriorated categories, 8.3 and 3.2 percent respectively. That the rate of deterioration is increasing is evidenced by the fact that in one year, 1975-76, slightly deteriorated dwellings have increased by 15 percent and generally deteriorated by almost twenty-two percent. The total for the most seriously deteriorated, the dilapidated category, has been reduced from over 600 structures in 1972 to 224 in 1976.

Program Recommendations

Any demolition program must be evaluated in terms of its impact on the neighborhood or target area in which it is implemented. Vacant dwellings pose many problems to neighbors. They harbor vermin and rodents, presenting a serious health hazard. Unless properly secured, these structures can offer inviting yet dangerous areas for young children to play. Many such dwellings become targets for pranksters and arsonists, threatening the safety of adjacent homes. Too often the vacant dwellings and surrounding property are used as dumping areas.

The condemnation and subsequent razing of an unsafe vacant structure can certainly improve the aesthetics of a neighborhood, but only if other, general improvements are made in concert. A combination of rehabilitation, spot demolition and capital improvements (street improvements, lighting, curb work, etc.) in selected target areas can make a significant impact on the total housing quality and general livability of the area. The demolition program emphasis should be placed in those areas supporting present or proposed rehabilitation programs. Razing of vacant, substandard dwellings should, of course, not be discontinued in other areas of the city, but rather relegated to a secondary status as concentrated neighborhood preservation is implemented in the rehab target areas.

Zoning

Zoning, a local community police power granted by State statute, ensures the public health, safety, and welfare through controls on the general location and specific physical placement of various land uses. Zoning, as an implementation tool of land use planning, can guide development as it happens, avoiding problems such as overcrowding and conflicting (incompatible) land uses.

Although Flint has had a zoning ordinance since 1927, a great deal of development in the core area of the City took place before that time. The establishment of the Central Business District and major industries dictated the placement of residential areas (for more detail, see Historic Profile section of the Master Plan). By today's standards, central city residential lot sizes, space between dwellings, and access for public services are inadequate.

In both older and newer areas of the City, abuses of the zoning ordinance may have allowed commercial uses to disrupt residential neighborhoods. In addition, absence of zoning or other ordinance control over such things as commercial signage, building design and maintenance features, and placement of parking has caused problems for residential areas abutting commercial strips.

Because the City is already 90% developed, zoning of undeveloped areas will have little effect on future land use patterns. However, zoning regulations and the manner in which they are applied can be effective mechanisms in the preservation and enhancement of residential neighborhoods and in the conversion of older areas to newer and/or mixed uses.

Present Zoning of Residential Areas

The Flint zoning ordinance specifies four main residential zones and permits residential uses in all but heavy commercial and manufacturing zones. The ordinance is generally "pyramidal" in structure with uses in the most restrictive zone included in the next most restrictive zone, all uses in the first two zones included in the third zone, and so on.

Residential zones and uses permitted include:

A-1, Single Family
Low Density District

Principally detached housing on large lots; limited institutional and non-commercial recreation.

A-2, Single Family
Medium Density District

As in A-1, plus hospitals, duplexes, professional offices, home occupations as conditional uses.

B, Two-Family District

As in A-2, plus community development projects, three- or four- family dwellings, rest homes, parking as conditional uses.

C-1, Multi-family Walk-up
Apartment District

As in B, plus apartments, institutions, boarding houses; professional offices as conditional uses.

C-2, Multi-family High Density
Apartment District

As in C-1, plus any type multi-family dwelling, non-commercial clubs; hotels, professional offices, clinics, parking lots, funeral homes as conditional uses.

The structure of the present zoning ordinance offers opportunities for different types of new or rebuilt residential areas, including what are usually termed planned unit developments. If enforced, provisions in the present ordinance should guarantee a sufficient amount of integrity to established residential districts.

Potential Problems with Application of the Zoning Ordinance

In the past, the requirements of the zoning ordinance may have been construed liberally in favor of property owners. The procedure for processing exceptions, or variances, to the zoning ordinance through the Zoning Board of Appeals is necessary to guarantee property owners relief from undue hardship caused by unique zoning situations. In Flint the granting of variances in physical requirements and in the way land is used has resulted in some desirable and physically attractive changes, but has also allowed commercial encroachment in residential neighborhoods and unnecessary, but economically profitable, erosion of land use integrity in some areas of the City.

In addition to the granting of unnecessary variances, problems with non-conforming uses and enforcement of the zoning ordinance may exist. Non-conforming uses, uses of land which are in violation of the zoning ordinance, may have been established before the ordinance took effect or may have been situated in violation of the ordinance. An example of prior non-conformance would be an older subdivision which fails to meet minimum setback and side yard requirements for its zoning classification. An outright ordinance violation in a residentially-zoned area may range from the establishment of a machine shop in a garage to the placement of a large sign advertising a home occupation.

Enforcement of the zoning ordinance in Flint may be difficult due to several factors, including prevailing community attitudes concerning land development and use rights, lack of enforcement man-power and lack of "teeth" in the processing of ordinance violations.

Application of specific residential zoning categories to geographic areas may also need revision. For example, in neighborhoods where few residential lots meet minimum square footage requirements, the areas might be rezoned or a revised zoning category might be developed to enable property owners to make improvements or additions without consistent violation of the ordinance. Areas presently zoned in conflict with actual use (e.g. industrially-zoned areas containing residential uses) should be examined for possible reclassification. Further suggestions for zoning revisions are made in other sections of the comprehensive master plan.

The Impact of Zoning on Housing Goals

Zoning as it effects the use of land in residential areas can have important impacts on the preservation of existing neighborhoods and on maintenance and enhancement of economic choice of housing within the City of Flint. The use of zoning as a tool in fighting neighborhood deterioration and lack of housing choice may have been devalued in the past due to susceptibility to political influence, negative attitudes toward community restrictions on property rights, and the prevalence of urban renewal and other programs which used such "controls" as large-scale clearance and demolition to effect land use changes. As an older urban area which must make the most of all of its development opportunities, Flint cannot afford to overlook the potential of traditional and strongly established development promotion and control mechanisms such as zoning.

Neighborhood preservation, while ultimately based on the physical livability/structural soundness of dwellings, relies upon a harmonious combination of land uses to provide a desirable environment. While each residential neighborhood in the City has its own unique qualities, common characteristics of desirable neighborhoods might include: 1) protection from disruptive, conflicting land uses (such as heavy manufacturing or "late hours" commercial establishments), 2) safety and ease of pedestrian movement along with adequate but limited automobile access, and 3) a complement of insitutional, service and commercial uses (such as schools, churches, postal stations, and shopping facilities) which serve the resident population.

A strict interpretation of zoning requirements should be based on criteria developed to preserve residential neighborhoods. The interests of the community as a whole and the neighborhood specifically should weigh heavily against proposed rezonings or variances which do not meet neighborhood preservation criteria or enhance the viability of residential areas. Failure to maximize economic gain from a piece of property should not be construed as a hardship. Rather, a balance should be struck between the reasonable rights of the property owner to enjoy the use of his property and the justifiable rights of the community to a desirable environment.

Zoning as a land use control should be made as flexible as possible and then should be strictly interpreted. Flexibility should be reflected

in zoning for neighborhoods which may require special services or facilities to support their resident population. For example, small areas with large concentrations of elderly residents should include provisions for transportation transfer points, medical offices, etc., or areas zoned homogeneously in a residential classification may need to be rezoned to permit small neighborhood commercial facilities. Strict interpretation of flexible zoning policies in these cases would mean enforcing buffering and landscaping requirements, and perhaps even encouraging neighborhood-compatible design features.

With regard to assuring maximum housing choice for present and future residents of Flint, zoning can control density as well as geographic location of housing. Both factors figure in the total market value of dwelling units, which in turn effects individual households' choice. Again, preserving the integrity of a variety of residential neighborhoods assures choice. Zoning in accord with comprehensive master plan policies for housing site location offers another opportunity to maximize housing choices.

Summary and Recommendations

While the basic text of the Flint zoning ordinance seems adequate to handle present and future housing concerns, both interpretation of the ordinance as it applies on a case by case basis to individual properties and enforcement of the ordinance may be creating problems which tend to frustrate the goals of neighborhood preservation and choice in housing. Therefore, the following recommendations are made:

- 1) Investigate to what extent the zoning of land against the intent of previous plans and policies has affected residential neighborhoods.
- 2) Investigate the extent to which the granting of conditional use status and use variances, especially for commercial uses in residential areas, has contributed to the perceivable decline of residential areas.
- 3) Investigate the actual extent of violations, complaints, enforcement actions and subsequent compliance with regard to zoning (especially use) violations.
- 4) Examine the existing zoning ordinance for "flexibility," including, but not limited to, the possibility of initiating performance standards for some or all zoning classifications.
- 5) Study opportunities for establishing or strengthening present ordinance requirements relating to signage, buffering, landscaping and parking, especially when applied to commercial or industrial interfaces with residential land uses.
- 6) Determine from the above studies what courses of action should be taken to render zoning a more viable tool in the implementation of residential land use plan goals and objectives.

PUBLIC-PRIVATE HOUSING PRESERVATION STRATEGIES

Local government must enlist the support and active participation of all sectors of the community in order to insure the success of housing plans and programs. Too often, the public sector formulates and promotes a set of policies or an action plan without the knowledge or cooperation of private organizations and individual citizens. This often results in failure and frustration for public officials, who stand around and ask themselves, "What went wrong?" Private sector involvement in housing problems and solutions is necessary from the problem definition stage to the end evaluation of a given program.

Involvement of the private sector requires that local government take the lead in three areas: provision of information, encouragement of active participation, and follow through on recommendations. By concentrating on these activities, the City of Flint can take an active, coordinative role in bringing private sector perceptions, influence, and ideas to bear on housing problems.

Information Provision

Potentially, the City of Flint has one of the largest and most complete housing information data base in Michigan. Information already collected for each structure in the City is described in Illustration 11. This information could be combined to provide a City-wide profile of housing conditions and costs which would be useful as an official description of conditions in Flint and as a guide for politicians, banks, real estate firms, investors in properties, and homeowners.

The emphasis here is on City-wide data, not on comparisons between specific neighborhoods. It should be strongly stated that this informational profile would be prepared in strictest confidence, especially with regard to use of income tax records. Tax records would be used to provide aggregate data on average household size and average household income only. No names or addresses would be released or used for data aggregation purposes, although area (e.g. census tract) location keys might be appended.

An updated City-wide housing profile would provide a basis for dialogue between public and private institutions and individuals. A complete statistical picture of City housing problems and opportunities would provide the general public and investors in real estate with the same decision-making background information that is used by the City. Using these "official" statistics, housing problems could be identified and alternative approaches to solutions could be agreed upon. A uniform housing data set for the City could be useful to existing entities such as:

- All branches of the city and county government
- Citizen advisory groups, block clubs and neighborhood organizations
- State and regional planning groups

Illustration 11

CITY OF FLINT: HOUSING INFORMATION SOURCES

<u>INFORMATION</u>	<u>DEPARTMENT</u>	<u>SOURCE</u>	<u>FREQUENCY OF COLLECTION</u>
Overall exterior condition all structures in city	D.C.D.	ECHO (County Health Dept.) survey; U.S. Census Data	Yearly
Exterior and interior condition per city code	Building Inspections	Field inspections; file records	Yearly for multiples. On request, on sale, and vari- able for single family structures
Appraisal statistics	Assessment Division	Field inspections; file records	Not less than every five- six years for each struc- ture in City
Occupancy status (owner- renter) household income, household size	D.C.D. Tax Division	ECHO household survey Income tax records	Yearly Yearly
Subsidized housing; aggre- gate characteristics of units and occupants	Flint Housing Com- mission	Files and applications	As necessary

Private corporations and individual businessmen
Civic groups (Urban League, League of Women Voters, etc.)
Schools and churches

It would be most desirable for the City to encourage information exchange between these public and private organizations. This can best be done by offering what now exists in the way of public information in a more convenient form. The City should take the lead in fostering open information exchange.

Responsibility for keeping and updating housing data may logically rest with one of three public agencies: the City of Flint Department of Community Development (DCD), the City of Flint Housing Commission, or the Genesee-Lapeer-Shiawassee Region V Planning and Development Commission. The Flint DCD presently has the research personnel capabilities to compile and distribute comprehensive housing data for the City. The Housing Commission, however, has a direct concern with the administration of housing programs for the City and already would require the keeping of this information. The Region V organization would be able to combine City information with data for other outlying suburbs and unincorporated areas whose housing configurations have critical influence on housing supply and demand within the City of Flint. In addition to regional analysis, Region V could keep track of the impact of State and Federal housing programs on the entire area.

Accruing, updating, and disseminating the type and volume of housing information listed in Illustration 11 would require approximately 20 hours per week of a technically proficient, planning-oriented person's time. Analysis of such statistical information would require additional work time and would be greatly aided by computerizing the data.

Opportunities for computerizing data collected annually exist through extension of DCD's yearly contract with the Genesee County ECHO operations or through direct timesharing at discount rates with Michigan State or the University of Michigan. The City of Flint's present and proposed computer facilities are operationally-oriented and do not offer the variety of data base software necessary for analysis of multivariate trend data.

Housing data should eventually be combined, or at least be compatible with, City land use data (collected through contract by DCD) and land use inventory and/or DIME systems being constructed by the Genesee County Metropolitan Planning Commission.

Encouragement of Active Participation

In Flint, public and private organizations and individuals are interested in housing for a variety of reasons. Builders, contractors, trade unions, landlords, realtors, bankers and others make a living from the sale of shelter. The City of Flint insures the public health, safety and welfare through regulation and inspection of housing. Civic organizations and private groups aim toward improving neighborhoods.

Individual property owners want to protect their property values and to live in a comfortable and pleasant environment. Each of these groups, while pursuing its own goals, can have an impact on the goals stated in this plan.

Task Force Approach

A previously successful method of bringing together public and private sectors to talk about housing problems and priorities has been the task force. In recent months, the Mayor's Task Force on Neighborhood Rehabilitation and the Mayor's Task Force on Redlining and Disinvestment have delineated problems in white papers and put forth a number of constructive recommendations. The basic tenets of the Rehabilitation white paper have been incorporated into the objectives of the newly reformed Flint Neighborhood Improvement and Preservation Program, Incorporated (see p. 57). While no direct actions have been taken on the Redlining study, public awareness of issues has been raised. Recommendations in this study include placing emphasis on housing rehabilitation and devising an equitable means of city service provision (see p. 51).

The task forces publicize problems, allow those with specialized expertise to work together, and give City decision-makers valuable input unavailable through normal City government channels. This approach should be continued as necessary in dealing with other major housing problems. It may also be fruitful to organize task forces or monitoring committees on a geographic basis to deal with singular problems in specific areas of the City. Bases for this type of task force already exist in block clubs, neighborhood organizations, citizen boards in designated redevelopment areas, and comprehensive master plan workshop participant groups.

The task force concept relies heavily upon both information availability, described above, and follow-up on recommendations, described below. Any group of persons assembled to study a problem will require a coordinating mechanism to supply information and to make sure that recommendations are pursued. The Citizen Participation Section of the Department of Community Development has provided this coordination in the past and should be given the resources to do so in the future.

Tax Incentives for Property Maintenance

The City of Flint is empowered, through the recently passed Mathieu-Gast Home Improvement Act of 1976 (Michigan Public Act 293), to give property owners who make necessary, code-related repairs a "break" on their property taxes. Specifically, the legislation states:

The Assessor (Flint City Assessor), beginning December 31, 1976, shall not consider expenditures for normal repairs and maintenance in determining the true cash value of property for assessment purposes. In no event shall the amount excluded exceed \$4,000.00 each year for not to exceed three consecutive years. The following repairs shall be considered normal maintenance if they are not a part of a structural addition:

- a. Outside painting
- b. Repairing or replacing siding, roof, porches and steps or sidewalks
- c. Repainting, repairing or replacing existing masonry
- d. Replacement of awnings
- e. Add or replace gutters or downspouts
- f. Replace storm windows or doors
- g. Insulation or weatherstripping
- h. Complete rewiring
- i. Replacing plumbing and light fixtures
- j. New furnace replacing one of the same type or replacing oil or gas burner
- k. Plaster repairs, inside painting, or other redecorating
- l. New ceiling, wall, or floor surfacing
- m. Removing partitions to enlarge rooms
- n. Replace automatic hot water heater
- o. Replacing dated interior woodwork

Note that the legislation does not cover additions or remodeling, such as finishing a basement.

The various promotions of housing rehabilitation that the City is engaged in now and considering for the future should involve some basic education for homeowners on the content and application of the Mathieu-Gast Act. Those whose incomes are too high to qualify for grants or loans under City programs should be aware that they will not be penalized immediately with higher taxes if needed repairs are accomplished. Building inspectors working in residential areas should have knowledge of the Act and/or should be furnished with a pamphlet that quotes the legislation and interprets it for property owners in Flint. In short, the City should make every effort to ensure that property owners who need repair work done understand the law.

Follow Through on Recommendations

Of public and private groups concerned with housing in the City of Flint, City government, because it represents the interests of all citizens, is in the best position to coordinate and to apply local, state, Federal, and private sector ideas and monies to housing action programs. Coordination and application of funds requires clear identification of public/private goals as well as carefully controlled management and evaluation strategies to meet objectives.

Goal Identification

A set of goals and objectives is identified in this document. For the public sector, these aims are what can reasonably be accomplished given present legal, fiscal, and manpower restraints. The private sector may see these aims as too limited, too ambitious, or not applicable to solving housing problems. As conditions in the community change over the years, and are monitored through the housing information base suggested above, the public and private sectors can work together in

establishing common goals, publicizing them, and devoting their combined resources, monetary and otherwise, toward the achievement of those goals. This is the first step in establishing a "follow through" process.

(The City has some specific restraints in the form of performance on past goals and objectives and satisfaction of Federal and State goals when using Federal and State funds. City performance with regard to the Federal Community Development Block Grant Housing Assistance Plan is particularly important. Basically, the Plan specifies the number of households by type (elderly/handicapped, low-income, large families, etc) to be helped. Fulfillment of Plan objectives is a criterion for further Federal funding.)

The importance of identifying and publicizing goals cannot be overstated. It is difficult to accomplish anything when everyone is pulling in a different direction. For example, the goal of preserving residential neighborhoods may lend support toward allocation of funds or dedication of land for small parks and playlots. It may countermand efforts to promote economic development by preventing the development of a commercial complex in or near a residential area. A balance must be established between land use and economic goals. Residential land use goals/housing needs must weigh heavily in that balance.

The mechanism for establishing and revising housing goals must allow for citizen, business, and City input. A task force or standing committee, with a permanent staff composed of personnel from the Mayor's Office and the Department of Community Development, would be a viable alternative. The group should have input into decisions regarding annual applications for Federal funding and the City of Flint operating and capital improvements budgets. Meetings should be scheduled in advance of these decisions.

Management of Progress Toward Objectives

Management and monitoring of progress toward objectives is common in private business, especially when production units can be manufactured, quality tested, and marketed by application of common standards. However, management of service provision and concept fulfillment is more difficult. Several management methods may be applied.

For many City activities, policy is budget, and vice versa. In accord with the City Charter, the Mayor formulates an operating budget to be approved by the Council. The Chief Planning Officer formulates an annual capital agenda and capital budget. These two budgets impact on such goals as neighborhood preservation through allocation of funding for public service manpower (police, fire, sanitation) and for physical improvements such as street resurfacing and parks maintenance. Yet often an overall budget goal is "cut back 10% in all departments" or "don't raise taxes" rather than a prioritizing of needed services and funding according to need.

Budgeting and management tools such as zero-based budgeting, management by objectives, and the cost center accounting system are readily available to administrators within City Hall. Because the achievement of housing goals requires concerted effort through many different City departments and private bodies, it is recommended that each entity develop a management system suited to its own operations, but which meets the following common criteria:

- 1) Objectives (including programs, services, provision of housing units, etc.) should relate directly to achievement of goals (see process described above).
- 2) Objectives should be costed out before programs start, with multiple-year funding sources clearly identified.
- 3) Programs should be monitored and reports issued no less than quarterly to see if goals and objectives are being met and if expenditures are being made according to budget.
- 4) Accountability for the meeting of objectives should be clearly identified. Individual responsibility for program and service management should be stressed.
- 5) Objectives should be revised when goals are changed or when conditions warrant the discontinuation of old programs or the opportunity for starting new ones.

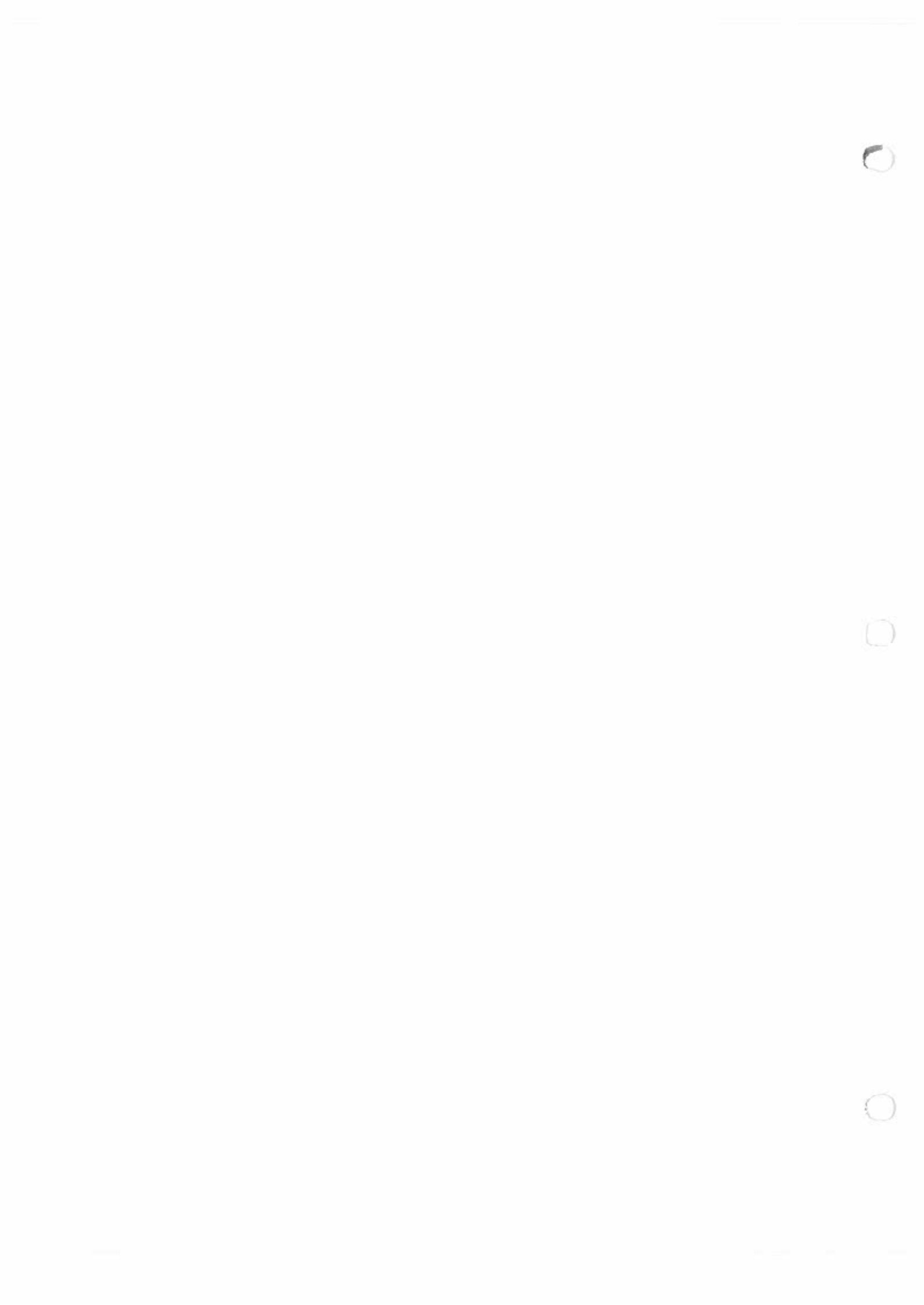
The above guidelines, with their emphasis on advance financial planning, monitoring, and flexibility should insure adequate follow-through on housing recommendations and avoid past administrative mistakes which have hampered both the City and the private sector in alleviating Flint's housing problems.

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APPENDICES



Appendix A

PLANNING DISTRICT HOUSING PROFILES

For purposes of data aggregation and analysis, the Department of Community Development has divided the City of Flint into twelve planning districts, containing an average of about 15,000 people each. Planning district boundaries are determined by natural barriers, such as the Flint River, and by such man-made features as transportation routes and outdoor recreation facilities.

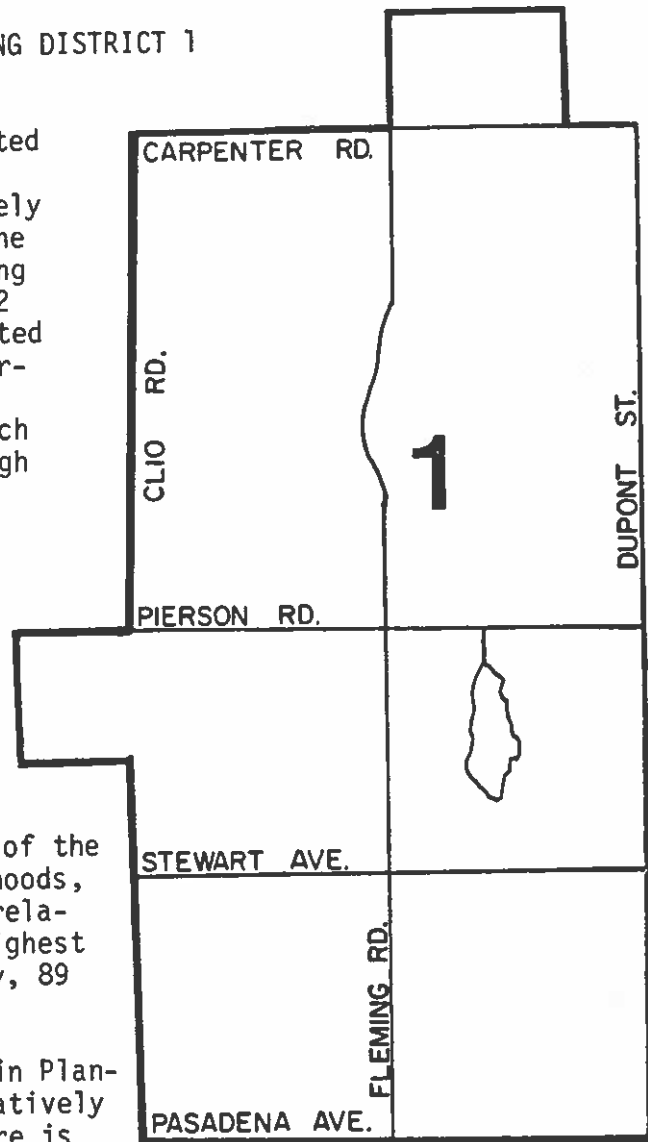
Each planning district contains areas of distinct housing characteristics and land use patterns. The following profiles offer descriptions by geographic area.

PLANNING DISTRICT 1

Planning District 1 is located in the northwest corner of the City, and consists of predominately residential neighborhoods. Of the two square mile area that Planning District 1 encompasses, nearly 62 percent of the land area is devoted to residential uses. Over 90 percent of these residential structures were built after 1940, which accounts a great deal for the high percentage of well-maintained structures, 90 percent.

Planning District 1 is the only area within the City to show any sizeable growth since the beginning of this decade. Nearly 300 housing units were added to the existing housing stock since 1970, which helped to support an additional 2800 residents in the area. Because of the newness of most of the neighborhoods, duration at present address is relatively low despite the second highest owner occupancy rate in the city, 89 percent.

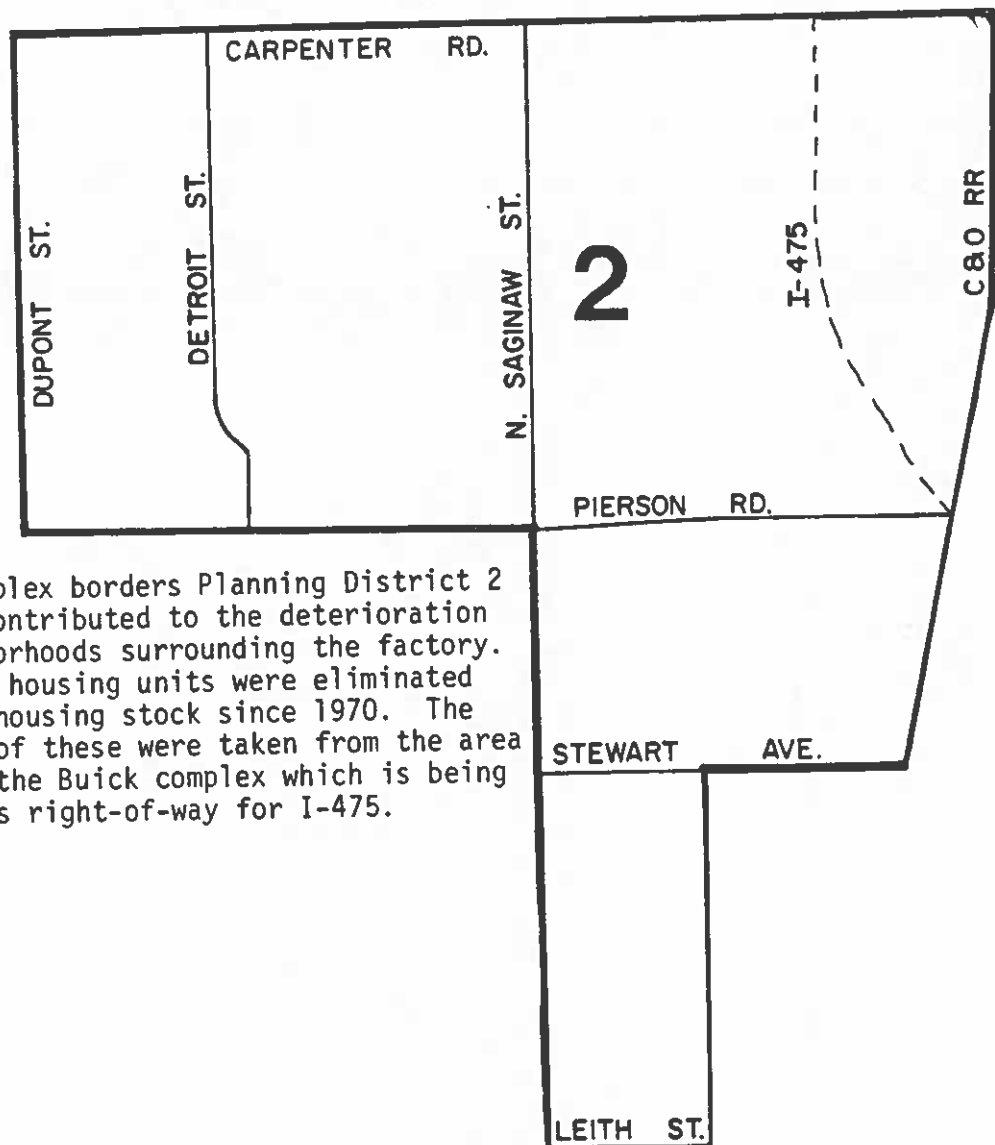
Non-residential land uses in Planning District 1 have had comparatively little impact on the area. There is no major industrial development, and commercial uses are limited to the Northwest Shopping Center and strip development along Clio Road from Dayton Street north to the city limits. The majority of the non-residential area, nearly one-quarter, is devoted to parks, schools, and churches.



PLANNING DISTRICT 2

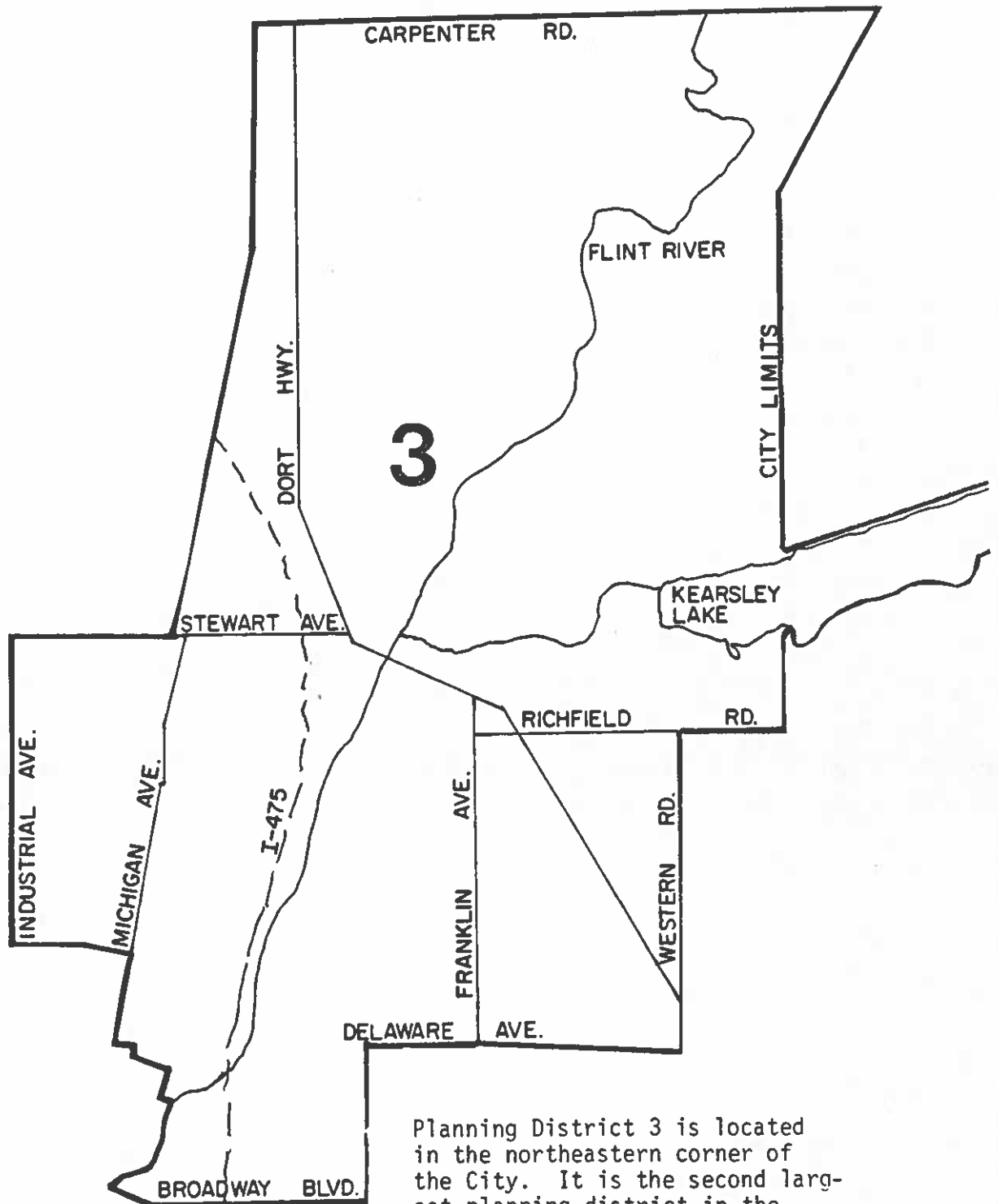
Planning District 2 comprises the north central section of the City. Consisting of about 2-1/2 square miles, this district has 42 percent of its land area committed to residential uses. The general housing types are dominated by single-family structures, which account for over 11 percent of the City's single-family units. Accompanying this large number of units, however, is a vacancy rate over 12 percent, the second highest in the City.

An indicator of neighborhood stability shows that 60 percent of the households have remained at the same address for 5 or more years, despite a lower than city average owner/renter breakdown, 65 and 35 percent respectively. The high vacancy rate and the large number of rental units may account for the generally deteriorating housing maintenance of the area. Only 51 percent of the housing units are well-maintained, even though only 40 percent of the housing was built prior to 1940. Among non-residential land uses, only the northern section of Buick Motor Division, about 43 acres, is within the district. However, the remainder of the



Buick complex borders Planning District 2 and has contributed to the deterioration of neighborhoods surrounding the factory. About 500 housing units were eliminated from the housing stock since 1970. The majority of these were taken from the area north of the Buick complex which is being cleared as right-of-way for I-475.

PLANNING DISTRICT 3



Planning District 3 is located in the northeastern corner of the City. It is the second largest planning district in the City covering over 4 square miles, which includes over 300 acres for Kearsley Lake Reservoir. In spite of its size, Planning District 3 has one of the lowest number of housing units in the City. Only 26 percent of the land area is developed for residential uses, the lowest in the City.

Two-thirds of the housing stock is comprised of single-family residences, while another 11 percent of the total housing units are in mobile homes. Even though the majority of the housing was built after 1940, with two large subdivisions in the northeast section not being built until the 1950's, the housing conditions are relatively poor; just over half of the units are well-maintained, while 4 percent are dilapidated. The stability of the neighborhoods, as shown by the number of owner occupants and the duration at the present address, is about average.

Around 700 units were eliminated between 1970-75 from the clearance of the St. John area, an area slated for the development of an industrial park. Some additional units were acquired south of the St. John Urban Renewal Area for the I-475 expressway right-of-way.

The majority of land area in Planning District 3 is devoted to non-residential uses. Twenty percent of the total area is set aside for open space and recreation uses. Buick, the next largest land holder, covers nearly 5 percent of the land area. However, 28 percent of the land within the planning district still remains undeveloped.

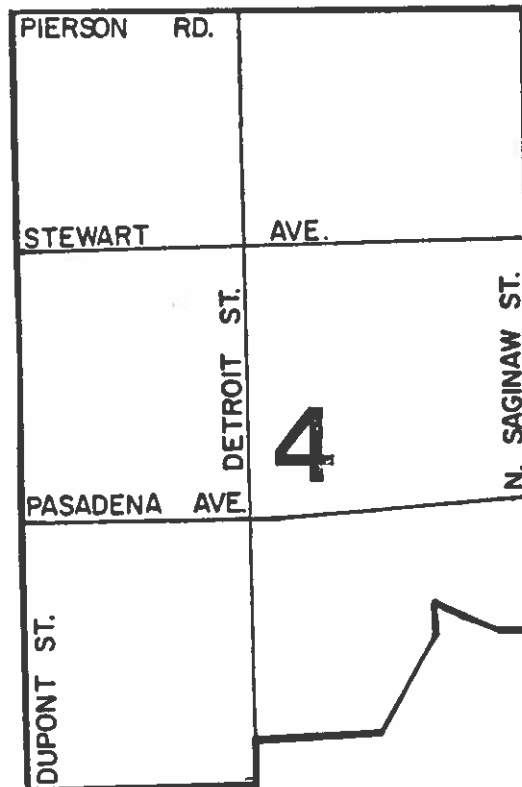
PLANNING DISTRICT 4

Planning District 4, located west of the Buick Complex, is the smallest of all planning districts. Of its less than 1-1/2 square miles, 66 percent is covered by residential land uses. Single-family and duplex structures comprise 95 percent of the residential housing in the district.

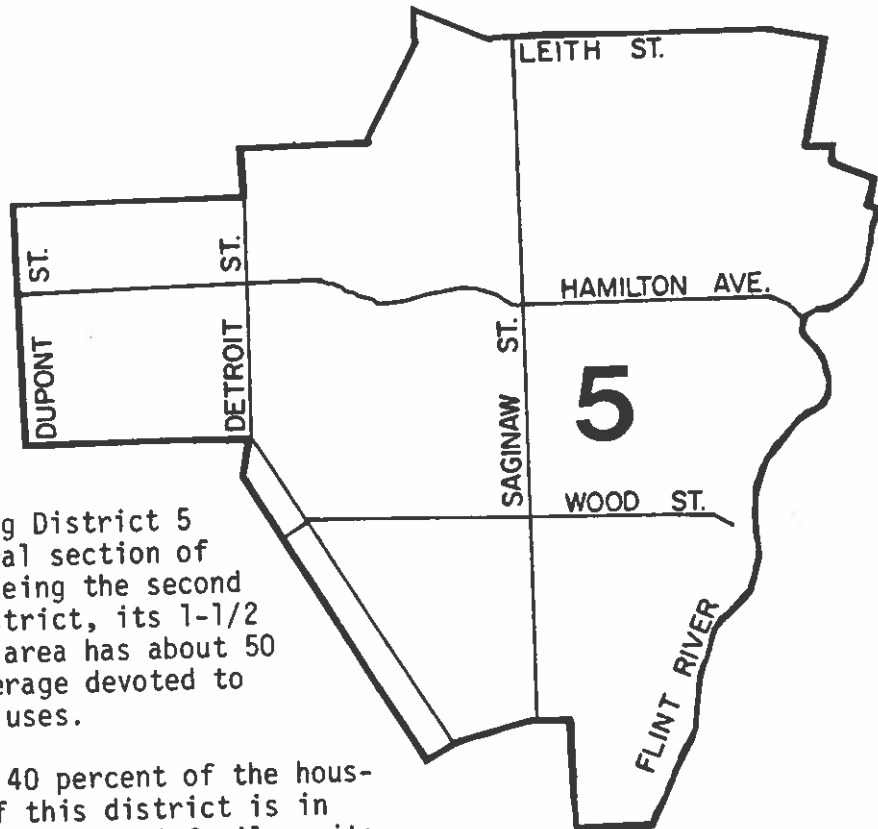
This area has shown some signs of deterioration over the past six years, despite relatively stable neighborhoods. Both the number of owner occupants and the long duration at present address are above-average for the City. However, the vacancy rate is also slightly above that for the City.

There are no major industrial or commercial uses within Planning District 4. Commercial establishments are limited to Saginaw Street and some scattered sites along Detroit Street. The Buick Complex to the east in Planning Districts 2, 3, and 5 does create an impact that is felt in Planning District 4. Several of the residential streets of Planning District 4 are heavily traveled, being used by workers commuting to and from the factory.

The major non-residential land uses in Planning District 4 are areas used by local residents. Two-thirds of the remaining area is devoted to park lands, schools, and churches.



PLANNING DISTRICT 5



Planning District 5 is the central section of the City. Being the second smallest district, its 1-1/2 square mile area has about 50 percent coverage devoted to residential uses.

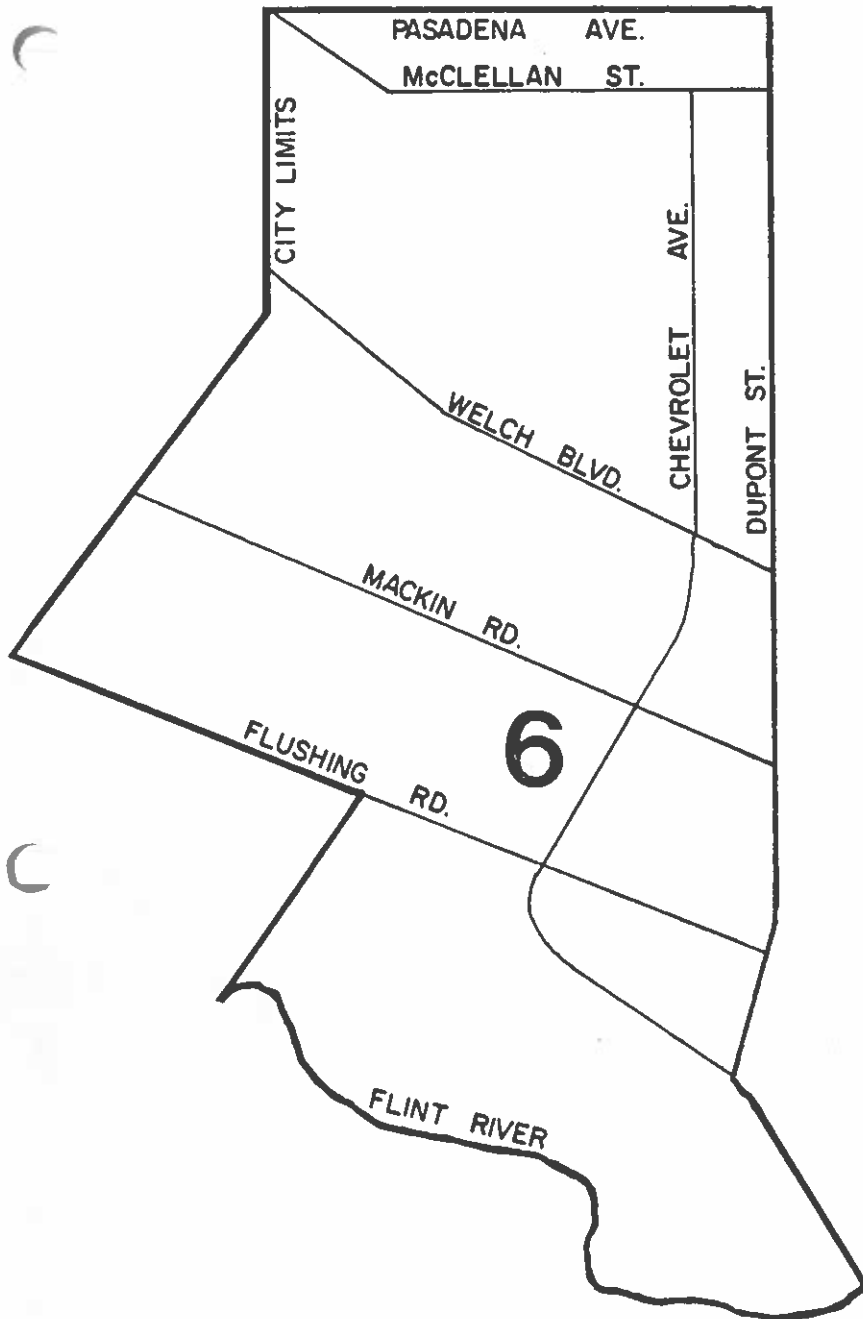
Nearly 40 percent of the housing stock of this district is in either duplex or multi-family units. Planning District 5 has only 5 percent of all single-family structures in the entire City, while containing 18.9 percent of the duplexes (the second highest percentage in the city) and 6.6 percent of the multi-units.

Planning District 5 is made up of relatively older neighborhoods. Over 70 percent of the units were built prior to 1940, with the majority being constructed in the early 1900's, as the automobile industry began to flourish. Because of this early development, lot sizes were fairly small. The average residential lot size in this area is around 4,800 square feet, the smallest average for any planning district.

With the abundance of multi-unit structures, the neighborhoods are somewhat unstable. The owner/renter breakdown is about 50/50, while 30 percent of the households were at their present address less than 2 years. Because of the large number of absentee-landlords and the age of the structures, the quality of housing has been decreasing over the years. Currently only 36 percent of the units are well-maintained, with 1.2 percent dilapidated. This percentage of dilapidated units has been cut in half since 1970, due to the removal of structures in the Doyle Urban Renewal Area. Clearance of this area containing some of the worst housing in the city, will make room for a new multi-unit housing development.

Major non-residential uses include over 100 acres of Buick manufacturing and another 50 acres of surface auto parking, of which the majority serves Buick.

PLANNING DISTRICT 6



Planning District 6, located on the City's western boundary, contains the highest proportion of land area devoted to residential use. Over 75 percent of the two square mile area contains housing. Planning District 6 has high levels of ownership and well-maintained housing (both above the City average) in spite of the fact that more than one-half of the residential structures were built prior to 1940. Single-family housing units predominate, accounting for 98 percent of the district's housing stock and over 13 percent of the city total.

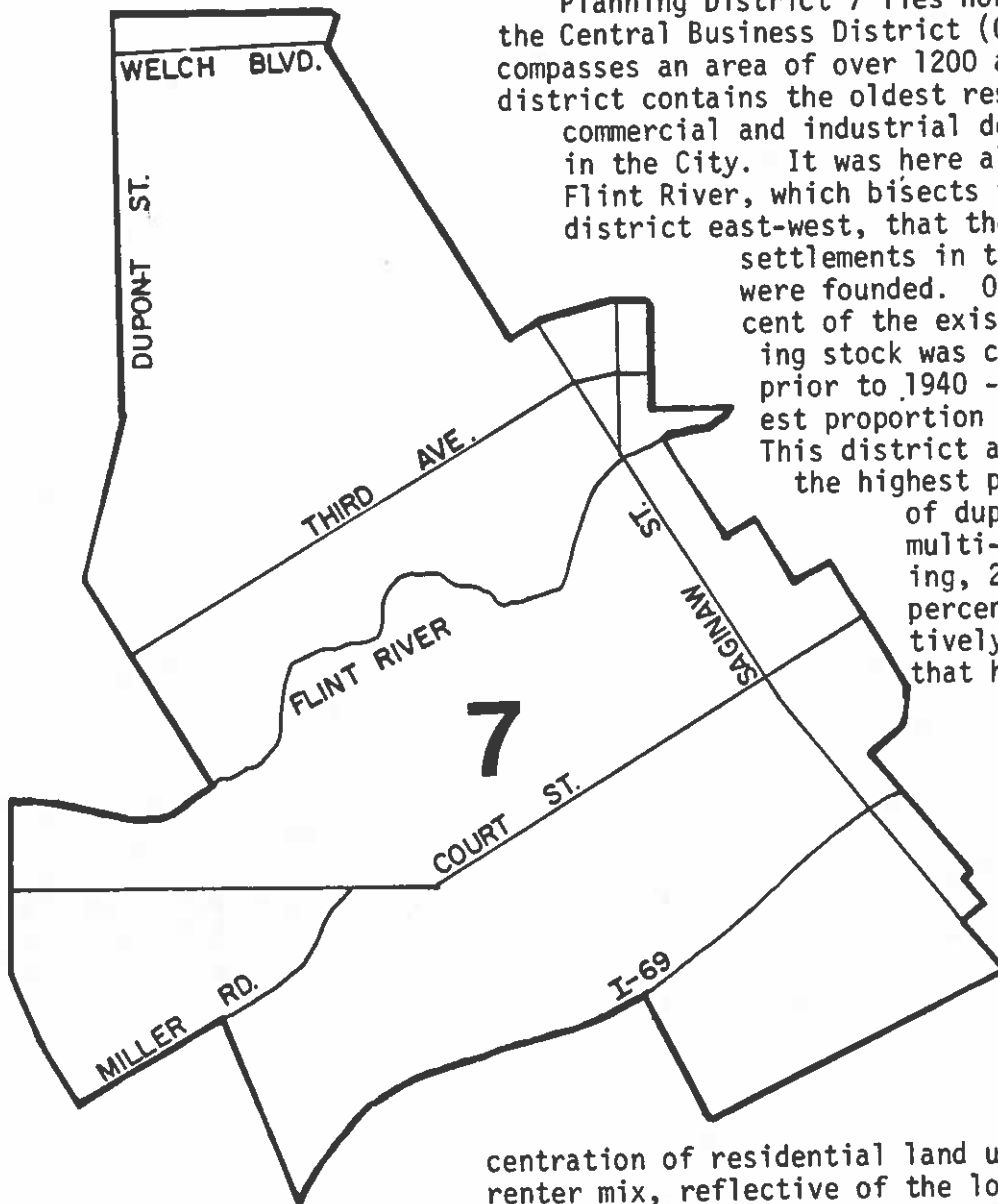
Two key indicators of stability, high percentage of ownership and long duration at present address are present here also. Both indicators have changed little over the last six years and represent levels above the average for the City.

Non-residential uses have shown little impact on the area. Industrial development is absent, and what little commercial use present is concentrated in small neighborhood shopping clusters in strip development along the city limits at Clio and Flushing Roads.

The predominance of pre-1940 housing in Planning District 6 is largely a result of two major subdivision activities that occurred in the 20's. These activities offer an opportunity to further divide the district into 3 smaller neighborhoods.

The area from Pasadena Avenue to Welch Blvd. encompasses most of the Civic Park subdivision and is characterized by small two-story and three bedroom homes on small lots, generally less than 6,000 sq. ft. Another contiguous neighborhood can be said to exist south of Welch Blvd. to Flushing Road. The residential development here is somewhat newer, on slightly larger lots containing mostly cottage-style homes. The homes from Flushing Road to the river are a mixture of the Civic Park style and some larger, more expensive three and four bedroom varieties.

PLANNING DISTRICT 7



Planning District 7 lies north and west of the Central Business District (CBD) and encompasses an area of over 1200 acres. This district contains the oldest residential, commercial and industrial development in the City. It was here along the Flint River, which bisects the planning district east-west, that the earliest white settlements in the county were founded. Over 70 percent of the existing housing stock was constructed prior to 1940 - the highest proportion in the city. This district also contains the highest percentage of duplex and multi-family housing, 26 and 20 percent respectively, in an area that has a low con-

centration of residential land use. Owner-renter mix, reflective of the low single-family housing character, is approximately 50/50. Non-residential land uses have a significant impact on the residential characteristics of the district. The CBD, located in the eastern sector, predominates. The Chevrolet Manufacturing Complex adjacent to the Flint River, effectively divides the district into two separate areas on the north and south sides. Duplex-type housing is concentrated near the complex and southward. The recent construction of the I-69 expressway further isolates a group of homes located at the extreme south end of the district.

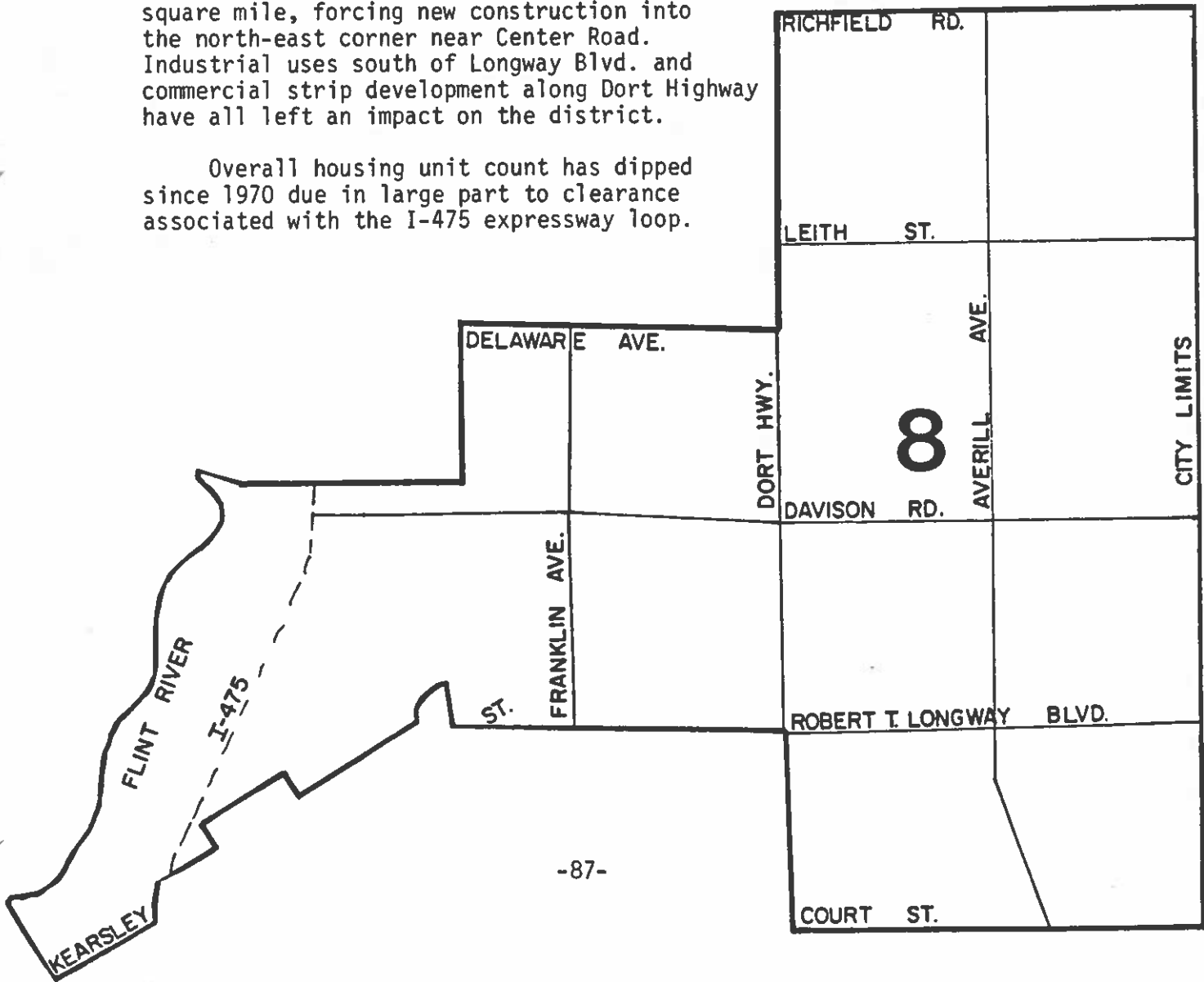
Except for the extreme north and west ends of the district, housing quality is generally poor owing to its age and a preponderance of absentee landlords.

PLANNING DISTRICT 8

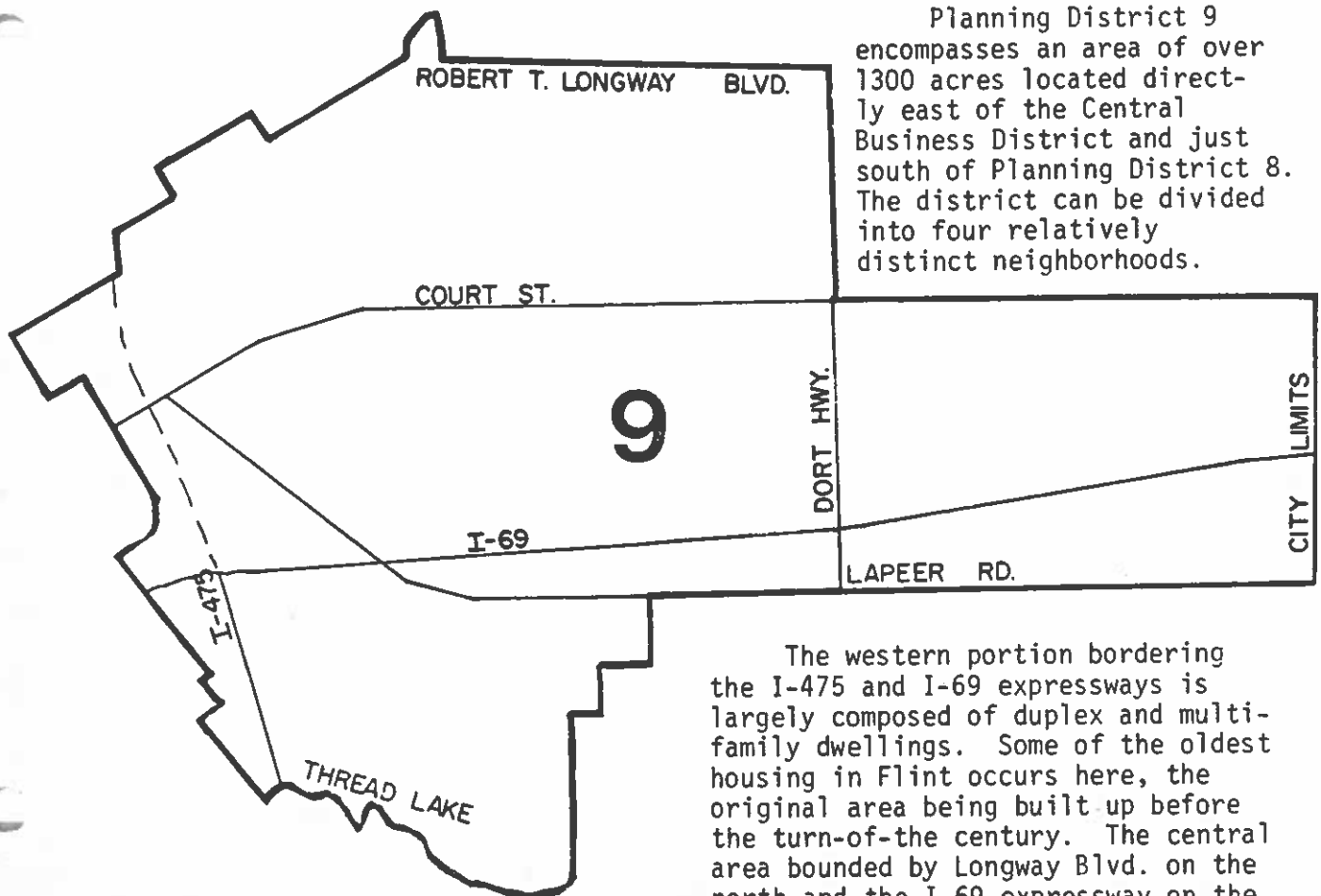
Housing in Planning District 8 represents some interesting contrasts relating to age and general conditions. Although residential development accounts for less than 50 percent of the area, it is predominately single-family owner occupied. The western segment of the district from the river to Dort Highway is older, having been developed in the 20's and 30's in response to the growth of the Buick Motor Division nearby in Planning District 3. Major duplex utilization occurs here. The dwellings are in generally poorer condition, marked by some severely deteriorated areas near the river and the I-475 right-of-way. The portion of Planning District 8 to the east side of Dort Highway represents newer, single-family cottage-style housing largely constructed during the 40's and 50's.

Residential lot sizes tend to be small in this district, averaging less than 6000 square feet. Commercial and residential uses dictated growth and expansion of the housing stocks within the area. As already noted, Buick Motor Division's growth in the first three decades of this century largely impacted the western portion of Planning District 8. Residential development east of Dort Highway was mediated by the vast A.C. Complex, which covers a large area of almost one-half square mile, forcing new construction into the north-east corner near Center Road. Industrial uses south of Longway Blvd. and commercial strip development along Dort Highway have all left an impact on the district.

Overall housing unit count has dipped since 1970 due in large part to clearance associated with the I-475 expressway loop.



PLANNING DISTRICT 9



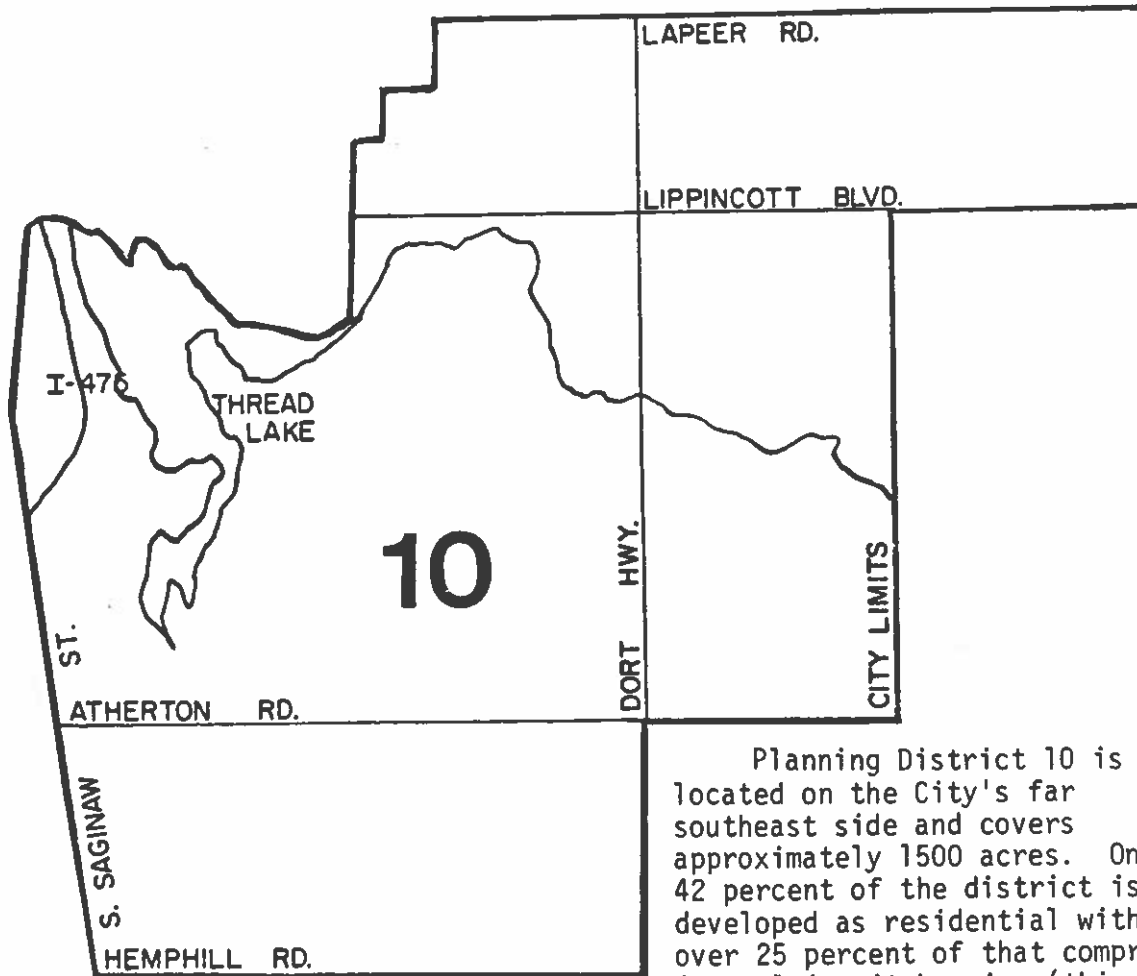
Planning District 9 encompasses an area of over 1300 acres located directly east of the Central Business District and just south of Planning District 8. The district can be divided into four relatively distinct neighborhoods.

The western portion bordering the I-475 and I-69 expressways is largely composed of duplex and multi-family dwellings. Some of the oldest housing in Flint occurs here, the original area being built up before the turn-of-the century. The central area bounded by Longway Blvd. on the north and the I-69 expressway on the south presents some of the City's best housing. Most are single-family, owner occupied structures of 2 to 3 stories. Large lots predominate in the area near the College and Cultural Center. A southern neighborhood is located at the extreme southerly corner of the district just below the I-69 expressway. This section is composed largely of medium-sized single family dwellings constructed prior to the Second World War. The average housing quality here is below the city average and far below the average for the planning district. Renters make up approximately 50 percent of the households due in large part to a Public Housing Development located on Lapeer Road at Twelfth Street. The fourth neighborhood, located adjacent to Center Road on the east end of the district, is composed almost exclusively of well-maintained, owner-occupant dwellings on large one-quarter acre parcels. Ninety-seven percent of these dwellings have been constructed since 1965.

The district exhibits two major non-residential uses. The College and Cultural Center is situated in the northwestern corner of the planning district, covering over 150 acres. Major industrial and commercial-strip uses are found the length of Dort Highway from Court Street to Lapeer Road.

Much of the less desirable housing stock has been removed from the planning district for the I-69/I-475 interchange.

PLANNING DISTRICT 10



Planning District 10 is located on the City's far southeast side and covers approximately 1500 acres. Only 42 percent of the district is developed as residential with over 25 percent of that comprising multi-unit housing (third largest total in the city). Additionally, Planning District 10 contains almost 700 mobile

home sites near Dort Highway and, along with Planning District 3, comprises the bulk of the trailer stock in Flint.

The housing stock is almost exclusively (84%) post-1940 in vintage, most of it being constructed along the west side of Dort Highway from Lippincott south to the city limits. A large group of apartment structures has been added also, in the area bounded by Lapeer, Lippincott, and Center Road, in the last 10-15 years. Dwelling units are of generally good quality throughout the district, in particular the area around Thread Lake near Circle Drive which is one of three areas in the city zoned for low-density residential development. Lot sizes average over 9000 square feet in Planning District 10.

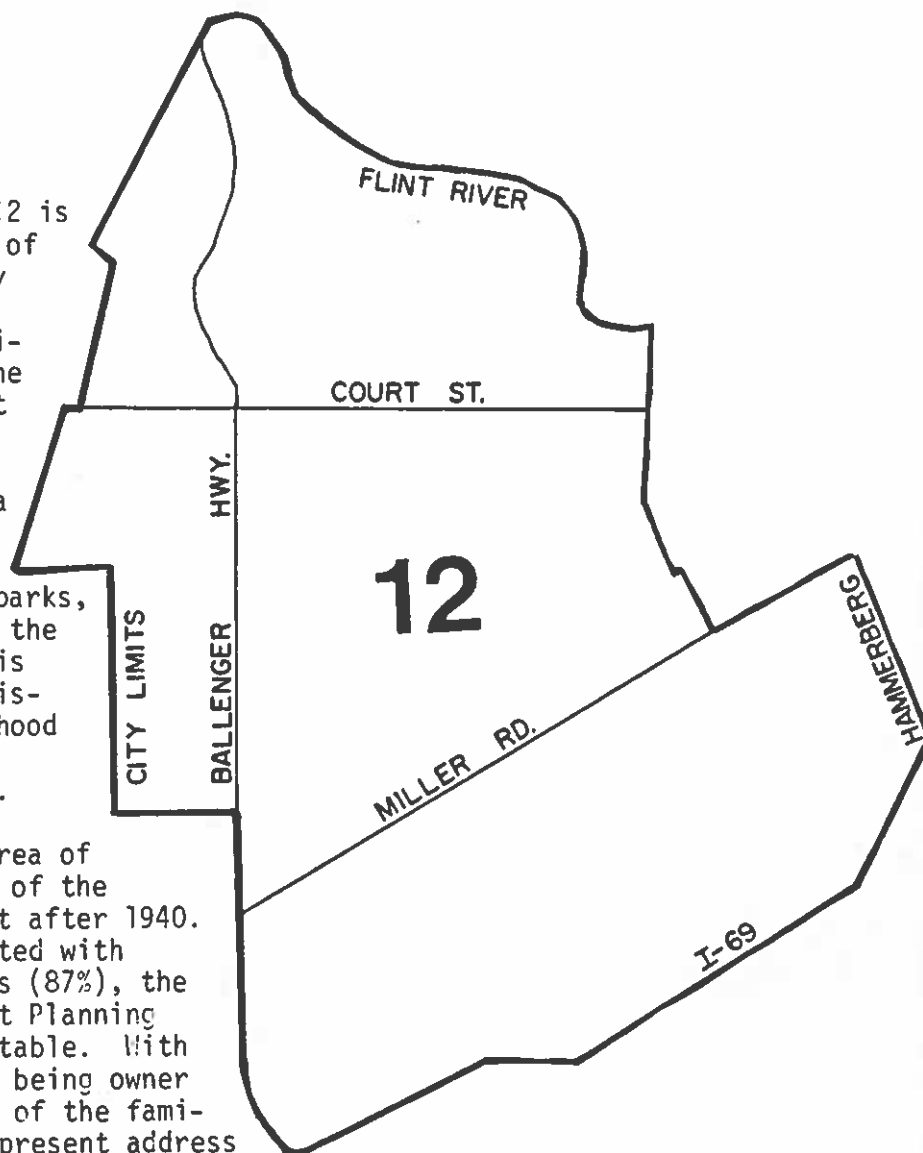
Non-residential land uses are limited primarily to two. The Flint Golf Club occupies 125 acres in the west central portion of the district southeast of Thread Lake. Industrial-commercial strip development is concentrated along the full length of Dort Highway and eastward to the C&O railroad line.

PLANNING DISTRICT 12

Planning District 12 is in the southwest corner of the City. Although only 51 percent of its 2-1/2 square mile area is residential developments, the remaining acreage is not devoted to incompatible uses. Thirty-four percent of the land area is taken up by schools, churches, synagogues, hospitals, cemeteries, parks, and golf courses, while the balance of the acreage is spread throughout the district in small neighborhood commercial and service-oriented establishments.

A relatively new area of development, 65 percent of the housing units were built after 1940. Predominately concentrated with single-family structures (87%), the neighborhoods throughout Planning District 12 are quite stable. With 83 percent of the homes being owner occupied and 74 percent of the families residing at their present address for 2 or more years, this has created very well-maintained neighborhoods.

There are two distinct types of residential developments here. The area north of Miller Road to Mott Golf Course consists mainly of one- and two-story, two and three bedroom houses, with average lot sizes of 6,500 square feet. The development south of Miller Road has average residential lot sizes of nearly one-half acre. The houses are mainly two- and three-story structures with four or more bedrooms.



APPENDIX B

SUBSIDIZED HOUSING PROGRAMS

Subsidized housing programs were developed to aid low- and moderate-income families in obtaining safe and decent housing in a suitable living environment. Since the mid 1960's, several federal government housing assistance programs have evolved in the Flint area. These programs included both single- and multi-unit developments, with some being purchase subsidies, while others are rental assistance.

Section 235

The 235 program was designed to allow a family to purchase a new or substantially rehabilitated home, with a minimum down payment. These homes are single-family residences scattered throughout the City, whose mortgages were insured by the Federal Housing Administration (FHA), providing that the family and the home met the requirements established by HUD. This homeownership assistance program made it possible for low- and moderate-income families to get away from the project type developments, which most prior government programs operated through. Over 1,000 homes were built in Flint under this program between 1969 and 1972.

Section 236

The 236 program was established to provide rental housing for lower income families. This program includes multi-family subsidized rental and cooperative housing developments where periodic subsidy payments are made to the sponsor of these developments. The amount of the subsidy depends on the family's ability to pay, which is determined by the income of the family and the number of children living at home. Three 236 developments were built in the City, for a total of 344 units.

Both the 235 and the 236 programs were established under Sections 235 and 236 of the Housing and Urban Development Act of 1968.

Section 221 (d) (3)

Another federally subsidized program created by the Housing Act of 1968, was Section 221 (d) (3), Mortgage Insurance for Low- and Moderate-Income Housing Projects. The purpose of this act was to finance the construction or rehabilitation of rental or cooperative single- or multi-unit structures for families, the elderly or handicapped persons with low- or moderate-income. In Flint, the five projects sponsored under the 221 (d) (3) program, are all multi-unit cooperatives, containing a total of 514 units.

Section 202

A program that originated out of the United States Housing Act of 1937, as amended (most recently by the 1974 Housing and Community

Development Act) was the 202 Program for Elderly and Handicapped. This program was designed to provide direct loans to finance the construction of rental housing developments to serve elderly and handicapped persons of either low- or moderate-incomes.

Flint has only one 202 project, which is for the elderly and contains 110 units.

Section 8

This program is authorized by Section 8 of the United States Housing Act of 1937, as amended by the Housing and Community Development Act of 1974. Section 8 is a federal program providing direct cash assistance, in the form of rent subsidies, to sponsors of these rental units for low- and moderate-income residents.

The objective of this program is to aid lower income families in obtaining decent, safe and sanitary housing through participating sponsors. Eligible sponsors include public housing agencies for existing housing, and private non-profit organizations and public agencies for substantial rehabilitation and new construction.

Currently no units have been built in the Flint area under this program, however, construction is scheduled to begin in the fall of 1977 on 235 units (200 of which are for the elderly), with an additional 39 family units proposed for the fall of 1979, all in the Doyle Area.

Section 265

Section 265 was designed to reestablish the homeownership subsidy program, the old 235 program, with some important revisions. The revised program will be limited to new and rehabilitated single-family homes and condominium units. It provides assistance payments that will reduce monthly homeowner payments. The revised program also includes a number of other modifications, increased mortgage limits on eligible units and limitations on the concentration of subsidized units, all of which are designed to avoid or minimize problems which developed under the old 235 program.

No units are currently sponsored under this new homeownership program, however, some residences could be built in Flint in early 1978.

Flint Housing Commission

The City of Flint also has a local public housing agency, the Flint Housing Commission, which is delegated its authority and duties under Act 18 of the Extra Session of 1933, as amended, State of Michigan. The Flint Housing Commission was created by the City Council in 1964, to work with the Department of Housing and Urban Development as the local housing authority to construct, subsidize and administer the low-rent housing program.

The Flint Housing Commission functions as the developer and landlord of the low-rent housing program. As the developer, the Commission

has the responsibility for the planning, financing and construction of new units. As landlord, its responsibility lies in the general management of the properties, which would include leasing units, collecting rent and maintaining the properties under its jurisdiction.

The operating income for the housing program is derived from the rent income received from the tenants, plus funds provided by the Annual Contributions Contract with the Housing Assistance Administration Office of HUD. The Annual Contributions Contract provides the local housing authority with additional revenues needed to effectively maintain and operate properties, while keeping the rent levels low.

The Commission operates three multi-unit family projects consisting of 468 units, with an additional 445 units of elderly housing are spread throughout the City in five multi-unit projects. As an alternative to the "project type" concentrated public housing, the Commission owns and operates 133 scattered site single-family homes.

APPENDIX C

A PROPOSED CAPITAL IMPROVEMENTS BUDGETING AND PROGRAMMING PROCESS

The Capital Improvement Budgeting process is the way the City of Flint allocates resources toward major, non-recurring, physical facility expenditures. The process is important not only because of the sums of money involved, but because it links together several City departments and impacts upon the direction of major projects undertaken by the City. Major capital investments are physical expressions of City policy and visible results of tax dollars spent.

In addition to a Capital Improvements Budget, Michigan Public Act 285 of 1931 mandates preparation of a six year Capital Improvements Program. This short-range schedule of projects, estimated costs, and estimated funding sources enables decision-makers to see the fiscal impacts of multi-year project funding and to prioritize on the basis of funding by fiscal year.

The Flint City Charter specifies that the Chief Planning Officer shall prepare proposals related to all development matters, including the "capital agenda and capital budget." The following discussion proposes a general capital programming and budgeting process which can be followed annually. The process offers a flexible framework for decision-making, while providing specific time periods during which decisions must be made. The role of the Chief Planning Officer is to initiate the process, to make sure all actors understand their responsibilities, to resolve problems with the workings of the process, to monitor the meeting of deadlines, and to report to the Mayor concerning progress in completing the annual cycle.

I. Setting Goals and Objectives

The Capital Improvement Budget (CIB), which can be considered the first year of the Capital Improvement Program (CIP), should be incorporated into an annual cycle based on a determination of desirable goals and objectives by the citizens of Flint and their elected and appointed representatives. Goal-setting is a continuous process and, in the case of physical development, should be within the purview of:

1. The Mayor, who translates the citizens' wishes into administrative programs.
2. The Council, where members vote for programs and projects desired by their constituents.
3. The Mayor's City-Wide Advisory Committee, where members influence the way Federal dollars will be spent.

- I. Other entities, such as Federal and state agencies (through establishment of new requirements or more stringent standards), citizen interest groups, and business groups, may influence the setting of goals.

An example of the type of goals which might be set in the first step of a CIB cycle can be taken from the recently published 701 Master Planning Workshop Report. Problems identified by citizens included (ranked by priority):

1. Transportation Problems (congestion, speeding, circulation)
2. Residential Deterioration (property maintenance, rehabilitation needed)
3. Capital Improvement Deficiencies (street, sidewalks, sewer and flooding problems)
4. Parks and Recreation Deficiencies

The allocation of funds for capital improvements has a direct bearing on problems 1, 3, and 4, and a vital supportive relationship to the stabilization of residential neighborhoods.

Setting concrete objectives for meeting goals is the job of department professionals, directed by the Mayor. For example, on priority problem number three above, the Director of Public Works (DPW) and the City Engineer, working with consultants, have determined that sewer back-up problems can probably be minimized by increasing the number of relief sewers and retention facilities. The construction of these physical facilities would be the objective. In dealing with the problem of park deficiencies, the Parks Board and its staff, using professional standards, may determine that a reasonable objective would be to provide 10-minute walking distance access to open play fields for all city residents. Acquiring enough suitable land would be the objective.

II. Establishing Measures, Collecting and Analyzing Data

While setting goals and objectives are the most critical conceptual parts of the capital budgeting process, the establishment of measures of need and the collection and analysis of hard, measurable data provide the factual basis for allocation of dollars. The Responsive Municipal Services Program (RMSP), which the Department of Community Development proposes to initiate as part of the capital budgeting process, furnishes a framework for measurement of effectiveness of and deficiencies in service provisions.

The RMSP enables department professionals in association with Department of Community Development (DCD) research analysts, to set up measurements of how effectively services are being provided to each of the city census tracts. For example, in the case

of sewer back-ups, the measurement of number of reported back-ups per 1,000 housing units can be calculated by census tracts from DPW records. By application of statistical methods for determining the City norm for these incidences of back-ups and how far each planning district deviates from that norm, geographic priorities for the installation of capital improvements can be set.

Anyone familiar with sewer and water problems in Flint would be able to state that the Northwest area has a flooding and back-up problem, but the RMSP factually identifies the comparative magnitude of the problem and isolates specific areas with service deficiencies. In the parks example, above, service deficiency areas may not be readily identifiable to "lay" citizens. While some may be of the opinion that, "the east side needs more parks," the RMSP would be able to factually determine specific problem areas by assessing, for example, what percentage of the population in each census tract is not within walking distance of a playfield. The information generated by the RMSP is very helpful in explaining capital budgeting priorities to citizens.

In establishing measures or capital investment deficiencies, the RMSP is not limited to data already on file in the various departments. Measurements meaningfully related to judging the effectiveness of service provision are not always available or kept up to date due to departmental lack of record-keeping manpower or overemphasis on "operations" and underemphasis on monitoring the effectiveness of those operations. New forms of measurement -- visual surveys, or random sample surveys of service users, for example--may be initiated and carried out by department staff and research analysts in DCD.

(Note: The RMSP is very adaptable to measurement of the efficiency of most city services--crime prevention and protection, fire protection, housing and commercial code enforcement, among others. These areas can be added to the RMSP process as soon as the capital budget areas are "up and running.")

III. Forming the Capital Improvements Program: Targeting, Costing, Funding

The RMSP provides data for setting service "targets" for minimizing deficiency ratings. In the case of the sewer back-up problem, the target might be to bring a census tract 1 to within two standard deviations of the City norm, to within one standard deviation of the City norm, or to the City norm. With other types of problems the target may be an overall effort to lower or raise the City norm. Targets chosen will vary depending on the type of measurement used and the opinions of those involved

in this activity (Mayor, Department Heads, Research Analysts, and Planning Commission) as to whether alternative targets seem practically feasible. A time frame for meeting targets should also be constructed.

Once a target or "desirable score" has been established, the alternatives available for achieving this score must be costed out and determinations as to the likelihood of available funding must be made. Alternatives will be judged as to 1) their impact on conditions in their respective census tracts, that is, on how much the census tract deficiency score will be lowered, and 2) their impact on the City norm.

The process of targeting, costing and funding should result in a list of projects specifically designed to meet the most pressing capital improvement needs in the City. Organization of the list by fiscal year start-up date provides automatic prioritization and the beginnings of a Capital Improvements Program. The program is reprioritized as projects are completed, as the results of each fiscal year's RMSP measurement and data analysis become available, and, gradually, as goals and objectives change. In this way, a continuous, prioritized listing of all capital improvements projects is kept for reference.

Funding of capital improvements is accomplished by tapping many sources, including the Public Improvements Fund, the Community Development Block Grant, and private sector monies. These funding sources must be identified and incorporated into the Capital Improvements Budget.

IV. Finalizing and Presenting the Budget for Approval

Expenditures for capital improvements, because they are distinct from both normal City operating expenses and other cost (maintenance, for example), should be integrated with, but published separately from, the Mayor's annual budget. Elected or appointed representatives and the general public should be able to identify expenditures for major improvements without being forced to sift through the Public Improvements Fund, the General Fund, and special departmental listings to get a complete picture. A separately published document with spending clearly related to goals and objectives will be easier for decision-makers to comprehend. This should speed up the whole budgeting process, and enable officials to make more informed decisions on the allocation of City monetary resources.

V. Monitoring for Efficiency

While the RMSP monitors the effectiveness of Capital Improvements in remedying service deficiencies, the cost center accounting function in the Finance Department can play an important role in

monitoring efficiency of spending for each capital project. Quarterly cost center reports for each project will enable the Mayor and Department Heads to be aware of over- or under-expenditures affecting the fiscal year completion date for each project. For example, construction of certain relief sewers may be scheduled for FY 78 and FY 79; work is initialed in FY 78 but problems with contractors and exceptionally bad weather conditions may delay completion until FY 80. Cost center reports on amount being spent on this project, coupled with department head judgment on how long completion is expected to take and how much over or under budget the project will be, should allow reprioritization of the project in the annual revision of the Capital Improvement Program.

PROPOSED BUDGET CYCLE FOR CAPITAL IMPROVEMENTS

Fiscal Year Time Frame

Principal Actors

Description

Activity

Goal Definition
A continuous process of defining City goals; accomplished through the City Charter, 701 Master Plan, State of the City Address, Mayoral Policies

Mayor, Council, Citizens

Continuous

Determination of Objectives

Delineation of specific courses of action through which goals may be achieved. A yearly statement of capital improvements programming objectives is issued through the Mayor's office.

Mayor, Chief Planning Officer, Department Heads, Planning Commission, Council

July

Establish Performance Measures

Formulate work plans for the execution of the Responsive Municipal Services program; collect data; perform data analysis.

Chief Planning Officer, Dept. Heads, Dept. Staffs, DCD Research Analysts

August-November

Establish Funding Availability

Inventory all sources of funding quarterly to determine amount of money available for capital projects in upcoming FY and through next five FYs.

Finance Director, Finance Staff, Chief Planning Officer, Mayor

January
April
July
October

Determine Capital Project Cost Efficiency

Issue quarterly cost center reports reflecting dollar amounts spent for ongoing capital projects to determine cost efficiency and money required for completion.

Budget Officer, Dept. Heads, Project Managers, Chief Planning Officer, Mayor

January
April
July
October

Set Targets for Upcoming FYs

From the RMSP document and other materials, determine specific performance targets which can be reached through capital budgeting for upcoming fiscal years.

Chief Planning Officer, Mayor, Planning Commission, CAC, Department Heads, Finance Director, Budget Officer

December

Establish Costs

Formulation, by department heads and staffs, of specific proposals to meet targets set in 6.0. Prioritization of these proposals by FY results in a six-year capital improvement program.

Chief Planning Officer, Budget Officer, Finance Director, Mayor, Department Heads, Department Staffs

January-February

Produce Upcoming FY Capital Budget

Determine exact costs and funding sources for first year of capital improvements program; budget and illustrative materials are reviewed by all principal actors in activities 1.0 through 7.0. Final budget document is produced.

Chief Planning office, Budget Officer, Finance Director, Mayor

February-March

Incorporate Capital Budget into Mayor's Budget

Mayor, Budget Officer

March-April

3

COMMERCIAL

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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WAS FINANCED IN PART THROUGH
A COMPREHENSIVE PLANNING GRANT
FROM THE DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT; CPA-MI-
05-28-0386.

ABSTRACT

TITLE: COMMERCIAL ELEMENT

PREPARED BY: CITY OF FLINT DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: COMMERCIAL DEVELOPMENT IN THE CITY OF FLINT

DATE: NOVEMBER, 1978

NUMBER OF PAGES: 30

ABSTRACT: THIS ELEMENT IS CONCERNED WITH COMMERCIAL LAND USE IN THE CITY OF FLINT. IT STATES THE GOALS, OBJECTIVES, CONDITIONS AND RECOMMENDATIONS FOR ADOPTION IN THE CITY'S COMPREHENSIVE MASTER PLAN. IN AN INCREASINGLY COMPETITIVE MARKET, BUSINESS PEOPLE MUST PROVIDE PLEASING CONVENIENT SPACES AND OFFER DESIRABLE GOODS AND SERVICES TO ENCOURAGE PEOPLE TO SPEND MORE OF THEIR INCOME IN THE COMMUNITY. THE PHYSICAL PLAN DEVELOPS THE ORGANIZATION AND COMPOSITION OF COMMERCIAL AREAS IN THE CITY BALANCING THE CITY'S NEEDS AND THE REQUIREMENTS OF BUSINESSES. THE CENTRAL BUSINESS DISTRICT IS EMPHASIZED SINCE IT IS THE LARGEST AND MOST DIVERSIFIED CONCENTRATION OF COMMERCIAL ACTIVITY.

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SUMMARY

o Introduction

Commercial activity (the sale of goods and services) can be differentiated on the basis of its function(s), service area and physical form. Commercial firms are located in:

- o Linear Commercial Districts
- o Neighborhood Shopping Centers
- o Community and Regional Shopping Centers
- o Scattered Sites
- o Downtown

o Goal

The goal of the commercial element is to provide for an increase in the scale of commercial activity in Flint.

o Policies

The five policies put forth in this element are:

1. Promote the under-developed sectors of the local economy.
2. Encourage the adaptive reuse of vacant commercial buildings and consolidate mutually supportive commercial uses.
3. Promote the downtown as the center of commercial activity.
4. Minimize land use conflicts involving commercial property.
5. Provide for efficient transportation to and from commercial areas.

o Objectives

1. City government should, through its development strategies and resource allocation, lever private capital to strengthen the commercial sector.
2. Expand the Commercial Revitalization Program, now operating as a pilot project in the N. Saginaw Street area.
 - Coordinate the Commercial Revitalization Program with a capital improvement program in the area.
 - Use the tax abatement provisions of P.A. 255 of 1978 in conjunction with the Commercial Revitalization Program.

- Offer the maximum tax abatement period (twelve years) to firms that reuse commercial structures and a lesser period for new commercial buildings.
3. Improve the variety of functions in the downtown.
 - Increase housing opportunities in the downtown.
 - Support legislation to provide tax abatement for downtown apartment buildings.
 - Encourage and assist the Downtown Development Authority's projects, including Riverfront Center and Center City Plaza.
 4. Limit the scale and nature of new businesses locating in linear commercial districts and neighborhood shopping centers.
 - When possible, relocate inappropriate businesses out of residential areas.
 - Where possible, cluster intensive commercial uses together.
 - Require screening, hedging and berming to minimize visual impacts where commercial uses abut neighborhoods.
 5. Ease pedestrian/vehicular conflict within commercial centers.
 - Make commercial centers accessible to the handicapped, pursuant to P.A. 8 of 1973, by constructing sidewalk ramps.
 - When possible, the City should ease parking problems at commercial centers.
 - Continue to upgrade the Mass Transit Authority (MTA) service, retaining downtown as the central point of transfer.

o Trends and Conditions

A. Economic Overview

The number of commercial firms in the City of Flint has declined 12.7% from 1975 to 1978. Local employment in the commercial sector is about 7% below the statewide average due to the dominance of manufacturing industries in the area.

The vacancy rate for commercial and manufacturing units is 19.77%.

When local retail sales are divided by local disposable income (on a per capita basis), the Flint market "captures" only 52.69% of local disposable income. This capture rate is the lowest among comparable Michigan markets such as Lansing, Grand Rapids and Saginaw.

B. Linear Commercial Districts

Many commercial buildings in linear commercial districts are economically or structurally obsolete. These units have a detrimental influence on surrounding residential property. Rehabilitation and reuse of these structures is encouraged.

C. Neighborhood Commercial Centers

Property maintenance is a problem at some neighborhood commercial centers. Through city code enforcement and monitoring by neighborhood residents, this problem can be minimized.

Future land use conflicts involving neighborhood commercial centers can be reduced by ensuring that only firms of an appropriate scale and nature are allowed to abut residential property.

D. Community and Regional Shopping Centers

The principal problem facing shopping centers in Flint is the relative decline in business volume due to changing shopping habits and buying patterns. In-city shopping centers have not remained competitive with the outlying centers. Local centers must stress their advantages (such as close proximity to dense populations of city residents) and develop new marketing concepts.

E. Scattered Sites

An unknown amount of commercial activity is located on various scattered sites throughout the city. In some cases, these businesses are existing non-conforming uses, conditional uses or use variances granted under the zoning code. Scattered site commercial use can have a negative impact on adjoining land uses, especially residential areas.

F. Downtown

The Downtown Land Use Plan relates existing and proposed functions to a geographical area. Riverfront Center, Autoworld, Center City Plaza and expanded housing opportunities are four proposed land uses for the downtown.

Downtown development is emphasized in this element because a dynamic downtown can have many positive ramifications for the entire city and metropolitan region. A good example of this is the development strategy used in the Riverfront Center Project. The Mott Foundation's equity investment in the name of Flint Neighborhood Improvement and Preservation Project (NIPP) will enable NIPP to rehabilitate Flint neighborhoods for years to come.

I. INTRODUCTION

Commercial activity is the sale of goods and services by private individuals and groups. This includes wholesale and retail trade as well as the service industry.

Commercial activity can be differentiated on the basis of its function(s), service area and physical form. Commercial firms are located in:

- o Neighborhood Shopping Centers
- o Community and Regional Shopping Centers
- o Linear Commercial Districts
- o Downtown
- o Scattered Sites

Neighborhood shopping centers are commercial facilities (usually a grocery store, drug store or laundry) located in residential areas. These centers are usually less than five acres in size and have a service area radius of one-half mile.¹

Community and regional shopping centers offer a variety of goods and services for comparison shopping. They usually are of a unified design, provide off-street parking and have a service area radius of four miles.²

Linear commercial districts are lines of separate commercial establishments fronting major thoroughfares. Each business usually has its own entrances from the street and its own parking lot. Most are retail and service businesses. Automotive activities (including gasoline stations), retail food stores and eating and drinking establishments are the most common types of businesses in linear districts.

The Downtown supplies a variety of goods and services for the metropolitan area. Although it is a regional shopping center, downtown is discussed separately in Section IV.

An unknown amount of commercial activity occurs on various scattered sites throughout the city. In some cases, these businesses are existing non-conforming uses, conditional uses or use variances granted under the zoning code.

¹Urban Planning and Design Criteria; Joseph Dechiara/Lee Koppleman

²Ibid

II. GOALS AND OBJECTIVES

A. Goal

The goal of the commercial element is to provide for an increase in the scale of commercial activity in Flint. The business community is encouraged to provide desirable goods and services in aesthetically pleasing and appropriate locations in order to capture a greater share of local disposable income.

B. 1.) Policy

1. The City should promote the under-developed sectors of the local economy.

The economy of the Flint area is dominated by manufacturing industries. The entire commercial sector is under-developed in Flint when compared to state-wide levels.

Objectives

- + City government should, through its development strategies and resource allocation, lever private capital to strengthen the commercial sector.

Recommendations

- o The City should encourage the Riverfront Center Project, Center City Plaza and other complementary developments such as Autoworld, that would benefit the commercial sector.
- o A data gathering and monitoring system should be implemented that will indicate changes in the occupancy of commercial buildings and the number and location of commercial firms in Flint. This information is essential for sound economic planning purposes.
- o Promote a joint government-business information dissemination program to supply timely data for sound market analysis to the public.

Unwise business decisions often result in vacant, blighted commercial structures.

- o Identify areas that are suitable for commercial redevelopment.
- o Initiate a program for the land banking of prime commercial development property.

- o Assist the Flint Area Convention and Tourist Council, the Chamber of Commerce, the Center City Association and other business-oriented groups.

2.) Policy

It shall be the policy of the City to encourage the reuse of structurally sound vacant commercial buildings and the consolidation of mutually supportive commercial uses.

The reuse of vacant commercial structures can be less expensive than new construction. Achievement of this policy would facilitate the diversification and renewal of shopping centers and linear commercial districts, instead of the further expansion of strip development. A program of reuse would increase the viability of existing commercial areas while minimizing the potential negative land use impacts of new development.

Objectives

- + Expand the Commercial Revitalization Program, now operating as a pilot project in the N. Saginaw Street area.
- + Coordinate the Commercial Revitalization Program with a capital improvement program in the area.
- + Use the tax abatement provisions of P.A. 255 of 1978 in conjunction with the Commercial Revitalization Program.
- + Offer the maximum tax abatement period (twelve years) to firms that reuse commercial structures and a lesser period for new commercial buildings.

Recommendations

- o Study the feasibility of adopting a commercial rehabilitation ordinance for Commercial Revitalization Target Areas.
- o Increase the inspection of commercial buildings and determine the cost of rehabilitation or demolition of vacant commercial buildings.
- o Identify future target areas for the Commercial Revitalization Program.
- o Assess the long-term impact of commercial tax abatement programs.

- o Assist small business people in securing low-interest loans to remodel commercial establishments.
- o When a Commercial Redevelopment District (CRD) is proposed for tax abatement purposes insure that:
 - a. The existing zoning is appropriate for the new use and no CRD is created as a non-conforming or conditional use.
 - b. The property and/or proposed use conforms to the Master Plan and Neighborhood Development Plan.
 - c. No CRD includes property that adversely affects surrounding land uses unless the expressed intent of the project is, in part, to mitigate such objectionable influences.
 - d. When appropriate, reasonable special conditions are attached to the issuance of a CRD that these special conditions be agreed to in writing by the applicant(s) prior to creation of the CRD.

3.) Policy

It should be the policy of the City to promote the downtown as the center of commercial activity for the area and capitalize on its unique character and amenities. A dynamic downtown offers many positive economic, social and psychological benefits to the entire city and metropolitan region. Downtown development can increase community pride and reverse the spread of core-area blight because blight and population instability reflect people's perceptions of their city. A full-service downtown can also provide shorter travel distances (an increasingly important factor as energy costs rise) for the majority of city residents. The Downtown is discussed in greater detail in Section IV.

Objectives

- + Improve the variety of functions in the downtown.
- + Increase housing opportunities in the downtown.
- + Support legislation to provide tax abatement for downtown apartment buildings.
- + Encourage and assist the Downtown Development Authority's projects, including Riverfront Center and Center City Plaza.

- + Ensure that future public/private developments offer adequate off-street parking and ease of access.
- + Implement the Annual Downtown Data System (ADDS) to record the impact of new developments on the economic health of downtown.

Recommendations

- o Protect the close-in residential neighborhoods of downtown.
- o Encourage projects that will complement other downtown developments.
- o Encourage the Center City Association to undertake activities such as group advertising, promotion, maintenance standards and similar business hours.
- o Encourage the use of vacant storefronts for advertising space by nearby merchants.
- o Maintain downtown security.
- o Promote the downtown as a twenty-four hour multi-functional activity center.
- o Support the river beautification program as the major open space amenity in the downtown.

4. Policy

It shall be the policy of the City to minimize land use conflicts between commercial property and residential property. The City should strive to optimize the use of all property. Land use conflicts harm neighborhoods and threaten the long-term viability of the business(es) and the city. By encouraging the predominant or optimum use of an area, land use conflicts can be minimized. Where intensive commercial use restricts the residential environment, commercial firms should be clustered together. When commercial uses abut viable residential neighborhoods, firms of an appropriate scale and nature should be encouraged.

This objective can be accomplished by adopting a more suitable zoning code and by offering economic incentives, such as tax abatements, tax increment financing, low-interest capital through the sale of Economic Development Corporation bonds, land write-downs and development packaging. Opportunities for government intervention are greatest when: 1) redevelopment projects change the land use in an area, 2) when businesses consider the reuse of a structure, the relocation to another structure, or the expansion of an existing structure, and 3) when new commercial developments are planned.

Objectives

- + Limit the scale and nature of new businesses locating in linear commercial districts and neighborhood shopping centers.
- + When possible, relocate inappropriate businesses out of residential areas.
- + Where possible, cluster intensive commercial uses together.
- + Require screening, hedging and berming to minimize visual impacts where commercial uses abut neighborhoods.

Recommendations

- o Identify areas that are appropriate for commercial clustering and redevelopment.
- o The City must actively pursue partnerships with the private sector. By offering economic incentives, the City can better influence land use decisions.
- o Neighborhood groups should be encouraged to inform the Department of Community Development of serious land use conflicts within their areas. The conflict could be resolved through cooperation between the residents, the business(es) and the City.
- o Regulate new commercial development along service roads.
- o Restrain the expansion of commercial enterprises into residential areas.
- o Assist the Planning Commission and Zoning Board of Appeals in making sound long-term land use decisions.
- o Formulate a land development manual to guide the public through the development process. Also establish a procedure for handling all permits, licenses and zoning matters from a single office.
- o Support the formation of neighborhood groups and encourage their participation in land use actions affecting the community.
- o Adopt an ordinance on the scale and character of new commercial development to insure compatibility with the surrounding area. Include better sign ordinance standards.

- o Strengthen the buffering requirements of the ordinance to visually screen the impact of commercial development from an abutting residential use.
- o Clarify site plan review authority over commercial sites which change uses.
- o Consider the adoption of zoning code improvements.
- o Improve coordination between the Department of Community Development and the Economic Development Corporation so that the City can exert a greater influence on select land use decisions.

5.) Policy

The fifth policy is to provide efficient transportation to and from commercial areas. Viable commercial enterprises must be accessible and the level of accessibility must be tied to the intended use and the area. Neighborhood centers need the easiest pedestrian accessibility while shopping centers and linear commercial districts need the easiest vehicular accessibility. Transportation and parking requirements should be evaluated in terms of the intended service area. The business concerns of sales and services must be balanced with the overall impact on the community.

A lack of sufficient off-street parking and ingress and egress problems bother many commercial centers. Off-street parking may be increased at many commercial centers by businesses jointly buying vacant lots or deteriorating buildings for this purpose. If not adjacent, this lot would be only a short walk from a number of businesses. This off-street parking could then be buffered from adjacent non-commercial property.

Objectives

- + Ease pedestrian/vehicular conflict within commercial centers.
- + Make commercial centers accessible to the handicapped pursuant to Public Act 8, of 1973, by constructing sidewalk ramps.
- + When possible, the city should ease parking problems at commercial centers.
- + Continue to upgrade the Mass Transit Authority (MTA) service, retaining Downtown as the central point of transfer.

Recommendations

- o Support the development of pedestrian malls and a skywalk system between activity centers in the downtown.
- o Increase efforts to eliminate barriers to pedestrian and bicycle movement to neighborhood centers. Promote: sidewalk improvement, sidewalk ramp construction, cross-walk definition and bicycle lanes.
- o Study the feasibility of extending the hours of operation of the MTA. Investigate a public transit system that would connect activity centers such as the City/County Government Center, U of M, Doyle area, retail core, parking areas and other developments as they are built.
- o Determine the feasibility of providing MTA shuttle service for people who park at "commuter" lots located on the perimeter of downtown.
- o Ensure that new commercial developments provide sufficient off-street parking, and completely revise parking requirements of the ordinance.

C. Policy Summary

The five policies put forth in the commercial element are:

- 1) Diversify the local economy.
- 2) Reuse vacant commercial buildings and consolidate mutually supportive commercial uses.
- 3) Promote the downtown.
- 4) Minimize land use conflicts involving commercial property.
- 5) Provide efficient transportation to and from commercial areas.

III. Present Trends and Conditions

A. Economic Overview

The number of commercial firms in the City of Flint declined 12.7% between 1975 and 1978. The following table represents data collected by R.L. Polk and Company as of March, 1978.

<u>Commercial Firms in the City of Flint</u>			
<u>Category</u>	<u>1975</u>	<u>1978</u>	<u>Percentage Change</u>
Total	3978	3474	-12.7%
- Wholesale	130	138	+ 6.2%
- Retail	1191	1031	-13.4%
- FIRE ¹	529	373	-29.5%
- Service and Professional	1854	1696	- 8.5%
- Other	274	236	-13.9%

A map showing the percentage change in commercial firms for 1975-1978 by census tracts is attached.

The Polk data also indicates that the vacancy rate for commercial and manufacturing units is 19.77%.

Commercial employment is overshadowed by manufacturing employment in Flint compared to statewide 1978 Michigan Employment Security Commission figures.

Employment by Sector:

	<u>Michigan</u>	<u>Flint</u>
<u>Commercial</u>	<u>45.17%</u>	<u>38.44%</u>
-FIRE	4.01	2.78
-TCU ²	4.22	3.03
-Services	16.10	13.30
-Retail	16.04	15.43
-Wholesale	4.8	3.9
<u>Manufacturing</u>	<u>32.3</u>	<u>43.70</u>

The City has the opportunity to diversify the local economy by creating favorable business conditions. The public/private investment in the University of Michigan-Flint, Riverfront Center, the Citizen's Bank Office Building and

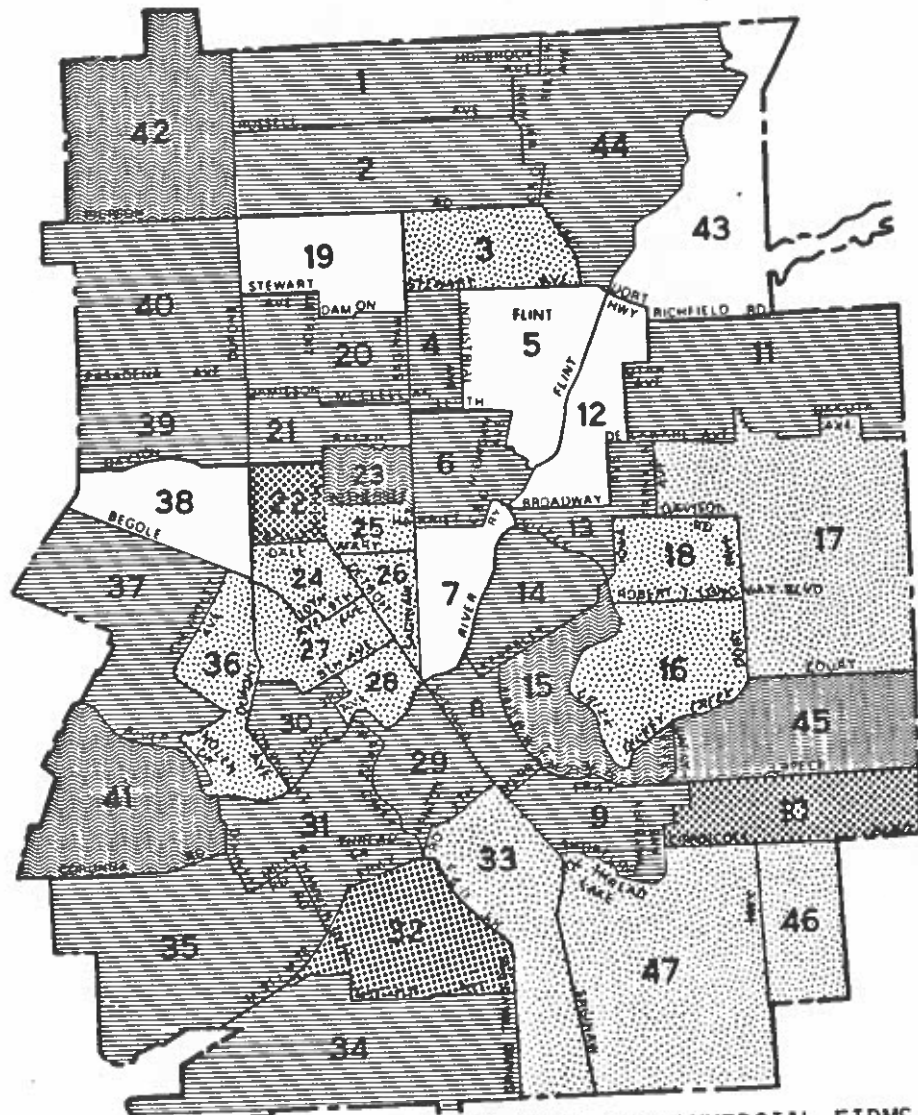
¹FIRE - Finance, Insurance, and Real Estate

²TCU - Transportation, Communications, and Utilities






Center City Plaza will have a good influence on retail, service and office employment. Other government action, including economic and community development, can be used to encourage growth in other commercial sectors. An Economic Development Corporation bond sale could raise low-interest capital for an air freight warehouse at Bishop Airpark, or a Community Development Block Grant could be used to create an appropriate environment for commercial use.

The Flint market does not capture as large a percentage of local disposable income as do other metro areas in the state. Sales and Marketing Management's Survey of Buying Power, 1977, indicates that when local retail sales are divided by local disposable income (on a per capita basis) the Flint market "captures" only 52.69% of local disposable income. This capture rate is the lowest among comparable Michigan markets such as Lansing, Grand Rapids, and Saginaw.

Sales and Marketing Management's Survey of Buying Power ranks Flint as the eighth most affluent market in the nation and projects a 66.5% increase in average household disposable income for 1981 and a 49.8% increase in retail sales by that time.



PERCENTAGE CHANGE (1975-1978) IN COMMERCIAL FIRMS

-  Census Tracts That Gained Firms
-  Census Tracts With No Net Change
-  Census Tracts With a 10% or Less Decrease
-  Census Tracts With a 10-25% Decrease
-  Census Tracts With a Greater Than 25% Decrease¹

¹ Census Tracts 5 and 7 were greatly impacted by urban renewal relocations.

B. Linear Commercial Districts

The physical condition of linear commercial districts is generally poor. The most efficient way to increase the scale of commercial activity, while minimizing the negative impacts of new development, is by encouraging the reuse of structurally sound vacant commercial buildings.

Many commercial buildings are economically and/or structurally obsolete. This situation has arisen due to the following factors: 1) old age, 2) a decline in the population density in the surrounding area, 3) competition from out-lying commercial centers and 4) out-dated marketing practices.

Vacant and poorly maintained commercial buildings have a detrimental influence on surrounding residential property.

Linear commercial districts that do not have enough off-street parking can alleviate this problem by clearing obsolete buildings and constructing screened parking lots.

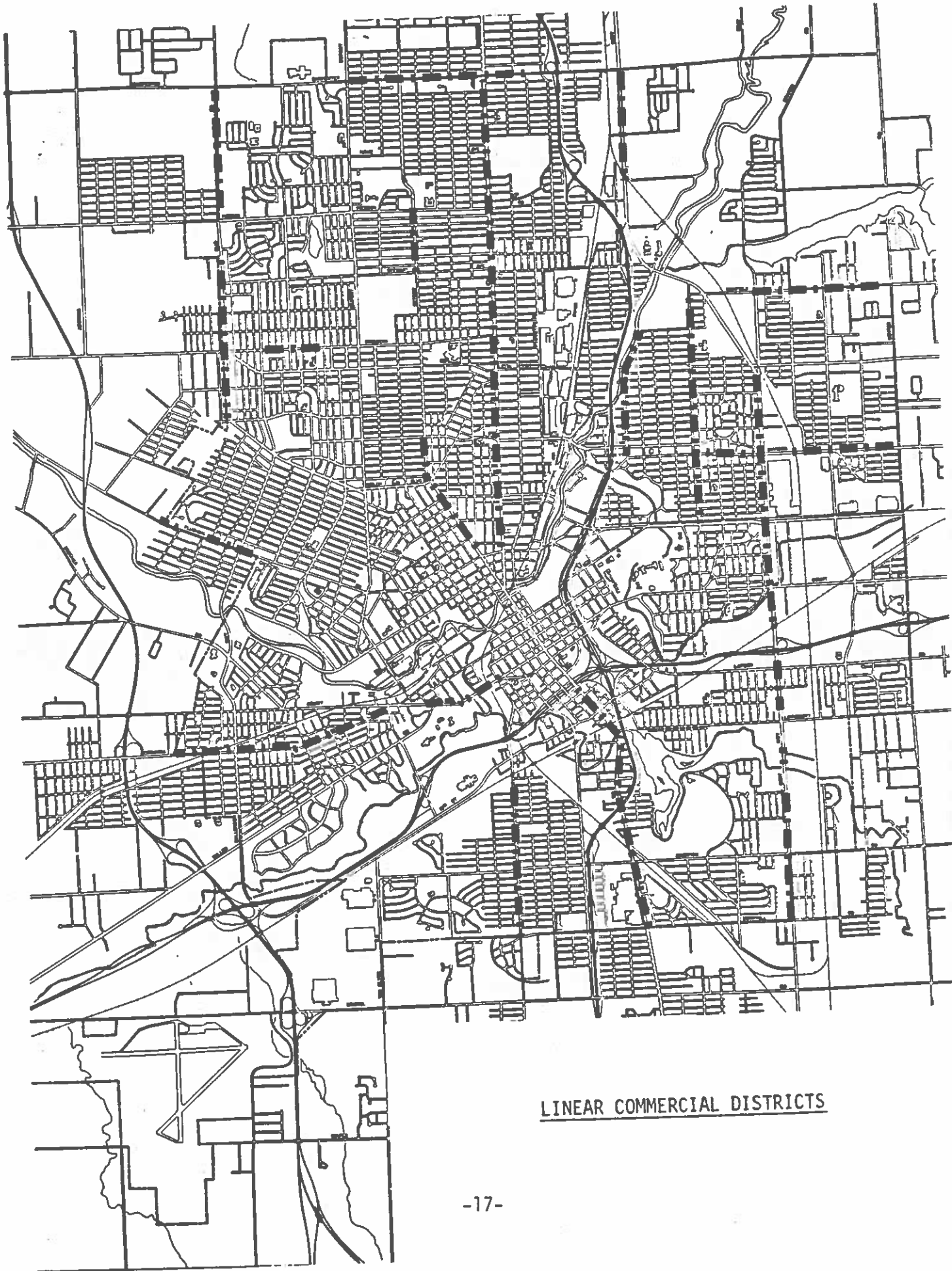
The following data was derived from a 1977 Department of Community Development field survey. It indicates the poor structural condition of some of the linear commercial districts in the City of Flint.

A map showing the location of linear commercial districts is attached as illustration 3.

Illustration 2

Structural Condition of Linear Commercial Districts

<u>Street</u>	<u>Total Units</u>	<u>% Needing Rehabilitation or Demolition</u>	<u>% Vacant</u>	<u>% in Good Condition</u>
1. Lewis	32	69	25	31
2. N. Saginaw (First Ave. to Carpenter Rd.)	240	44	19	56
3. S. Saginaw (Seventh St. to Hemphill Rd.)	106	40	16	60
4. Detroit	42	38	14	62
5. Franklin	72	31	18	69
6. N. Dort (Longway to Carpenter Rd.)	105	29	11	71
7. Carpenter	8	25	13	75
8. Fenton	49	16	4	84
9. Davison	101	13	4	87
10. Pasadena	11	9	0	91
11. W. Court	27	6	4	94
12. S. Dort (Longway to Hemphill)	130	5	4	95
13. Corunna	82	5	2	95
14. Richfield	37	3	0	97
15. Clio	104	2	10	98
16. Flushing	32	0	3	100



LINEAR COMMERCIAL DISTRICTS

C. Neighborhood Commercial Centers

Neighborhood commercial centers provide goods and services primarily to nearby residents. The most common businesses in neighborhood centers are grocery stores and drug stores. Their service area is generally a one-half mile radius.¹

The neighborhood commercial centers are listed on the following page. For the purpose of this plan they are defined as being five acres or less in size.

Property maintenance is a problem at some neighborhood commercial centers. Through city code enforcement and monitoring by neighborhood residents, this problem can be minimized.

Future land use conflicts involving neighborhood commercial centers can be minimized by ensuring that only firms of an appropriate scale and nature are allowed to abut residential property and by providing adequate screening and buffering.

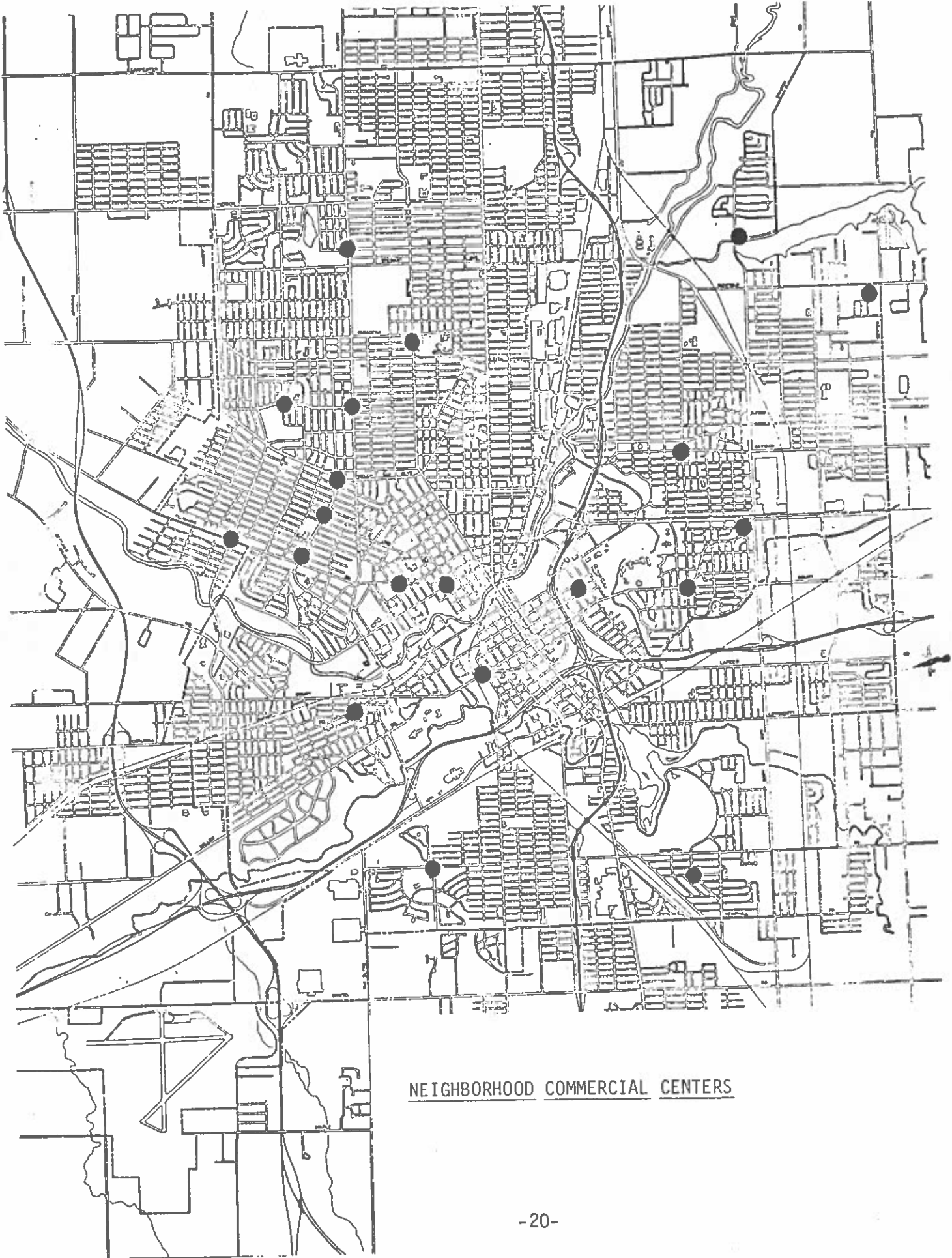
A map showing the location of the neighborhood commercial centers is attached as illustration 5.

¹Source: Urban Planning and Design Criteria; Joseph Dechiara/Lee Koppelman

Illustration 4

<u>Neighborhood Commercial Centers Location</u>	<u>Site in Acres</u>
1. Dupont at Flint Park Blvd.	4.20
2. Western and Layton Blvd.	1.29
3. Detroit and Dewey Sts.	2.82
4. Dupont and Dayton Sts.	1.82
5. Chevrolet and Welch Blvd.	.65
6. Chevrolet between Flushing Road and Sloan Street	.46
7. Chevrolet and Mackin Rd.	.61
8. Dayton and Delmar Sts.	1.39
9. Ballenger and Flushing Rd.	1.81
10. Fifth Avenue and Stevenson St.	1.92
11. Third Avenue and Grand Traverse St.	3.43
12. Corunna and Durand St.	1.08
13. Davison and Franklin Ave.	1.80
14. Richfield and Center Rds.	4.45
15. Court and Ann Arbor Sts.	1.78
16. S. Dort and R.T. Longway Blvd.	4.20
17. Thomson and Second St.	1.80
18. Court and Franklin Ave.	.61
19. Circle and Leta St.	.64
20. Atherton and Hammerberg Rds.	4.88

Illustration 5



NEIGHBORHOOD COMMERCIAL CENTERS

D. Community and Regional Shopping Centers

Community and regional shopping centers attract customers from a much wider area than do neighborhood commercial areas. The radius of the service area for shopping centers can extend four miles or more.¹

Unlike some of the older linear commercial districts, physical obsolescence is not the primary problem with community and regional shopping centers. These centers were generally constructed in the 1960's and are in good structural condition. The principal problem facing the shopping centers in Flint is the relative decline in business volume due to changing shopping habits and buying patterns.² Newer suburban shopping centers offer conveniences such as ample free parking, climate-controlled mall environments and a large number of quality stores.

The shopping centers in the city have not remained competitive with the outlying centers. To improve their competitive position, local shopping centers must emphasize their advantages over suburban centers and develop new marketing concepts. One advantage of the in-city shopping centers is their proximity to dense populations of city residents. With ever-increasing transportation costs, this factor could again benefit in-city centers as it did before the days of high-speed expressway transportation. Shopping centers must also launch new, vigorous marketing campaigns designed to capture a greater share of local sales.

A good example of this is the case of the Dort/Small Mall on S. Dort Highway. Built in the mid-sixties, the Dort Mall was one of the first enclosed malls in the area. As the "art" of shopping center development progressed, the Dort Mall suffered from the competition of newer, bigger malls that have two or three "anchor" stores that "pull" a large number of shoppers. The Dort Mall, through an innovative marketing campaign, turned its biggest disadvantage (its small size and lack of "anchor" type stores) into a positive advertising theme. The Small Mall has improved its appearance, increased the number of small, specialty-type stores and upgraded the quality of its merchandise, and business has never been better.

Although the downtown is a regional shopping center, it is discussed separately in Section IV.

A map showing the location of the area's shopping centers and a list of the centers are included on the following pages.

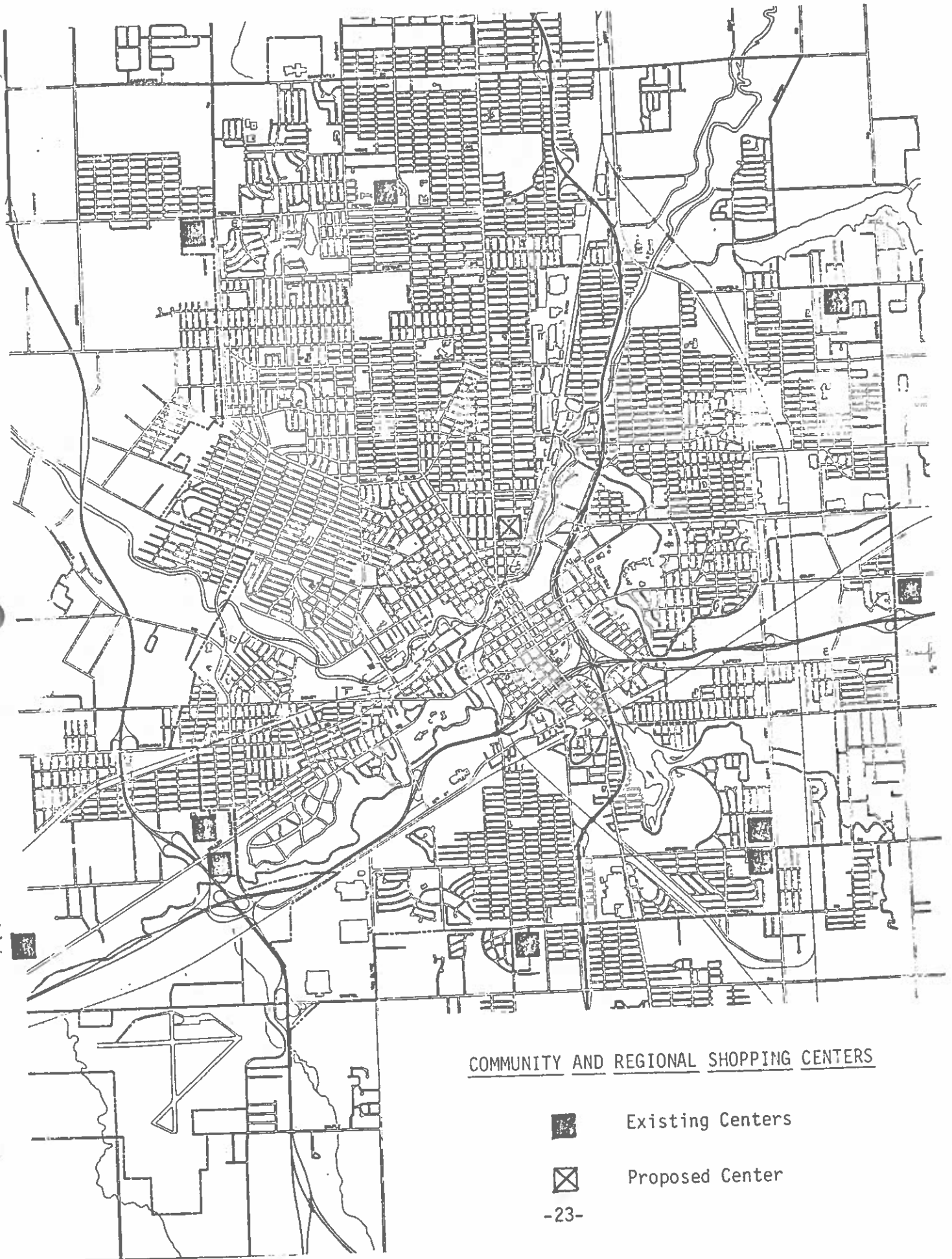
¹ Source: Urban Planning and Design Criteria; Joseph Dechiara/Lee Koppelman.

² The U.S. Census of Business: Retail Trade Statistics for 1967-1972 show that the sales in the SMSA (Genesee & Shiawassee Counties) increased 58.2% while sales in the City of Flint grew only 23.5%.

Community and Regional Shopping Centers

<u>Location</u>	<u>Site Coverage (Acres)</u>
Clio and Pierson Rds. (Northwest Shopping Center)	31.25
Detroit and Pierson Rds. (North Flint Plaza)	6.0
Fifth Ave. and Saginaw (Proposed Doyle Center)	5.9
Richfield and Term St. (Thompson's)	5.9
*Court and Center Rd. (Eastland Mall)	55.1
S. Dort and Atherton Rd. (Small Mall)	22.3
S. Dort and Atherton Rd. (K-Mart Plaza South)	12.3
Fenton and Hemphill Rds. (South Flint Plaza)	28.0
*Miller and Linden Rds. (Genesee Valley)	83.0
*Miller and Ballenger Hwy. (K-Mart Plaza - West)	11.9
*Ballenger and Miller Rd. (Westgate Plaza)	6.7

*Located outside of Flint's City limit



IV. DOWNTOWN LAND USE PLAN

A. Introduction

Downtown Flint is the geographical and functional center of the metropolitan area.

B. Functions

1. One function of the downtown is that of a retail center. Although retail sales in the CBD declined 32% from 1967-1972¹, merchants have reported substantial increases in sales in recent years as re-investment projects, such as the University of Michigan-Flint, generate more activity in the downtown.

Future downtown developments should have additional benefits to retail trade. Center City Plaza, a four block, two-story enclosed shopping concourse is being planned. Its center will be the intersection of First and Saginaw Streets. This project would increase the competitiveness of downtown retailers. It would improve the working, shopping and business environment of downtown.

The retail core area (see map 1) contains the majority of the retail establishments and office space in the downtown including the main offices of the major banks in the area. Both retail and office use are appropriate for this area.

2. Just north of the retail core area is the city's redevelopment site. Current plans call for the construction of a multi-use complex known as Riverfront Center. It would include a hotel, convention center, State of Michigan Office Building, retail department store, private office building and two parking decks. Market demand studies were performed on the various components of the project and are included in Appendix 1.

Riverfront Center should have a major effect on the local tourism and service industries and on the economy of the entire area as well. The Riverfront Center project (see map 1) hinges on the acceptance of Flint's 6.5 million dollar Urban Development Action Grant application to the Department of Housing and Urban Development.

3. Downtown is also the government center of Genesee County. The City of Flint Municipal Center and Genesee County's Administration and Courts buildings are located at the southern edge of downtown along Saginaw Street. Nearby is the Social Security Office. The nine-story State of

¹U.S. Census of Business: Retail Trade, 1972

Michigan Office building, to be located in Riverfront Center, will consolidate separate state offices that are currently scattered throughout the metropolitan area. Government land use is shown on map 1.

4. Downtown also functions as a commercial and service area (see map 1). A variety of services including professional, personal, financial and business firms are located around the retail core. The service industry² accounts for more than 50% of all businesses in the downtown.
5. Many institutional uses are located in the downtown area. Among these are the University of Michigan-Flint, the Industrial Mutual Association Auditorium, YMCA and YWCA, several churches, schools, the Walter P. Reuther Center and the Masonic Temple. The largest of these is the U of M-Flint campus. Since being relocated from the Court Street site, the University has constructed a classroom-office building and a power generating facility. It has also broken ground for a science building and a student center. The Mott Foundation has recently awarded the school a 6 million dollar grant for construction of an athletic facility. Enrollment is expected to reach 10,000 students. Plans are being made for the conversion of the IMA Auditorium into an exhibition hall and automotive museum known as Autoworld. Should this private development occur, it would complement other developments and add to local tourism. Other institutional land uses are located on map 2.
6. Riverbank Park, now under construction, will become the major open space amenity in downtown. It will contain an amphitheatre, water fountains, sculpture, ice skating canal and walking and bike paths. The downtown stretch of the Flint River will become an activity center and a source of pride for all the residents of the Flint area. All of the park use in downtown is shown on map 2.
7. One function that needs to be expanded in downtown is that of a residential area. Increasing the number of people who live in and near the downtown will increase the twenty-four hour a day vitality of the area. The Doyle redevelopment area will contain 458 new residential units designed to attract a mix of income groups and races to this unique urban environment.

The residential character of the close-in neighborhoods should be maintained. The neighborhoods north of First Avenue and west of Garland Street and west of Grand Traverse and south of the river are treatment areas of the Neighborhood Improvement and Preservation Project.

²Genesee County Land Use Consultation Report. Genesee County Metropolitan Planning Commission, 1970.

For many years the need for high-density private apartments in the downtown has been recognized. Two areas that are well-suited for apartment buildings are the eastern fringe of downtown south of the University of Michigan-Flint campus and the Water Street site, which is destined to be redeveloped for a more intensive use. High density housing would also be appropriate in the commercial/ service area shown on map 1.

Potential high-density residential areas (including the Doyle site) are outlined on map 2.

8. The blocks surrounding the the Government Complex (see Map 2) are in a transitional period. Market pressures are forcing the conversion of many low-density residential properties into commercial use, particularly law offices.

As the land use in this area changes, the Planning Commission and Zoning Board of Appeals should ensure that the impacts of the new commercial use on nearby residential property are minimized.

9. Inappropriate manufacturing firms should be relocated out of the downtown when opportunities arise for relocation and when appropriate sites are available. The City should use its powers of economic and community development to minimize land use conflicts in the downtown.

C. Transportation

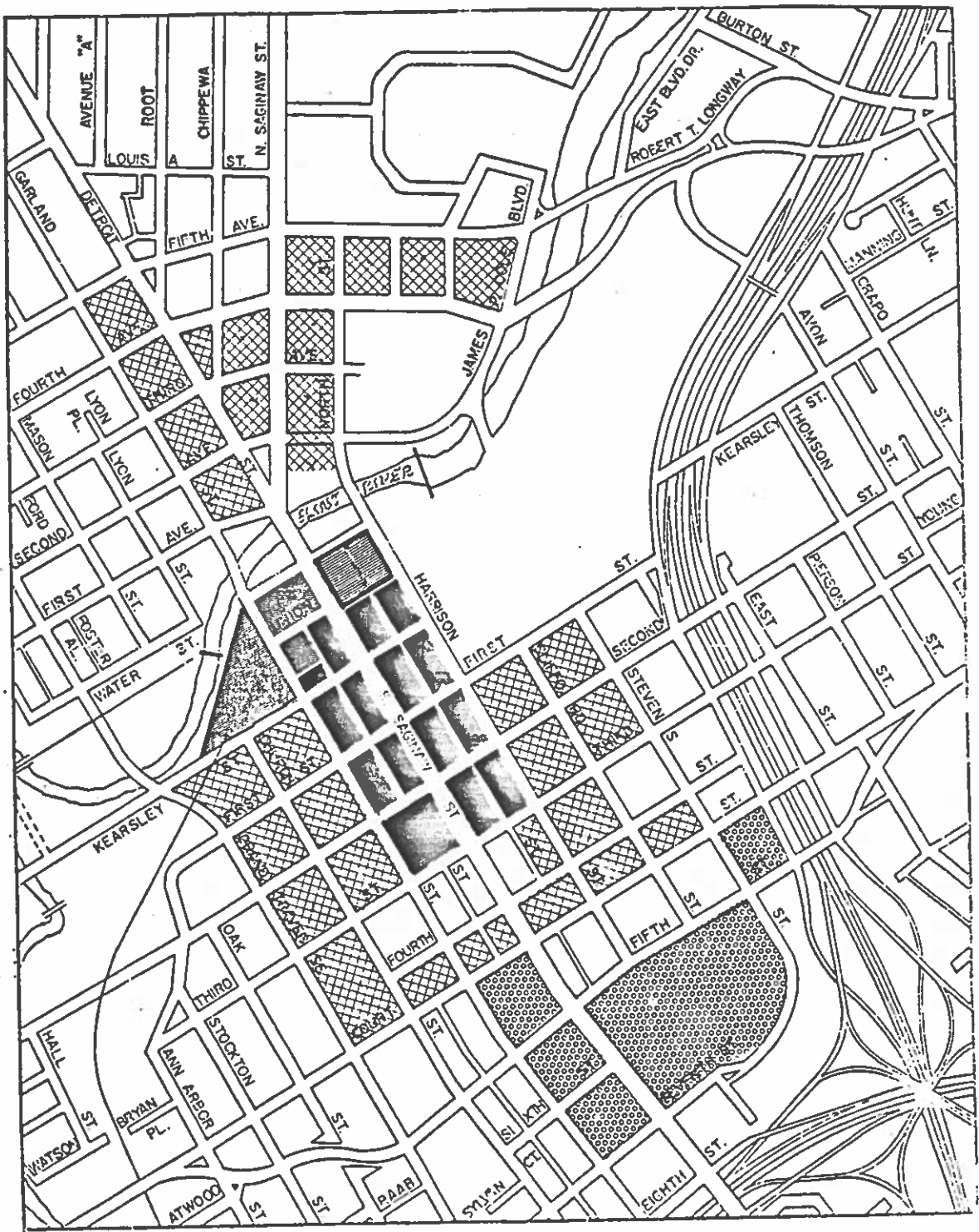
An important component in the revitalization of the downtown is the transportation system that serves the central city. Downtown's accessibility should be improved by:

1. Completing the system of paired couplets designed to move traffic to and around the downtown.
2. Maintaining the downtown as the central point of transfer of the Mass Transportation Authority.
3. Easing pedestrian/vehicular conflicts by promoting a skywalk system connecting activity centers.
4. Supporting the policy, objectives and recommendations of the transportation section (II. B. 5.) of the commercial element and the transportation element.

The proposed traffic circulation pattern with Riverfront Center and Center City Plaza in place, is shown on map 3.

D. Conclusion

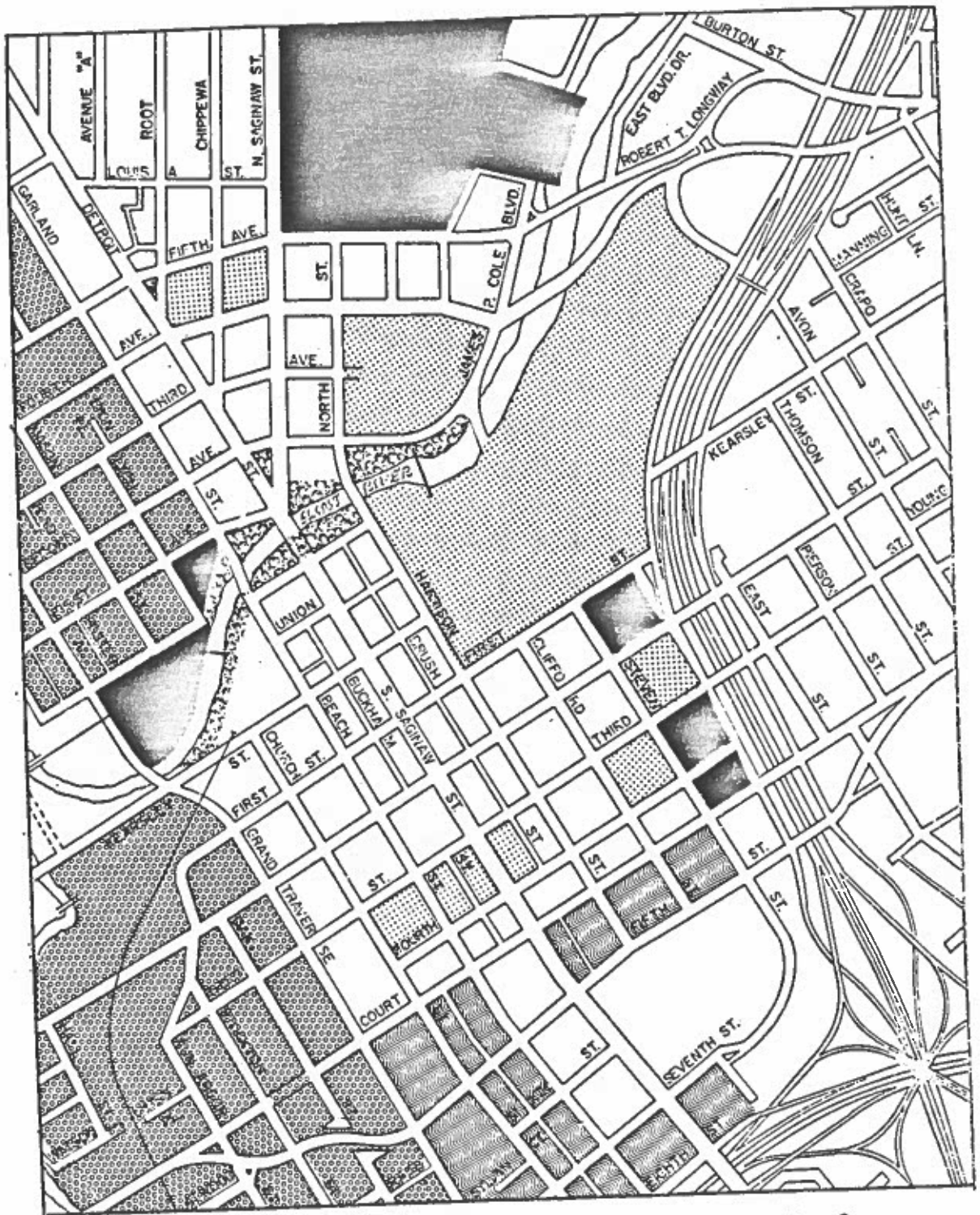
The City of Flint has development mechanisms such as the Downtown Development Authority and commercial tax abatement powers, to bring about a dramatic improvement in the physical condition of downtown. Downtown development can have positive ramifications for the entire city. A good example of this is the development strategy used in the Riverfront Center project. The Mott Foundation's equity investment in the name of Flint Neighborhood Improvement and Preservation Project will enable NIPP to rehabilitate Flint neighborhoods for years to come.



Map 1

DOWNTOWN LAND USE


- | | |
|---|---|
|  Retail Core |  Government Complex |
|  Riverfront Center |  Commercial/Service |




Map 2


DOWNTOWN LAND USE

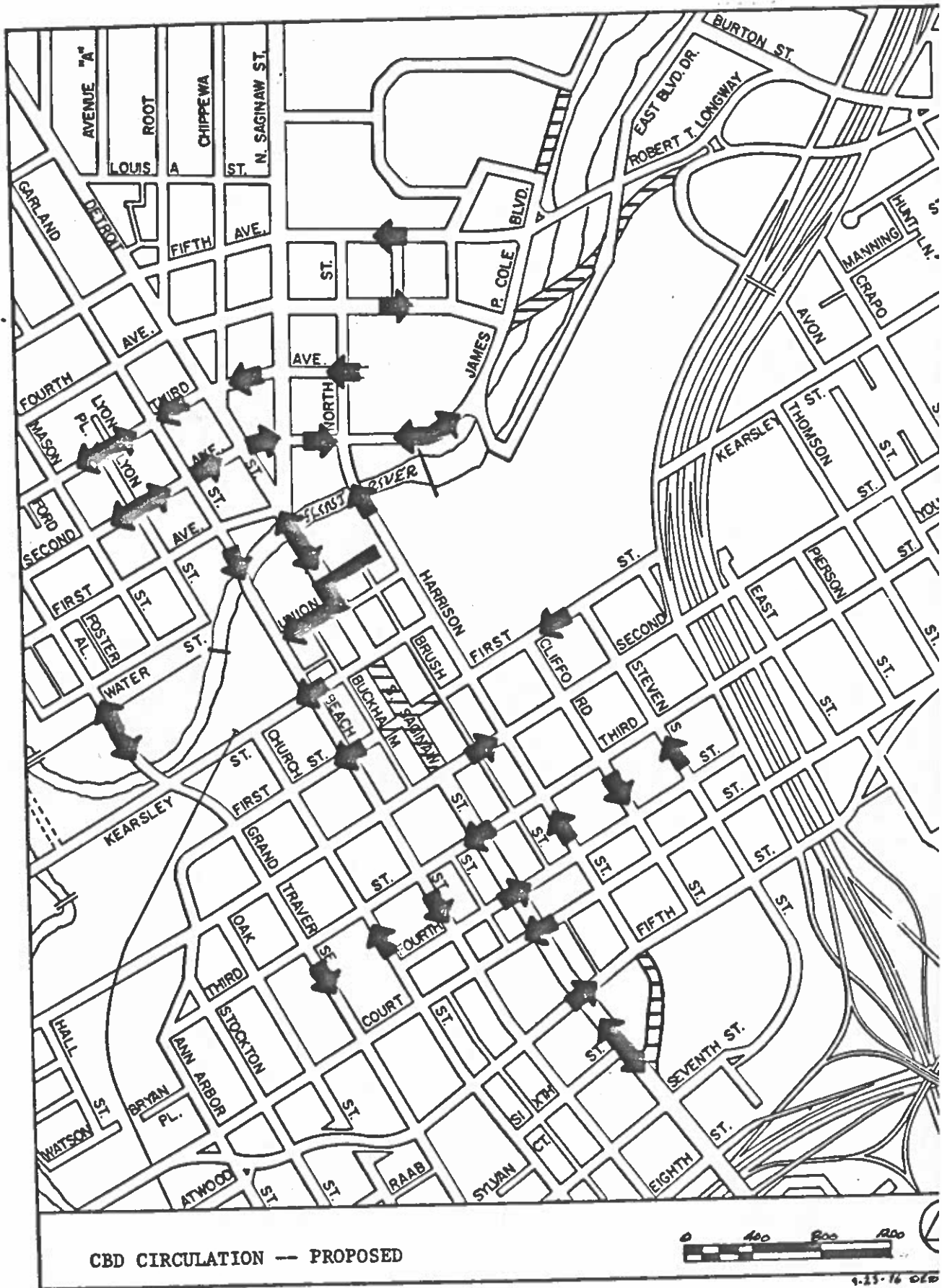
 Institutional

 Neighborhood Preservation Target Areas

 Park/Open Space

 Transitional

 Potential High-Density Residential



CBD CIRCULATION -- PROPOSED



4-15-76 o/c

Map 3

 Proposed

APPENDIX 1

1. Laventhal & Horwath's "Market Analysis for a Proposed Convention Center in Flint, Michigan" dated February, 1978, states "We recommend a 60,000 square foot convention center consisting of the following facilities: ... a main exhibit area, adaptable for meeting and banquet use, of 30,000 square feet, complemented by approximately 30,000 square feet of office space, smaller meeting rooms and storage area as detailed in the report."

The study also projects 101,000 attendee days in the first year of operation. This level of use should increase to 128,000 attendee-days by the fifth year of operation.

2. Morton Hoffman and Company's 1975 study indicated that for the period of 1975-1985, 465,400 square feet of new or replacement downtown office space was supportable.
3. The Hoffman study also reported the new space potential for shoppers goods at 266,000 square feet by 1985 in downtown.
4. Hoffman projects the potential lodging requirements for downtown at 595 additional rooms by 1985.

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INDUSTRIAL

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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05-28-0386.

ABSTRACT

TITLE: INDUSTRIAL ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: INDUSTRIAL DEVELOPMENT IN FLINT, PAST AND FUTURE

DATE: NOVEMBER, 1978

NUMBER OF PAGES: 31

ABSTRACT: THIS REPORT IS CONCERNED WITH THE STATUS OF INDUSTRIAL DEVELOPMENT WITHIN THE CITY OF FLINT. IT IDENTIFIES THE TRENDS THAT HAVE BROUGHT THE FLINT AREA TO ITS PRESENT ECONOMIC CONDITION AND OUTLINES GOALS, OBJECTIVES AND RECOMMENDATIONS FOR THE FUTURE. EMPHASIS HAS BEEN PLACED UPON INDUSTRIAL LAND POTENTIAL, FACTORS EFFECTING INDUSTRIAL RELOCATION AND INCENTIVES AVAILABLE TO ENCOURAGE INDUSTRIAL EXPANSION AND RELOCATION INTO THE CITY. THIS REPORT TAKES ADVANTAGE OF THE RESULTS OF REPORTS, ANALYSIS, INTERVIEWS, AND CITIZEN MEETINGS, TO RECOMMEND THE FOLLOWING. CONTINUED INCENTIVES AND FURTHER DEVELOPMENT OF "CLASS A" INDUSTRIAL PARKS, PLANTING AND OTHER BUFFERING BETWEEN INDUSTRIAL AND OTHER LAND USES, AND LAND BANKING FOR FUTURE INDUSTRIAL EXPANSION. ADDITIONAL STUDIES ARE RECOMMENDED TO INVESTIGATE PARTICIPATION BY INDUSTRY IN CITY PLANNING AND ZONING AND IN METHODS OF DEVELOPING SUPPLEMENTAL ENERGY SOURCES FOR INDUSTRY.

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ELEMENT SUMMARY

Introduction:

This industrial element will have the purpose of describing the existing conditions surrounding industrial land uses and industrial activity in the City. Attention is given to the economic role of industry, and to real or likely problems impinging upon, or created by, industry. Appropriate objectives for industrial activity and development are presented along with recommendations for specific actions in support of those objectives. The element ends with a set of coordinated policies that will guide actions and decisions regarding industry and industrial development.

It is sometimes difficult, and especially so in land use matters, to define "industry." It is difficult to decide where the line between heavy commercial and light industry is to fall. This document will include as industry any business that involves the manufacturing, processing, reprocessing, fabricating, or alteration through chemical or electrical treatment of a product, or products, intended for sale off the premises. A business producing goods or products primarily for sale on the premises will be considered a commercial, rather than industrial, activity.

The role that industry plays in a local economy is a central one. In the Flint area that role is totally dominant. The concentration of employment in heavy industry means that most of the personal income of the area stems from this source. Commercial activity, via expenditures of personal income, is at least indirectly dependent on industry. Governmental functions are economically dependent upon both.

General Goals and Objectives:

Because industry is the backbone of the Flint economy, its welfare and development are vitally important to the area. A general goal of the City should be to increase the industrial base through the expansion of existing businesses and the encouragement of new industry. A full explanation of why, how, and how much industrial expansion should occur appears in the text. There are, of course, constraining factors that limit such expansion. These center on considerations of other land uses in the City, and competing demands and needs.

What follows below is a delineation of the major problems connected with the City's industries. These are stated briefly here and discussed more fully in the text of the element. Each is followed by a set of objectives or short term actions that might be appropriate for the City to undertake.

- I. The dominance of the automobile industry in the local economy has created problems for both that industry and the area. These include cyclical unemployment inherent in the industry, high wage rates that discourage smaller businesses, and an unhealthy dependence on automotive equipment that is a burden to the industry and a potential threat to the economy.

Objective:

- A. Non-automotive industries should be encouraged to develop in the City. Positive steps that could be taken to promote this objective might include:
 - 1. Making tax incentives available to businesses that develop or expand employment in non-automotive industry
 - 2. Providing capital as incentive to development . . .
 - a. through EDC and Act 62 revenue bonds
 - b. through local revolving loan funds or loan leveraging
 - c. through utilization of State and Federal loan programs such as the SBA and MJDA
 - d. through encouraging involvement of local lending institutions in economic development
 - 3. Maintaining an active industrial recruitment program targeted on non-automotive industry
 - 4. Providing land for development at reasonable cost. This is discussed separately, below.
- B. Wage rates for non-automotive industries must be kept competitive with other areas of the country. Action might include...
 - 1. Labor force training plans through CETA and other programs coordinated to needs of specific employers
 - 2. Encouraging active participation of local unions in economic development programs
- C. Other business costs should be reduced. This is discussed separately, below.

II. There are frequent communication problems and a lack of coordination between private industry and government. In the past, the conflicting objectives of government and business have caused delays, headaches and hard feelings on many development projects. This should not happen since the goals of government and business do not really conflict and can be easily coordinated with cooperative effort.

Objectives:

- A. Communication between the City and private business must increase so that cooperation can develop.

1. Attempts should be made to involve private businessmen in the governmental planning process in an advisory role.
 2. Annual meetings with industrial leaders and top level City officials could be instituted.
 3. No decisions regarding industry, such as changes in regulations or land use controls, should be instituted without the opportunity for review and input by the industrial community.
- B. Regulations and various governmental requirements should be reviewed regularly and simplified and streamlined wherever possible.
1. A staff position within City government should be designated to function as a business representative or contact person to assist industries in dealing with the City and vice versa.
 2. Internal procedures on zoning, building inspections, site plan reviews, and other similar City functions could be simplified and a single entry point into the system should be established.
 3. All regulations imposed by the City should be thoroughly reviewed at intervals of no more than five years and judged for need, effectiveness, and appropriateness. Unnecessary regulations should be removed. Ineffectual regulations should be promptly revised.
 4. An annual report of problems encountered with existing regulations should be instituted together with procedures for revising standards.
- C. Attempts at educating business community to value of certain kinds of regulations must occur. This may include publication of reports or the use of conferences on zoning, building codes, site plan review procedures, licensing, etc., aimed at explicating value of these regulations to business and industry.

III. The costs associated with doing business in the Flint area are very high and the general position of the State in this regard is 48th out of 50.

Objectives:

- A. Reduce the extent feasible the costs imposed by the City
 1. Utilize property tax abatements available through P.A.

2. Explore possibilities of other cost reductions at local level
 - B. Work with State government to reduce State imposed costs wherever possible
- IV. The amount of space available for industrial growth and expansion in the City is very limited. Many major industries are land locked.

Objectives:

- A. The City should take steps to increase the amount of land that can be utilized for industrial purposes, where appropriate.
 1. The City should practice land banking so that larger and more useful parcels of land can be assembled in industrial areas.
 2. A complete reassessment of land bordering existing industrial areas should be done to determine if any parcels might be better utilized as industrial land.
 - B. The City should make maximum use of existing industrial park land, and other vacant industrial land.
 1. Some industry currently land locked should be encouraged, however possible, to relocate to existing parks where growth and expansion would be possible.
 2. Vacant scattered industrial sites should be developed and the City should cooperate with and assist private developers.
 3. A program of "outreach" and marketing should be maintained by the City at least for the foreseeable future.
- V. Several of the larger industrial complexes of the City are aging and many smaller manufacturing enterprises have obsolescent plants and equipment. When equipment becomes obsolete, competition with more modern plants becomes difficult. When buildings become obsolete, it affects production and impacts on surrounding property.

Objectives:

- A. Industry should be encouraged to modernize their plants and equipment through capital investment.
 1. Abatements for modernization should be utilized under State Act 198.
 2. Financing for modernization should be made available through revenue bonds - under P.A. 388 or P.A. 62.

3. Rehabilitation districts should be established.
- B. Industry should be required to meet reasonable standards of plant maintenance to prevent unnecessary deterioration.
1. Standards for exterior maintenance should be formulated, with cooperation and input from industry, along with appropriate enforcement procedures.
 2. Use of maintenance "districts" should be explored and feasibility assessed.
 3. Basic code standards of City should be enforced with annual inspections of industrial property.
- C. Plant maintenance should be promoted as an area of mutual concern between government and industry, and as a primary area of cooperative effort.
1. A cooperative "position report" on plant maintenance should be developed by City and industry working together.
 2. Mutually agreeable goals should be set, preferably on an annual basis.
- VI. Capital investment money is in short supply which makes it unavailable to most new or small businesses and very costly to all businesses. Recent anti-inflation measures will have the effect of driving interest costs even higher and further reduce investment in plants and equipment.

Objectives:

- A. The City should provide access to revenue bond capacity to industry and promote its use.
- B. Assistance should be provided to industry seeking SBA or other governmental assistance with financing.
- C. City should develop new kinds of financing capacity to promote industrial development.
 1. The feasibility of creating a revolving loan fund under the Economic Development Corporation should be explored.
 2. Joint venture projects should not be ruled out and their feasibility explored carefully as a way for government and industry to join together in financing development.
 3. The City should consider undertaking the construction of industrial facilities on a lease or turn-key arrangement.

4. City-owned land could be used as equity to leverage private development funds through the EDC.
 - D. The City should work in close cooperation with local lending institutions to promote and coordinate the funding of industrial development through private investment whenever possible.
- VII. Very high energy costs, possible energy shortages and even stricter controls on the environmental impacts of industrial activity will act to curb industrial expansion in the future.

Objectives:

- A. The City should undertake a serious study of energy alternatives and the possibility of energy regulation.
 1. The City should act to promote the development of an energy production facility utilizing:
 - a. solid wastes as fuel
 - b. solar energy
 - c. wind conversion, or
 - d. some combination of the above
 2. The City should work cooperatively with utility companies to maximize energy supply.
 3. The City should develop a comprehensive energy policy and energy management plan as specified in the environmental element of the Master Plan.
- B. The City must act to create a regulatory mechanism to control and utilize air quality off-sets to be created by energy conservation, etc.

Policies

Industry provides the employment base for the entire metropolitan area. The City recognizes the vital position of industry in the local economy and that the success of existing industry and the development of new industry is a legitimate concern of the City and related directly to the welfare of its citizens.

The problems confronting industrial land uses are many and complex. The solution of some of these problems must involve the active participation of government. In order for the government to participate effectively on behalf of its citizens, a firm, explicit statement of public policy is necessary. Such policy will serve as the framework and guide under which economic plans and strategies can be formulated and carried out.

1. The City will do everything practicable to promote the development and growth of industry and the increase of industrial employment as legitimated and made necessary by the pursuit of the public welfare.
2. The City will act to increase the coordination between municipal government and private industry as a means of increasing mutually supportive actions.
3. The City will act to stimulate private industrial capitalization by providing economic incentives but will limit the direct involvement of municipal funds.
4. The City will act to establish an industrial land bank for the purpose of assembling larger developable parcels in and adjacent to industrial areas.
5. The City will institute an annual review of all City procedures for the purpose of reducing and simplifying the requirements imposed upon corporate and individual residents to the extent possible.
6. The City will take no action on behalf of industry that will violate Federal or State laws or municipal ordinance, or which will create unnecessary hardship upon any person or corporate body.

INDUSTRIAL ELEMENT

I. Introduction

The Importance Of Industry

The half-page advertisements in the Wall Street Journal promoting Arkansas, San Antonio, Baltimore and dozens of other states and cities as "ideal locations" for developing industries merely serve to highlight the fierce competition now being waged for industrial plant locations. You will never see such ads competing for commercial or service businesses and the explanation is simple, industrial jobs are the backbone of any local economy. Export base industries produce goods for use outside the local area, that is they "export" goods to other areas and that produces an influx of dollars to this area. This money will go to pay wages, to purchase supplies, to pay local taxes, and into capital improvements. In turn, the money will be reused, changing hands many times in the local economy, and thereby produce secondary and tertiary employment in wholesale, retail and service areas. These spin-off benefits of basic or "export" industries make them extremely important to local economies. Currently the Flint area has roughly a half-dozen types of "export" industries, the largest being automotive.

Industries that do not produce "export" goods also are important to local economics. Their goods are produced for local consumption and examples might include concrete and brick products, small dairies, etc. Their economic impact is to reduce the amount of goods "imported" to the area and thus to reduce the number of dollars going elsewhere. The activities of these industries tend to recycle dollars locally. The more of these industries an area has, the more benefit will be derived locally from every dollar that enters the economic system. The Flint area has relatively few of these kinds of industries, and could benefit from more.

Retail and other commercial activities do not produce the same degree of economic benefit as do industries. Most retail goods, shoes for example, are produced outside the local area. For every dollar spent on shoes, only 30¢ on the average remains in the local economy as gross profit. The remaining 70¢ goes to the producer and wholesaler in other parts of the country. Moreover, if the retail shoe store is not locally owned, a sizable portion of the gross profit may also leave the local economy. Thus the money left to be "turned over" locally is substantially reduced as are the subsequent "spin off" benefits. Service businesses do better at local turn over, but no commercial activity has the impact of a strong industry.

Local Industrial Base

There are decided economic advantages, then, for an area with an extensive industrial base. Flint has such a base, which is reflected in the proportion of the labor force employed in manufacturing, currently over 42 per cent. However, a large proportion of this areas manufacturing jobs are concentrated in the automobile industry. Its development and subsequent dominance of the local economy is explained in the historical introduction to this document. Its presence here can only be considered an economic blessing, but it is a mixed blessing.

The failure of the Flint area to develop significant secondary manufacturing businesses has led to an unseemly economic dependence upon its main export industry, automobiles. Such dependence is unhealthy both for the area and for the automotive industry in the long run. Social and economic forces beyond the control of local government can be pointed to as the cause of this condition. Still, the solution to the problem, perhaps by default, has become the responsibility of the City. At least it is incumbent upon the City, having recognized a potential for economic adversity, to define the problem and to take the initiative in proposing solutions. Any action taken in this enterprise is fully justified as being in the interest of the public welfare. Nothing else the City could do to promote the public interest would have the impact of the assurance of a sound local economy and stable employment prospects.

Defining Industrial Activity

Before proceeding to describe the industrial base of the City and to analyze its problems, and clear definition of industrial activities would be appropriate. Usually the term "industrial" is synonymous with "manufacturing". In this section a liberal interpretation of the term will be employed that includes not only manufacturing, fabricating and processing operations, but also some wholesale businesses involved in assembly and packaging of previously processed goods. The following list provides examples:

- (1) Extractive Industries:
Industries extracting raw materials from the ground. (In the Flint area that currently involves only sand and gravel).
- (2) Refining, Fabrication and Assembly Industries:
Industries which refine natural resources or raw materials into a finished or semi-finished product; which use mostly previously processed materials in fabrication, assembly and/or packaging. Examples are:
 - smelting, forging, etc.*
 - oil refineries*
 - concrete and brick products*
 - saw mills and lumber mills
 - construction yards and railroad service yards*

- bottling plants*
- dairy product preparation*
- electrical, electronic manuf.
- aircraft, automobile parts and related industries*
- printing (except newspaper) and publication plants*
- baking, laundry and dry cleaning plants*
- meat packing and poultry dressing plants*
- tanneries
- fertilizers and fat reducing plants
- textile, dye and clothing manufacturing plants
- assembly plants*
- paint and varnish manufacturing*
- tobacco redrying and cigarette manufacturing plants
- rolling mills and fabrication plants
- tool and die works*, machine shops*
- blacksmith, tinsmith and metal working plants
(except auto repair and body works)
- chemical plants and paper mills*
- lumber, brick, coal, etc. supply yards*
- accessory parking and loading areas*
- plastics and plastic manuf.*
- chemical processing, coating, plating, etc.*

(3) Wholesale Business:

Industrial wholesalers; wholesale assemblers; cargo sheds; junk assemblers; wholesale storage area; trucking terminals and service buildings, storage yards, and parking loading and accessories to the above structures fall into this category.

II. Existing Conditions

Current Industrial Base

Presently there are 109 businesses in the City of Flint that can be considered industrial activities. In the entire metropolitan area there are approximately 350 industrial concerns. Most of these are relatively small firms supplying parts and materials to the auto factories. The following table indicates the types and number of industries to be found in the City as of Spring, 1977.

* Those that exist in Flint

	Type of Industry	No. of Firms	Employment	Acreage
Export Industries	Meat Products	4	99	6.4
	Dairy "	4	377	3.1
	Beverage	4	326	14.8
	Converted paper prod.	3	N.A.	19.5
	Chemicals	2	512	9.6
	Motor Vehicle Bodies			
	" " Assembly			
	" " Accessories	G.M.	63,000	942.5
	" " Parts			
	Engines & Turbines	1	N.A.	.2
	Truck Terminals	6	325	19.6
	" Garages	2	N.A.	7.2
	Junk Yards	18	N.A.	73.4
	Other Expt.	1	N.A.	6.8
	Local Base Industries	Misc. Food Products	2	138
Lumber & Wood		3	N.A.	8.0
Furniture		2	21	5.4
Printing & Publishing		8	N.A.	6.9
Apparel		4	N.A.	3.2
Petroleum Refining		1	40	2.3
Rubber & Plastic		2	N.A.	.8
Stone, Clay & Glass		2	N.A.	.4
Other Non-metal		3	N.A.	9.4
Foundaries		11	N.A.	20.9
Smelting & Refining		3	N.A.	25.7
Farm Equipment		1	N.A.	1.2
Construction Machinery		1	N.A.	1.1
Special Machinery		2	N.A.	3.4
Industrial Heating		1	N.A.	5.5
Tools & Parts		9	N.A.	10.4
Wrought Iron		1	N.A.	.2
Other Misc.		2	N.A.	3.3

The inventory is based on land use surveys and other secondary data and breaks industry into export or local based upon the predominant destination of the firms product.

The long-term trend for the area is for the number of industrial firms to increase. Recent short-term trends, however, are more difficult to access. The Flint area lost 3 medium-sized manufacturers between 1975 and 1977, a foundary, a PVC pipe firm and a computer control manufacturer. Together they accounted for 450 jobs and 2 of the 3 were export industries. In the same period the area gained about 7 new industries employing about 115. None of the new firms are export base industries.

Current Employment Patterns

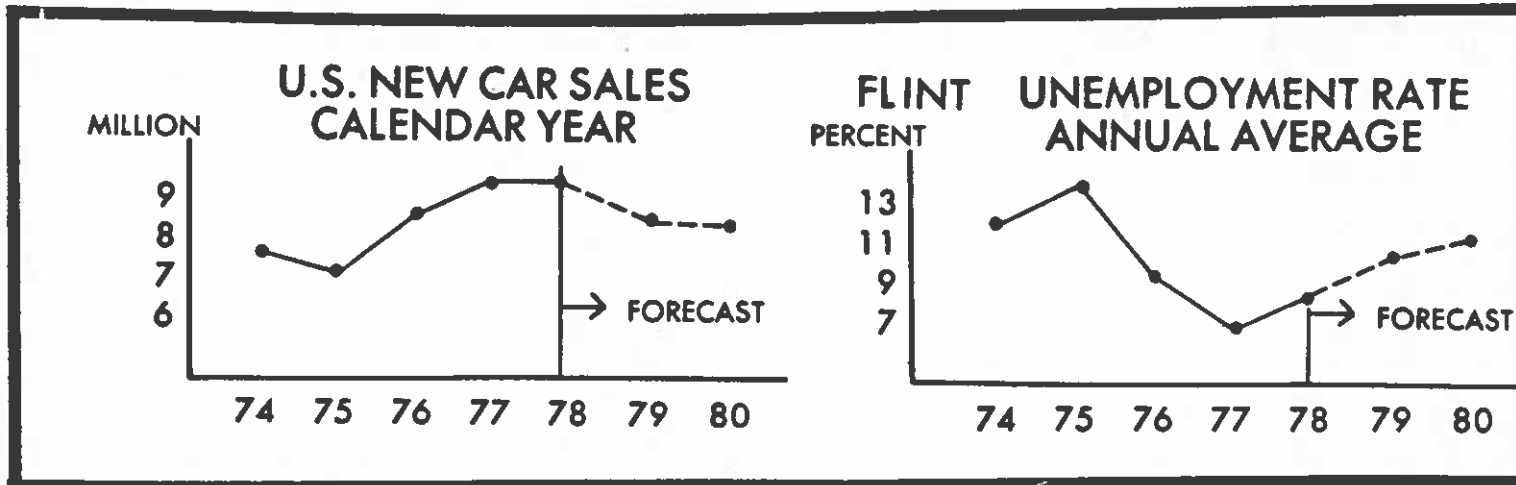
The City remains as the primary area of employment for the metropolitan environs. A local survey completed in 1976 indicated

that over 68 per cent of the out-county labor force is employed within the City. Overall, 76 per cent of the total county labor force works in the City, and this has increased from 67.8 per cent in 1970. This pattern continues despite considerable development in, and some relocation of businesses into, the urban fringe, due mainly to the location of G.M. plants in the city.

**Location of Work Patterns
% Working in City and Out-county**

	Work Location	1970 Census	1976 ECHO
Flint Labor Force	In City	78.9%	83.3%
	Out-County	20.1%	9.0%
Out-County L.F.	In City	58.7%	68.4%
	Out-County	40.8%	26.7%
Total County L.F.	In City	67.8%	76.1%
	Out-County	23.0%	18.0%

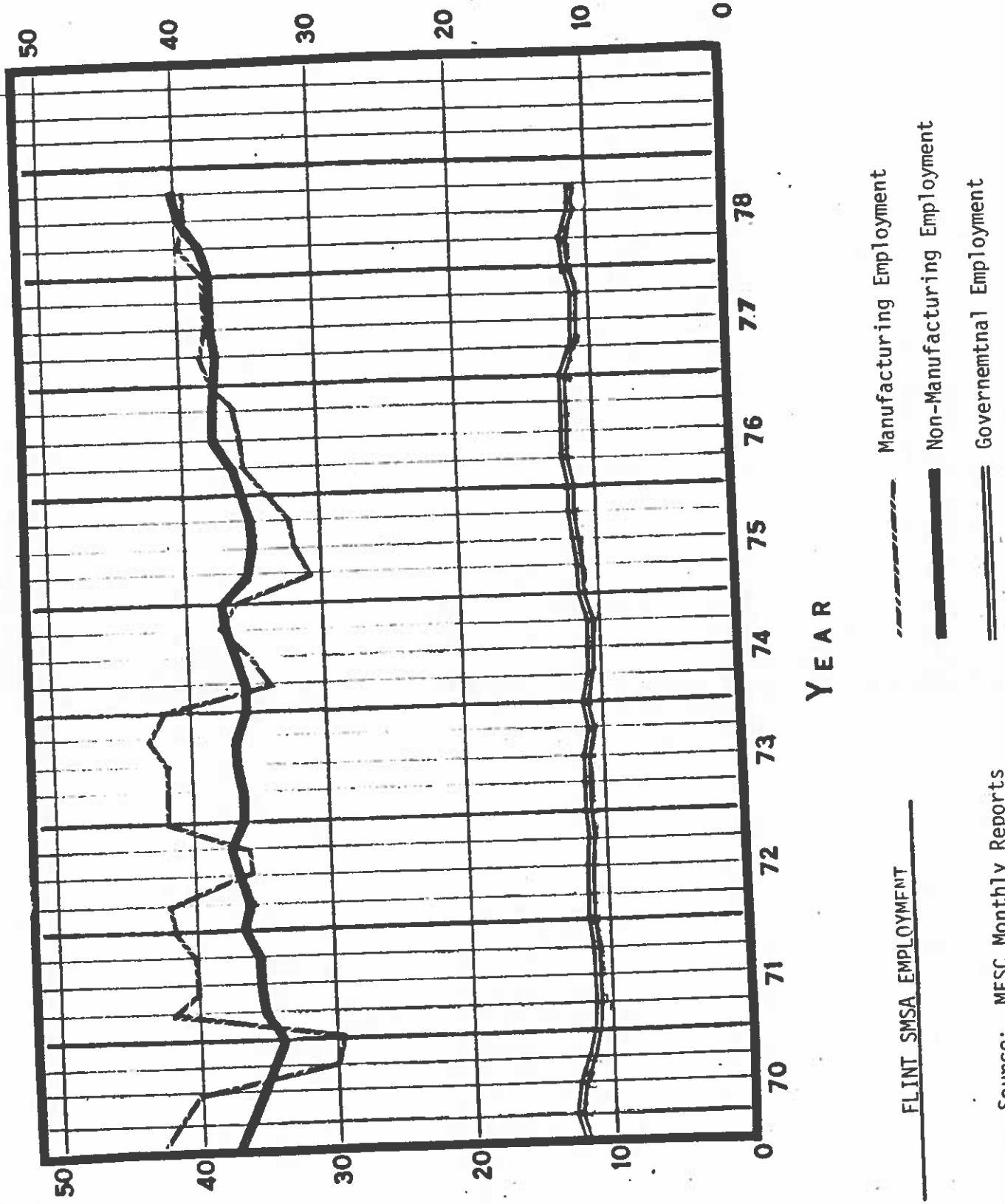
The dominant position of the automotive industry has other effects upon the local employment picture. Manufacturing employment has occupied over half the total labor force at periods in the past and only in very recent years has it dropped below 40% of the work force. Interestingly, recent changes have pushed non-manufacturing employment above manufacturing for the first time since the early 1900's, (see illustration 1). Still upwards of 80 per cent of the manufacturing employment is provided directly by G.M. plants. As a result, whenever there is a downturn in auto sales the entire Flint economy is affected.



Source: Flint Marketing Journal, November, 1978

The close correspondance between auto sales and area unemployment is a pattern familiar to Flint.

PERCENT OF TOTAL LABOR FORCE



FLINT SMSA EMPLOYMENT

Source: MESG Monthly Reports

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Illust. 1

One other effect of the intrinsic control over local economics exerted by the auto industry is reflected in area wage rates and standard of living. Current average weekly production pay for area workers is \$425.00. Even though that represents a slight decline from 1977 when inflation is taken into account, it still keeps the Flint area near the top of national averages for per capita income. Moreover, in addition to pay, the local auto labor contracts provide numerous fringe benefits such as paid-up health and dental insurance. Smaller concerns find it very difficult to keep pace with those wage rates or with the fringe costs. This may partially explain why the Flint area has not developed as much secondary industry as might have been expected, although it would be inadequate as a singular explanation.

With the exception of some periods of severe recession, the industry of the area has maintained a strong position in the national economy. An annual survey conducted by Sales and Marketing Management, a marketing trade journal, lists Genesee County as number one in the nation in 1977 in terms of the dollar value of shipments of goods. Again, this is mostly due to General Motors operations. It is the main reason that the high incomes of the area can be maintained.

Extremely large amounts of money flow into this area as a result of local production. The problem, from an economic point-of-view, is that the money that comes to the Flint area tends to leave quite rapidly. Almost all retail goods other than cars are brought into the area rather than being produced here. Moreover, as was mentioned in the commercial element, many purchases are made directly outside the area resulting in an unusually large difference between local income and local purchases.

Current Issues, Problems And Physical Conditions. There are a number of different issues associated with the physical needs of industry that will be itemized and discussed here. The first of these is the approaching obsolescence of a good portion of the industrial capacity of the area. Most of the industrial plants in the area were completed by the mid-1940s and a few date back to the first World War. Machinery in some of these plants, while still functional and productive, is not designed with new production technologies in mind and is at a competitive disadvantage.

Physical obsolescence affects approximately 50 per cent of the industrial plants of the area. That is not to say that they are unusable, but major renovations would be needed before these structures could compete effectively under new market technologies. In one or two cases, total replacement would be needed. Within the several G.M. complexes in the area, only two have sizeable new facilities. The Turnstedt, or Coldwater Road, plant is the newest major production facility and it was built to produce jet aircraft engines during the Korean war. It is approaching 30 years of use.

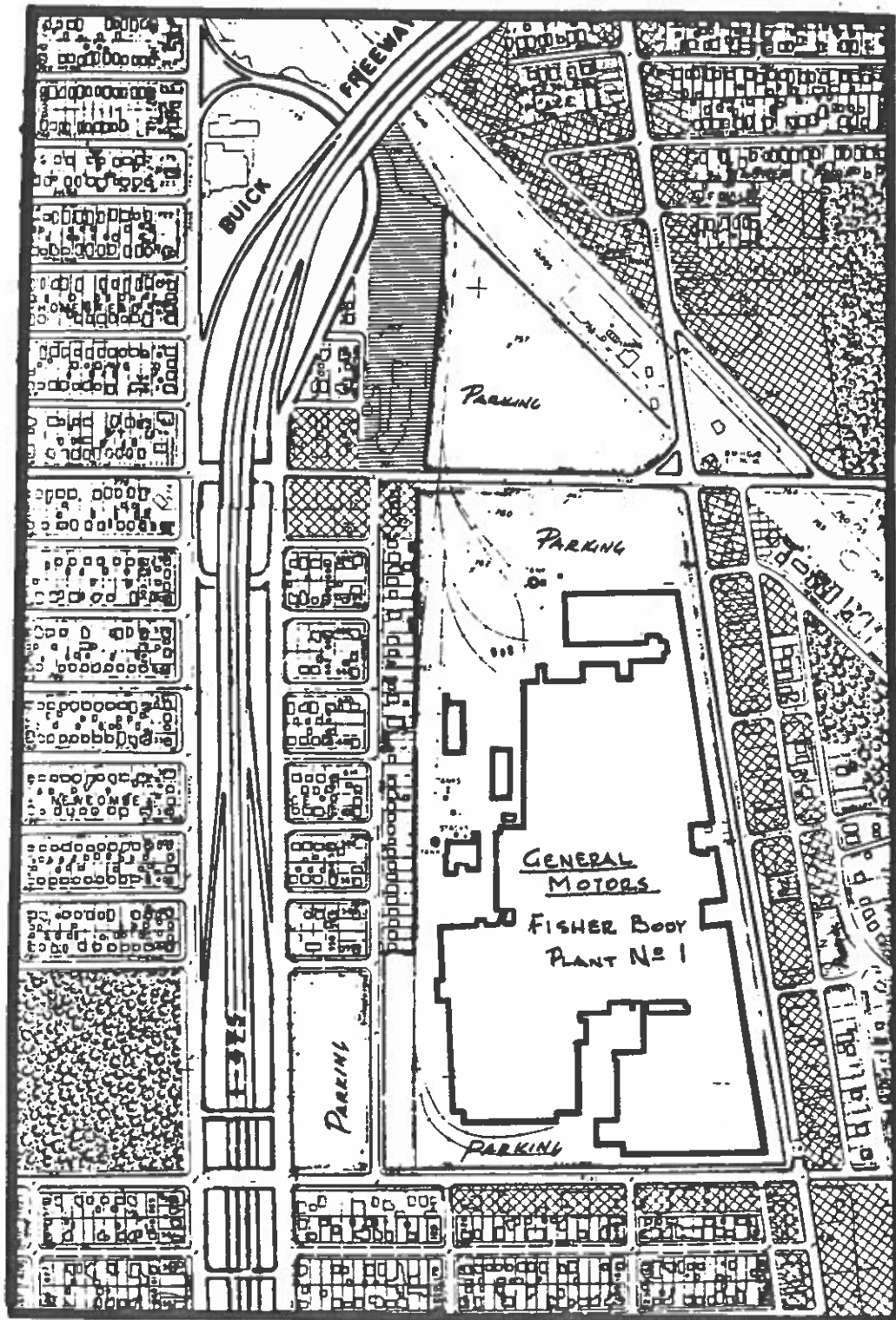
Many other G.M. plants, along with the bulk of development in the Dort Highway industrial corridor, came into being before or during World War II. They were built for the production of war materials and are over 35 years old.

The fact that these plants, some over 50 years old, are still being used exemplifies the adaptability of industrial structures. Mechanical obsolescence, the out-dating of the machinery of production, occurs much more rapidly. In recent years it has been considerably accelerated by technological change and governmental edicts. The Federally imposed standards for air quality and gasoline mileage have necessitated the replacement of a good portion of production equipment. The State imposed "bottle bill" has made the existing facilities of local beverage bottlers obsolete. (Two of whom have located new facilities outside the City). Technological breakthroughs in paints and plastic car parts have necessitated replacing entire production lines in order for local firms to remain competitive. Such mechanical obsolescence can be expected to continue at this accelerated pace.

A second problem for industry in the City is a shortage of room for expansion. There is some vacant developable land in the City, but it is scattered and most industrial plants are land locked by surrounding residential and commercial uses. It is a situation common to most urban settings, but it represents a serious disincentive to in-town development. A survey of businesses that had moved from the City to the out-county was recently completed by the Genesee County Metropolitan Planning Commission.⁺ The primary reason for leaving the City cited by these businesses was that available sites were too small for expansion. Fully 60 per cent of all businesses, and 100 per cent of all industrial relocatees interviewed, listed a lack of room for expansion as a problem.

The high concentration of land use in the urban area is the primary cause of physical impaction. In many instances the industrial uses were built years ago in areas where open space was available. Subsequently, the areas surrounding the industrial sites began to infill with residential and commercial uses (see Illustration 2). Allowing this to happen can be seen as a lack of foresight on the part of both industry and the City. The result today is that a large number of land use conflicts have been created. In many areas of the City residential and industrial uses abut one another with no attempt at screening or softening of the impacts. The effect is that housing in those areas has deteriorated and the blight in the residential area has affected the value of the industrial property. Parking, truck traffic, congestion, smoke and fumes, noise and similar aspects of industrial activity are all points of conflict between the residents and businesses under the

⁺ GCMPC, the 1976 Business Relocation Survey, pg. 14.



TYPICAL GM FACILITY

LEGEND

-  RESIDENTIAL
-  COMMERCIAL
-  PUBLIC
-  INSTITUTIONAL

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present situation. These are discussed more fully in the land use section, but are brought up here from the industrial viewpoint. From this perspective, these conflicts represent further disincentives to industrial development.

A possible solution, the purchase of additional land by industry to alleviate the physical impaction, brings up a fourth problem, namely high land costs in the City. This impacts not only on existing industry, but on the ability of the City to attract new industry. As a general rule-of-thumb, land costs in the urban center are 3 to 4 times that of land in the urban fringe. The St. John Industrial Park project is an example of this. A study of competing land in the area led the consulting firm of Coopers and Lybrand to recommend a market price of \$5,000 to \$10,000 per acre on Park land.⁺ The cost recovery price on this land is over \$32,000 per acre. Because of these high costs, the City is disadvantaged in competing with outlying areas for industrial development. In the City, land costs must be viewed as another disincentive to industrial investment and growth.

To summarize, the industry of Flint faces 4 major types of physical problems. These are:

1. Obsolescence of structures and equipment
2. Little opportunity for expansion
3. Land use conflicts
4. High development costs

Each represents a problem for the City as well, if increased and diversified industrial employment is ever to be achieved.

Financial Conditions. Industry in Flint, as everywhere else, is dependent on market conditions. It is apparent that current market conditions for our prime export industry are still very strong. Although located on the northern boundary of the manufacturing belt, necessary supplies can be brought in and a finished product shipped out rather economically. However, two long-term market conditions figure prominently in the industrial prospects of the Flint area. The first of these centers on the relationship between auto production and the national economy. In periods of economic downturn, people postpone new car purchases and auto production drops resulting in lay-offs and unemployment locally. The area economy is extremely sensitive to any recessionary trends.

Moreover, regardless of recessionary movements of the national economy, the automotive market is saturated. The bulk of production is for "demand" rather than "necessity" sales. The average American household already has 2 or more cars. Large increases in the market are not expected and transportation equipment is no longer considered a "growth" industry.

⁺ Coopers & Lybrand, St. John Industrial Park Preliminary Definition of Marketing Parameters, 1976, pg. 35.

The second aspect of market that affects local industrial development centers on the ease of transportation of goods into the area. An earlier study of economic conditions in the county made the following observation:

"Currently, using U.S. Route 23 (note: I-75), Genesee County manufacturers have access to cities such as New York, Chicago and Louisville in less than 24 hours, and this without encountering urban traffic or traffic signals." and "By virtue of Genesee County's location on the periphery of the Manufacturing Belt, almost every part or component conceivable may be obtained at the most competitive prices and within 24 hours. The same is true of most chemicals and materials such as steel, plastic, rubber and copper."⁺

From one perspective this can be viewed as an asset for the area. However, the ease of supply from outside areas has been a detriment to the development of many kinds of supply firms locally. This extends to consumer goods as well. Of course, no area of the nation can hope to produce all of the goods it needs locally, but the easy penetration of outside suppliers into the Flint market has served to stifle almost all development of local supply. Such is the nature of the trade that the total amount of inbound freight far exceeds outbound freight. Most of these goods travel by truck and, to eliminate some of the empty back hauls, a "piggy back" program exists between the railroads and local trucking firms. This sizable trade imbalance is the primary explanation for the lack of significant economic growth despite the extremely high local incomes.

Market problems for Flint industry, then, are two-fold. The market for our major export industry is basically a demand market and particularly sensitive to economic downturns. The markets for other manufactured goods are particularly susceptible to sales penetration from other industry in the state and country, which owing to regional specialization operate at a comparative advantage to local producers.

In addition to market conditions, local industry must be sensitive to costs. These are reflected in the wages paid for labor, the prices paid for materials, energy and transportation, financing charges, and taxes and related costs. The first of these, area labor costs, are relatively high in the Flint area. The high productivity of the auto industry allows a high level of wage and associated fringe. The costs of the auto workers fringe packages now make it less costly to work the existing labor force overtime than to hire additional workers. Because of its dominance in the local employment picture, the labor notes in all other economic activities tend to be relatively high. Typically, other industry in the area is forced to offer some comparability in their

⁺ Battelle Memorial Institute, Genesee County Economic Condition Conclusion Report, 1969, pg. 3-27.

wage and fringe structure or lose employees whenever G.M. is hiring. In some instances this forces area manufacturers into a disadvantaged position with their competition.

For the most part the prices paid for materials in the Flint area are comparable to other regions of the country, the effects of regional specialization notwithstanding. What is a competitive disadvantage for the Flint area in terms of procurement, are the costs of transportation. The peninsular location of the City at the northern edge of the manufacturing belt means that the major transportation routes of goods and supplies do not pass through here. Trucks and trains do not routinely stop in Flint on their way to somewhere else. Moreover, the only raw materials produced in the immediate area are gravel and salt brines. Everything else must be brought in from elsewhere and the transportation costs added to the purchase price. The existing rate structures, the cost of motor fuel, ect. all operate to make it economically more efficient to ship a finished product to Flint rather than to ship materials and produce locally.

Energy costs, currently in a very unstable state, have not yet proven a serious detriment to the Flint area. There was a shortage of natural gas locally between 1975 and 1977 and a moratorium on a new commercial and industrial permits was imposed. That situation has abated and current supplies are adequate. Motor fuel prices, predicated upon supply, have been rising steadily and affect local industry two ways. They affect the auto industry by requiring redesigned, better mileage, vehicles thus increasing design costs and simultaneously deflating sales. They affect all area industry by driving up the cost of transportation of goods into and out of the area.

What the future holds regarding energy supplies remains unclear. In the long run traditional sources are, after all, finite and it will be necessary to develop and utilize alternative sources. Consideration of this, and of the changes in industry and economy that will be generated, should be under active consideration at this time.

A final cost to business worth consideration are those imposed by government. These include taxes, fees, and required costs such as mandatory insurances. In Flint, taxes and charges imposed by the City do not appear to be a serious problem. The survey of relocated businesses cited earlier substantiates this. Of all businesses that relocated out of the City between 1970 and 1976, less than 7 per cent were influenced by tax or City costs, and none of those were industrial concerns. On the contrary, 27.8 per cent of the respondents indicated that taxes were not important in their decision to relocate.

The City imposes costs on business a number of ways. An ad valorem property tax of \$8.55 per \$1,000 of assessed valuation is levied and is one of the lowest in the state. A one (1%) per cent

tax on net corporate profits is also levied. Water and sewer use charges are made and the fee structure is favorable to large volume users. Water rates run from .8¢ to .31¢ per cubic foot in the City. Sewer rates begin a .135¢ per cubic foot if nothing requiring special treatment is introduced into the system. The City also imposes a schedule of fees for such services as building permits and site plan review processing. They are generally low and do not cover costs for these services.

It is only when costs imposed by the City are combined with those of the State that they appear burdensome. The single business tax of the State, while an attempt to simplify the tax structure, did little to reduce costs. For many kinds of businesses, it resulted in a tax increase. Workmens compensation payments and unemployment insurance are major costs also regulated by the State. When all costs of these types are combined, Michigan ranks 48th out of 50 in terms of its business climate.

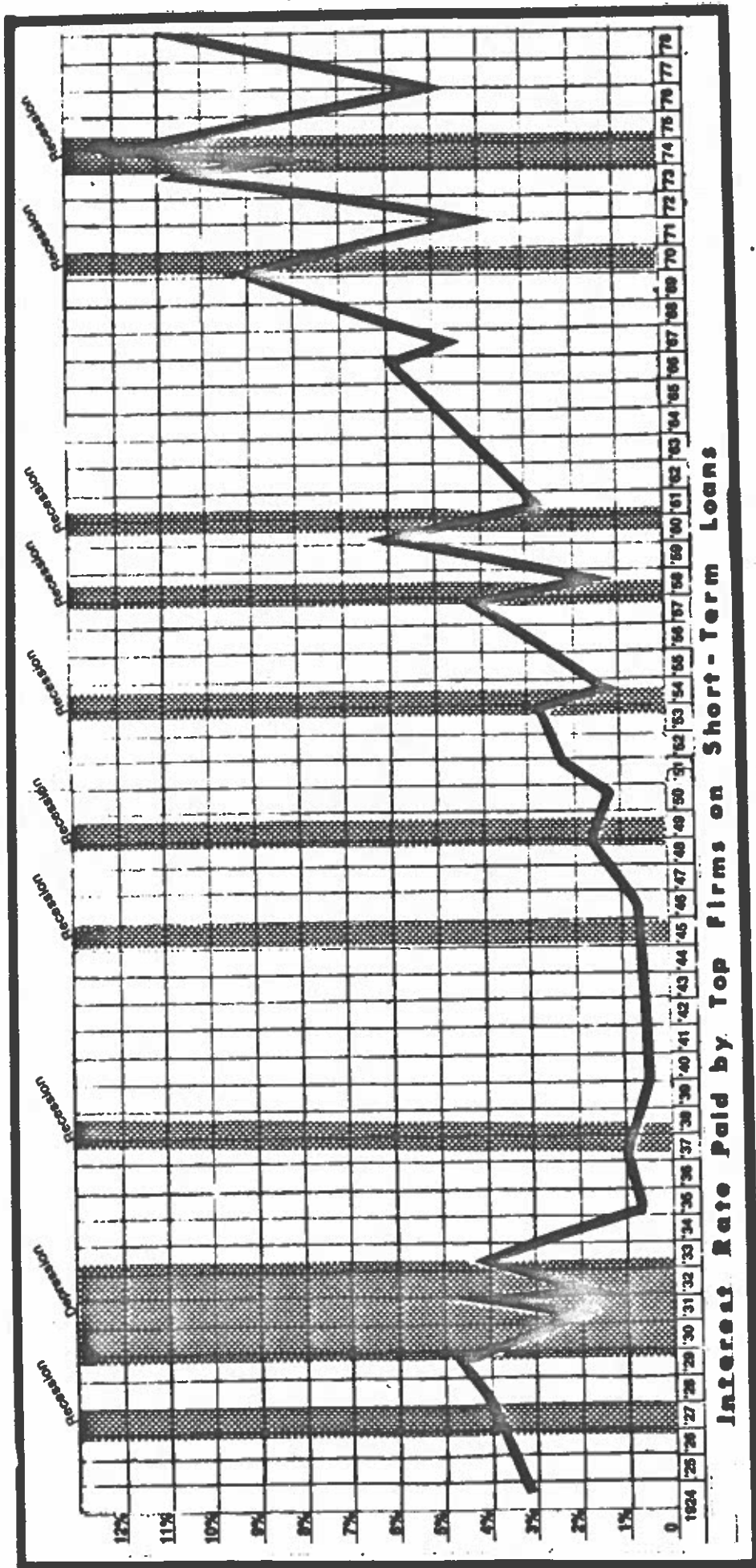
Recently, a company manufacturing plastic pipe and plumbing supplies has closed its local operation, even though the company started here, and relocated out of state. Over 200 jobs were permanently lost. In a presentation to a local business development group, the vice-president cited government and other costs as the reason for leaving and gave the following statistics:

Comparative Costs - December 1976

	Michigan	Pennsylvania	Minnesota
Workman's Comp Rate per \$100 of payroll	\$6.10	\$3.98	\$2.57
Unemployment	4.6% of first \$5,400	3.2% of first \$4,200	1.8% of \$4,800
Health Insurance			
Single	\$37.89	\$23.45	\$14.37
Family	\$92.05	\$59.85	\$56.24
Average Hourly Wage	\$ 5.43	\$ 3.92	\$ 4.90

These, of course, represent only a portion of all costs born by an industry but serve to indicate the pattern in Michigan and the Flint area. From the standpoint of imposed costs, this is not competitive.

A third and final aspect of the financial conditions faced by industry is the adequacy of supply and the cost of capital. Generally, these are determined by economic forces at the national level. Currently, the national money market is very tight, that is, interest rates are very high to discourage excessive borrowing. Should this continue for an extended period, it will tend to push the national economy towards a recession (see illustration #3). As noted earlier, the market for Flint's primary export is extraordinarily sensitive to such economic downturns.



Interest Rate Paid by Top Firms on Short-Term Loans

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Illust. 3

SOURCE: U.S. NEWS & WORLD REPORT November 20, 1978

A tight money market is problematic for small businesses. Large corporations, generally, have no problem borrowing and, of course, have the option of financing capital programs internally. Small industries are generally precluded from the latter option and when money supplies are tight they often cannot obtain credit even when they can afford to pay the high interest costs. New and small industries have an extremely difficult time raising capital for development or expansion. Even many existing assistance programs operate in favor of larger, established, businesses. The use of tax-free industrial revenue bonds, for example, only become economical when their face value approaches \$1 million. Of companies contacting the Economic Development Corporation of the City for assistance, 9 out of 10 required capital in amounts of \$150,000 or less, and the EDC was unable to offer them financial assistance.

Financial conditions, then, impact local industry in at least 3 ways. First, industry is affected by the availability of capital for development and recently that has been a problem for smaller concerns. Secondly, the industry must bear the costs of doing business and those are comparatively high in the Flint area. Finally, manufacturing is dependent upon a market for its goods. The market for automobiles is good, but sensitive. The market for other goods is limited by competition from outside suppliers.

Other Conditions: Although wage rates are relatively high in the area, the labor force available to industry is adequate in numbers at almost all skill levels. There is usually a reserve of workers idle at any given point in time. Moreover, future manpower supplies are expected to be adequate (see Illustration 4). As the following table reveals, even college trained employees will be available at different times.

Estimated Occupations with Excess Workforce

	1980	2000	2005
Professional, Technical & Kindred	200	350	700
Mngrs. & Administrators	1515	1125	150
Sales Workers	3500	2500	2500
Clerical & Kindred	5000	4500	3500
Operatives	-575	-1500	-1675
Laborers	1100	700	300
Service Workers	-200	- 450	- 675

In addition to a manpower situation favorable to industry, the Flint area has unused capacity for specific skill training. It would be possible for an industry with specific needs, even in advance of starting operation, to arrange for staff training by several local public institutions and/or agencies. To date this has never been attempted by a new industry and links between existing business and the educational institutions has been informal and not closely coordinated. This is typical of the past relations between government and industry at the local level.

EMPLOYMENT BY INDUSTRY, GENLEE COUNTY, 1970 TO 2000

	1970	1975	1977	1980	1985	1990	1995	2000
Total	159,476	157,770	156,483	154,998	154,417	155,955	159,049	163,615
Agr., Forestry & Fishing	923	707	635	541	414	317	243	186
Mining	120	194	235	314	508	822	1,330	2,152
Construction	6,155	6,408	6,474	6,593	6,899	7,327	7,843	8,430
Furniture, Lumber, Wood	146	161	168	178	196	217	240	264
Metals Industry	3,003	2,239	1,991	1,670	1,245	929	692	516
Machinery, Ex. Electrical	1,248	1,623	1,803	2,112	2,747	3,573	4,643	6,046
Electrical Machinery	1,541	1,786	1,895	2,071	2,401	2,783	3,227	3,740
Transportation Equipment	59,791	56,861	55,729	54,074	51,424	48,903	46,507	44,227
Other Durable Goods	4,352	4,805	4,999	5,305	5,857	6,467	7,140	7,883
Food and Kindred Products	755	644	605	556	498	463	443	433
Textiles and Textile Products	283	247	234	215	188	164	143	125
Printing and Publishing	930	846	813	770	722	696	685	683
Chemicals	732	840	888	965	1,108	1,272	1,460	1,676
Other Nondurable Goods	978	1,227	1,354	1,592	2,158	3,024	4,334	6,310
Railroad and Railway Express	465	424	407	384	355	336	325	321
Trucking	1,733	1,686	1,661	1,624	1,583	1,565	1,565	1,580
Other Transportation	724	722	715	705	700	708	722	740
Communications	1,480	1,522	1,530	1,544	1,588	1,654	1,733	1,819
Utilities and Sanitary Service	1,455	1,452	1,437	1,416	1,406	1,422	1,452	1,487
Wholesale Trade	5,249	5,174	5,103	4,997	4,937	5,009	5,184	5,444
Food and Dairy Stores	3,582	3,617	3,592	3,562	3,555	3,584	3,609	3,607
Eating and Drinking Places	4,387	4,430	4,399	4,363	3,355	4,390	4,421	4,418
General Merchandising	4,029	4,068	4,040	4,007	3,999	4,031	4,060	4,058
Motor Vehicle Retailing	3,416	3,449	3,425	3,397	3,391	3,418	3,442	3,440
Other Retail Trade	8,028	8,106	8,049	7,983	7,969	8,033	8,089	8,085
Finance	1,961	1,996	1,996	2,000	2,029	2,084	2,149	2,218
Insurance and Real Estate	2,966	2,995	2,974	2,949	2,944	2,968	2,989	2,987
Business and Repair Services	2,962	3,109	3,153	3,232	3,425	3,691	4,016	4,399
Private Households	1,362	1,375	1,366	1,354	1,352	1,363	1,372	1,372
Other Personal Services	3,699	3,735	3,709	3,678	3,672	3,701	3,727	3,725
Entertainment	980	990	983	975	973	981	987	987
Hospitals	6,010	6,068	6,026	5,976	5,966	6,014	6,056	6,053
Other Health Services	3,279	3,311	3,288	3,261	3,255	3,281	3,304	3,302
Government Education	8,192	8,272	8,214	8,146	8,131	8,197	8,255	8,250
Private Education	3,500	3,534	3,509	3,480	3,474	3,502	3,527	3,525
Other Educational Services	488	493	489	485	484	488	492	491
Religious and Nonprofit Org.	1,840	1,858	1,845	1,830	1,826	1,841	1,854	1,853
Professional Organizations	2,415	2,438	2,421	2,402	2,397	2,416	2,433	2,432
Public Administration	4,317	4,359	4,329	4,293	4,285	4,320	4,350	4,348

The relationship between industry and government at the local level has been one of sporadic cooperation when needed and uneasy watchfulness in between. A strong tradition of "free enterprise" thinking was partly responsible along with a stereotypical view of governmental bureaucracy. To some degree, the antipathy of business to deal with local government is caused by actions of that government. A zoning change, for example, can take anywhere from 4 weeks to 2 or more months. On a recent case the local planning commission and City Council have been deliberating a total of 4 months on the fate of a piece of unused railroad property, holding up its sale in the interim. Such foot dragging is a serious detriment to good relations between the City and private business.

The actions of the State and Federal governments too have an impact on industry in Flint. State taxing and workmens compensation programs have caused serious problems for private business and discouraged much investment. At the same time, the State created an Office of Economic Development and passed several pieces of economic incentive legislation. This seeming ambivalence toward business is caused by the more recent awareness of the need to maintain and expand industry and the need to answer to the powerful labor forces in the electorate.

The Federal government likewise has instituted programs that have effects upon local businesses. The Clean Air Act of 1970, is an excellent case in point. Its impact upon the automotive industry was to substantially increase design and production costs. This continues as auto emissions are forced to meet ever stricter standards every year. Similarly, in recent years Federal action has imposed requirements for Affirmative Action, Equal Opportunity, job safety programs of OSHA, product liability, new requirements by the Highway Safety Commission, the FTC, the IRS and a dozen or so other Federal agencies. The cumulative effect upon industry has been repressive, regardless of the relative merits of these regulations. Often the ultimate consequence of these Federal programs is unknown or has never been considered. A strict reading of the Clean Air Act, for example, would bar any industrial expansion. A compromise "off set" rule adopted by the EPA and applying to all areas not meeting Federal air quality standards, such as Flint, requires pollution reductions in excess of the amount a new facility would produce before construction can take place. This rule represents a big problem to any area with a goal of increased industrial development. It may eventuate in much more cooperation between local industry and local government in order to deal with the problems created by Federal and State regulations.

III. Potential for Industry

The Availability of Land

The supply of vacant developable land in the City is extremely short. The supply of vacant industrial land is shorter still. The

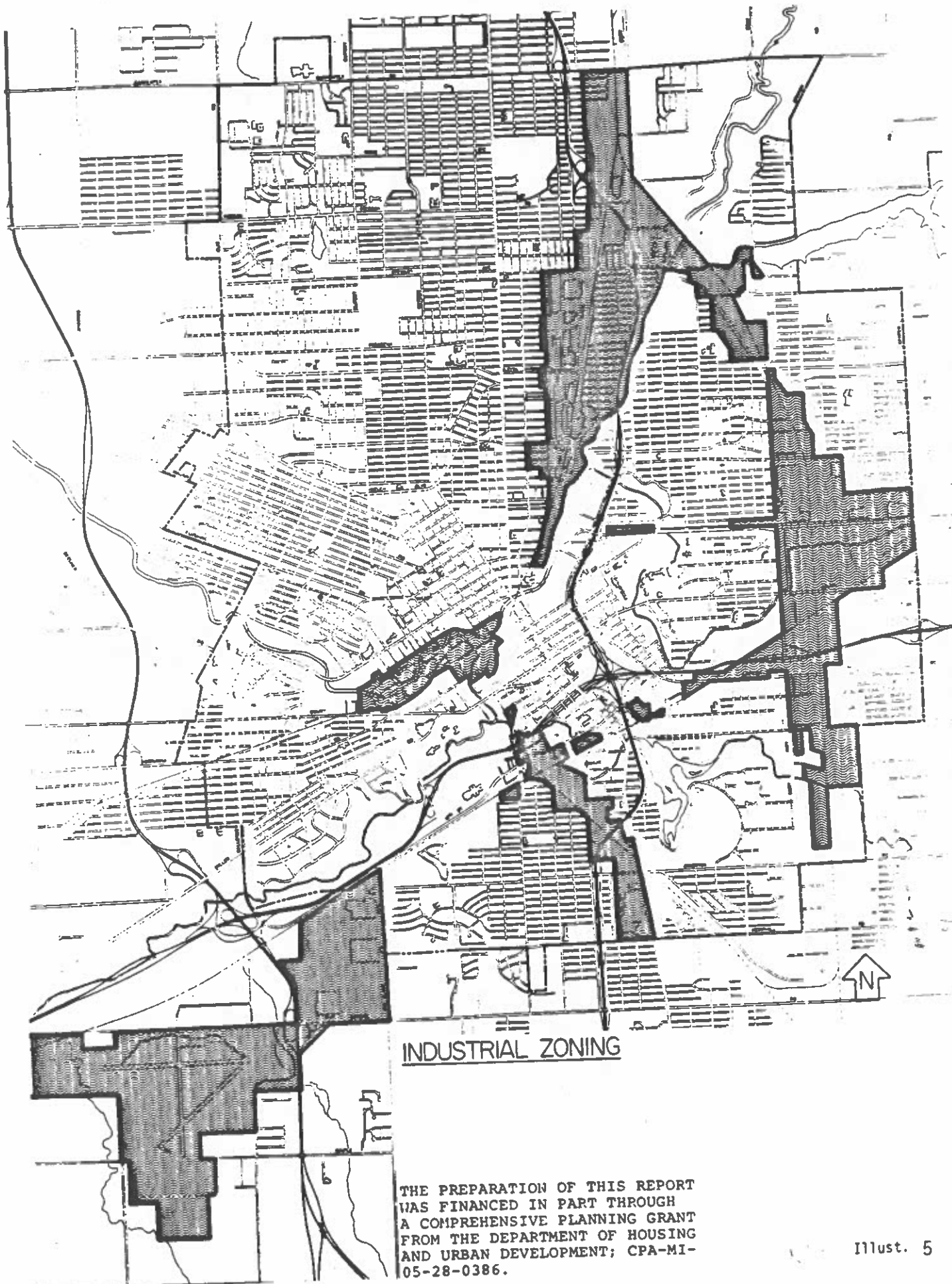
total currently stands at 410 acres although much of it is in scattered parcels which are too small to accept any sizeable industry. The maps in illustrations 5 and 6 indicate the present extent of industrial zoning and the occupied and unoccupied portions thereof.

Two of the largest available parcels of industrial land are contained in municipally developed industrial parks at Bishop Airport and between the Buick Motors complex and the new I-475 freeway. Combined, these two class A parks contain about 220 acres, about 150 of which remains on the market. At present rates of absorption, the remaining parcels in these parks could be gone in 3 to 5 years. Once that occurs, land for industrial expansion or development in the City will be very limited. Vacant land in private ownership is extremely scarce when parcels smaller than 2 acres are omitted, and for industrial uses 2 acres is about minimum parcel size. Unlike residential or office uses that can expand vertically to create room for new development, industrial uses generally must expand horizontally.

Two sources for new space for development are possible. The first, reuse of vacant or obsolete industrial structures, is limited, but should not be ignored. Several pieces of industrial property currently stand vacant and could be put to use. Reuse of these buildings could represent considerable savings over the cost of new construction. Moreover, there are some financial incentives available for the restoration of such property. These incentives are available also for the revitalization of an industry's existing building and facilities. In either case, better utilization of existing industrial property will result.

The second source of land for industrial development is land created through the conversion of another type of land use. There are some parcels of land in the City, generally adjacent to existing industrial areas, where existing residential or commercial uses are severely dilapidated and not viable. The parcel may be trapped between industrial uses, or between industry and a major thoroughfare, and its rehabilitation to the existing use is not feasible. In such cases, conversion may be legitimately proposed. Extreme care however, would need to be exercised to prevent industrial uses from impacting upon viable and/or salvagable neighborhoods.

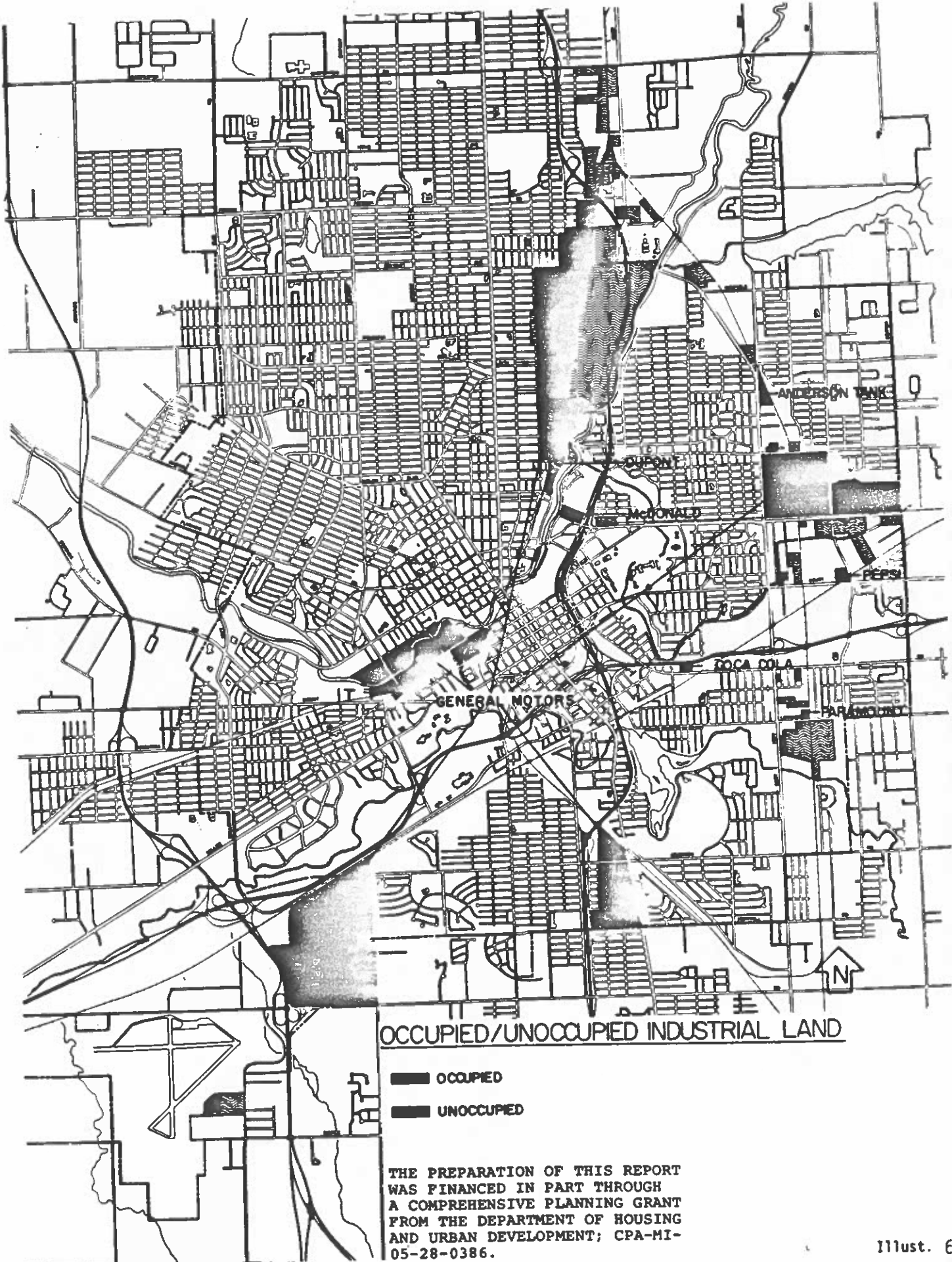
When a block or set of parcels is targeted for conversion, it is likely that purchase will be made under the City's right of eminent domain. The City regularly acquires scattered parcels several other ways, such as through tax liens, gifts and condemnations. Better use could be made of such parcels if those industrial areas could be set aside until a parcel large enough for development could be put together. No land disposition should occur until the potential use of the parcel has been reviewed. Parcels with a potential for industrial use should be "land banked" until other parcels can be acquired and an appropriate development arranged.



INDUSTRIAL ZONING

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Illust. 5



Even with all the potential industrial land in the City added in, the total available is still meager. The acreage is adequate for development during the next 10 to 15 years, but the long term picture for industrial development in the urban area will necessarily focus on land in the urban fringe. Here the supply is much better, but services such as sewers and water lines have yet to be developed. The initial steps toward increased cooperation between local units of government in the Flint area have been taken and the potential for the long term supply of land for industry is excellent.

Energy and Other Resources

Recent concerns over energy supplies have caused many industries to rethink expansion plans and many others to relocate in the so-called "sun belt" states where supposedly energy use would be lower. Two fallacies are involved in such thinking; first, that energy use would indeed be less and second, that energy supplies are inadequate in Michigan. Both arguments are erroneous.

Energy supplies are presently more than adequate and future supplies look very encouraging. Electricity is readily available at competitive prices and is over 65% coal generated, one of the highest such ratios in the country. The states large gas storage system is one of the best in the country and currently handles more gas than any other state. In the future, gas and oil from the Alaskan fields may be entering Michigan by pipeline. And finally, over 2/3 of the lower peninsula is covered by a supply of oil shale averaging 200 feet in depth. It is estimated to contain more hydrocarbons than 60 times the known crude oil reserves of the nation and utilization of even 1% of this supply would make the state energy independent for the next 100 years.[†]

The Flint area also has a virtually unlimited supply of fresh water, important to many industrial operations. Other resources include deposits of sand, gravel and brine, the latter being the basis for much organic and inorganic chemical manufacturing. Other parts of the state offer petroleum feed stocks, limestone, gypsum, iron and copper ore. These are not major deposits, but can supply many industrial operations, and have excellent potential for local businesses.

Market Potentials

The Flint area has been determined to be a good potential location for a number of different industries. The following table contains a selection of industries for which a strong potential Michigan market is expected to develop by 1985:

[†] University of Michigan, Institute of Science & Technology; A New Industrial Potential; U. of M., April, 1976; pages 3 and 4.

Selected Products Showing
Potential Expressed as Demand
In Excess of Current Production (in \$ millions)

Property	1972 Census Production	1985 est. Consumption	1985 Excess Demand
Printing ink	7.7	23.4	15.7
Carbon black	0.0	13.3	13.3
Phosphatic fertilizers	0.0	40.4	40.4
Mixed fertilizers	50.4	85.4	35.0
Synthetic ammonia	17.2	52.6	35.4
Thermoplastic resins	169.6	340.7	171.1
Synthetic rubber	21.8	94.4	72.6
Organic fibers (non-cellulosic)	0.0	60.0	60.0
Detergent	20.4	75.0	54.6
Rubber belts, etc.	1.7	23.0	21.3
Rubber hose & tubing	3.5	27.5	24.0
Perfumes, colognes, etc.	3.6	32.7	29.1
Toothpaste & other cosmetics	20.8	192.9	172.1
Oil and water base paints	35.3	145.5	110.2
Putty & caulk	5.2	43.0	37.8
Plastic film	120.4	470.7	350.3
Foamed plastic products	69.2	214.6	145.4
Laminated sheets, etc.	11.7	58.0	46.3
Shipping containers	43.8	273.1	229.3

Source: Harbeck, Kryzowski, Dobbins; A New Industrial Potential: Michigans Growing Hydrocarbon Base for Industrial Energy & Petrochemical Feedstocks; Institute of Science and Technology, University of Michigan, 1976; Chapter VIII

The estimated dollar value of the excess demand represents a very real potential for industrial development. Moreover, the markets refer only to products based on hydrocarbon resources. Other products also have decided market potential and would do well in the area. Illustration #7 displays a list of desired industries prepared by the consultants doing marketing strategy for the St. Johns Industrial Park. It is, in fact, an update of an earlier study by Battelle Memorial Institute, which was designed to designate those industries best suited to the Flint urbanized area.⁺ Both efforts serve to illustrate the variety of manufacturing enterprise that could succeed in a Flint location.

One factor that has been important in restraining the development of local manufacturers has been the ease of market penetration by outside suppliers. Of particular importance to this has been the relatively cheap costs of transporting needed goods and products.

⁺ Coopers & Lybrand; St. John Industrial Park: A Report on Perspective Marketing Parameters; 1976 - also Battelle Institute, A Study to Determine the Best Industries for Genesee County, Michigan; 1973.

<u>SIC</u>		<u>Rating</u>	<u>Battelle Rank</u>
3674	Semiconductors	37	24
2394	Canvas	37	28
2386	Leather clothing	37	36
3851	Ophthalmic goods	36	26
2399	Other fabricated textiles	36	29
2831	Biological products	34	38
2653	Corrugated fiber boxes	33	7
3399	Primary metal products	33	34
3079	Misc plastic products	32	1
3589	Service industry machinery	31	20
2096	Shortening and margarine	31	27
3999	Mfg industries, nec	31	33
2295	Artificial leather & oilcloth	31	35
3662	Radio & TV equipment	31	54
3555	Printing trades machinery	31	18
3264	Porcelain electric supplies	30	8
3613	Switchgear & switchboard equipment	30	9
3679	Electrical components	30	10
3699	Electrical equip. nec	30	42
3221	Glass containers	30	46
3295	Minerals ground or treated	30	47
3498	Fabricated pipes & fittings	30	50
3585	Refrigeration equipment	30	52
3622	Industrial controls	29	21
2641	Paper coating & glazing	29	31
3562	Ball & roller	29	32
3624	Carbon & graphic products	29	41
3791	Trailer coaches	28	25
3479	Coating, engraving, etc.	28	39
3069	Rubber products, nec	28	45
3599	Misc. machinery minus electric	27	23
3742	Railroad & street cars	25	6
3559	Special industry machinery	26	19
2621	Paper mills	25	30
3352	Aluminum rolling & drawing	24	12
3621	Motors & generators	24	53
3357	Nonferrous wire drawing	23	5
3351	Copper rolling & drawing	23	11
3356	Rolling & drawing	23	13
3541	Metal cutting machine tools	23	15
3317	Steel pipe & tools	23	48
3544	Special dies, tools & dyes	22	16
3545	Machine tool accessories	22	17
3537	Industrial trucks & tractors	22	40
3316	Cold rolled steel sheets & bars	22	56
3323	Steel foundries	21	2
3322	Malleable iron foundries	21	4
3461	Metal stampings	21	14
3713	Truck & bus bodies	21	43
3861	Photographic equip & supplies	21	44
3548	Metal working machinery	21	51
3312	Blast furnace & steel works	21	3
3321	Gray iron foundries	20	49
3711	Motor vehicles	19	22

The continued rise of motor fuel prices and other vehicle costs may produce some economic benefit to the area to counter balance the negative influence on auto sales. That is, the added cost of transportation will act to increase the competitive position of local manufacturers. The result should be a long term stimulus to local industrial development. Any actions taken by the state or local government to enhance this competitive situation will be working in harmony with powerful forces inherent in the economy.

IV. Action Alternatives

Having outlined some of the problems and potentials for industrial development in Flint, the remainder of this chapter will attempt to define some alternative courses of action for the area. Those alternatives are presented in brief as issues or points for consideration. Specific policies and recommendations are presented at the end of the element.

Public-Private Cooperation

It is necessarily the case that the City be involved in industrial development if only from a promotional standpoint. A passive role has never been adequate even in a free enterprise system. This will require close cooperation with private sector forces which can be accomplished in a number of ways:

- A. Develop firm, explicit policy designating the role City intends to play in development. Without such policy, the private sector has no way of knowing what to expect from the City and the City can only respond to private initiatives rather than define a purpose and course of action to meet the needs of its citizens.
- B. Create a public economic development mechanism. This would be a department or division within the municipal government with direct responsibility for economic development. Projects would be official municipal projects, and would be limited as to scope and purpose. Probably restricted to provision of services to the business community.
- C. Create a quasi-public mechanism. This would be a unit located outside of local government, but maintaining strong legal and financial relationships, reinforced by strong private sector involvement and support.
- D. Participate in joint-ventures with private developers. This would entail the City participating with private sector forces in joint projects. The respective obligations and benefits of each party to the agreement would be negotiated. Actions beyond those necessary for the single project would not be forthcoming.

- E. Establish industrial clearinghouse within municipal government. Such an entity would be responsible for interfacing with industry and expediting the provision of City services, such as building permits, licenses, zoning, etc. Basic information requests for base maps, aerial photos, demographics, etc. would also be provided through this mechanism.

Land Management

For expansion or development to occur, there must be available land. Within urban areas, land is scarce and land costs very high. The wise management of land resources is critical in the urban setting. A number of action alternatives are open for consideration regarding the acquisition and disposition of land.

- A. Pre-designation of development areas is a method to delineate the purpose of the City regarding its industrial areas. Land within such areas would be reserved for industrial use only.
- B. Creation of an industrial land bank, would greatly enhance the City's ability to utilize land. All land acquired by the municipality would go into a bank where decision regarding disposition would be made. All land in industrial areas would be held and assembled into parcels of developable size. Other actions which could be part of the land banking process are:
1. preparation of sites for redevelopment
 2. review and approval of redevelopment proposals
 3. negotiating terms of disposition or sale
 4. payment of brokerage fees and commissions
 5. operation of a revolving fund from land sale proceeds for future acquisition, land maintenance, etc.
- C. Create policies and standards for the disposition, which could serve to regulate land sales if no land bank or other entity exists. These should spell out the conditions under which the City would sell or release property in industrial areas. They would also make explicit the extent to which the City will go in negotiating price and terms for land. The terms of sale may vary and could include:
1. Land write-downs which have the City absorb part of the acquisition costs to provide lower priced land.
 2. Leases which reduce developers capital, provide a tax write-off of lease payments, and provide revenue to the City or agency.
 3. Subordinated leases provide all the advantages of standard leases while allowing the developer to mortgage the value of the land, thus reducing cash equity of developer and increasing risk of City.

4. Land contracts are purchase agreements for land with negotiated interest rates. Rates can be set low or high, but only interest portion of payment is tax deductible.
 5. Fee simple in which the agreed to purchase price of the land is paid in full at the outset.
 6. Subordinated mortgage in which the City "subordinates" its claim to land being purchased from it to a lender who is mortgaging the entire development. City's risks are increased, developers equity reduced.
- D. Establish and fund an active economic development program to market industrial land. Such a program would employ professional staff to handle packaging industrial land and development proposals. The option exists to allow such an entity to hold title to City land on behalf of the municipality.
- E. Allow an EDC or similar public/private entity to advise and recommend regarding utilizing land, efficacy of land use controls, terms of land sales, etc. Such an entity would rely heavily on the background and expertise of private sector members. (It could also advise on financing alternatives and other matters).

Financing Alternatives

Investment in the City is unlikely to take place unless that investment can be made financially attractive to the private sector. This will require the City to overcome several types of disincentives such as high land cost, taxes, urban blight impacts, and related issues. A development package in the City will need some type of subsidy to compete with non-urban areas. Land sale subsidies are discussed above. This section will deal with other financial options.

- A. The City could establish a revolving loan fund perhaps with income from land sales or some other source. Such a fund could utilize its financial capacity in any number of ways, including:
1. Construction loans. Short-term loans at low interest rates during the construction period. Repaid when project complete and final mortgage arranged.
 2. Interest-only loans. Borrower pays only interest during term of loan, repaying capital in lump sum at termination.
 3. Participation loans. Fund joins with other lenders in providing capital. Usually employed to reduce developers cash equity, or to leverage conventional loan.

4. Balloon payment loans. Similar to interest only except low payments cover both interest and capital with large final payment.
 5. Variable interest rates. Low payments when business is starting, increasing after it is established.
 6. Interest reduction loans. Similar to participation loan except intent is to mix low interest money from non-profit fund with conventional financing in amounts that will minimize public funds and still secure overall favorable interest rate.
- B. The City could assist private developers in obtaining financial backing from established government programs. This would involve no direct investment of City money, only staff time. The existing programs include:
1. The Small Business Administration operates numerous loan programs aimed at small businesses. One, the 502 program, requires that a local development corporation process the loan.
 2. The HUD 312 loan program occasionally has money for low income areas. Funding is limited to rehabilitative work and 90 per cent is for code enforcement.
 3. Michigan Job Development Authority provides loans to projects which will significantly increase employment. Guidelines call for at least 1 job for every \$10,000 invested.
 4. The Economic Development Administration operates the section 201 loan program for businesses that can't get credit conventionally. Federal participation may not exceed 65 per cent. The EDA also operates section 204 loans which are interest free loans to local governments to establish revolving loan funds for business development.
 5. Office of Minority Business Enterprise limits its loans to minority entrepreneurs.
- C. The City could provide other incentives to developers of industrial property. These incentive programs are a varied bag and include:
1. Tax abatement available under Public Act 198 which provides a 50 per cent reduction in property tax on new construction and which freezes taxes on rehabilitated property.

2. EDC abatement available by leaving the Economic Development Corporation hold title to a project, which can then be exempted from all property tax.
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6. Enlightened land-use control by which a municipality acts to insure the integrity of an industrial development by carefully controlling land uses within and around it. This can be done through zoning and through deed restrictions.
7. Assistance in compliance with various environmental, safety and equal opportunity requirements.

V. Recommendations

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- E. Establish an industrial land bank with the purpose of increasing the amount of developable industrial land. This will require specifying a person or persons to manage the land bank, identifying a source of funds if needed, and specifying powers and obligations of the "bank". Terms of land transfers and/or sales should be set by negotiation within parameters established by policy.
- F. A program of industrial rehabilitation should be established. The goal would be to encourage older plants to modernize their productive capacity to keep pace with competition. This could be done almost entirely with tax incentives and non-public money. The incentives should be employed in a manner that will encourage plant maintenance.
- G. New standards for the maintenance of industrial property should be written that would alleviate blighting influence of some businesses. This would require a rewrite of City ordinances governing land use. The goal would be to force the few objectionable industries to clean up their operations and to desist from activities that clearly have a negative impact upon surrounding land uses.
- H. A small revolving loan fund should be established, with both public and private backing, to encourage new business This fund should be employed only to leverage conventional financing for firms that appear to be good investments to the fund managers. It should be a "source of last resort" and should be kept small.

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- E. The City will institute an annual review of all City procedures for the purpose of reducing and simplifying the requirements it imposes upon corporate and individual residents to the extent possible. This policy recognizes that many of the municipal procedures could be simplified and streamlined. It also recognizes that doing so is an easy way to improve public/private relations and reduce business costs as figured in time and dollars.
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The policies outlined above will set the parameters within which the City will act to promote industry and industrial employment. In pursuit of this general, and long range, goal a number of short-term objectives are suggested as intermediate actions.

- A. Develop an average of 300 new industrial jobs per year for the next 10 years. This is an ambitious objective and will involve both the recruitment of new industry and the expansion of existing industries. To meet the objective will require a coordinated effort of all groups or agencies associated with economic development, and the use of all existing incentives and techniques.

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4. Land contracts are purchase agreements for land with negotiated interest rates. Rates can be set low or high, but only interest portion of payment is tax deductible.
 5. Fee simple in which the agreed to purchase price of the land is paid in full at the outset.
 6. Subordinated mortgage in which the City "subordinates" its claim to land being purchased from it to a lender who is mortgaging the entire development. City's risks are increased, developers equity reduced.
- D. Establish and fund an active economic development program to market industrial land. Such a program would employ professional staff to handle packaging industrial land and development proposals. The option exists to allow such an entity to hold title to City land on behalf of the municipality.
- E. Allow an EDC or similar public/private entity to advise and recommend regarding utilizing land, efficacy of land use controls, terms of land sales, etc. Such an entity would rely heavily on the background and expertise of private sector members. (It could also advise on financing alternatives and other matters).

Financing Alternatives

Investment in the City is unlikely to take place unless that investment can be made financially attractive to the private sector. This will require the City to overcome several types of disincentives such as high land cost, taxes, urban blight impacts, and related issues. A development package in the City will need some type of subsidy to compete with non-urban areas. Land sale subsidies are discussed above. This section will deal with other financial options.

- A. The City could establish a revolving loan fund perhaps with income from land sales or some other source. Such a fund could utilize its financial capacity in any number of ways, including:
1. Construction loans. Short-term loans at low interest rates during the construction period. Repaid when project complete and final mortgage arranged.
 2. Interest-only loans. Borrower pays only interest during term of loan, repaying capital in lump sum at termination.
 3. Participation loans. Fund joins with other lenders in providing capital. Usually employed to reduce developers cash equity, or to leverage conventional loan.

4. Balloon payment loans. Similar to interest only except low payments cover both interest and capital with large final payment.
 5. Variable interest rates. Low payments when business is starting, increasing after it is established.
 6. Interest reduction loans. Similar to participation loan except intent is to mix low interest money from non-profit fund with conventional financing in amounts that will minimize public funds and still secure overall favorable interest rate.
- B. The City could assist private developers in obtaining financial backing from established government programs. This would involve no direct investment of City money, only staff time. The existing programs include:
1. The Small Business Administration operates numerous loan programs aimed at small businesses. One, the 502 program, requires that a local development corporation process the loan.
 2. The HUD 312 loan program occasionally has money for low income areas. Funding is limited to rehabilitative work and 90 per cent is for code enforcement.
 3. Michigan Job Development Authority provides loans to projects which will significantly increase employment. Guidelines call for at least 1 job for every \$10,000 invested.
 4. The Economic Development Administration operates the section 201 loan program for businesses that can't get credit conventionally. Federal participation may not exceed 65 per cent. The EDA also operates section 204 loans which are interest free loans to local governments to establish revolving loan funds for business development.
 5. Office of Minority Business Enterprise limits its loans to minority entrepreneurs.
- C. The City could provide other incentives to developers of industrial property. These incentive programs are a varied bag and include:
1. Tax abatement available under Public Act 198 which provides a 50 per cent reduction in property tax on new construction and which freezes taxes on rehabilitated property.

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Recommendations:

The various short range objectives outlined in this section could be pursued in a number of different ways. It is recommended that the programs outlined in this section might be the easiest to implement.

To begin, the City could combine several of the objectives and make them the responsibility of the already created Economic Development Corporation. This organization is a public-private board that already possesses several legal powers such as the ability to issue tax exempt bonds. The EDC can own and acquire land and could be used to manage an industrial land bank. Moreover, the EDC might be the appropriate location for the revolving loan fund as well. The Board of Directors is composed of primarily private businessmen and several are bankers or financial analysts.

To effectively handle these additional responsibilities, it will be necessary for the EDC to acquire a full-time staff. It does not have to be a large staff, but it would have to be full time so that economic development was its singular concern and function. As such it could also serve as the prime contact for business with the local government. The full range of incentives and inducements would be available to the EDC and thus concentrated under a single purpose entity. This is the technique recommended by development organizations such as CUED and ULI. It will require that funding for full time staff be provided through some source, probably the City, until the EDC can establish a revenue stream from land sales and/or loan investments. The need for at least partial City funding may be permanent, but in the case of industrial development represents an investment rather than an expenditure.

Secondly, a mayoral advisory committee should be established on industrial, or general economic, concerns. If it met only twice a year, it should be sufficient to air problems and mutual concerns. The membership should be open and out put from these sessions should be incorporated into the ongoing City planning process and policy making.

Finally, an internal task force should be set up to investigate and eliminate red tape and related problems within City government. Top level staff should be involved in this project and coordination should come through the mayor's office. New procedures, regulations and policies resulting from these meetings should be enacted and the information communicated to the public promptly. This task force should continue to meet and review internal procedures on an annual basis to ensure their perpetual update.

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OPEN
SPACE / RECREATIONAL

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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05-28-0386.

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ILLUSTRATIONS

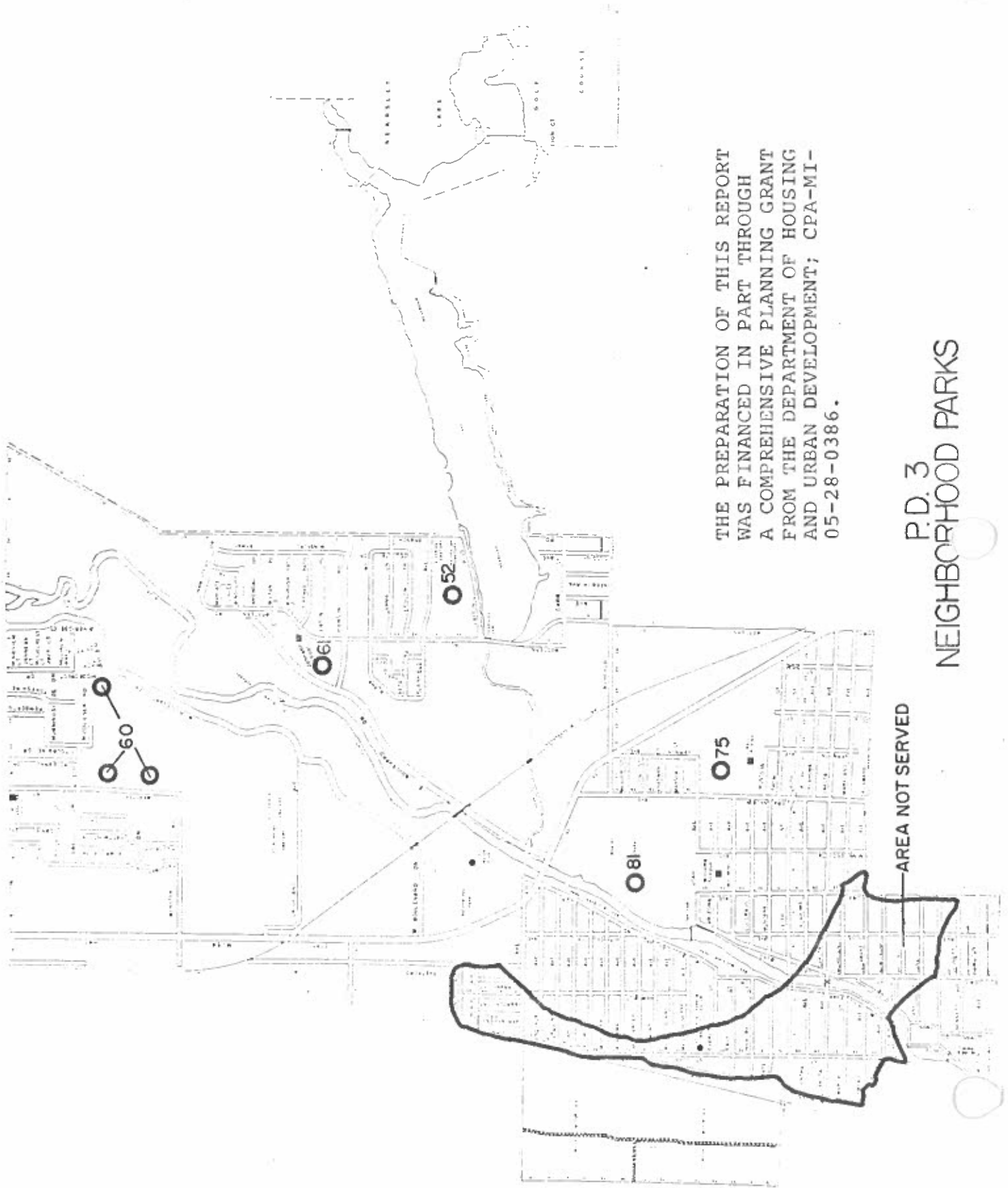
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PLANNING DISTRICT 3

Planning District 3 has shown a decrease in population since 1970 - down approximately 2,000 people or 14%. There is a vacancy rate of almost 10% in this Planning District. The demographic data shows that approximately 50% of the population are adults (age 18 through 58).

Areas not served in P.D. #3

- I. West side of P.D. #3
 - A. Area in process of total clearance for development of an industrial park - no park needed
- II. West of River
 - A. The size of the area approximately 13 blocks; population approximately 700
 - B. The size of the area does not warrant the development of a neighborhood park in the area
 - C. Innovative approach could relieve the problem



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P.D. 3
 NEIGHBORHOOD PARKS

— AREA NOT SERVED

PLANNING DISTRICT 2

Planning District 2 has shown a 20% decrease (nearly 5,000 residents) in population since 1970. Our information shows that this population loss is partly due to acquisition for the I-475 expressway. This P.D. has a vacancy rate of over 16%. The high vacancy rate would indicate that housing is available in the area and the population of the district has a potential to increase.

Areas not served in P.D. #2

I. Northern section

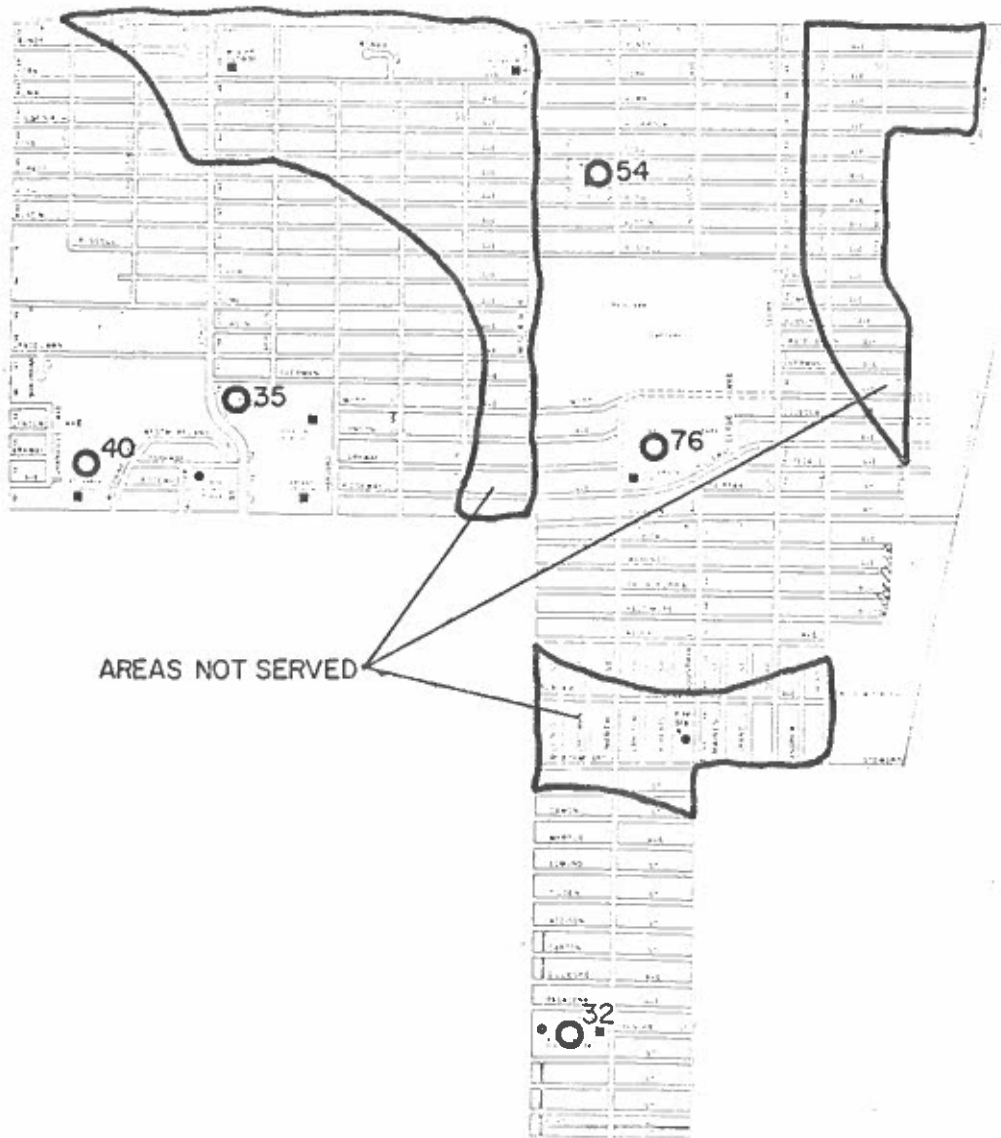
- A. Size approximately 30 block; population approximately 2,000 residents
- B. The size of the area and the number of people not served does warrant the development of a new park
- C. Due to the land constraints the expansion of an existing smaller park may be a feasible solution

II. Northeast corner

- A. Size approximately 10 blocks; population approximately 650 residents
- B. Since neighborhood park requires a minimum of 2.75 acres (1.5 acres/1,000 population), this small of an area does not warrant a new park site
- C. Possible solution - innovative approach

III. Southern section

- A. Size approximately 8 blocks; population approximately 520 residents
- B. Same as B above
- C. Possible solution - innovative approach



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P.D. 2
NEIGHBORHOOD PARKS



NEIGHBORHOOD PARK ANALYSIS BY PLANNING DISTRICT

The following is an analysis of the neighborhood park system within the City of Flint. The object of this analysis was to determine which areas of the city are not served by one or more neighborhood parks. This analysis was done by planning district to detail what areas are not served and the basic characteristics of the population within each area. Although done by planning district, parks in the adjoining planning districts were not ignored.

After deficient areas were located, each area was treated separately as to the number of persons within the area, the age composition of those persons, along with other characteristics of the area were identified. Once identified, possible solutions were given.

PLANNING DISTRICT 1

Planning district 1 has the highest population of any district in the city and over 44% of these residents are 17 years of age or younger. All residents in planning district 1 are within the service area of one or more neighborhood parks.



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P.D. I
 NEIGHBORHOOD PARKS



OPEN SPACE IN PLANNING DISTRICT #7 (Cont'd)

<u>Map Index Number</u>	<u>Name</u>	<u>Type of Open Space</u>	<u>Ownership</u>
56	Memorial Park	Neighborhood Park	P.
88	Atwood Stadium	Special Use	C.O.F.
93	Hamilton Park	Special Use	C.O.F.
94	Happy Hollow Nature Area	Special Use	C.O.F.
95	McFarlan Park	Special Use	C.O.F.
96	Metawanee Park	Special Use	C.O.F.
97	Mobley Park	Special Use	C.O.F.
98	Ramona Park	Special Use	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #8

1	Amos Triangle	Playlot	C.O.F.
2	Beechwood Playground	Playlot	C.O.F.
8	Delaware Playground	Playlot	C.O.F.
13	Homedale Elementary	Playlot	B.O.E.
18	Polk Playground	Playlot	C.O.F.
25	Walker Elementary	Playlot	B.O.E.
26	Washington Elementary	Playlot	B.O.E.
38	Dayton Park	Neighborhood Park	C.O.F.
65	Sobey Elementary	Neighborhood Park	B.O.E.
74	Longway P.S.	Community Park	C.O.F.
74	Potter Elementary	Community Park	B.O.E.
82	Kearsley Park	Major City Park	C.O.F.
99	Willson Park	Special Use	P.

OPEN SPACE IN PLANNING DISTRICT #9

4	Clark School	Playlot	B.O.E.
17	Pierce Elementary	Playlot	B.O.E.
21	Scott Elementary	Playlot	B.O.E.
33	Brennan P.S.	Neighborhood Park	C.O.F.
33	Stewart Elementary	Neighborhood Park	B.O.E.
37	Cook Park	Neighborhood Park	C.O.F.
67	Woodlawn Park	Neighborhood Park	C.O.F.
69	Central Senior High	Community Park	B.O.E.
69	Whittier Junior High	Community Park	B.O.E.
86	Pierce Park Golf Course	Golf Course	C.O.F.
90	Burrough Park	Special Use	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #10

30	Atherton East P.S.	Neighborhood Park	C.O.F.
30	Manley Elementary	Neighborhood Park	B.O.E.
45	Farnumwood P.S.	Neighborhood Park	C.O.F.
45	Freeman Elementary	Neighborhood Park	B.O.E.
66	Windiate Park	Neighborhood Park	C.O.F.
80	Thread Lake	Community Park	C.O.F.
80	Cummings Park	Community Park	C.O.F.
80	McKinley Park	Community Park	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #11

<u>Map Index Number</u>	<u>Name</u>	<u>Type of Open Space</u>	<u>Ownership</u>
14	Lincoln Elementary	Playlot	B.O.E.
19	Redeemer School	Playlot	P.
36	Cody Elementary	Neighborhood Park	B.O.E.
47	Gerholtz P.S.	Neighborhood Park	C.O.F.
47	Neithercut Elementary	Neighborhood Park	B.O.E.
55	McKinley Jr. High	Neighborhood Park	B.O.E.
73	Lincoln Park	Community Park	C.O.F.
79	Southwestern Sr. High	Community Park	B.O.E.
91	Cronin Downs	Special Use	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #12

6	Coolidge Elementary	Playlot	B.O.E.
7	Cummings Elementary	Playlot	B.O.E.
15	Mann Hall Playground	Playlot	C.O.F.
16	McCallum Playground	Playlot	C.O.F.
23	St. Pauls Church/School	Playlot	P.
28	Zimmerman Jr. High	Playlot	B.O.E.
62	Sarginson Park	Neighborhood Park	C.O.F.
87	Swartz Creek Golf Course	Golf Course	C.O.F.
92	Kellar Tennis Court	Special Use	C.O.F.

OPEN SPACE BY PLANNING DISTRICT

The following is a breakdown of the types of parks located in each planning district. In some instances a park may be listed more than once. If it is a park/school site, or two or more schools are at the site, then the park will be listed under all references to it.

OPEN SPACE IN PLANNING DISTRICT #1

<u>Map Index Number</u>	<u>Name</u>	<u>Type of Open Space</u>	<u>Ownership*</u>
46	Fleming Park	Neighborhood Park	C.O.F.
49	Holmes Junior High	Neighborhood Park	B.O.E.
49	Brownell Elementary	Neighborhood Park	B.O.E.
57	Merrill Elementary	Neighborhood Park	B.O.E.
63	Sarvis Park	Neighborhood Park	C.O.F.
64	Selby Elementary	Neighborhood Park	B.O.E.
72	Hasselbring P.S.	Community Park	C.O.F.
72	Gundry Elementary	Community Park	B.O.E.
78	Northwestern Senior High	Community Park	B.O.E.

OPEN SPACE IN PLANNING DISTRICT #2

27	Wilkins Park P.S.	Playlot	C.O.F.
27	Wilkins Elementary	Playlot	B.O.E.
32	Berston P.S.	Neighborhood Park	C.O.F.
32	Parkland Elementary	Neighborhood Park	B.O.E.
35	Clara Hilborn P.S.	Neighborhood Park	C.O.F.
35	Bryant Junior High	Neighborhood Park	B.O.E.
35	Pierson Elementary	Neighborhood Park	B.O.E.
40	Donovan North Middle School	Neighborhood Park	P.
40	Olk Primary School	Neighborhood Park	P.
54	Martin Park P.S.	Neighborhood Park	C.O.F.
54	Martin Elementary	Neighborhood Park	B.O.E.
76	Oak Knoll P.S.	Community Park	C.O.F.
76	Jefferson Elementary	Community Park	B.O.E.

OPEN SPACE IN PLANNING DISTRICT #3

3	Carpenter Elementary	Playlot	B.O.E.
52	Layton Park	Neighborhood Park	C.O.F.
60	Riverside Park	Neighborhood Park	C.O.F.
61	Rollingwood P.S.	Neighborhood Park	C.O.F.
61	Johnson Elementary	Neighborhood Park	B.O.E.
75	Lowell Junior High	Community Park	B.O.E.
81	Whaley P.S.	Community Park	C.O.F.
81	Williams Elementary	Community Park	B.O.E.
83	UpRiver Park	Undeveloped	C.O.F.
84	Kearsley Lake Golf Course	Golf Course	C.O.F.
89	Branch & Carr	Undeveloped	C.O.F.

*C.O.F. - City of Flint, Department of Parks and Recreation

B.O.E. - Board of Education, Flint School District

P. - Privately Owned and Operated, Open to Public

OPEN SPACE IN PLANNING DISTRICT #4

<u>Map Index Number</u>	<u>Name</u>	<u>Type of Open Space</u>	<u>Ownership</u>
39	Dewey P.S.	Neighborhood Park	C.O.F.
39	Dewey Elementary	Neighborhood Park	B.O.E.
48	Hardenbrook Park	Neighborhood Park	C.O.F.
50	Iroquois P.S.	Neighborhood Park	C.O.F.
50	King Elementary	Neighborhood Park	B.O.E.
70	Emerson Junior High	Community Park	B.O.E.
70	Emerson Intermediate	Community Park	B.O.E.
70	Garfield Elementary	Community Park	B.O.E.
71	Forest Park P.S.	Community Park	C.O.F.
71	Bunche Elementary	Community Park	B.O.E.

OPEN SPACE IN PLANNING DISTRICT #5

11	Doyle School	Playlot	B.O.E.
20	School of Choice	Playlot	B.O.E.
41	Dort P.S.	Neighborhood Park	C.O.F.
41	Dort Elementary	Neighborhood Park	B.O.E.
42	Durant Park	Neighborhood Park	C.O.F.
51	Kennedy P.S.	Neighborhood Park	C.O.F.
51	Kennedy Elementary	Neighborhood Park	B.O.E.
59	Oak Park	Neighborhood Park	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #6

9	Donovan South Middle School	Playlot	P.
9	Mayotte Primary School	Playlot	P.
10	Dougherty Playground	Playlot	C.O.F.
31	Ballenger Park	Neighborhood Park	P.
34	Civic Park Elementary	Neighborhood Park	B.O.E.
44	Eldorado Vista	Neighborhood Park	C.O.F.
53	Longfellow Jr. High	Neighborhood Park	B.O.E.
53	Summerfield Elementary	Neighborhood Park	B.O.E.
58	Mott Park	Neighborhood Park	C.O.F.
68	Bassett Park	Community Park	C.O.F.
77	Northern Senior High	Community Park	B.O.E.
77	Anderson Elementary	Community Park	B.O.E.
85	Mott Park Golf Course	Golf Course	C.O.F.

OPEN SPACE IN PLANNING DISTRICT #7

5	Cook Elementary	Playlot	B.O.E.
12	Eisenhower Elementary	Playlot	B.O.E.
22	Stevenson Elementary	Playlot	B.O.E.
24	Valley School	Playlot	P.
29	Aldrich Park	Neighborhood Park	C.O.F.
43	Durant-Tuuri-Mott	Neighborhood Park	B.O.E.

COMMUNITY PARKS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
68	6	Bassett Park	C.O.F.	Bb,Sb,CC,DF,Fb,IN+ P2,P3,Pg,Pk,Tb,R,V,SI	35.0
69	9	Central Sr. High/ Whittier Jr. High	B.O.E.	B,Bb,RT,Fb,Pk,T	8.9*
70	4	Emerson Jr. High/ Emerson Inter./ Garfield Elementary	B.O.E.	B,Bb,Sb,Pg,Pk,RT,Fb	9.2*
71	4	Forest Park P.S. (Bunche Elementary)	C.O.F. B.O.E.	Bb,Sb,AC,DF,PI,P2,P3 Pg,Pk,R,IN+,MB,T,V Pk+	102.5 0.0*
72	1	Hasselbring P.S. (Gundry Elementary)	C.O.F. B.O.E.	Bb,Sb+,P3,Pg,Tb Bb,Pg,Pk,T,V	30.5 4.1*
73	11	Lincoln Park (Name changed to Stan Broome)	C.O.F.	A,B+,Bb+,Bh,CC,DF, Fb,I+,H,Pg,Pk+,Rb, S+,T+,Tb,Sb	79.0
74	8	Longway P.S. (Potter Elementary)	C.O.F. B.O.E.	Sb,P2,P3,Pg,T+,IN,Pk Bb,Pg,Pk,Sh,T+	33.0 5.7*
75	3	Lowell Junior High	B.O.E.	B,Bb,Sb,Fb,Pk	12.9*
76	2	Oak Knoll P.S. (Name changed to Bonner/Jefferson) (Jefferson Elementary)	C.O.F. B.O.E.	Sb+,DF,Fb,P1,P2,P3 Pg,FT,R,St,So Bb+,DF,Pg,Pk+,Sa	21.0 1.6*
77	6	Northern Senior High/ Anderson Elementary	B.O.E.	B,Bb,Pg,Pk,T	20.4*
78	1	Northwestern Sr. High	B.O.E.	B,Bb,RT,Fb+,T,Pk	26.6*
79	11	Southwestern Sr. High	B.O.E.	B,Bb,RT,Fb,T,Pk	22.0*
80	10	Thread Lake, Cummings, and McKinley Park	C.O.F.	Bb,Sb+,Bh,CC,F,IN H,P1,P2,P3,Pg,Pk,R S,Sh,T,Tb,V,W	36.1 (70 water)
81	3	Whaley P.S. (Williams Elementary)	C.O.F. B.O.E.	Bb,B+,Bh,CC,FB,I+,P1 P3,R,SIO,Sh+,SM,So, St,T+,Tb,V,pk,MB,W, Pk,Bb	72.0 0.0*

TOTAL COMMUNITY PARKS 14

520.4
acres

APPENDIX F

MAJOR CITY PARKS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
82	8	Kearsley	C.O.F.	Sb+,Bh,DF,P2,P3, Pg,Pk,RB,S,SL,SM, Sv,T,To,V,Tb,W	57.0
83	3	Up River Park	C.O.F.	U,W	(255.6)
TOTAL MAJOR CITY PARKS 1					57.0 acres

APPENDIX G

GOLF COURSES

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
84	3	Kearsley Lake	C.O.F.	C,G2,In+,Pk,SL AM,To+,W	181 land (67)water
85	6	Mott Park	C.O.F.	C,G1,IN,Pk,M,W	70.0
86	9	Pierce Park	C.O.F.	C,G3+,Pk+	63.0
87	12	Swartz Creek	C.O.F.	C,G1,G2,In+,Pk,Sb SL,To,W	250.0
TOTAL GOLF COURSES 4					564.0 acres

NEIGHBORHOOD PARKS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
44	6	Eldorado Vista	C.O.F.	Sb,Pg	6.75
45	10	Farnumwood P.S. (Freeman Elementary)	C.O.F. B.O.E.	Sb,In,Pg,P3,Pk Sb,Bb,Pg,Pk,T	11.2 5.3*
46	1	Fleming Park	C.O.F.	Bb,Sb,DF,P1,P3 Pg,Sa	2.5
47	11	Gerholtz P.S. (Neithercut Elementary)	C.O.F. B.O.E.	T,W Bb,Sb,Pg,Pk	5.0 4.3*
48	4	Hardenbrook Park	C.O.F.	Bb,Sb,DF,Pg,V,RB	3.6
49	1	Holmes Jr. High/ Brownell Elementary	B.O.E.	B,Bb,Sb,Pg,Pk	9.6*
50	4	Iroquois P.S. (King Elementary)	C.O.F. B.O.E.	Bb,Sg,Pg,P2,P3 IN,RT,Tb,V Pk,Pg	8.5 0.0*
51	5	Kennedy Park P.S. (Kennedy Elementary)	C.O.F. B.O.E.	Bb+,T+,I+,Pk,S10, Bh,R Pk	4.0 2.0*
52	3	Layton Park	C.O.F.	Bb,Sb,Pg	8.8
53	6	Longfellow Jr. High/ Summerfield Elem.	B.O.E.	Bb+,Bb,Pg,Pk	5.2*
54	2	Martin Park P.S. (Martin Elementary)	C.O.F. B.O.E.	Bb+,Sb,DF,P1,P2, P3,Pg,Sa,Bb,T+ Bb,Pk,Pg	3.6 2.1*
55	11	McKinley Jr. High	B.O.E.	B+,Bb,Sb,Fb,RT,PK	17.1*
56	7	Memorial Park	P.	Bb,Pg,T,I+,Sb,Pk	2.1
57	1	Merrill Elementary	B.O.E.	Bb,Sb,Pg,Pk	2.9*
58	6	Mott Park	C.O.F.	Bb,Pg,DF,T,Sa	7.5
59	5	Oak Park	C.O.F.	Bb,Sb,P2,P3,T,Tb RB,Sa,V	8.0
60	3	Riverside Park (3 sites)	C.O.F.	Pg,Sb	7.9

NEIGHBORHOOD PARKS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
61	3	Rollingwood P.S. (Johnson Elementary)	C.O.F. B.O.E.	Bb+,T+,Sb Pk,Ps	5.5 2.0*
62	12	Sarginson Park	C.O.F.	Bb,Sb,DF,IN,Pg, Pl,Sa,T,Tb	4.0
63	1	Sarvis Park	C.O.F.	Bb,Sb,P,Pg	11.5
64	1	Selby Elementary	B.O.E.	B+,Bb,Pg,Pk	4.7*
65	8	Sobey Elementary	B.O.E.	B,Bb+,Pg,Pk	3.9*
66	10	Windiate Park	C.O.F.	Bb,Sb,Pg	5.0
67	9	Woodlawn Park	C.O.F.	Bb,T,Sa,Pk,Pg,W	2.0
TOTAL NEIGHBORHOOD PARKS 39					314.45 acres

I. INTRODUCTION - A RECREATION SYSTEM

A well balanced public recreation system should include the entire range of recreational activities. These recreational activities should be sponsored by either public, quasi-public, private, or commercial agencies. They should be located in indoor facilities or on public open space and park land, or be established in conjunction with school properties. They should be distributed conveniently throughout the community.

The facilities should accommodate all recreational activities, both individual and group. Because people of different ages require different modes of recreation, recreational areas are of many types which differ widely in function, size, and development.

Both indoor and outdoor recreation must be considered. Although the major emphasis will be placed on open space/recreation requirements and needs, indoor recreation facilities will also be discussed in the latter part of this section.

Overall Open Space Commitment

The City of Flint is indeed fortunate to have a certain amount of acreage set aside specifically for open space recreation. Most cities the size of Flint lack a large open space base to work from at this late stage of urban development. There are several valid open space/recreation concepts reviewed in past city plans and now viable in this new Master Plan.

Flint's creek and river system offers the potential for a finger park approach. Just as the fingers on the human's body lead to the hand and make it functional, these creeks and the river, developed as parkways, would lead to major recreation facilities and help make them more functional to a greater number of people in the city.

There are, however, several areas of the city that are inappropriate for this approach. These areas include densely populated urban areas without water facilities, or intensely developed areas with little or no recreation facilities in the area and little vacant land that can be developed. Innovative approaches towards urban recreation will have to be developed to try and meet the needs of these areas. Innovative approaches would include anything other than the traditional ball diamond or playground type development to serve the specific needs of an area. These innovative approaches could include, vest pocket parks, mobile parks, roof top utilization, plaza development, fitness trails, bike paths, free play areas or semi-permanent equipment that can be moved from site to site as the neighborhood needs change, to name a few.

A questionnaire circulated among the participants of the 1976 Citizens Problem Identification Sessions, indicated that many people are not content with maintenance of existing facilities and that they feel the need for more facilities. Unfortunately, poor maintenance was cited as the main reason for the lack of use of many of the city parks.

The need for bike trails and hiking trails indicated by the citizen's groups can be met by the development of the earlier mentioned finger system approach along the waterways. The other facilities mentioned such as nature centers, horticultural gardens, swimming areas, etc. would be a part of the major city parks at the ends of the fingers.

In spite of the proportionately large amount of acreage the city has devoted to open space, there are portions of the city that are not serviced by a particular type of park. Major city parks are the most inadequate. The adding of many of the facilities the citizens have suggested would raise the level of some of the neighborhood, community, or undeveloped parks to the major city park level.

Definition of Open Space

Open space, in its broadest sense, includes lands serving important conservation and urban shaping functions in addition to lands providing recreation opportunities. There are three primary functions of open space:

1. The recreation function - the provision of recreation resources which meet positive human needs - both physical and psychological.
2. The protective function - the conservation of valuable natural resources, to enhance and protect the resource base - air, water and plants.
3. The shaping function - the structuring of urban development to form character and quality, a key factor in the efficient use of land.

Open space is undeveloped or predominately underdeveloped land and/or water, which can be either publicly or privately owned and provide either active or passive recreation. The word 'open space' should never be synonymous with vacant or unused land, because open space does not lay idle, but is used and serves important urban functions.

II. EXISTING OUTDOOR RECREATION CONDITIONS

A modern municipal open space recreation system is comprised of several types of areas or properties that differ in function, size, location, service area, and development. A well-balanced open space system is attained only when there is a proper relationship between the number, type, and location of the various recreation areas. After adjusting national outdoor recreation standards to fit local conditions, the principal types of open space categories were established using the following criteria:

A. Playlot

- Size - usually less than one acre
- Desirable ratio - where needed
- Service area - limited
- Location - high density neighborhoods where neighborhood playgrounds are not available for pre-school children, or adjoining school property, or, where feasible, on vacant lots between existing homes where parents can provide supervision.

B. Neighborhood Park or Playground

- Size - 2.75 acres minimum
6 to 15 acres desirable
- Desirable ratio - 1.5 acres/1000 people served
- Service area - .5 mile radius
within walking distance
- Type of facility - active recreation for predominately 5 to 15 age group, not ignoring both younger or older age groups.
- May contain -
 1. Softball
 2. Play equipment for all ages
 3. Multiple use paved area
 4. Open field areas
 5. Some rustic and passive areas
 6. Limited parking

C. Community Park or Playfield

- Size - 7.5 acres minimum
15 to 25 acres desirable
- Desirable ratio - 1.5 acres/1000 people served

- Service area - 1 mile radius
within walking distance or easy
access by bike or car
- Type of facility - active recreation for predomi-
nately 8 to mid 20's age
group, not ignoring both
younger and older age groups
- May contain -
 1. Baseball
 2. Football
 3. Softball
 4. Soccer or field hockey
 5. Tennis
 6. Swimming pool
 7. Playground area
 8. Community center
 9. Some lighted facilities
 10. Parking area

D. Major City Park or Multi-Purpose Park

- Size - 50 acres minimum
over 100 acres desirable
- Desirable ratio - 5 acres/1000 people served
- Service area - 2-3 mile radius
good accessibility by car
- Location - where natural landscape
features exist
- Type of facility - active athletic areas similar
to playfields with at least
1/2 the area rustic to be
devoted to passive recreation
- May contain -
 1. Athletic fields
 2. Swimming pool
 3. Picnicing area
 4. Paths for hiking
 5. Day camp
 6. Winter sports area for
tobogganing
 7. Tennis courts
 8. Off street parking

E. Special Use Parks or Facilities

- Size - varies with function
- Desirable ratio - 2 acres/1000 people served
- Service area - entire urban area
- Location - where special features or need
exists

Type of facility - designed to provide and meet the requirements of a specific, specialized, or single purpose recreational activity

- May contain -
1. Swimming pool
 2. Athletic fields
 3. Arboretums
 4. Tennis courts
 5. Stadiums
 6. Picnic areas
 7. Floral displays
 8. Monuments and memorials
 9. Golf courses

F. Public Green Areas

Description - land set aside for its visual qualities as "green spaces" and/or for the purpose of acting as a buffer between areas of non-compatible use

- Types -
1. Boulevards
 2. Industrial parks
 3. Parkway areas
 4. Park Islands
 5. Triangles
 6. Cemeteries

Open Space Requirements

There are two general standards widely recognized in measuring the adequacy of outdoor recreational areas in a community. The first method for measuring acreage requirements is that there should be 10 acres of open space available per 1,000 residents, of which 1.5 acres should be devoted to both neighborhood and community parks, 5 acres to major city parks, and 2 acres to special use parks and facilities. The second method is that 8 to 10 percent of the land in the community should be devoted to open space.

Illustration 1

OPEN SPACE ACREAGE REQUIREMENTS FOR THE CITY OF FLINT

Method I

Flint population based on 1975 ECHO Survey: 175,003

Neighborhood Parks	1.5 acres/1000 pop.=	262.5 acres
Community Parks	1.5 acres/1000 pop.=	262.5 acres
Major City Parks	5.0 acres/1000 pop.=	875.0 acres
Special Use Facilities	2.0 acres/1000 pop.=	350.0 acres

10.0 acres/1000 pop.=1750.0 acres

Method II

Approximate Flint area (excluding Bishop Airport and Kearsley Lake Reservoir): 30 square miles = 19,200 acres.

10% of city area should be set aside for open space

10% of 19,200 acres = 1920.0 acres

Based on these two methods, between 1750 and 1920 acres devoted to open space/recreation uses should be sufficient to serve all the residents of the City of Flint.

In determining adequacy, the proper composition and distribution of the total open space acreage is just as important as the amount of total acreage. Different types of recreation are required to meet the needs of different population groups; therefore, these areas should be distributed for convenient access to the groups that they are primarily intended to serve.

Illustration 2

ACTUAL ACREAGE OF FLINT'S OPEN SPACE

	<u>Number</u>	<u>Acreage*</u>
Playlots	28	39.25
Neighborhood Parks	39	314.45
Community Parks	14	520.4
Major City Parks	1	57.0
Special Use Facilities (Includes Golf Courses)	15	692.0
Total Open Space	97	1623.1 acres

* The open space acreage figures were obtained from the Flint Department of Parks and Recreation's Index to Properties and Facilities - September 1975, the Flint Board of Education K-12 Physical Facilities Report - September 1975, and ECHO program's Land Use Inventory - June 1976. Some of the figures were adjusted downward to eliminate buildings and parking lots and other areas not used for open space/recreational purposes.

OPEN SPACE ACREAGE BREAKDOWN BY OWNERSHIP

TYPE OF USE	OWNERSHIP			Total Acreage
	City of Flint	Board of Ed.	Private	
Playlot	5.95	29.15	4.15	39.25
Neighborhood Park	188.55	99.4	26.5	314.45
Community Park	409.0	111.4	-0-	520.4
Major City Park	57.0	-0-	-0-	57.0
Golf Course	564.0	-0-	-0-	564.0
Special Use Facility	125.7	-0-	2.3	128.0
TOTAL ACREAGE	1350.2	239.95	32.95	1623.1

PLAYLOTS

Plotting Actual Service Areas

National standards limit the service area of playlots to a one-quarter mile radius. Because the primary purpose of a playlot is to provide pre-schoolers with recreational area, the actual service radius of some playlots were modified to eliminate areas isolated by certain physical barriers. These physical barriers included; rivers, railroad tracks, freeways, 4-lane streets, 2-lane streets with an average daily traffic count over 10,000, golf courses, cemeteries, and industrial and commercial complexes.

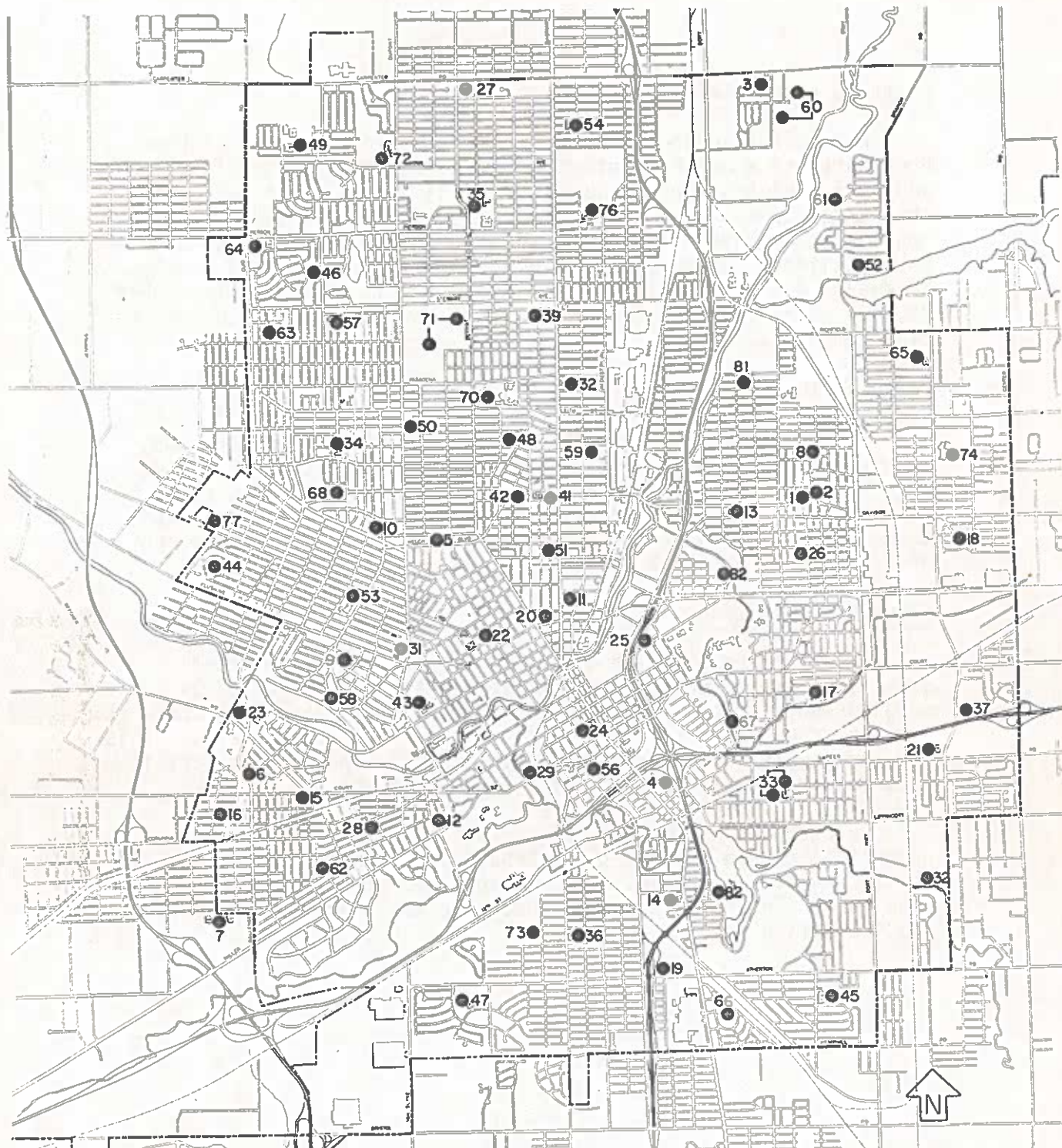
Criteria to Determine Need

No particular service ratio, that is persons per acre, has been established for playlots, either nationally or locally. The only requirement set was that playlots should be located where recreational areas were needed for pre-schoolers.

Adequacy of Coverage

The City of Flint is blessed with a large number of playlots. Several of these playlots are part of neighborhood or community parks and are very complete, while others located on private sites or at primary schools are not much more than one or two pieces of playground equipment. Playlots have a limited service area and should be located where needed. Those areas not serviced by a playlot but with a high percentage of pre-school children would be the logical target areas to locate new playlots.

The playlot map shows the location of the playlots in the city. Planning Districts 1,2,4,5 and 10 have a higher than average percentage of children 0-17 years of age. The demographic data supplied by ECHO (Evidence for Community Health Organization) does not enable us to locate those areas that have a high concentration of pre-school children. However, that information will be available every five years from the U.S. Census Bureau. So it is suggested that when the 1980 census material becomes available for the City of Flint, the areas with a high concentration of pre-school children should be identified. If these areas are not served, priority should be given to them.



PLAYLOTS-CITY OF FLINT

● Refer to Appendix C for Map Index Numbers

THE PREPARATION OF THIS REPORT
 WAS FINANCED IN PART THROUGH
 A COMPREHENSIVE PLANNING GRANT
 FROM THE DEPARTMENT OF HOUSING
 AND URBAN DEVELOPMENT; CPA-MI-
 05-28-0386.

NEIGHBORHOOD PARKS

Plotting Actual Service Areas

National standards limit the ideal service area of neighborhood parks to a one-half mile radius. Since they serve elementary and junior high students, access is still an important factor in the parks usage. So service areas were modified to take into consideration physical barriers which obscured easy access to a park facility. These barriers included; rivers, railroad tracks, freeways, 4-lane streets with an average daily traffic volume over 20,000, golf courses, cemeteries, and major industrial and commercial complexes.

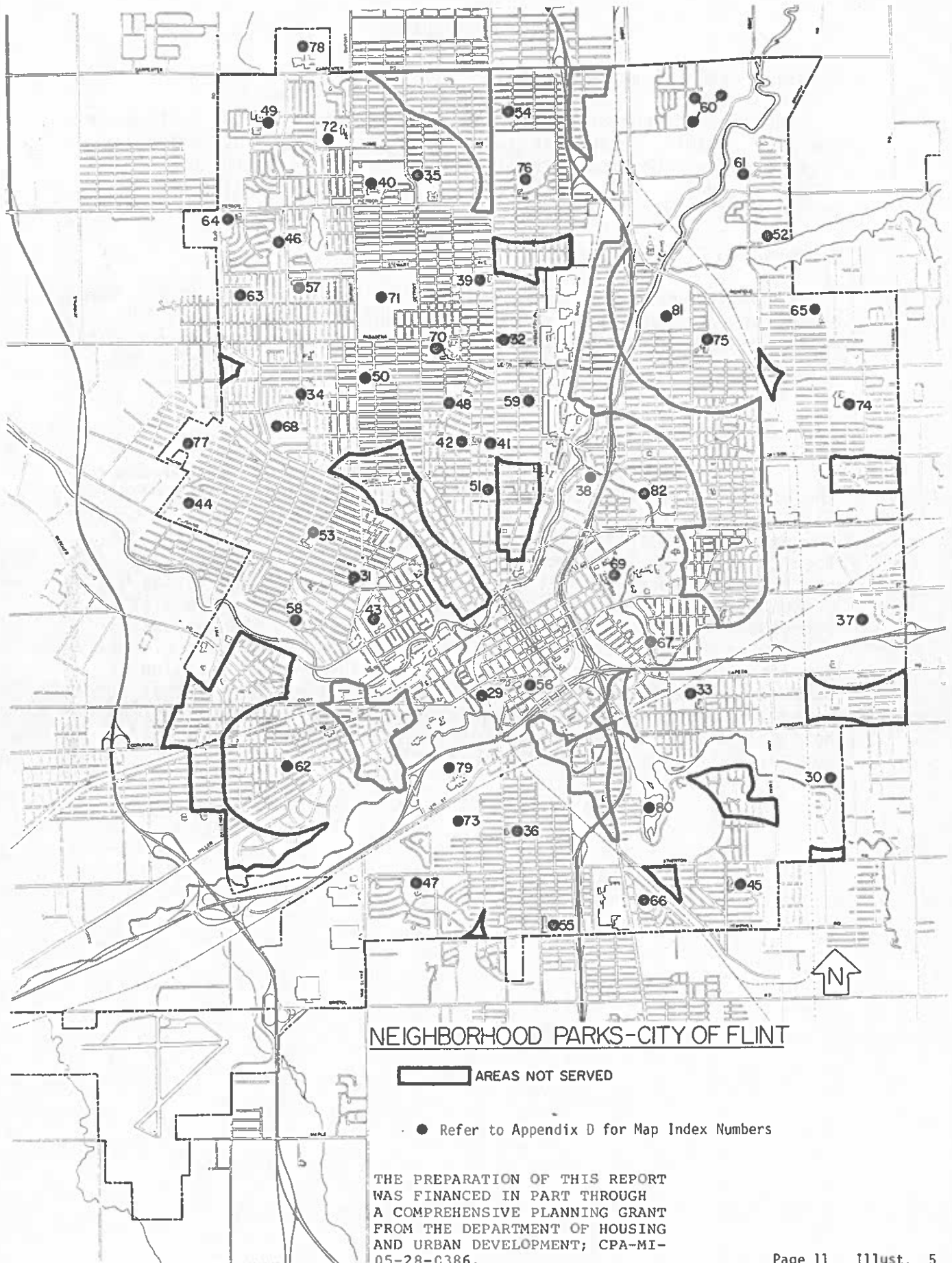
Criteria to Determine Need

According to the criteria we have established earlier, the minimum size of a neighborhood park is 2.75 acres (with the ideal size between 6 and 15 acres). With the desirable service ratio of 1.5 acres for every 1000 persons to be served, it would take an area with a minimum of 2,000 residents to warrant the development of a small neighborhood park.

Adequacy of Coverage

It was found after an inventory of park facilities that several of the planning districts were adequately serviced by neighborhood parks. Adequately serviced simply means that there is a neighborhood park facility within the defined service area. This does not begin to address the level of development of the facility (standard vs. substandard) or the level of usage.

By approaching the park open space issue in this manner, priorities can be set for the expenditure of funds. First priority should be given to those areas not serviced at all by a neighborhood park. Second in priority should be the upgrading of substandard facilities.



NEIGHBORHOOD PARKS-CITY OF FLINT

▭ AREAS NOT SERVED

● Refer to Appendix D for Map Index Numbers

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COMMUNITY PARKS

Plotting Actual Service Areas

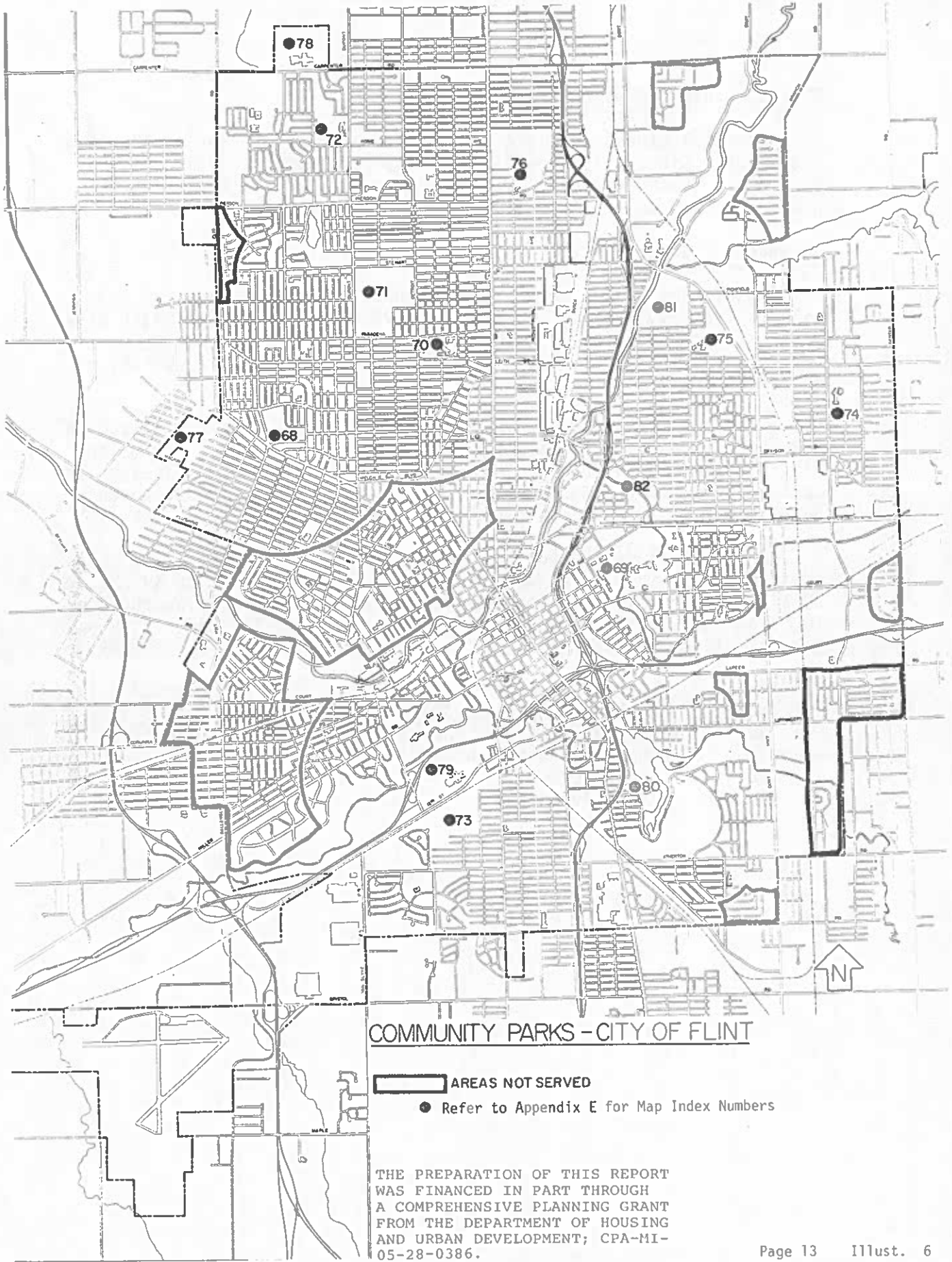
National standards put the service area of community parks at a one mile radius. Because this type of a park is designed primarily to serve an older age group, teenagers and young adults, the problem of access was not as severe. So service areas were left at a one mile radius with no modifications.

Criteria to Determine Need

The minimum size of a community park is 7.5 acres, with the ideal size between 15 and 25 acres. The desirable service ratio is 1.5 acres for every 1,000 persons to be served, so to warrant a community park (even of minimum size) an area should have a minimum of 5,000 residents.

Adequacy of Coverage

Most of the city is served by a community park. If you compare the acreage devoted to community parks to the national standards, Flint has more than enough community park acreage and parks to supply the needs of a city the size of Flint. However, the parks are not located at optimum locations so some residents are serviced by two parks, while others are left unserved. This overlap was caused by two groups (City of Flint and Board of Education) developing facilities independently in some cases and jointly in others. The community school concept pioneered the Board of Education duplication of city facilities and programs. Because of this, the present location of community parks leaves three rather large areas of the city not serviced by a community park. These areas are (see map) northeast of Mott Golf Course, between Mott Golf Course and Swartz Creek Golf Course, and in the southeast corner of the city.



MAJOR CITY PARKS

Plotting Actual Service Areas

National standards place the service area of a major city park at 2-3 miles. Since this type of a park is to serve the entire city or at least a major section of it, no limits were put on the service radius as long as it was easily accessible by car.

Adequacy of Coverage

Major city parks are designed to have a service radius of 2-3 miles. The City of Flint should have 875 acres devoted to major city park use according to the established standards. However, the city currently has only 57 acres devoted to major city parks, excluding undeveloped park land.

Kearsley Park is the only park that is developed and utilized as a major city park. Whaley Park is the closest to reaching the major city park level. With the development of its rustic areas Whaley Park would fulfill the requirements of a major city park. The proposed development of Thread Lake could create another major city park.

A city that is shaped the way Flint is shaped should ideally have a major park to serve each quarter of the city NW, NE, SW & SE with one located near the center to serve an overlap purpose. To be of optimum service and available to everyone, the major city parks could be located near:

NW:	Forrest Park
NE:	Up River or Whaley Park
SW:	Swartz Creek Golf Course, Happy Hollow, South Side Reservoir and Aldridge Park
SE:	Thread Lake
Center:	Kearsley Park

III. EXISTING INDOOR RECREATION CONDITIONS

A recreation system is not limited to outdoor activities only. Indoor facilities are needed to provide several types of recreation, especially in this particular part of the country, if people are to have the opportunity to engage in recreation activities throughout the entire year. In terms of function, they may range from a simple gymnasium to a complex community center offering a wide variety of facilities.

Many of these types of facilities are highly specialized and are designed to serve, not just the neighborhood residents, but also larger sections of the city (and sometimes the entire city). Often recreation buildings are established in conjunction with outdoor recreation areas, to provide either complimentary or supportive types of facilities. Because of the degree of specialization and sometimes close proximity to other types of recreation facilities, no definite standards or requirements have been set.

The major indoor recreation facilities are listed in Appendix L, with a map showing their approximate location in Appendix M.

IV. GOALS AND OBJECTIVES

The main goal of our recreation system is to provide a wide range of recreational activities conveniently accessible to every resident of the city. To meet this goal, several objectives need also to be achieved. A well-balanced recreation system should:

- o serve all age groups
- o serve both sexes equally
- o encourage family recreation
- o provide passive as well as active forms of recreation
- o provide activities for varying degrees of skills
- o provide a variety of activities from athletic to cultural
- o assure safe and healthful conditions
- o be available to all ethnic and economic groups
- o provide continued recreation activities throughout the entire year
- o place recreation opportunities within the financial capabilities of the people
- o be sensitive to the changing conditions and needs of the community

V. OVERALL RECREATION POLICY

All city owned and maintained parks are protected by the City Charter. Under this charter provision, dedicated park land cannot be diverted from park use without a vote of approval by the people of the City of Flint in a general election. Other private or school parks do not have charter protection and can be eliminated or closed to the public at any time. The assured continuance of city parks is an important element when considering long term open space needs in the city.

The removal of any park from the park's inventory list could have a profound effect on the overall parks' needs of the city. On the other hand, the removal of a facility may have very little or no effect if it happens to be in area with a high level of duplication and overlap of park services.

With regards to long range planning, the assumption must be made that most of the privately owned and school parks will remain in existence and remain available to the public. From this assumption, the first priority for new park expenditure would be those areas which are not served by any park.

Those areas throughout the city that are not currently being serviced were identified and are represented by the shaded area on the maps. These areas should be considered first for the expenditure of open space/recreation money if our overall goal is to serve all residents with each particular type of facility.

Of these areas not served, the first priority should be given to those areas that have the greatest need. The criteria for need should

Those areas throughout the city that are not currently being serviced were identified and are represented by the shaded area on the maps. These areas should be considered first for the expenditure of open space/recreation money if our overall goal is to serve all residents with each particular type of facility.

Of these areas not served, the first priority should be given to those areas that have the greatest need. The criteria for need should be based on: (1) current and projected population for the area, (2) the age composition in the area, (3) the future land use of the area, (4) the housing conditions of the area, (5) average residential lots size in the area, (6) median income of area residents, and (7) the stability of the neighborhood.

Many of these areas can be serviced through one of the following methods: A) major land acquisition for development of new facilities; B) upgrading lesser level facilities; or C) innovative approaches such as mobile parks, vest pocket mini parks. Attempts should be made to preserve existing housing stock; in other words, no major relocation or demolition is recommended to provide park land. When no land is available, other innovative approaches will have to be developed.

The level of development of each individual park is another important aspect of the overall city open space/recreation policy. For example, some playlots are nothing more than a monkey bar in the paved area of a parking lot while others have a wide variety of "playground" equipment in a fenced-in green area. Both are shown on the inventory as a playlot, although one is certainly of more use to the neighborhood than the other. It is important, therefore, to look at the facilities available to gain some idea of how adequate a particular park is.

The problem of ownership arises in the area of park development because there is little that can be done to force a private park owner to further develop his park for the benefit of the entire City. This is why most future developments will have to take place on municipal or Board of Education property so the public will always have access to this land.

A study of existing parks has revealed that several parks have the potential (as far as land available) to be expanded. To develop and offer new facilities, therefore, would upgrade the parks classification and increase the number of people served.

VI. RECOMMENDATIONS

The specific recommendations contained in this Open/Space Recreation Element were arrived at by input from several sources. All through the summer of 1976, meetings were held with citizens from each of the 12 planning districts in the city, who identified goals and objectives for each particular district. The citizens also completed a questionnaire on recreation facilities within the city. The specific goals identified by the citizens and the results of the questionnaire were used to help compile the overall city recommendations. Meetings were held during 1976 and 1977 with the Recreation and Parks Department of the City of Flint, the Flint Board of Education, and the Flint Planning Commission to gain input on the recreation element and to help reach the overall recreation recommendations presented in this section.

- o emphasis should be placed on the designation of water areas as public open space area
- o a high priority of public recreation expenditures should be placed on park maintenance
- o the feasibility of a differential rate schedule should be investigated, that is the charging of higher rates to non-city residents for the use of city facilities or programs where fees are charged
- o the people who participate in recreational activities should be given a share in the planning and control of recreational activities and facilities (i.e., through user surveys)
- o recreational programming by the city should be coordinated with the programming of other agencies
- o recreation areas should be pedestrian orientated, that is safe and easy access to parks should be provided
- o adequate open space should be provided to buffer non-compatible land uses
- o an evaluation and monitoring system of facilities will be developed to rate parks within each classification to show levels of development, to be used as an indication of where monies are spent

BIBLIOGRAPHY

The standards used for the park area classification for the City of Flint are based on the figures and criteria recommended by the following sources:

1. Anatomy of a Park, Albert J. Rutledge, 1971
2. Elements of Park and Recreation Administration, Charles E. Doell, 1963
3. Regional Wide Recreation Planning, Michigan State University, 1970
4. The Language of Open Space, the Department of Research and Planning - The City of Duluth, 1975
5. Urban Planning and Design Criteria, Joseph DeChiara and Lee Koppelman, 1969

INVENTORY - OUTDOOR RECREATION

The following lists are not meant to be an exhaustive inventory of land that would fall under the criteria of open space, but only an attempt to list the major tracts of land that are primarily used for recreational purposes.

A large park, such as a community park, may contain a smaller park or playground within its boundaries. If this is the case, the park will be listed only under its highest classification. However, when needs for a particular neighborhood were investigated, all smaller parks within larger ones were distinguished separately.

ALPHABETICAL CODE INDEX TO FACILITIES

A	Airplane circle	R	Rest room available
AC	Arts & Crafts Building	RB	Rest room building
B	Baseball	RT	Running Track
Bb	Basketball	S	Outdoor Swimming Pool
Bh	Bath house	Sa	Sand Box
B1	Bowling	Sb	Softball
C	Clubhouse	Sh	Shuffleboard
CC	Community Center	SI	Indoor Swimming Pool
DF	Drinking Fountain	SIO	Indoor-Outdoor Swimming
DH	Soap box derby hill	SL	Sliding Hill
F	Fishing	SM	Snowmobiling
FB	Football	So	Soccer
FT	Field and Track	St	Storage Building
G1	Golf Course - 9 hole	SV	Safetyville (Kiddie Car Track)
G2	Golf Course - 18 hole	T	Tennis
G3	Golf Course - Par 3	Tb	Tetherball
H	Horseshoe Court	To	Tobogganning
I	Ice Rink - Artificial	U	Undeveloped Land
IN	Ice Rink - Natural	V	Volleyball
LB	Lawn Bowling	W	Water Body
MB	Maintenance Building	+	Sports Lighting
P1	Picnic shelter	()	Area not included in acreage totals
P2	Picnic grills	*	Acreage figure is an estimate. Area not devoted to open space, such as buildings and parking lots, were planimetered off aerials and subtracted from the total acreage of the site.
P3	Picnic tables		
Pg	Playground		
Pk	Parking		
Ps	Park/School site		

PLAYLOTS

Map Index Number	Planning District	Name	Ownership**	Facilities Available	Park Acreage
1	8	Amos Triangle	C.O.F.	Bb	.25
2	8	Beechwood Playground	C.O.F.	V	0.25
3	3	Carpenter Elementary	B.O.E.	Pg, Pk	2.0*
4	9	Clark School	B.O.E.	B, Sb, P2, P3, Pk	0.7*
5	7	Cook Elementary	B.O.E.	Bb, Sb, Pg, Pk	1.4*
6	12	Coolidge Elementary	B.O.E.	Bb, Sb, Pg, Pk.	1.2*
7	12	Cummings Elementary	B.O.E.	Pg, Pk	0.4*
8	8	Delaware Playground	C.O.F.	Bb, Pg	0.25
9	6	Donovan South Middle School/Mayotte Primary School		Bb, Pg, Pk	0.25*
10	6	Dougherty Playground	C.O.F.	Bb, Pg, V	1.0
11	5	Doyle School	B.O.E.	Pg, Pk	0.7*
12	7	Eisenhower Elementary	B.O.E.	Sb, Pg, Pk	3.2*
13	8	Homedale Elementary	B.O.E.	Bb, Sb, Pg, Pk	1.6*
14	11	Lincoln Elementary	B.O.E.	Sb, Pg, Pk	1.9*
15	12	Mann Hall Playground	C.O.F.	Bb, P2, P3, Sa	1.0
16	12	McCallum Playground	C.O.F.	Sb, Bb, IN+, Pg, Tb	1.25
17	9	Pierce Elementary	B.O.E.	Pg, Pk	2.1*
18	8	Polk Playground	C.O.F.	Pg	0.25
19	11	Redeemer School	P.	Bb, Sb, Pg, Pk	1.9*
20	5	School of Choice	B.O.E.	Bb, Pk	0.25*
21	9	Scott Elementary	B.O.E.	Bb, Sb, Pg, Pk	7.4*
22	7	Stevenson Elementary	B.O.E.	Bb, Pg, Pk	0.5*

**C.O.F. - City of Flint, Department of Parks and Recreation

B.O.E. - Board of Education, Flint School District

P. - Privately Owned and Operated, Open to Public

PLAYLOTS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
23	12	St. Pauls Church/School	P.	Sb,Pg,Pk	1.6*
24	7	Valley School	P.	Bb,Pg,Pk	0.4*
25	8	Walker Elementary	B.O.E.	Pg,Pk	0.8*
26	8	Washington Elementary	B.O.E.	Bb,Sb,Pg,Pk	1.8*
27	2	Wilkins Park (Wilkins Elementary)	C.O.F. B.O.E.	Sb,Bb,Pg Pk	1.7 1.0*
28	12	Zimmerman Junior High	B.O.E.	Sb,Pk	2.2*

TOTAL PLAYLOTS 28

39.25
acres

APPENDIX D

NEIGHBORHOOD PARKS

Map Index Number	Planning District	Name	Ownership	Facilities Available	Park Acreage
29	7	Aldrich Park	C.O.F.	Bb,Sb,Pg,In,V,W,	9.2
30	10	Atherton East P.S. (Manley Elementary)	C.O.F. B.O.E.	Sb,Pg,P1 Bb+,Sb+,Pk+,T+	10.0 4.1*
31	6	Ballenger Park	P.	Bb,Sb,I+,T+,Pg,Mb Of,V,P3	9.6
32	2	Berston P.S. (Parkland Elementary)	C.O.F. B.O.E.	Bb+,CC,H,Pg,Pk,R S,Sb,T,Tb,V Pk	6.0 0.6*
33	9	Brennan P.S. (Stewart Elementary)	C.O.F. B.O.E.	Bb+,Sb,CC,P2,P3,Pg, IN,T,V,DF,Fb,H,Sa PK+,DF,Pg	14.4 2.1*
34	6	Civic Park Elementary	B.O.E.	Sb,Bb,Pg,P3	4.8*
35	2	Clara Hilborn P.S. (Bryant Jr. High/ Pierson Elementary)	C.O.F. B.O.E.	Sb,Fb,H,P1,P2,P3, Pk,Pg,T+ Sb+,Bb+,Pg,Pk+	8.0 2.5*
36	11	Cody Elementary	B.O.E.	B,Bb,Sb,Pg,Pk	6.9*
37	9	Cook Park	C.O.F.	Bb,DF,H,P1,P2,P3 Pg,Pk,Sa,T	18.0
38	8	Dayton Park	C.O.F.	Sb,Fb,IN,Pk	7.8
39	4	Dewey P.S. (Dewey Elementary)	C.O.F. B.O.E.	B+,Sb,Df,P1,P2,P3 Pk,Pg,Sa,T,V,H,IN,Sh Sb,Pk,Pg	4.5 2.3*
40	2	Donovan North Middle School/ Maurice Olk Primary School	P.	Bb,Sb,RT,Pk	14.8*
41	5	Dort P.S. (Dort Elementary)	C.O.F. B.O.E.	Sb,IN+,Fb Pk, Bb	2.4 1.2*
42	5	Durant Park	C.O.F.	Bb+,Sb,Pg,T,Tb,V,R,ST	2.9
43	7	Durant-Tuuri-Mott	B.O.E.	Bb,Sb,Sa,P3,Pk,Sa Pg,SL	15.8*

PLANNING DISTRICT 4

Planning District 4 has shown some stability through the past few years. It has gained about 500 residents since 1970, despite its rather high vacancy rate (10.2%). This district shows a high percentage of children (0-17 years) 42% and a higher than average household size of 3.45. However, all residents are within the service area of a neighborhood park except for a 1/2 block area in the NE corner of P.D. 4. This area is too small to warrant a neighborhood park.



AREA NOT SERVED

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P.D. 4
 NEIGHBORHOOD PARKS



PLANNING DISTRICT 5

Planning district 5 has shown a slight decrease in population (about 500 people), since 1970. Many of these can be attributed to the clearance of the Doyle area. Planning district 5 has a vacancy rate of approximately 14%. The demographic data indicates that there are more children per household than most other planning districts, while this district has less than 8% of the population over 60 years of age.

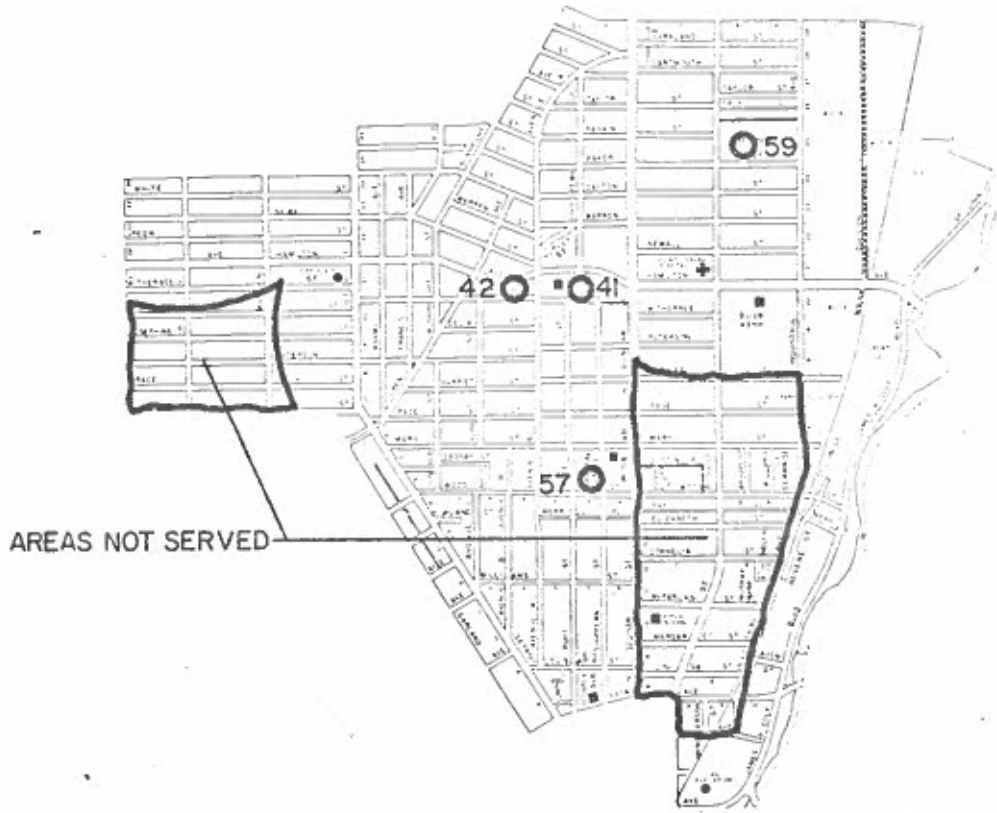
Areas not served in P.D. #5

I. West side

- A. Size of area 10 blocks; however, it abuts areas not served in P.D.'s #6 and #7 approximately 45 more blocks with a total population of approximately 4,000 residents
- B. The size of the area in all three P.D.'s would warrant a neighborhood park in the area

II. South central (Harriet, 5th Avenue, Saginaw, Industrial)

- A. Size of the area approximately 8 acres
- B. Over half of the area is part of the Doyle redevelopment project, and that area has no residents at this time
- C. When the project is completed, there will be the need for a neighborhood park to serve the Doyle residents and those people to the north



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P.D. 5
 NEIGHBORHOOD PARKS

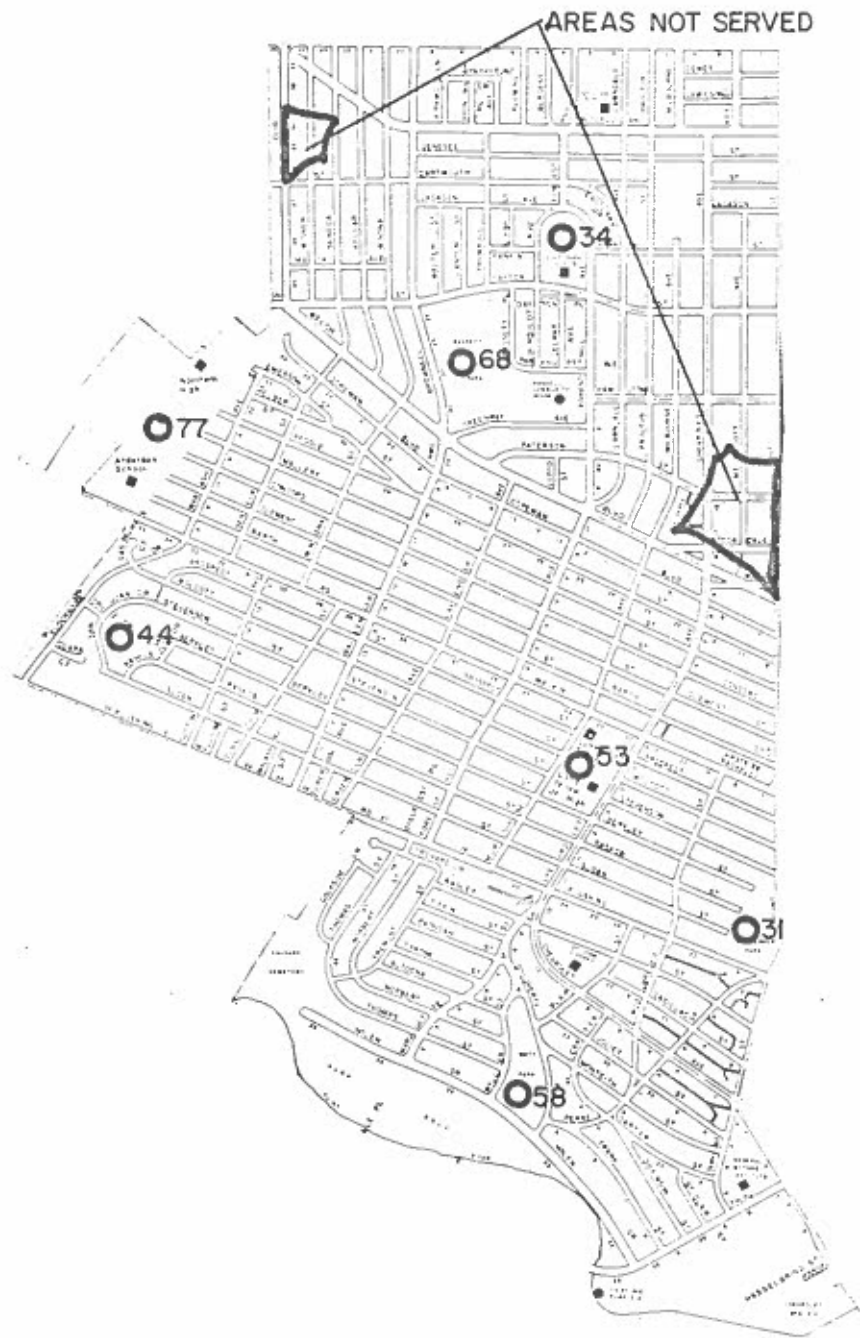


PLANNING DISTRICT 6

Planning district 6 has shown a slight decrease in population - down approximately 800 since 1970. The district has a vacancy rate of just over 5%, one of the lowest in the City. The demographic data indicated that there are 33% children, while 15% of the population is over 60 years.

Areas not serviced

- I. East side; abuts west side of P.D. #5; see P.D. 5 for details
- II. Northwest corner
 - A. Size of area approximately 1 block
 - B. Too small to warrant park



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P. D. 6
 NEIGHBORHOOD PARKS

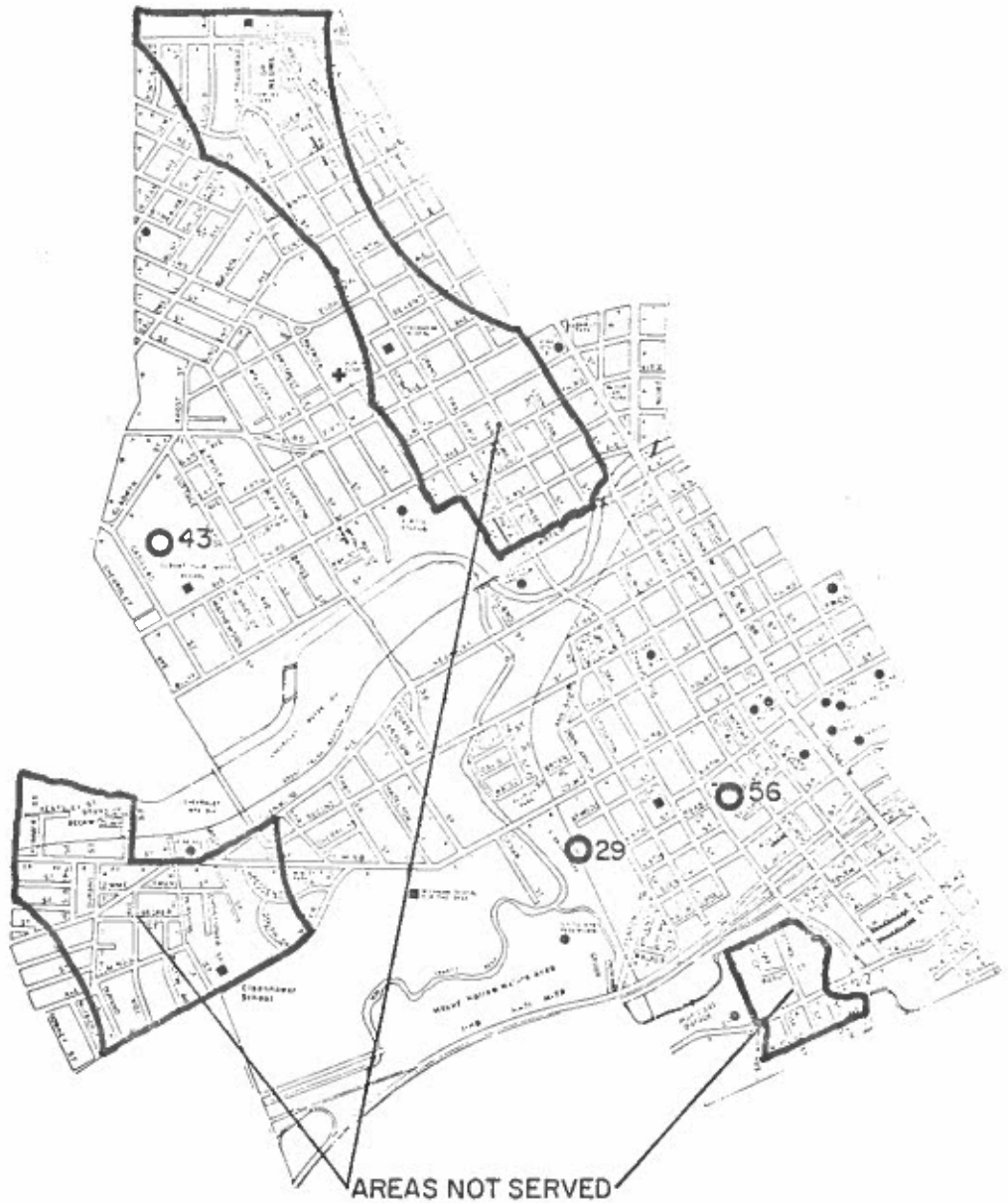


PLANNING DISTRICT 7

Planning district 7 has shown the largest decrease in population since 1970 of nearly 5000 people. About half of the loss can be attributed to an increase in vacancy rate from approximately 7% in 1970 to over 20% in 1975. The other can be attributed to spot clearance throughout the district. The demographic information indicates that P.D. #7 has one of the lowest average household size in the City. The district has a slightly higher percent of over 60 year olds (14.3%) and a slightly lower percent (30.4%) of children under 18 than the City average.

Areas not served in P.D. #7

- I. Southeast corner
 - A. Size - isolated pocket of approximately 6 blocks that has no facilities; pocket may be acquired if Ann Arbor Yards expand. (See plan for NDP-4 Grand Traverse South Urban Renewal District).
 - B. Size of area does not warrant its own facility
 - C. Innovative approach or development of creek way (bike trails to connect to other facilities)
- II. North central: abuts the west side of P.D. #5 (See P.D. #5 for details).
- III. Southwest corner
 - A. Size over 20 blocks; population approximately 1000
 - B. Size of area and number of people do not warrant a neighborhood park
 - C. Area abuts an area not serviced in P.D. #12 of approximately 10 blocks and 200 residents
 - D. Possible solution - innovative approach
 - E. Consider park acquisition at time work on Dupont-Hammerberg connector work begin



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P.D. 7 NEIGHBORHOOD PARKS



PLANNING DISTRICT 8

Planning District 8 has shown a decrease in population since 1970, down approximately 1,500. There is a vacancy rate of 4.3% while other demographic data is consistent with the city average.

Areas not served in P.D. #8

I. North side

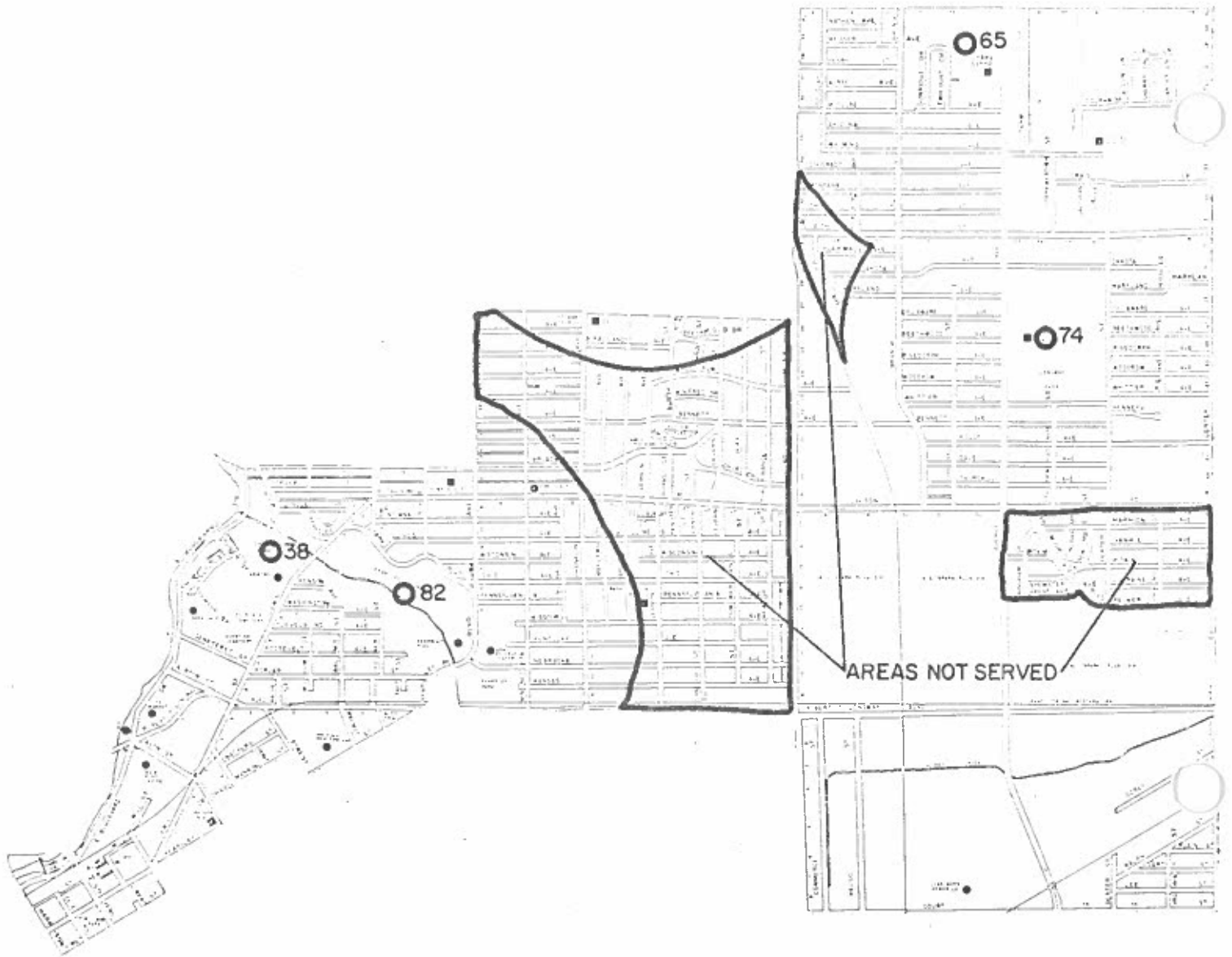
- A. Size of area approximately 4 blocks, population approximately 200
- B. Size of area and population do not warrant neighborhood park
- C. Possible solution - innovative approach

II. East side

- A. Size of area approximately 20 blocks, population 200
- B. Size and population do not warrant neighborhood park
- C. However, area is totally isolated, vacant land not available
- D. Possible solution - innovative approach to avoid clearance

III. Central

- A. Size of area approximately 70 blocks, population 3,500
- B. Size and population warrant a neighborhood facility
- C. Upgrade lesser facility or innovative approach since no land is available



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P.D. 8
 NEIGHBORHOOD PARKS



PLANNING DISTRICT 9

Planning District 9 has shown a decrease in population since 1970, of approximately 1,800. There is a vacancy rate of approximately 8% - about average for the City. The area has a lower number of children (27.0%) than other P.D.'s in the City and a higher than average percent of over 60 year olds (20%).

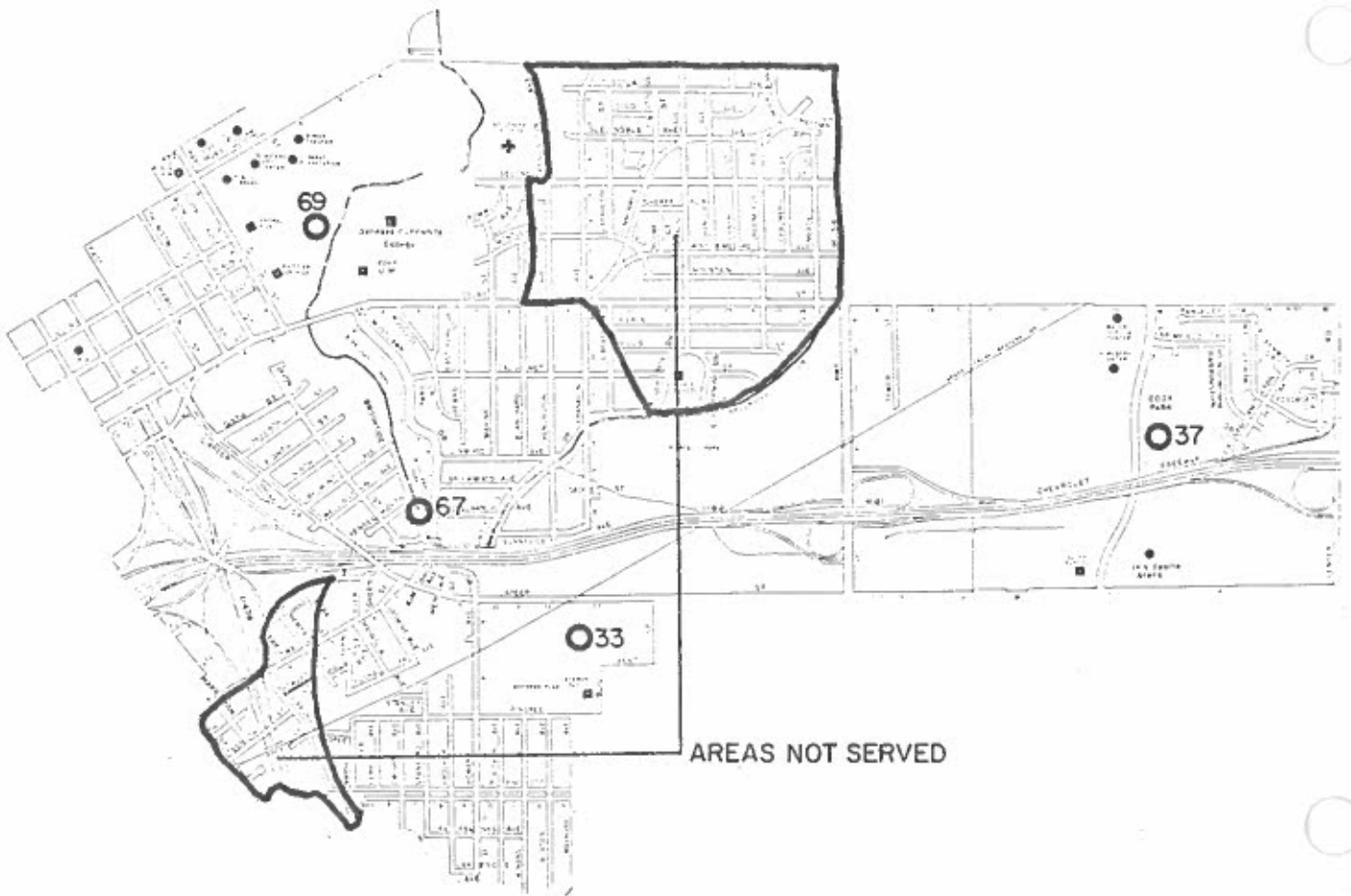
Areas not served in P.D. #9

I. North side

- A. Size - approximately 50 blocks, population approximately 2,500
- B. Size and population warrant a neighborhood facility
- C. There is little vacant land in area
- D. Possible solution - innovative approach or upgrading lesser facilities

II. West side

- A. Size approximately 6 blocks, population approximately 800
- B. Size and population do not warrant a neighborhood park



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P.D. 9
 NEIGHBORHOOD PARKS

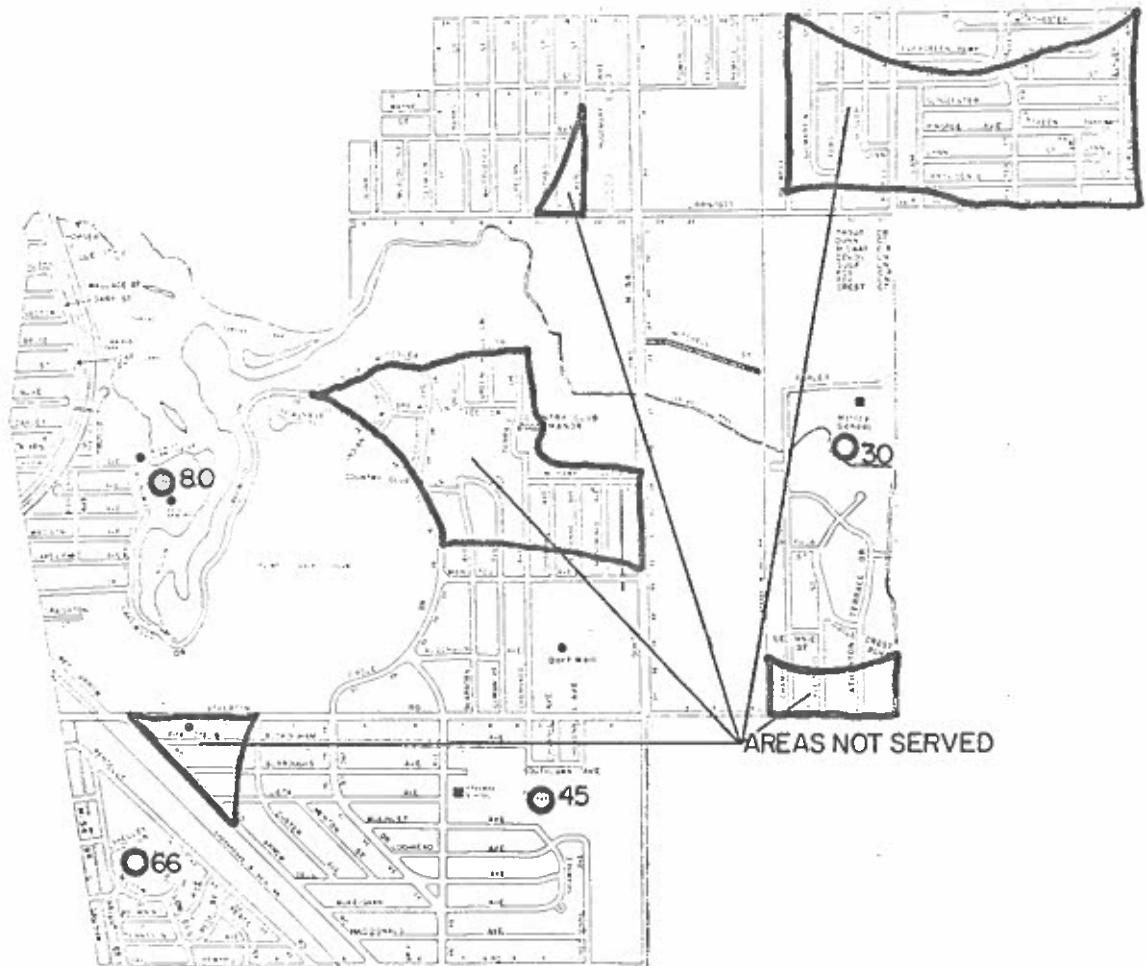


PLANNING DISTRICT 10

Planning District 10 has maintained a stable population since 1970, with a vacancy rate of 9.0%. There are over 40% children in this district while only 7.7%, 60 year olds and over.

Areas not served in P.D. #10

- I. Northeast side
 - A. Size approximately 20 blocks, population approximately 2,000
 - B. Size of population warrants a neighborhood park
 - C. Vacant land not available
 - D. Possible solution - innovative approach or upgrading lesser facility
- II. Northwest corner
 - A. Size approximately 1 block
 - B. Too small to warrant park
- III. Central
 - A. Size approximately 10 blocks, approximate population 1,000
 - B. Size and population do not warrant neighborhood park
- IV. Southeast corner
 - A. Size approximately 1 block
 - B. Too small to warrant park
- V. West side
 - A. Size approximately 3 blocks
 - B. Too small to warrant park



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P.D. 10
 NEIGHBORHOOD PARKS



PLANNING DISTRICT 11

Planning District 11 has shown a decline in population since 1970 of approximately 2,500, or about an 18% decrease. P.D. #11 has a vacancy rate of approximately 4.4%. The demographic data indicates that in this district there is over 20% elderly population (highest percent in the City), and there is a low percent of children age 0 - 17 (28.2%).

Areas not served in P.D. #11

I. Northeast corner

- A. Size of area approximately 13 blocks, and population of approximately 500
- B. Size of area and population do not warrant neighborhood park
- C. The high concentration of elderly would suggest an innovative approach to service their needs
- D. Areas along Thread Creek could be used for an innovative approach

II. South side

- A. Area approximately 1 block
- B. Too small to warrant park

PLANNING DISTRICT 12

Planning District 12 has shown a decrease in population since 1970, down approximately 1,600 or 14%. The vacancy rate of 4.5% is one of the lowest in the City. The demographic data shows the smallest average household size in the City, (2.53%) a high percentage of elderly, (19.1%) and a low percent of children 0 - 17 years, (24.1%).

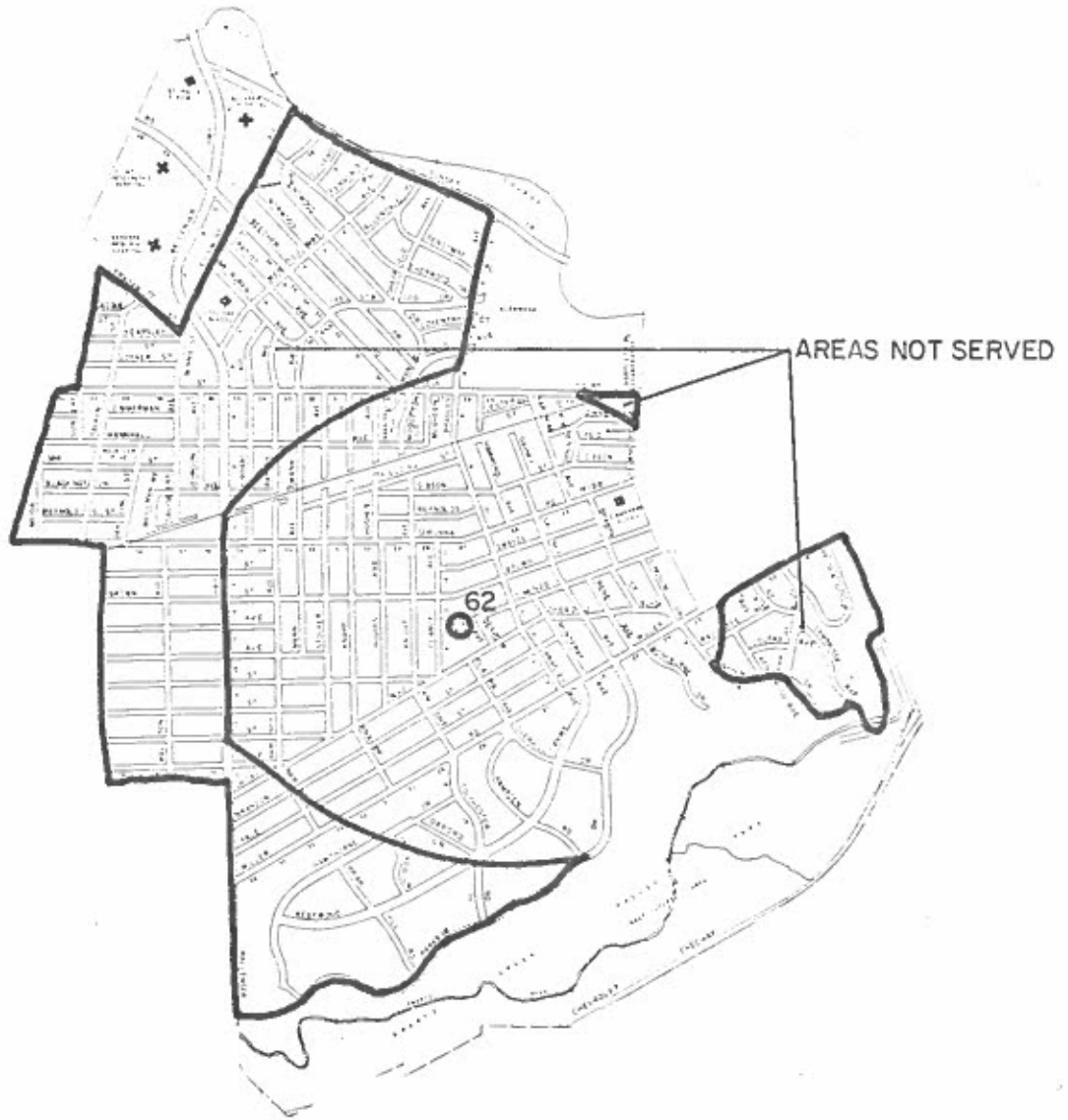
Area not served in P.D. #11

I. West side

- A. Size of area approximately 1/2 of P.D. #12, approximate population 4,500
- B. Size and population of area warrant a neighborhood park; however, the low percent of children (24%) and the low average household may indicate that a traditional neighborhood park may not be necessary.
- C. Possible solution - innovative approach
- D. There are several special use facility and greenspace in area

II. East side

- A. Size approximately 10 blocks and 200 residents
- B. Abuts area in P.D. #7, see P.D. #7 for details



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P.D. 12
NEIGHBORHOOD PARKS



INVENTORY - INDOOR RECREATION

Following is a list of the major indoor recreation facilities. The list is divided by the type of activity that takes place. Therefore, some facilities that have multi-uses, will be listed more than once. These facilities are scattered throughout the city and provided by public, school, and commercial agencies.

SWIMMING POOLSMap Index
Number

1	Central High School
2	Durant-Tuuri-Mott
3	Durham Pool
4	Emerson Intermediate School
5	Haskell Community Center
6	Northern High School
7	Northwestern High School
8	Southwestern High School
9	YMCA
10	YWCA

SWIMMING POOLS - INDOOR/OUTDOOR

11	Kennedy Park/School
12	Whaley Park/School

BOWLING ALLEYS

13	Dort Bowl	48 lanes
14	Eastown Bowl	24 lanes
5	Haskell Community Center	6 lanes
15	Merry Inn	4 lanes
16	Panorama Lanes	40 lanes
17	Skyway Lanes	40 lanes
18	West Lanes	40 lanes

THEATRES

19	Capital Theatre
20	Flint Cinema
21	Small Mall Cinema I
21	Small Mall Cinema II

COMMUNITY CENTERS

22	Berston
23	Brennan
5	Haskell
24	McKinley
25	Pierce Park

CLUB HOUSES

Map Index
Number

26	Kearsley Golf Course	}	adjacent to golf courses
27	Mott Golf Course		
25	Pierce Golf Course		
28	Swartz Creek Golf Course		

BATH HOUSES

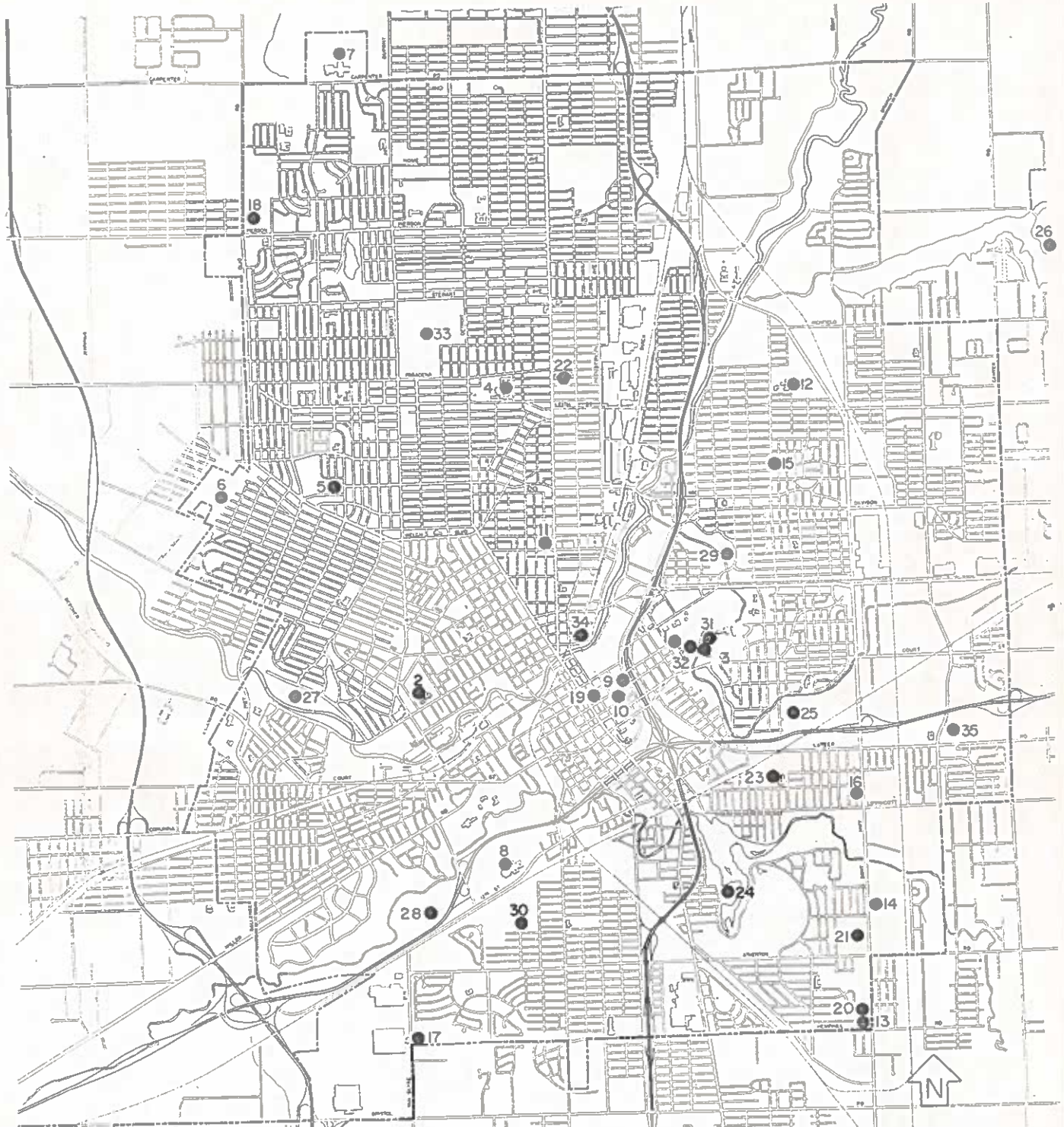
29	Kearsley	}	adjacent to swimming pools
11	Kennedy		
30	Lincoln		
12	Whaley		

GYMNASIUMS

All Flint Board of Education schools have at least one gymnasium.

OTHERS

- 31 Ballenger Field House - used primarily for basketball, paddleball, and educational activities.
- 32 NAP Lavoie Field House - used for basketball and swimming.
- 33 Forest Park - pavilion
- 34 IMA Auditorium - used for basketball, special events.
- 35 IMA Hockey Arena - used for hockey and free skating, also a facility for special events.



INDOOR RECREATION FACILITIES-CITY OF FLINT

● Refer to Appendix L for Map Index Numbers

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6

PUBLIC / COMMUNITY FACILITIES

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
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PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: PUBLIC AND COMMUNITY FACILITIES OF FLINT

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ABSTRACT: THIS REPORT WILL DEFINE AND OUTLINE PUBLIC AND COMMUNITY FACILITIES, CATALOG AND INVENTORY THOSE DEEMED TO BE OF PRINCIPAL SIGNIFICANCE, CITE CURRENT AND PROJECTED LAND USE NEEDS, AND PRESENT RELEVANT DISCUSSION OF SPECIAL CONSIDERATIONS. DEFICIENCIES ARE GENERALLY GIVEN AS RECOMMENDATIONS. THE REPORT GIVES PRIMACY TO EDUCATIONAL AND HEALTH CARE FACILITIES ESPECIALLY THE LARGER INSTITUTIONAL COMPLEXES HAVING MAJOR IMPACTS ON COMMUNITY RESOURCES.

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I. INTRODUCTION

Public facilities represent a basic function of local government; that of providing essential and certain desirable services to citizens. Municipal facilities probably began with the town pump; the water works; a lake or riverfront pier; the railroad station; town hall and a jail. Such facilities are now covered by other 701 elements. This element, therefore, deals with a broader definition of such facilities, community rather than public, and further expands this to include many quasi-public facilities as well. The traditional definition of public facilities now seems to be too narrow, that of public-owned facilities for public use. Because of changing land use patterns, public ownership no longer seems to be necessary, just as public access and use is qualified and restricted. Services, importantly, have greatly increased. Therefore, facilities and their ownership, become minor in importance. A more workable definition, simply, is: facility-based services acting for the general public benefit. Land use is considered critical to the physical land use orientation of 701.

These principal categories are covered: Education; Health; Welfare; Protection; and Cemeteries.

Public or community facilities are included within the overall 701 process because of several prime considerations:

Such facilities are major consumers of urban land. In periods of economic depression, the development and expansion of public facilities, along with other public works, is often a principal economic generator in the City. It is, therefore, useful to have plans for such facilities' renovation or expansion. In periods of affluence, these facilities are often favored with both private and public funding support. Staged development plans are, therefore, useful to have available at all times.

The growth or other change of such facilities can be a major influence in the influencing of development in other quarters or the support of continuing development of land in the City. In Flint in recent years, the downtown riverfront university campus donation and collateral development, is a good example of such synergistic activities.

A substantial investment of public funds is usually required for public or community facilities. The character and location of facilities must be optimized relative to the comprehensive design for community development if invested funds are not to be wasted.

Finally, although the historic thrust of public facilities and other government and quasi-public development has been in response to the pressures of growth, and to change within a broad pattern of growth, a counter-force has been developing. This is manifested as the reduced use of facilities such as schools, and is presumed to be an essentially short term problem. However, whatever the causes and time impact, negative growth factors must be addressed until population stabilization is achieved.

II. GOALS AND OBJECTIVES

The principal goal of studying community facilities is to assure the availability of adequate public and communities facilities to serve properly the populations of various neighborhood areas within the City of Flint; also to promote optimal location of facilities in accordance with authorized land use plans of such facilities, in order to maximize accessibility and service utility to the community.

The objectives of this section's study tasks cover two levels: The generalized objectives for overall guidance of the activities, as are listed here; plus specialized objectives that specifically relate to each section, and are stated with each, along with existing, projected conditions, and recommendations.

III. EDUCATION - COMMUNITY SCHOOLS

A. Introduction

This study will inventory the principal and important school facilities at all levels. Where appropriate, minor facilities will be combined for analysis and treated as a group. Two general groupings were found to contribute the greatest impact to the community, partly because of their size and partly because of their intimate relationships to not just the youth, but all age categories within and around the city:

- o The Flint Community School System - K-12 (Kindergarten to 12th grades)
- o The Post-Secondary System--2 and 4 yr. institutions, or Mott Community College and the University of Michigan-Flint

The study will identify the most important apparent physical impact that these schools and systems are having and predictably will have in the immediate future (a short-term assessment or one anticipating known activities covering approximately five years). As the recommendations and collateral discussions will indicate, these cover two problem areas relative to the two systems:

- (1) Flint Community Schools (K-12) will not grow and are faced with a winding down process which has begun with the closing of some center city schools and will result in the closing of others. The problem is essentially that of continued use and or re-use of such facilities no longer operated as system schools.
- (2) The post-secondary schools, essentially the college and university, are entertaining some growth and major change in their facilities. For Mott College, this is mainly physical changes within their existing campus plus a new extended facility. For the University of Michigan-Flint, there are changes within the campus that they currently share with the College, plus construction continuing at their new riverfront campus located in downtown Flint. Both institutions, however, are relatively close to each other and will impact upon transportation within the area.
- (3) This study will also provide limited assessments of the performance and role of the schools in the community, and suggest special localized needs largely based on a changing population mix. The impact of transporting public K-12 students is too new to assess, but it is important to note that City schools are in process of great change, partly because of rising federal intervention.

B. Goals and Objectives

The general goal of the educational system is to provide adequate educational services to meet the community's social, cultural and vocational, as well as academic needs. The goal of this study is to assess its physical impacts. Since educational facilities require space and must also be located within reasonable proximity of the neighborhood population that facility is to serve, evaluation of site (or campus) and its location are appropriate.

Post-secondary institutions are those schools operating above and beyond the high school level. They exist to meet several specialized needs, primarily academic and vocational, but covering a range of training services. Since post-secondary schools tend to serve metropolitan areas and regional population, the plant locations are important because of their impact on local transportation, streets, and highway systems, and on contiguous neighborhoods. Large schools also consume large amounts of land and have tended to increase their land consumption.

This study has these objectives:

1. To outline and identify the physical facilities of the existing public school system from K-12 Flint Community Schools, to public post secondary.
2. To evaluate the adequacy of each community school site and the location within its service area as formally designated by the Board of Education.
3. To estimate the adequacy of local public schools in terms of current needs indicated by demographic data and also future needs which these limited demographic projections suggest.
4. To indicate uses and alternatives uses of school facilities including the campuses of local community schools.
5. To identify the apparent physical impact that either the current or planned facility may have in other areas such as transportation and street circulation, beyond land use.
6. To identify and briefly discuss the role of non-public schools and facilities within the City of Flint.

History

The first school in Flint was private. The Irish schoolmaster, Daniel O'Sullivan, arrived at the Flint River settlement in 1834 and began teaching twelve children in a little cabin near Thread Creek. That same year, the first white child was born in

this settlement surrounded by Indians. In 1836, the first school-house was opened, and ten years later the first permanent brick structure, McFarlan School, was built.

Michigan School for the Deaf was founded by the State Legislature in 1848 and in 1854 received its first student. By 1873, the cornerstone for the first high school was laid and the Flint High School was dedicated two years later. In 1923, Flint High School had a replacement which was renamed Central High; then Northern High School was opened in 1928. Southwestern was completed in 1958, and Northwestern in 1964.

The oldest surviving elementary school structure, Doyle, was built in 1902 on the near north side, which was closed in 1974 because of declining enrollment. The next oldest, Oak, built in 1908 was closed in 1976 for similar reasons. Parkland, built in 1914, was also closed in 1976.

C. Existing Condition

There are two established approaches to evaluating the physical plant in terms of adequacy: Campus size and distance from home (or commuting time if transported). How do Flint Community Schools measure up to these standards? Flint Community Schools often do not appear to conform to site size recommendations. The schools exceeding minimum sizes are, in many cases, shared sites, often integrated as community parks and open space. Older schools have the smallest sites (e.g., Oak's 1.4 acres).

Campus Size

<u>School Level</u>	<u>Minimum Size</u>	<u>Enrollment**</u>	<u>Recommended Size</u>
Elementary	10 acres plus*	800 pupils	18 acres (for 800 acres)
Junior High	20 acres plus*	1200 pupils	32 acres (for 1200)
Senior High	30 acres plus*	1800 pupils	48 acres (for 1800)

*The basic minimum size given is a starting point. For each 100 pupils add one (1) acre.

Source: NCSC Guide to Planning School Plants, 1969

**Enrollment recommendations (given above) are those cited by DeChiara, Joseph and Lee Koppelman, Planning Design Criteria, 1969.

There are, admittedly, various standards that can be applied to school site planning and also that for play lots. The quality of site design and improvements (such as play equipment, pavement, landscaping and other amenities) may be more important than size. Control of street and pedestrian traffic and circulation, especially as it relates to hazards, is also important. And maintenance is always a factor.

The gradual loss of enrollments may have reduced the need to have larger sites for schools, but with the concurrent consolidation of districts there remains the risk of overcrowding in the fewer number of schools remaining. Decisions to reapportion students may not adequately consider site and play facilities capacities.

A new deficiency is also apparent. When a school is closed, it remains accessible as a neighborhood park and playground. There is presently no provision for maintaining such a facility. In fact, there is little cognizance of this as a problem. This may not be a problem for old Doyle School, since there are few children living nearby nor is that school's lot particularly attractive. However, Oak School continues to attract neighborhood children.

Many school campuses also suffer from a common city-wide deficiency or littering. Discarded food encourages vermin. Discarded bottles create the hazard of broken glass, although it is hoped that State regulation of non-returnable bottles will reduce this problem. Since school budgets may not be adequate to address this need for clean-up maintenance, the City may have to supplant services (as via CETA and public works personnel).

As for distance from home, in prior years, when school districts were firm, this was important. Given our transitional situation, only an interim assessment can be made.

Transportation distance

<u>School Level:</u>	<u>Maximum home-to-school distance for;</u>	
	<u>Walking:</u>	<u>Bus Transportating:</u>
Elementary	3/4 mile	1/2 hour (one way)
Junior High	1-1/2 mile	1 hour (one-way)
Senior High	2 miles	1 hour (one-way)

Source: NCSC Guide to Planning School Plants, 1969.

Are above distance criteria being met? Elementary-walking: As the elementary schools attendance areas map shows, some distances may exceed the 3/4 mile maximum. This is partly because of a partial consolidation of schools caused by declining enrollments. Its exact impact is difficult to determine because there may not

actually be any elementary students residing within a remote area. An analysis of service areas revealed that five elementary schools had walking distances in excess of 3/4 mile from the schools to their extreme boundaries. Of greater concern was the number of barriers and hazards (such as major streets and highways) that school districts included. It is therefore possible that transporting of students, whether by school bus or parents' car, may be safer even though less convenient and more costly.

Elementary-transporting policy: "The Board's policy is all elementary students who attend an elementary school program at a school other than their neighborhood elementary school and who travel more than 1.5 miles from home to school will be eligible for free transportation between the school which they choose to attend and designated pick-up points in their neighborhood. These pick-up points will be determined on the basis of student convenience, transportation routes, and scheduling constraints."* A similar policy applies to Junior High School students.

The 1976 Board of Education Plan calls for extensive cross-district bus transporting of students. Approximately 20% now so travel by bus.

The principal thrust of this study--relating the adequacy of facilities to their service areas--was arrested before completion by the intervention of Federal authorities (Department of Health, Education and Welfare) concerned with school desegregation and integration. During the last year, it became apparent that the previously stable physical relationship between Flint students and Community Schools was to change even more sharply than was originally envisioned. In September, 1976, the Flint Board of Education initiated an innovative concept and allowed and encouraged students to attend Community School city-wide without being constrained by established formal school districts or local boundaries. The Board believed that this freedom of mobility would meet HEW requirements. Subsequent hearings and federal court review established that the Flint Plan was not acceptable to HEW. The details of the HEW requirement are not yet fully known. But it appears clear that greater changes will take place, and that busing will exceed the current 20%. The greatest impact of this will not be immediate (Fall, 1977).

It is currently impossible to estimate the long-term implications and requirements of the HEW mandate, except to speculate that there may be profound changes in the physical structure of Community Schools. The City should, therefore, remain alert to the effects of such changes and maintain close liaison with the Board of Education. To preserve the viability of neighborhoods, the City must

* Source: "Elementary Educational Alternatives 1976-77", Board of Education, Flint, Michigan, 1976, page 5.

monitor the maintenance of recreational areas and other facilities left after schools have closed and should consider playing a more active role.

Finally, City control of all school facilities is handicapped by an apparent lack of legal authority over schools by local government. This means that local regulations and standards are difficult to apply should school administrators choose not to cooperate. In practice, this has resulted in inadequate auto parking, circulation conflicts and other difficulties many of which might have been avoided by proper site plan review before City authorities. There is no easy or simple solution to this deficiency; although, cooperative efforts by all would be most helpful.

Educational Achievement

A high school education is today a near universal minimum educational achievement for most employment, just as one or more college degrees are required for professional employment. Local statistics show progressive improvement:

	<u>1970*</u>	<u>1975</u>
Flint residents with high school diploma	49%	64%
" " " some college	9%	15%
" " " college degree	7.1%	8.8%
" " " vocational training	N.A.	19%
U.S. residents with high school diploma	65%	71%**
" " " college degree	13%	16%**

Over one-third (36%) of Flint residents lacked a high school diploma in 1975. The Board of Education and Mott Foundation have addressed this deficiency by offering remedial programs in various neighborhoods, and by establishing the Mott Adult High School centrally located at 1231 E. Kearsley. Recent data shows improvement:

<u>Drop-out rate (grades 9 to 12):</u>	9.8% 1971-72
	9.5% 1972-73
	9.4% 1973-74
	8.8% 1974-75
	8.8% 1975-76

Source: Board of Education

There are large differences within the City. Planning District 5 (north-central) ranks lowest in educational attainment with

* U.S. Census 1970; all others are ECHO 1975; these two are not precisely comparable.

** Employment and Training Report of the President (USDHEW, 1977).

over one-half (53%) of its residents lacking high school completion. In contrast, District 9 residents, many tied to Culture Center facilities, include 30% college graduates. Age is probably the key factor in explaining this, also involved. Areas that feature low educational attainment are also concentrations of elderly-poor disadvantaged persons, often of rural origins. Because of the City's large percentage of black persons, the sharp differences by race are important to consider:

	<u>All</u>	<u>Black</u>
Residents with high school diploma	64%	58%
Residents with college degree	8.8%	2.7%

Source: ECHO, 1975

Beyond meeting the critical need for high school completion, it is therefore also apparent that college programs, especially for minorities should be supported.

Student Mobility

Enrollment changes within the school year are called "student mobility" by the Board. A demographic analysis of student mobility by schools suggests that this condition of instability, while complex, is closely tied to family income and employment stability. Looking at Center City schools (Stevenson, Lincoln, Kennedy, Dort) with high mobility reveals that these are located in low income areas with high minority concentrations. In general, the lowest mobility rates occur in the affluent neighborhoods. Mobility can be taken as an indicator of community or neighborhood instability. The student is often at the end of a chain of events. It may begin with a father losing his job. Student mobility averages 30.3% City-wide.

K- Enrollment Overall

School enrollments based on recent data for the Flint area shows distinct departures from projections made around 1970, moving downward, rather than upward. Such projections were based on overly optimistic population expectations. A 1960 Comprehensive Master Plan for Flint in 1958 estimated the city population at 194,958. The city did not reach that level until about 1970, a decade later. Two major recessions plus other public awareness of critical scarcities capped by the energy crisis in the 1970's were important factors holding down the population rise. Within the national picture, regional and state population seemed to have stabilized. In the Flint area, the schoolage population seemed to have peaked roughly around 1967 and now appears to be slowly declining.

The impact of this is reflected in actual school enrollments within the Genesee County Intermediate School District. In 1971,

the City of Flint had 44,656 enrollments which gradually dropped by 1976 to 38,573 (not including adult education). The total outside Flint dropped from 81,990 to 78,717 for the same five-year period. These totals were not without exception, but only five of the twenty communities outside Flint but within the County district, reported enrollment increases for 1976. The district has forecast a similar decline from 1976-77 (118,948) or -2.5% to 115,904 for the next school year. Most projections for Flint area schools are uniformly negative, although not drastic. The Flint Board of Education has recorded an enrollment drop of about 1,000 students per year, or 1% per year, since 1970. The City's schools found slight enrollment increases in lower grades last year. The significance of such increases is uncertain. Local data suggests that the school-age population may continue falling for many years.

Gross population changes and enrollments are important as are changes in the constituency or sub-populations. For example, although the 1970 U.S. Census found 28% minorities or black residents in the City, the 1975 estimate by local demographers suggest that 35.5% of the city's population is black. Yet the Board's count indicates that the K-12 black representation is 55%, and is projected to rise to 65% by 1981. The impacts of demographic change remain difficult to predict in part, because:

(1) Comprehensive and detailed census data is not available on an annual basis, and

(2) Such data as available is either too general, or too specialized, to be useful for community education planning. This is especially true of estimates for school-age population, as by school districts and neighborhoods.

Closed Schools

Doyle Community School, 1040 N. Saginaw Street, represents a special problem. Doyle urban renewal (immediately south of east Oak Park) has progressed to a point that new construction is ready to begin in 1977. The designated developer is responsible for all construction except the residential area's school which the Board of Education will build utilizing a \$2.36 million construction grant from the Mott Foundation. The Board, having set aside \$900,000 for new Doyle School, is expected to apply these funds for furnishing the building. The Foundation also made available an interest-free loan of \$900,000, for a total loan and grant investment of \$3.26 million.

Doyle area redevelopment is planned to produce 340 housing units in its first construction phase now being begun, plus 155 units in its second phase. This family housing should bring in families with up to 320 children, for enrollment at new Doyle School. Construction schedules for the new elementary (K-6) school have not been set.

Old Doyle School is a residual problem. As the oldest school structure still standing in the City, hopes for saving the 1902 building have been fading for lack of sustained re-use and the high costs of modernizing (\$500,000). The historic building* last housed a public agency's offices.

Interim educational needs were being met by Kennedy Community School. Located on Saginaw at Rankin, the elementary facility is just two blocks north of the upper boundary of Doyle redevelopment. At a capacity in excess of 500 students, current Kennedy enrollment of near 200 suggests that the school will be closed this year.

About \$1.2 million has been spent on construction improvements to the City park next to Kennedy School, for indoor-outdoor needs. The improved City complex provides adult and family recreation: swimming, tennis, hockey, baseball and other activities.

Oak Community School, 1020 Oak Street, in Grand Traverse South, like Doyle no longer in use as a school, and has a similar re-use problem. Its declining enrollment was redirected to other nearby schools when Oak was closed in 1976. The building currently has limited use to house a community service office. Although remodeled in 1954, the basic structure is old (built 1908) and would be costly to bring up to current public building standards. Its campus (1.4 acres) offers some prospect of recreation park use, but is under-used and should be upgraded for neighborhood use. There are other former Community Schools that have similar problems of re-use limited by operating and remodeling costs.

The School board has been studying policy relative to the re-use of closed schools. A policy statement currently being considered encourages re-use by public agencies but suggests that demolition may be necessary. This policy includes a prioritization system that is biased against older buildings, which runs contrary to historic preservation wishes expressed by some residents; but also ignores a number of alternative re-use options. Additional continuing citizens participation exploring such policy is desirable, as is further study of viable options to preserve unique schools.

Special Education--School for the Deaf

Michigan School for the Deaf, Flint's oldest school in continuous operation, established 1854, is nominally a public school offering K-12 education, operated by the State. Because of its special education function, students range in age from pre-kindergarten

* Doyle is not officially designated a historic site or property.

to beyond 12th grade levels. Operational areas include: Clinical audiometry (out- and in-patient), parent-infant program, psychometric clinic, diagnostic program, guidance services, career development, out-of-class activities, health services. Enrollment has varied over the years, and currently is 275 students, all recruited State-wide.

The existing campus, approximately 55 acres, was originally much larger and included a school and a working farm which supplied food for the institution. Street and highway (I-69) construction and other community needs incidental to growth, reduced the school's site size. Because of recent changes in the structure of special education for the impaired, there is a long-term possibility that the facility may be combined with its Lansing counterpart, the Michigan School for the Blind. Whether this will result in the closing of Flint's School for the Deaf is unknown. However, should this take place, there could become available a prime site for redevelopment. Since the Superintendent's building is officially designated as a historic site, its reuse would be constrained.

D. Projected Conditions

Given no substantial change in enrollment patterns which are moving downward steadily, schools both in and out of the City will continue to entertain fewer and fewer children. Exactly how long this trend will continue is uncertain, and estimates vary as to when stabilization will take place. Even though the Department of Community Development has projected a stabilization of the overall population in approximately five years, given adequate efforts locally to reverse the current down trend, this does not mean that the drop in school age population will be materially arrested. Enrollments are projected to drop 1,000 to 2,000 per year, to 30,844 by 1981 (fall, 1976 was 38,573). * Flint's average household size in 1960 was 3.32 - in 1970 the household was 3.13 - but by 1975 Flint households only averaged 3.01 persons in size, or slightly larger than the national average of 2.97 persons. The dropping birth rate has resulted in fewer children and smaller enrollments in schools. Although there are obvious limits to this decline, a concurrent out-migration of families, as has taken place in recent years, could result in a depressed school age population for many years.

Declining enrollments have already forced the closing of several Community Schools in the City and elsewhere. This suggests that more schools will be closed in future years.

An increasing number of closed schools creates consequential problems. Both the school as a structure and its landscaped site

* Source: Board of Education

Illustration 5

Long-Term Care Facilities

Homes - Adult and Aged

Boyd's Adult Foster Care Home, 2039 Tebo

Cecilia's, 720 Ann Arbor (57 beds*)

King's Daughters and Sons Home, 517 E. Kearsley
(To be relocated) (44 beds*)

Lafayette Extended Care, Inc., 627 Begole

Lafayette Park, 218 West Fourth Street

Marian Hall, 529 Detroit (114 beds*)

McFarlan Home, 700 E. Kearsley (14 beds*)

McKamie Home, 410 East Fourth Street

Milam's Referral Home, 914 Church

Licensed Nursing Homes

Briarwood Manor, 3011 N. Center (97 beds*)

Clara Barton Terrace, 1801 E. Atherton (151 beds*)

Lafayette Extended Care, Inc., 627 Begole (230 beds*)

*Number of licensed and available beds based on the 1974 data in the 1975-76 Michigan State Plan for Hospital and Medical Facilities.

	<u>Nursing</u>	<u>Aged</u>
City of Flint	478	229
Out County	1,678	236
GLS 3 Counties	2,162	436

Source: GLSHSI 1977

Physicians, Dentists And Other Professional Services

Professional services, including medical practitioners, were not studied in detail because their physical impact is slight. Only 19.2 acres were devoted to professional offices, overall. Medical laboratories represented 2.5 acres. Dental offices were 7.6 acres with laboratories adding just .2 acres of land use.

A location analysis indicated that most professional services are located in clusters or small medical centers which are found throughout the City and suburbs. Although there is considerable scatter, most offices are located within a "corridor" ranging east to west across the City, and are concentrated near the major facilities or six hospitals on the west side of Flint. This positioning is based on the desirability of physicians to be close to hospitals. Many physicians also maintain more than one office, the second often located at a hospital. The County (ECHO) found that physician location is today less important than in years past and that patients traveling some distance is common. Their recent survey found that, "nearly all respondents throughout Genesee County reported that they could get transportation to the Health Department, (located near the center of the City) if necessary. From this it would not seem that physician location presents any particular problem to persons seeking medical attention. It might also be noted that physicians are also somewhat restricted from locating in residential areas by various zoning ordinances."

In terms of numbers, there were 617 physicians licensed to practice in Genesee County and Michigan in 1975. The number of physicians has risen faster than the population in recent years (rate per 1,000 population), so as to be in greater supply. The County acknowledges that the local rate is somewhat less than the State average, but does not feel that this is a problem because many physicians are not available for community practice of medicine because of research or teaching obligations.

Area	1971		1975		Increase
	Number	Rate	Number	Rate	
Genesee County	493	1.1	617	1.4	25%
Michigan State	11,001	1.2	13,602	1.5	24%

Source: ECHO, 1975

In terms of usage, about three out of every five persons saw a physician during 1975, although there is considerable variation throughout both the County and City. Residents in Flint's southwest sector displayed significantly higher usage than other parts of the City, which may be related to higher income rather than actual need.

Dental care is provided by over 177 dentists in the Flint area. In addition to private practice, several clinics provide services including dental care to low-income persons. Screening is also provided by Flint Community Schools. Over one-half City residents saw dentists in 1975, according to a County (ECHO) study. It was also found that while 45% had seen dentists before, the advent of wide-spread dental insurance coverage in 1975 significantly increased use, raising the use rate to 52% for the City and nearly 60% in the County. However, sharp differences within the City were found relative to the number of persons seen by a dentist in 1975, ranging from 37-40% to 70-74%. Lowest use was exhibited by City residents living within the north-central corridor, as the County study found, "The pattern of people receiving the lowest level of dental care is very similar to the patterns showing the highest levels of poverty and unemployment."

Projections for professional medical services are essentially unknown. Substantial growth is, however, unlikely given the stabilization of population. The locational factors merit attention on a continued basis since population loss within the City could result in concurrent losses of professional services.

E. Recommendations

1. The City finds a community need requiring immediate action. There should be a study of the need and feasibility of establishing satellite health care centers at locations away from parent facilities but close to areas of community needs. The optimum locations for such centers should also be studied, along with the physical characteristics of both appropriate structures and sites.
2. The City should encourage, in all possible ways, the improvement of community health. It is assumed that such support would focus on physical development required to assist improved health care deliveries.
3. The re-use of physical inventory should be emphasized in the development of community health care centers as well as in expanding existing facilities. Priority might be assigned to continuing use or re-use of existing public facilities such as community schools and other physical plants in good condition but slated for demolition.
4. Careful consideration should be given to the recommendations made for current and projected needs to be identified in a comprehensive plan to be formulated by the local tri-county health agency (GLS Health Systems, Inc.); and such recommendations should be related to public needs to the greatest extent possible. Completion of such a plan is anticipated by the end of 1977. The plan must provide more thorough and timely data than presently is available, to guide local planners.

5. Because of the various impacts of major institutions such as hospitals, all substantial physical changes within and around such facilities should be coordinated with the City. Site plan review should be required of all significant changes, especially those that may cause a change in traffic and circulation around such facilities' sites.
6. Existing zoning should be reviewed and changes be considered to improve the provisions for hospitals and all related land uses including laboratory and professional office.
7. The City should remain alert to a possible demand for long-term-care facilities, and encourage recentralization and re-use of existing inventory should this demand materialize.
8. The City should encourage health care deliveries authorization and planning that increases financial and other support of extended care while using existing physical plant inventories economically.

X. WELFARE

A. Introduction

In order to provide a comprehensive picture of community facilities, really services, a survey of the organizations basically concerned with the welfare of Flint and Flint area citizens was made. The term "welfare" was a broad one and included community "social services" and related organizations. The purpose of this section is to determine if additional land use allotments are needed for such organizations and functions.

History And Conditions

The first welfare organization in Flint appeared in 1888 when a Sunday school class of one of the local churches formed the Kings Daughters Society. This volunteer organization, religious in viewpoint, was the only privately supported program with social services to the entire community as its main purpose.

From time to time, other new agencies; relief, health, recreation and other miscellaneous agencies were formed, each concentrating on their own work and seldom paying much attention to the other programs. With growing needs and programs, the need for finances grew. Financial drives started, benefits of various sorts, tag days, individual campaigns for funds and so on, requiring great amounts of work and time, and large overhead expenses. An attempt to correct this inefficiency through the Flint Community Chest was formed in 1921. The Flint Community Association was organized in 1936 and subsequently, the Flint Council of Social Agencies in 1942 with two new members, the Flint Federation of Labor (AFL) and the Flint Industrial Union Council (CIO). The Flint War Chest was formally organized early in World War II and represented a combined fund raising campaign of the Flint Community Chest and National and Overseas Relief Agencies from 1942 through 1945. By 1949 the Community Chest was changed to the Red Feather Fund of Flint and Genesee County; then to the United Fund in 1971 and finally in 1975, "The United Way of Genesee and Lapeer Counties". It is through the United Way that most of the area welfare organizations are funded either partially or in full. Of the other major welfare organizations and agencies, most now fall within the government; municipal, state or federal category (primarily the latter two).

Because most organizations reviewed represented limited local government funding and typically utilized large private resources, it was decided that a thorough and time-consuming analysis was not justified. Such analysis was already made by McAllister Associates in the 1973 Master Plan update, and also the study by the Community Service Survey Committee in 1970.

These earlier conclusions still largely hold true today even though conditions in detail have changed.

Community welfare, or social service agencies, were extensively studied via a variety of tools available including professional directories.

The most important research device was a set of questionnaires that was sent to all agencies located in or about the City. An early assumption, that the large number of agencies would have a significant impact physically on the community, proved to be incorrect. Analysis of operating structures suggested that such organizations are labor- and capital-intensive but in aggregate consume little space. The final conclusion was that space and land needs were small and that future needs would be little different.

It is apparent from the responses received from the questionnaires returned, that this element is too complicated and diversified to evaluate economically in a study of this nature. Furthermore, aside from one or two major locations, the agencies are located in scattered sections and seem to occupy no appreciable land masses. Agencies surveyed did not identify a need for more space, rather more funding. Because of the scope of services provided and because the agencies are often privately funded through donations, it is not possible for this study to evaluate effectiveness or need. Further study to determine if diversification of location or centralization and consolidation, as in a single structure or complex, is useful or feasible, may be useful.

Land use cannot be determined precisely, largely because of the complex nature of social welfare organizations. A course estimate would be 20 to 50 acres.

Recommendations

No recommendation is given.

XI. PROTECTIVE SERVICES

A. Introduction

Protective City services normally encompass fire and police. Preliminary analysis of police services indicated that these services, while prescribed to some extent by service areas within the City, have a very limited impact on physical planning. Administration is totally centralized at the Civic Center police building, while all field operations are totally mobile. No land needs have been identified. For these reasons, police services will not be detailed.

Civil defense represents a possible third category of protective services. This is a responsibility of Genesee County, and is in the process of being replanned, and for these reasons civil defense will not be detailed here. The City, however, should remain alert to any recommendations or needs to be identified by County administration. Since civil defense includes identification of certain public emergencies such as tornado-storm hazard, and a possible need for shelter development, there is a definite linkage to physical planning within the City.

B. Goals And Objectives

The study goal is to assure that fire protection is adequate within the City, to minimize possible human and property damage.

The objectives are to:

1. Review fire protection services in general and by service areas (districts) within the City.
2. Identify any apparent deficiencies as to physical plant and firehouse locations, relative to optimal response.
3. Identify any apparent deficiencies as to support systems, especially the adequacy of access to development and water supply including hydrants.
4. Identify a need for new ordinances regulating development, including mobile home parks and fire/smoke detection.

C. Existing Conditions

1. The City is divided into nine fire districts. First district facilities are located with the departmental headquarters at 310 East Fifth Street, part of the Civic Center complex. The other eight facilities are strategically located throughout the City to best serve various areas. District nine is actually Bishop Airport.

Fire calls in 1976 totaled 6,124 of which 1,704 were false alarms. Of the 1,601 fires, some 707 were structural fires and 894 were outside fires. Response time averaged two minutes.

2. Deficiencies, beyond those of staff and funding, include a need for up-to-date data on City structures, which has been provided by the Sanborn City Map (now obsolete).

As to location of fire stations, there are two possible deficiencies, which suggest replacement relocated facilities. Although City growth has been limited in recent years, there is still substantial movement of population within the City, both housing and commercial facilities. This is most apparent in the west (fire district seven, Court at Corunna) and the east (fire district five). District five station (at Davison Road and Minnesota Avenue) is now located somewhat distant from newer housing and commerce. The C & O Railway tracks also represent a barrier to fire equipment responding to alarms from the east side of district five. This is a hazard. Near north-west station three (Detroit at Witherbee) suggests replacement largely because of its age.

There are also various deficiencies at the Bishop Airport station which requires substantial improvement in physical plant and also water supply. There is, however, adequate water supply to protect the new Bishop Industrial Airport (as yet undeveloped).

A broad and major deficiency relates to existing development, both as to mobile home (trailer) parks and conventional housing, primarily multi-unit development. This requires study on a site-specific basis. However, the Fire Department has indicated that deficiencies are common and represent probable as well as known handicaps to access by fire equipment and identification of fire locations. This includes deficiencies as to fire lanes, impediments such as illegally parked vehicles, and location numbering (house, unit or trailer). Much of this is due to inadequate site plan review.

The impact of major changes within the City is important to consider, especially transportation and large redevelopment areas such as Doyle. When interstate City route I-475 is completed (estimated at 1980) the entire north and central portion of the City should be restudied for possible deficiencies, including any of fire protection.

3. The current number of fire hydrants is listed as 3,754 (as of June 30, 1976). In terms of number and location these appear to be adequate. But there also appear to be possible exceptions to this rule. Changes in population, housing and commercial activities and their shifting locations, may

require adding new hydrants. Since the locational pattern, in detail, is impossible to predict over a long period of time, no projections are practical. This suggests that there is an ongoing need to restudy periodically the number and location of both hydrants and stations. Allied to the hydrant location is the water system, and in addition to possible current deficiencies, the availability of water must be considered relative to new hydrant locations.

Another current deficiency is apparent: Trailer parks largely lack hydrants, and the general issue of serious fires in trailer homes has been cited in the last few years. This has resulted in a demand for more fire-resistant construction and other trailer (mobile home) features designed to reduce the incidence of fires. But this has not been met by improved systems of fighting fires that may begin. The Flint Fire Department has indicated that not only is there a lack of hydrants in trailer parks, but many (especially the older) have inadequately narrow streets or lanes that seriously handicap access and lanes that are cluttered with cars, trucks and other items that impede emergency equipment.

Trailer parks have been built to relatively high densities, especially the older facilities (Flint's first was in 1937). Densities range from 29.82 spaces per acre to 4.67 spaces (roughly the same as trailers per acre, discounting vacancies). The County (GCMPC) 1970 study found 142.38 acres of land devoted to trailers; in 1975 ECHO re-estimated 137.5 acres. Both studies found about 1,834 spaces, ECHO 1975 finding 1,600 occupied by trailers. Current occupancy factors are unknown, but the number of persons per trailer varies greatly. Housing occupancy and other standards are generally not enforced in these areas. Part of the reason why normal residential standards are not applied, is because trailer parks are not normal neighborhoods; they are commercial enterprises located in commercial zones, principally along Dort Highway and its commercial-industrial development. Normal building codes cannot be applied to factory-built housing, and housing codes are difficult to enforce. The State is responsible for controlling trailer parks, but has limited effect beyond licensing. Such control is largely via the Mobile Home Park Act of 1959 (PA 243). A City ordinance may be necessary for local control.

4. A substantial amount of government regulation and control of housing and other human habitation involves safety. Fire has always been a focal concern. In 1976 there were 1,601 fires in the City. Some 62 persons were injured, with six deaths (one firefighter and five civilians). Quite aside from the human losses, economic loss and displacement caused by fires could have been reduced greatly by the early detection of fire.

The introduction of electronic smoke and fire (heat) detection equipment to the market, at reasonable cost, promises to have a major impact on fire safety. There is already an impressive amount of data suggestive of the merits of using such detection equipment in homes. The City DPW Building and Safety Inspection Section has recommended that smoke detectors be installed in all residential units; further, that detectors be required by ordinance, in certain units and structures. The Fire Marshall has recommended that smoke detectors be installed with emphasis on trailer (mobile home) parks. The composite recommendation would prioritize trailer parks and multi-unit structures (apartment buildings) in the City. This is largely provided for under BOCA 1975 (Section 106.0) which requires that a smoke detector be installed to all existing structures incidental to substantial remodeling (work in excess of 25% of value) or enlargement. Under the BOCA Code only a single smoke detector is required, which may not be adequate for multi-unit/multi-story buildings. Similarly, power source is discretionary, and the optional battery-powered unit (which is more attractive to the average homeowner) has the potential hazard of battery failure which would render the detector inoperative.

Enactment of an appropriate ordinance, based on BOCA but incorporating additional features, and enlarged scope, appears to be desirable. The ideal scope would be for all habitable structures possibly to include commercial and industrial. There is little justification for exempting existing structures.

The City should study the need for smoke detection, identify the best types of detectors available, plus the scope of required installation (commercial, industrial, residential; existing or new construction, or remodeling) that is feasible and practical--then draft and adopt an ordinance requiring the installation of smoke detectors.

E. Recommendations

1. The City study the location and general adequacy of its hydrants and stations, along with support systems such as water supply, identifying both current and projected needs incorporating probable patterns of City growth and change within that growth.
2. The City restudy the central business district, new University of Michigan-Flint campus, Mott College, culture center and Doyle development in particular; and the central City area in general to determine if fire protection needs are being met incidental to current activities and also current activities and also completion of the University riverfront

campus, Doyle, highway I-475 and other area projects. If it is determined that this is not a necessary study immediately, such study should be reconvened no later than 1980 (when I-475 is completed).

3. Since fire control features must be built into a multi-unit complex, site plan review must be applied to all residential developments to allow Fire Department review.
4. The City study the adequacy of hydrants and other aspects that are part of trailer parks (or mobile home parks) and that affect fire protection on such premises; and if appropriate, formulate additional regulations as in the form of an ordinance to be enacted by the City.
5. The City study the need and scope of fire smoke detection equipment in homes, mobile homes and other habitable structures and enact an ordinance requiring installation of such equipment based on the recommendations of the City DPW Housing and Safety Inspection section, and Fire Department.

XII. CEMETERIES

Some 139 acres of land are used by cemeteries. No change is projected since burial needs are being met and no deficiencies have been identified. The County (GCMPC 1970) found no problem since adequate undeveloped land exists outside the City. Because of the difficulty and expense of relocating burial sites, further development within the City is inadvisable.

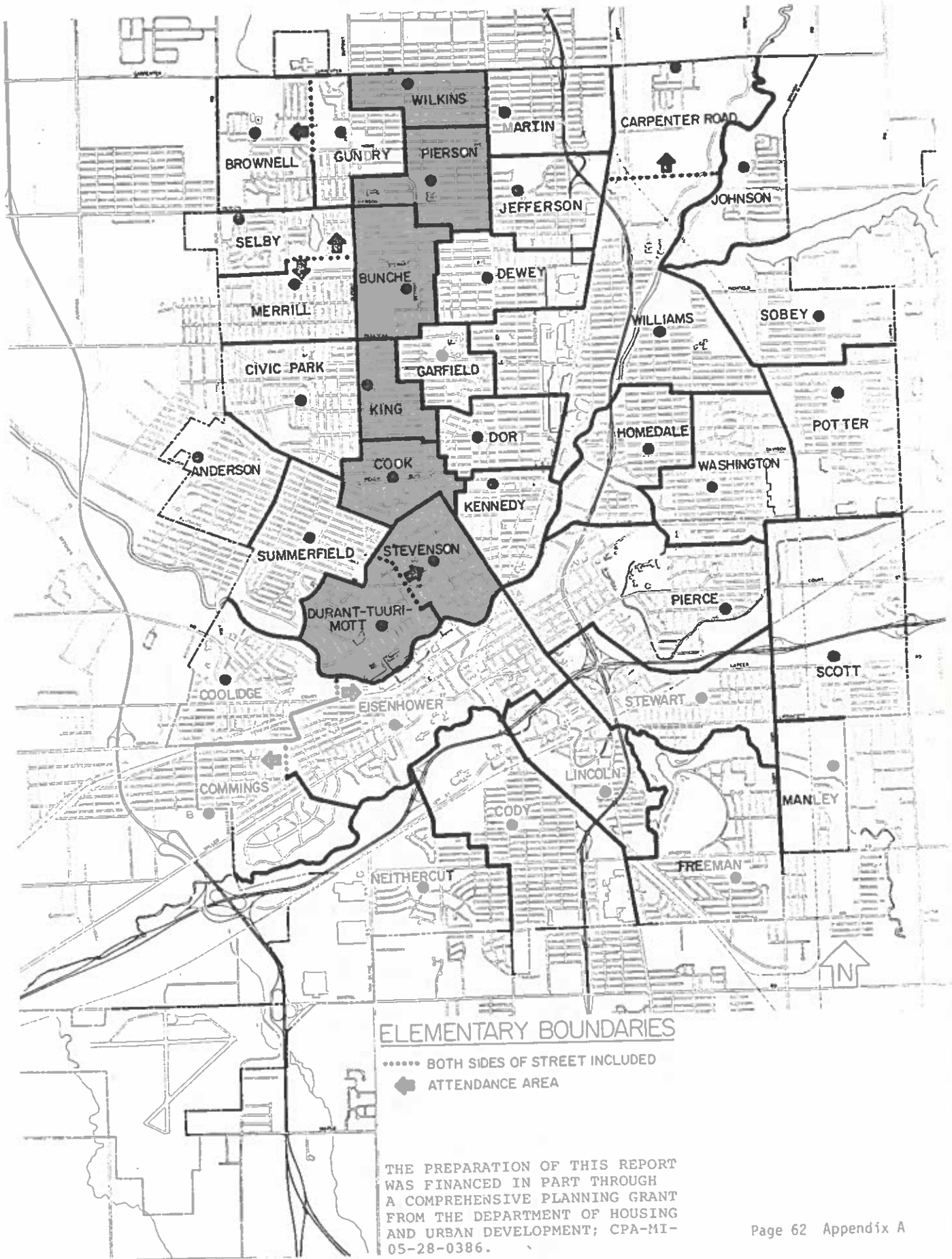
Illustration 6

<u>CEMETERY NAME</u>	<u>Ownership</u>	<u>Status*</u>
All Saints, Groveland near W. Boulevard	Religious	Active
Assyrian, Branch and Plainfield	Religious	Active
Aventine, Lewis and Geneseret	City	Active
Avondale, 833 Lewis (north of Aventine)	Corporation	Active
Glenwood, 2500 W. Court	Corporation	Active
Gracelawn, 5710 N. Saginaw at Mott	Association	Active
Machpellah-Hebrew, 4615 Branch	Religious	Active
St. Michaels-Byzantine, Groveland near St. Nicholas Cemetery	Religious	Active
St. Nicholas-Orthodox, Groveland near Dort Hwy. and All Saints Cemetery	Religious	Active

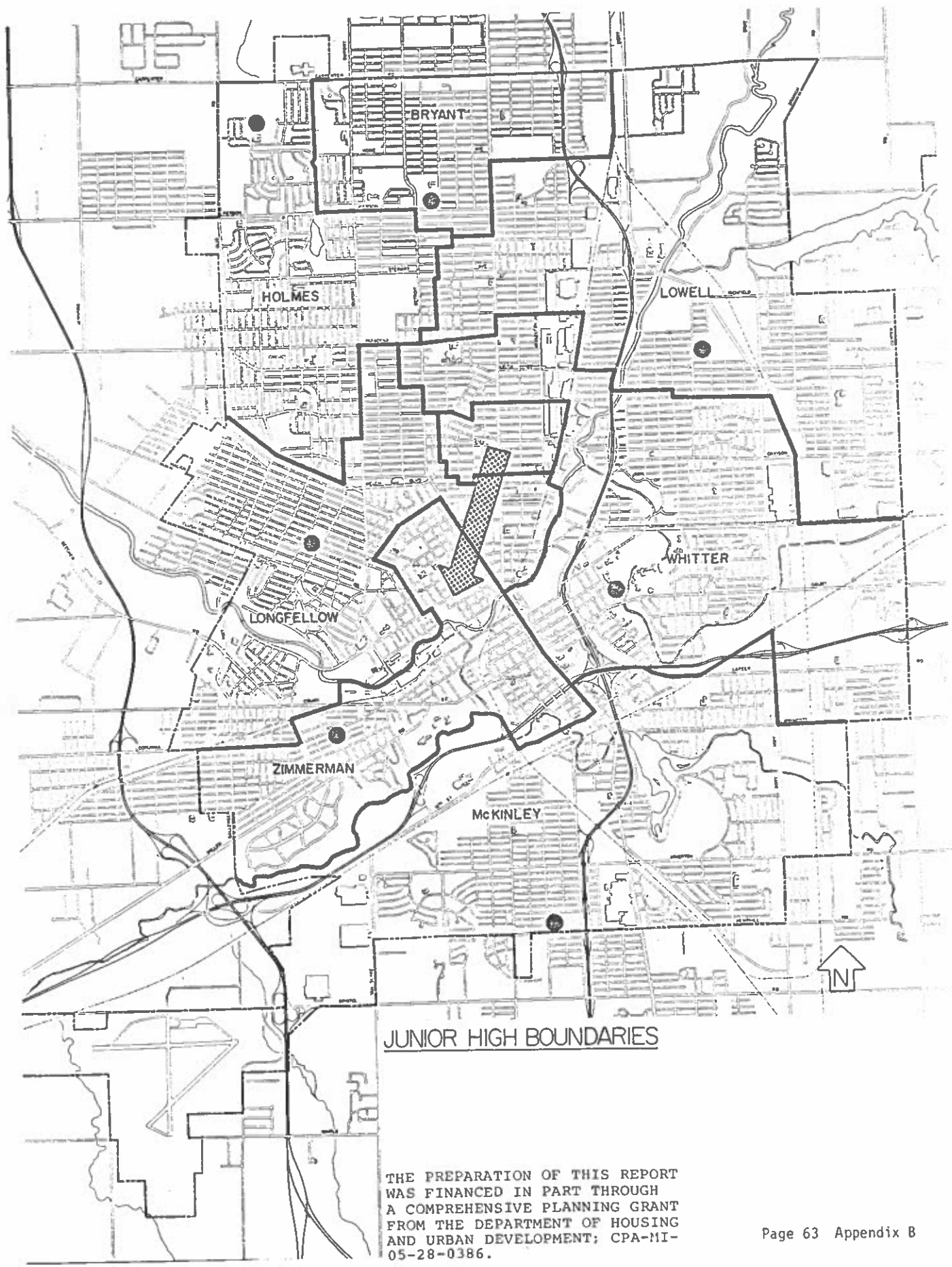
*The State of Michigan classifies cemeteries as active, inactive, abandoned or obliterated. Only active cemeteries are listed, according to the State Cemetery Commission data.

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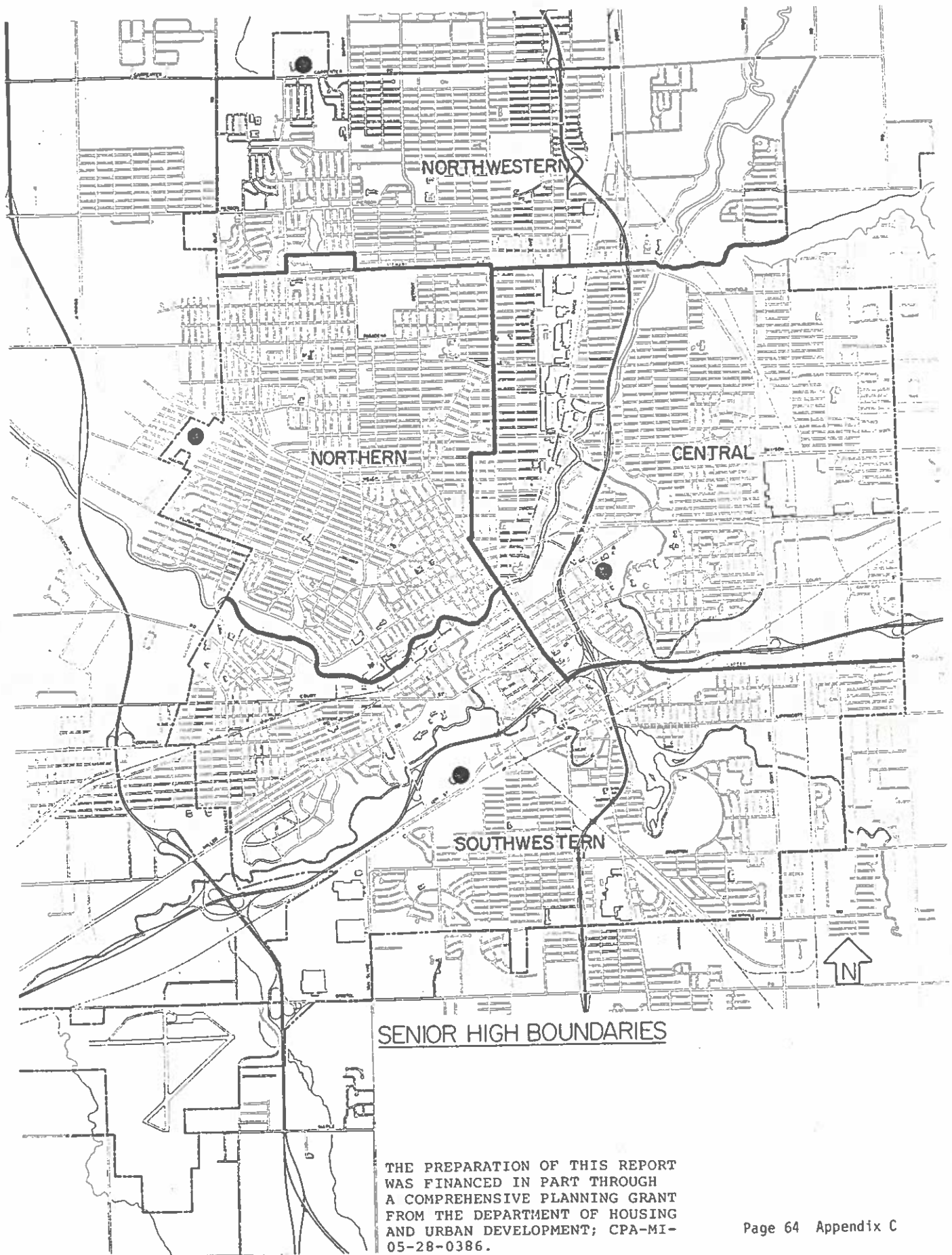


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JUNIOR HIGH BOUNDARIES

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SENIOR HIGH BOUNDARIES

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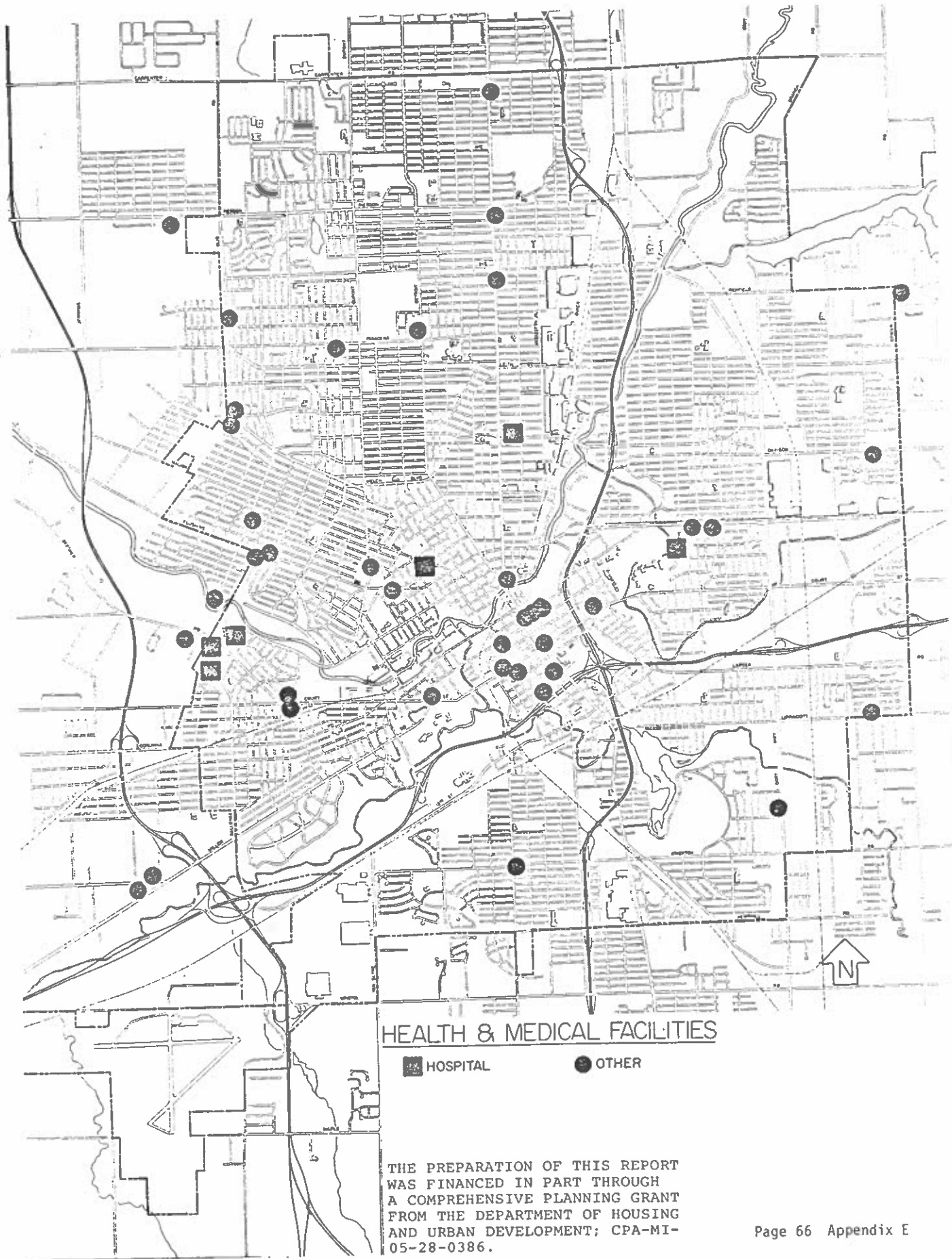


COMMUNITY FACILITIES

"Culture Center" Area

- 1 Sarvis Food Center
- 2 Whiting Auditorium
- 3 Bower Theatre
- 4 Planetarium
- 5 DeWaters Art Center
- 6 Main Library
- 7 Dort Music Center
- 8 Mott Community College
- 9 University of Michigan
 - a Riverfront
 - b Court St.
 - c Lapeer St.
- 10 Sloan Museum

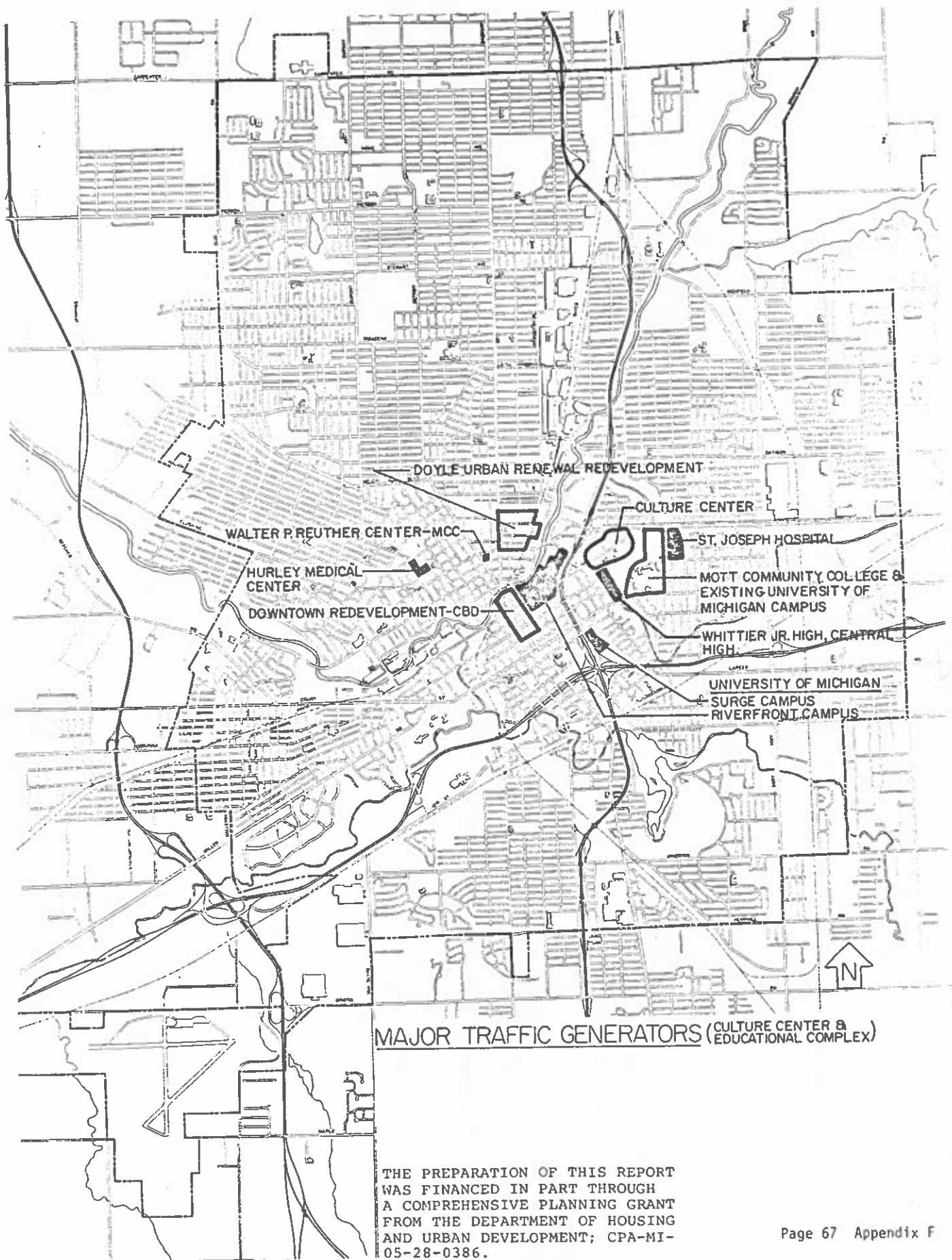
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HEALTH & MEDICAL FACILITIES

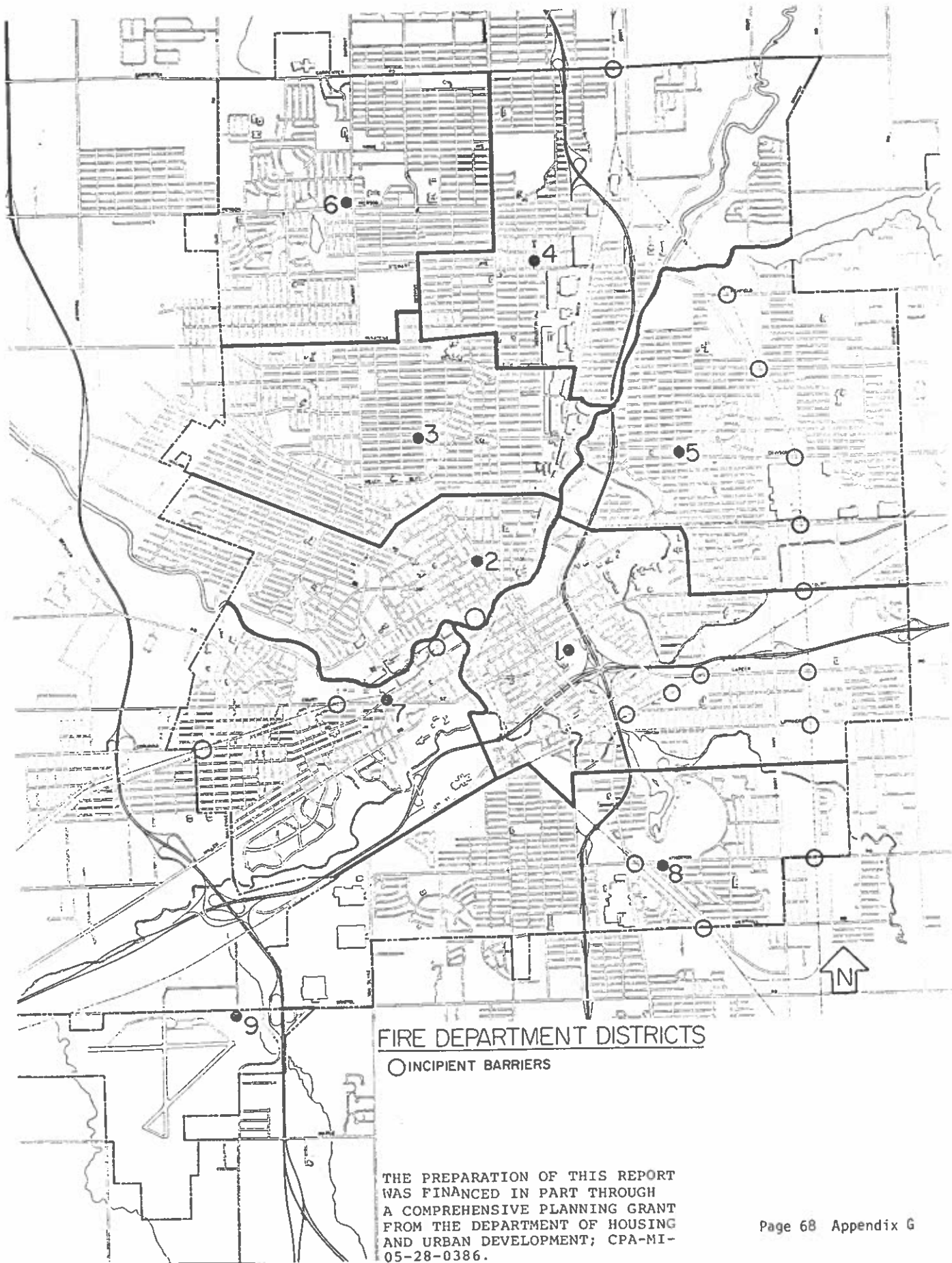
HOSPITAL
 OTHER

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MAJOR TRAFFIC GENERATORS (CULTURE CENTER & EDUCATIONAL COMPLEX)

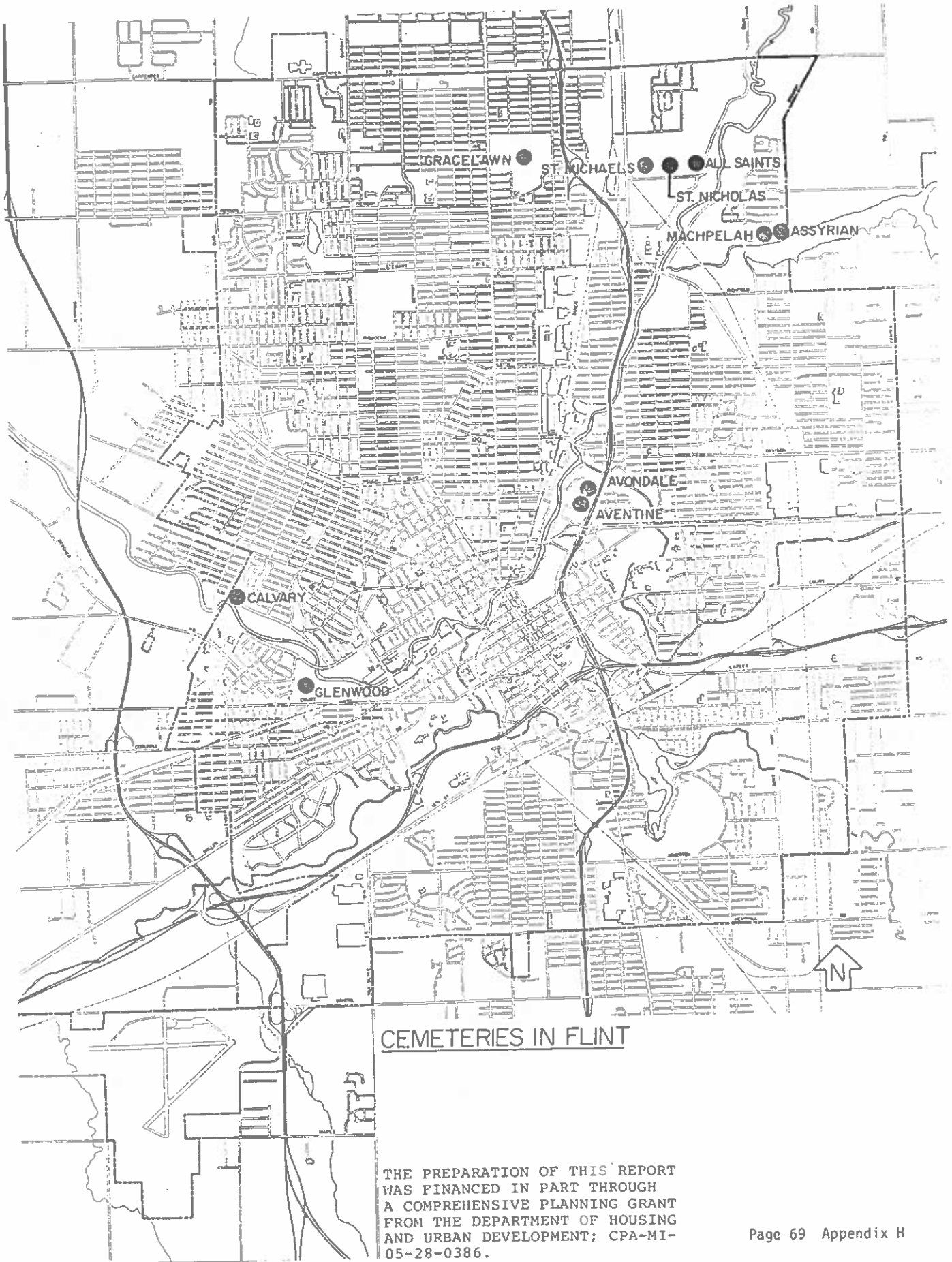
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FIRE DEPARTMENT DISTRICTS

○ INCIPIENT BARRIERS

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CEMETERIES IN FLINT

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ENROLLMENTS IN FLINT COMMUNITY SCHOOLS

School Year	1968	1969	1970	1971	1972	1973	1974	1975	1976
Elementary	27,743	27,172	25,996	25,473	24,812	23,305	22,466	21,841	21,217
Jr. High	10,099	10,402	10,332	10,274	9,862	9,628	9,333	9,144	8,931
Sr. High	8,270	8,439	8,737	8,909	8,847	8,693	8,688	8,579	8,425
Total	46,112	46,013	45,065	44,656	43,521	41,626	40,487	39,564	38,573
Net Change		-99	-948	-409	-1,135	-1,895	-1,139	-943	-991

The average loss per year has been 943 students or 2.05%. Not included is Adult Education enrollment, 6,092 headcount Fall 1976, Mott Adult High School, or Pre-kindergarten (600 students).

For comparative purposes, total Flint Community Schools enrollment for prior years is recorded.

1961	1962	1963	1964	1965	1966	1967	1968
40,558	42,266	44,136	44,741	46,570	47,389	47,867	47,082

These numbers are slightly higher than those above because they include enrollments in Adult Education, generally separated from K-12 programs.

Fall, 1976 Enrollments

Grade	K	1st	2nd	3rd	4th	5th	6th	Spec.	Total
Students	3,262	3,192	3,084	2,738	2,841	2,758	2,703	639	21,217
	7th	8th	9th	10th	11th	12th			Total
	2,983	2,927	3,021	3,472	2,780	2,173			17,356

Sum Total

38,573

ENROLLMENTS IN PRIMARY AND SECONDARY SCHOOLS

Total student enrollments, both public and non-public, for the Genesee Intermediate School District (1976-77) are given below. This includes the 21 public school districts (with the City of Flint).

DISTRICT OR SCHOOL

<u>PUBLIC</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Flint	44,640	43,006	42,375	41,950	40,231
Carman	9,006	8,900	8,780	8,633	8,268
Grand Blanc	8,258	8,381	8,358	8,141	7,943
Davison	6,078	6,089	6,206	6,165	6,069
Swartz Creek	5,754	5,922	5,952	5,980	5,946
Flushing	6,048	6,177	6,152	6,083	5,939
Beecher	6,268	5,848	5,715	5,710	5,685
Clio	5,595	5,631	5,631	5,672	5,599
Kearsley	6,023	5,831	5,628	5,551	5,219
Mt. Morris	3,976	3,931	3,893	3,708	3,589
Fenton	3,701	3,700	3,587	3,541	3,503
Lakeville	3,025	3,093	3,187	3,287	3,302
Linden	2,428	2,525	2,667	2,686	2,722
Montrose	2,150	2,169	2,203	2,169	2,173
Lake Fenton	2,146	2,143	2,190	2,141	2,142
Bentley	2,492	2,378	2,267	2,183	2,111
Atherton	2,294	2,222	2,139	2,125	2,067
Bendle	2,341	2,249	2,161	2,109	2,051
Westwood Heights	2,324	2,250	2,169	2,033	1,979
Goodrich	1,326	1,426	1,473	1,549	1,551
Genesee	756	802	781	813	859
Total Outside Flint	81,990	81,667	81,139	80,279	78,717
Total Public (Inc. Adult Education)	126,630	124,673	123,514	122,229	118,948

expects to meet its ultimate objectives for development and growth, although the precise date remains uncertain. University construction is also carefully staged by major phases, and continuing evaluation and replanning represents a real control on activities. Most future construction is to take place at the riverfront site. There remains a supplementary classroom on the Lapeer Street mini-campus still actively used. Plans for that area have not been detailed, although it is likely that the area will be used as an athletic facility, in time.

Both Mott College and the University of Michigan-Flint, while recruiting from beyond the City, still find most of their students to be from the immediate urbanized area. The College effectively recruits from Genesee County (which is approximately the same as the Genesee Intermediate School District that plays an important role in its funding), but it seems improbable that there will be large increases from the out-County areas that are expected to grow the most in the near future. Similarly, City growth which has been negative in recent years, is expected at best to stabilize near zero in the near future years. However, the Mott College's development plan suggests growth to 10,000 headcount (5,632 FTE) by 1980. Since this planning objective was assigned in 1973, prior to the energy crisis, high unemployment and population losses, it may now represent more of a desired goal than realistic objective.

The current college campus development plan calls for extensive site changes within the existing site, primarily in response to the acknowledged deficiency of parking spaces plus a variety of minor problems with the campus. The changes are almost totally internal but relate to traffic and circulation externally in a significant fashion. There has been concern expressed that the residential community immediately to the east, particularly around Second Street, is being adversely affected by auto traffic. Also, there is a residual issue to resolve concerning the use and impacting of through traffic on Court Street by College and University traffic. It was assumed that College circulation would be diverted to the north end of the campus, to interface Longway Boulevard (which is to be widened by the City at some future date) and that Court Street loading would be reduced. The status and condition of Street, including any physical changes, such as widening has been a sensitive issue to area residents for many years. With the growth of College, University and St. Joseph Hospital traffic locally, and also through traffic from eastern suburbs such as Davison and semi-local traffic from Dort Highway; Court Street residents' sensitivity has remained high. The completion of I-475 City Interstate (estimated at 1980) and the total relocation of the University of Michigan-Flint to its downtown riverfront campus (the date of this is still uncertain) will have an important effect on relieving the Court Street campus.

E. Recommendations

1. The City should continue to monitor and work with major institutions such as Mott Community College and the University of Michigan-Flint, and play an active role in resolving actual and incipient problems including but not limited to transportation.
2. Site plan review should be required of all construction that will have a significant and predictable impact on the community, not only as to transportation and circulation.
3. The City should reconsider its role relative to major institutions, particularly those that are tax-exempt, with a view toward formulating a consistent and coherent policy.
4. The City should be particularly sensitive toward institutional activities that generate construction without planning and coordination.
5. The City should consider the establishment of a special quasi-public coordinating board or commission devoted to monitoring and resolving the special needs and problems of institutional factors such as the Board of Education, hospitals, major schools.
6. The City should maintain an on-going linkage or liaison with all major institutional planners and City planners to coordinate current activities and future planning related to physical development, land use and transportation.

V. EDUCATION - VOCATIONAL SCHOOLS

A. Introduction

Vocational education - also termed jobs, skills, trades training - has received greater attention and emphasis in recent years. The need for skilled persons such as technicians is growing. The fact that the services category of the economy has been increasing at a rate faster than the general economy, indicates the need for greater numbers of vocationally-trained persons. Our nation's growing population is the basis of this demand. The growing technical complexity is another force. Whether auto mechanic or business machine operator, a higher level of skills and expertise is required. The impact of affirmative action and equal opportunity programs is also apparent - many occupations traditionally held only by men are open to women, and many employers are actively recruiting such persons and calling for appropriate skills development.

B. Goals and Objectives

See those given earlier for Education.

C. Existing Conditions

All vocational training is employment oriented and much is generated by the employer as a means of improving employee skills. This often takes the form of on-the-job training, often within the place of employment, which makes it difficult to assess the actual numbers of persons in training. But a large proportion of such training is displaced outside of the place of employment to both private and public educational plants.

There is, therefore, an overlap between private and public vocational programs and those that are nominally academic, at all levels. Vocational training is available in Flint Community Schools, Mott Community College, and at a variety of privately-owned schools.

Enrollments for vocational training have increased steadily over recent years and will probably continue to increase. Since there is no single coordinating authority or information source, enrollments must be estimated and are difficult to project with any real reliability. For the basic vocational schools (Vocational/trade, barber/beauty, business, professional) the 1970 County (GCMPC) study found enrollments increasing from 359 (in 1960) to 1,542 (in 1969) for these 21 schools. A rough estimate today suggests enrollment over 2,000 in the Flint area, which could be increased greatly depending on the scope and level of training being estimated.

Like most educational facilities offering post-secondary work, vocational schools recruit regionally, even though most students are from the Flint area.

Data indicates that only about one-fifth (19.3%) of City residents without college or university training have had any vocational training. The impact of this is uncertain, although it is obvious that one's chances for employment or improved employment are greater with training. This may indicate a need City-wide for stronger vocational training programs. Such deficiencies are more-or-less found City-wide - the range of values (from 21.6% in District 2, to 25.7% in District 7) is not great. However, if other demographic factors are involved, the picture assumes greater meaning. Planning District 2, where residents have the least vocational training, is also one that ranks high in unemployment, especially among youths. The District also ranks second highest in academic weakness, 50.2% residents lacking in high school completion.

Land use for vocational schools is relatively small, and it would require very large and sustained increases in enrollments for such schools to require additional land for expansion. The largest growth has been provided for, notably that of the Walter Reuther Center and Mott Community College programs. In terms of location, most vocational schools are relatively decentralized, many located in suburban or fringe locations. The largest business school, Baker, now a junior college, moved from its downtown location to the "Small Mall" on south Dort Highway immediately above Atherton Road. Several smaller schools remain central, convenient to downtown business employers and transportation.

Beyond the K-12 public schools in Flint--including all post-secondary institutions--the land use of education is relatively small. This is particularly true of smaller schools and vocational facilities. Even substantial increases in their enrollments and programs would have little effect on land use.

Other Post-Secondary Schools

In 1911 Eldon Baker founded the Baker Business College which he ran personally for most of his life. In recent years this vocational school gained accreditation as a junior college and was therefore renamed, the Baker Junior College of Business. This business school played an important role in training the City's commercial and office personnel.

Hurley Medical Center is the City's largest hospital. Until recent years, both Hurley and St. Joseph Hospitals featured nursing training until it was consolidated. Today, Hurley Medical Center lists over 2,000 employees, with many more part-time and volunteer.

As a medical school, its students were given as approximately:

Anesthesia	11
Nursing	199
Laboratory	11
X-Ray Training	24
Interns and Residents	81
Medical Students	<u>29</u>
	355

Continuing education is offered by the major universities on an extension basis, both at undergraduate and graduate levels for tuition costs that are generally under resident levels. Of the three major programs, offered by Eastern Michigan University, and Michigan State, and the University of Michigan, the latter is typical recruiting from six counties in the region around Flint. Enrollment for U of M Graduate Extension runs a fairly stable 700 per semester or 1500 per year, roughly half of which students are teachers. For all, enrollment is estimated at 4 to 5,000 per year. Oakland University, Rochester, Michigan, (near Pontiac) also offers both resident and Flint-area extension courses, the latter held typically at local high schools.

Cooperative Extension Service, conducted by the U.S. Department of Agriculture for County residents, offers a large variety of non-credit, informal educational programs for citizens. Such educational services are not simply agricultural but inform City residents and government agencies and offices as well. The Service numbers 33 paid and 325 volunteer workers, and is located just outside of the City.

D. Projected Conditions

Vocational education continues to be important. It may also be rising in popularity, as measured by enrollments. However, it is important to be aware that total headcount measurements may be misleading because of a trend away from a smaller number of full-time towards a large number of part-time students in many schools. The growth of post-secondary schools, particularly the vocational, and especially the private, will be closely related to changes in the local economy. Flint has an unusually high income level along with a relatively large number of poorly educated residents. In future years this could take the form of a pressure to improve their educational levels; academically, vocationally (via specific technical skills) or overall.

Since 45% of Flint workers are unskilled and roughly one-third of the labor force works for a single corporate employer, that employer's policies, in concert with those of involved unions, will continue to have an important effect on education. Corporate executives were supportive in bringing the University of Michigan

to Flint, and it is assumed that this policy of supporting higher education will continue. Company recruiting practices and standards for educational levels, will also have some effect on future conditions. It should be noted however that, for the last 15 years, manufacturing employment has risen only moderately while that for transportation equipment (within this category) has remained fairly even in numbers (while subject to violent fluctuations). If worker needs in the transportation industry drop, which may be the long-term trend, the stress on vocational schools will become great. However, since vocational schools are unique in that they are highly need-responsive, being closely linked to employment, their prospects remain fairly good whatever changes take place.

The physical impacts of vocational education are mixed and represent two principal areas: Most schools are small and their impacts are very limited, highly localized and essentially those of transportation and circulation; a few schools are relatively centralized and create special problems. All location changes have local effects which must be considered, especially if they act in concert with other developments or physical changes. As to changes in land use, no major changes have been identified and no increase is projected for the short-term (five years). This assumes that any need for expansion would be absorbed by the large number of under-utilized schools and other vacant facilities within the City.

E. Recommendations

1. Because of the many and severe effects of unemployment, the City should encourage those activities that will predictably improve the employment capabilities of residents. Vocational training is one such activity.
2. City support of education should be selective and prioritized to address those residents and residential areas in greatest need. Because educational attainment levels and unemployment vary greatly within various areas of the City, supports should focus on local emphasis. This may mean establishing community centers, or augmenting existing facilities so that employment and vocational training needs are met directly. This deserves further study.
3. The City should consider educational development as a component of community development, and as a potential resource for re-use of existing facilities and resources including vacant structures and displaced teaching personnel; concentrating on various age groups and special populations demonstrating particular need.

VI. CHILD CARE FACILITIES

Existing Conditions

Child day care facilities represent a very small factor in City land use and other resources, and therefore are typically ignored in comprehensive planning. Although their cost, staffing and land consumption impacts are minor, these facilities do represent important constraints on some part of the community as a whole, especially parents who work and require child care during their hours of employment. Nearly 10,000 households in the City are headed by females with children, representing an estimated 23,382 children (ECHO, 1975). Although primarily custodial facilities, child care centers also serve educational functions (why they are included within this document's section), and possibly limited health care. Many schools and health care facilities also offer custodial child care as part of their principal activities, which makes this category of facilities difficult to inventory thoroughly. More typically, child care is available within the community on an informal basis. There are also over a dozen child care centers being operated, not all for-profit, which are licensed by the State. However, strict regulation by government is limited.

Relative to planning, the principal concern is not one of land use but of sensitivity to existing uses - concern for location and amenities such as traffic circulation and parking, plus street traffic and other hazards to children. There is also the possibility that existing public (and private) buildings that suggest re-use, such as former school structures might be used as child day care centers. Schools are particularly appropriate for this utility as they were designed to service children and incorporate play facilities and adequate site space for up to several hundred children.

Recommendations

1. Local re-use planning should consider utilization of existing structures City-wide, including former schools, as physical plants for child care facilities. More study is needed.
2. The City should study the desirability of the regulatory licensing of all child day care facilities; via initial and periodic inspections for compliance with code and other standards. Study should be devoted to establishing applicable standards.

VII. LIBRARIES

A. History

In the spring of 1851, four years before Flint became a city, a library was established with a treasury of \$10 and some donated books and magazines. A fire in 1861 nearly destroyed the collection of 2,000 books. A new library was built at the corner of Beach and Kearsley. The library moved once more before moving into its present quarters at 1026 E. Kearsley in 1958. There are seven branches, three in schools.

B. Existing Conditions

Today the Flint Public Library System presently has a book stock of 400,000 volumes, 1,400 films, 12,500 recordings, 12,000 federal and state documents, plus a variety of uncatalogued items including sheet music, pamphlets, maps, photographs, telephone directories and paper back books.

As Flint grew, branch libraries became a necessity. The branch department was organized in 1923 with three branches and a staff of five which today has expanded to seven branches with a staff of sixty-four and a circulation of over 500,000. All branches offer full range of modern library services, including adult and children's books, magazines and recordings, reference collections and information; also programs such as book reviews, pre-school story hours, and films. A very important service is simply answering questions. Hospital service is also a responsibility of the Branch Department. Service to hospital patients is provided for four Flint hospitals: Flint Osteopathic, Hurley, McLaren and St. Joseph.

The library ordered, cataloged and processed 87,830 books for the year for the Flint libraries, and other contracting libraries. Library circulation decreased slightly, in 1976 due to some closings due to budget cuts. The circulation per capita was 5.6 considerably above the average 3.6 for the 37 libraries in the state serving over 50,000 population. The system is operated by the Board of Education.

C. Projected Conditions

By 1980, the Flint Public Library System will require little if any additional space to serve the expected city population of 168,975 persons. Based upon a space requirement of 0.5 square feet of library space per capita, the total library space well exceeds the minimum requirements. Since the addition of two new library branches the distribution of library facilities has improved to a point where 99% of the population resides within a 2-mile radius of some library service facility. No land expansion is indicated.

The downtown branch of the public library now occupies space in the parking structure located at Kearsley and Harrison. This structure along with others on the east side of Harrison from the Flint River south to First Street is to be conveyed to the University of Michigan-Flint downtown campus. Therefore the downtown branch has to be relocated. All indicators point to relocation in the downtown area because of past volumes of business traffic and therefore downtown (CBD) needs. The exact location at this time has not been pinpointed, which is related to space costs, a problem since the branch pays minimal rent.

Although the spatial distribution of the system, in terms of community service areas, is excellent, its resources might be enlarged greatly by establishing closer relations with other systems, especially college and university facilities and large corporations. Operating economy might also be improved. Shared space, especially where parking is adequate, would represent a valuable first step to functional consolidation.

D. Recommendations

- (1) Better utilization of some school-based libraries may be made if they were relocated within area shopping centers where parking is adequate and the image of these facilities being "for children only" can be lost.
- (2) The city should indicate an interim site for the downtown branch, with the objective of providing eventually space in a redevelopment complex such as Riverfront Center. The city should consider subsidizing the branch's location as a business district amenity if quality low-cost space is not available.
- (3) The Board of Education should study consolidation of the public library with the resources of other institutions, outlying systems and private resources.

VIII. MUSEUMS, AUDITORIUMS AND OTHER CULTURAL FACILITIES

The "Culture Center" is the physical location of varied facilities, and is located immediately to the east of the central business district. The Culture Center was comprehensively developed in the 1950s adjacent to C.S. Mott Community College, and quickly incorporated the University of Michigan (1956).

J. Dallas Dort Music Center

The J. Dallas Dort Music Center, an imposing \$1.5 million dark brick structure, is the largest addition to the complex of college and cultural buildings comprising the Flint Cultural Center. Located on the onetime estate of and named for, the Flint automobile pioneer who is considered the father of music as a community activity in Flint, it is the center of community music activities.

The Flint Institute of Music (FIM), a privately supported entity representing many music organizations in the area--professional, amateur and educational--is responsible for operation of Dort Music Center. It shares occupancy of the facility with the music department of Mott Community College. Under the FIM aegis, professional and amateur music efforts are consolidated under the same financial and artistic leadership. A major feature of the music building is a 281 seat auditorium with an excellent lighting system and a stage designed for maximum versatility. Adjacent is a large rehearsal room that will accommodate a full symphony orchestra.

Nearby are two ensemble rooms for rehearsals of chamber music. A large reception room with attached kitchen is equipped to seat about 150 for a luncheon or banquet or can be modified to accommodate 400 for a standup function. The academic section of the building includes six offices for faculty, a lounge each for students and faculty, an orchestra library, four classrooms and three teaching studios. Also housed in the facility is the Charles A. Cumings Music Library, which has a capacity of 30,000 volumes in its 5,760 square feet. Adjacent is an audiovisual center designed to accommodate 24 record listening stations. In proximity are 15 practice rooms, equipped with pianos and other musical instruments. Based at the center is the Flint Symphony Orchestra, a group of 75 professional musicians, which presents eight concerts a year at Whiting Auditorium.

Designed to accommodate an audience of 2,001 persons, the Auditorium is completely equipped for offering the finest programs of the performing arts. Its presentations have included leading symphony orchestras and stage companies from abroad as well as this country. A full schedule of professional theater, featuring top theatrical personalities, is presented daily throughout the summer. Conveniently located and easily reached from any point in the area, a circular driveway permits entry from cars in front of the building. Lighted parking space is at hand for 750 cars. An attractive mall provides pleasant access

to the Auditorium and other units of the cultural complex. Paved walks wind around garden areas and granite seats. Other vital statistics: Fully air conditioned; permanent stage (4,000 square feet); proscenium (55' x 30'); 58 scenery lines; three star dressing rooms (7'x10')' two dressing rooms (12'x14'); two chorus dressing rooms (19'x19').

Arthur H. Sarvis Food Center

The quiet sophistication and pleasing contemporary design of the Arthur H. Sarvis Food Center provides its own welcome to visitors to the Flint Cultural Center. The \$1.3 million structure, catering to both the educational and cultural needs of the community, is the first of its kind in Michigan. It is rated one of the finest in the nation. The facility not only serves as base for the Flint Public School system's Adult High School Program and related activities, including training in food services, it is used extensively by numerous educational, cultural, civic and commercial groups for meetings, lectures and seminars. The upper level of the distinctive precast concrete and glass structure contains a large combination lecture hall-dining room, a public dining room, six smaller meeting-dining rooms, a kitchen and receiving area, food service laboratories, offices and lounges. The public dining room has a seating capacity of approximately 125 persons. The large dining room normally seats 435, but is designed for conversion to smaller quarters when the need arises. The other rooms are available for groups of 25 to 100. The building is equipped with a public address system, a piano and a platform that can be used for special functions. The lower level houses classrooms of the Adult High School, additional food laboratories and other facilities.

F. A. Bower Theatre

The F.A. Bower Theatre was opened on July 8, 1958, as one of several fine facilities in the College and Cultural Center of Flint, Michigan. Funds for its construction, maintenance, and programming were provided by Flint's Committee of Sponsors and private donations. Mr. F.A. Bower, retired official of the Buick Motor Division for whom the building was named, has made many special contributions to the theatre. The building is owned by the Flint Board of Education, and operated by Mott Community College. The Director of the F.A. Bower Theatre is responsible for theatre, programs, policies and operation. The Theatre is a well-designed, excellently equipped theatrical facility that is in use throughout the year for public programming as well as school-related classes and meetings. During the day the theatre functions primarily as an educational facility, providing space for college classes, meetings and other curricular-related or community programs. Equipped with a proscenium-type stage and continental seating for 352 persons, the theater also is in demand for conventions and business meetings. Facilities include complete lighting and sound equipment, lobbies suitable for receptions, dressing rooms and adequate adjacent parking. The regular staff includes a director, technical director, costumer, technician and secretary. Sets and costumes are designed and produced

by the staff and student assistants. This results in a facility that is in regular use throughout most of the year. Each year twelve or more plays are presented, many meetings and other events are scheduled with a total annual attendance figure of 35,000 to 40,000 persons.

The DeWaters Art Center

The DeWaters Art Center, in Flint's Cultural Center, contains the classrooms of the Art Department of Mott Community College, the classrooms of the art classes of the Flint Institute of Arts, two classrooms for the Mott Foundation, and the administrative offices and galleries of the Flint Institute of Arts. The Flint Institute of Arts is an autonomous, privately funded institution. It is open to the public and admission to the galleries is free. The classes are non-credit and taught by professional artists for adults and children on a year-round basis. The programs are varied including a most popular annual Art Fair. The programs scheduled include film, lecture and music series, receptions, trips, etc. The museum attracts approximately 100,000 visitors a year. The exhibition program changes approximately 20 times per year, during which fine temporary displays are shown.

Planetariums

Flint is also served by the Robert T. Longway Planetarium, completed in 1958. The dome-shaped structure measures 60 ft. in diameter and 40 ft. in height, and has seating space for 292 persons. The facility contains equipment for reproducing the skies and the motions of the sun, moon, stars, earth, and other planets and objects with reality and completeness. The planetarium is located in the Flint College and Cultural Center in the eastern portion of central Flint. Most of the visitors are comprised of students. In 1976, it was estimated that 55,000 persons visited this institution. Since planetaria are novel and unique facilities, with few in this region, Longway has the potential for attracting many more visitors including tourists.

Recommendations

As there are no known substantial plans for expansions of land use, no specific recommendations are made, other than that the City continue encouraging the development and use of these facilities.

IX. HEALTH CARE

A. Introduction

The providing of health care for Americans remains as one of today's most important issues, and by some standards, a critical problem. As part of the "revolution of rising expectations" Americans have largely come to expect responsible and effective health care as a routine obligation. While it is difficult to argue that the actual condition of American health has deteriorated (although it may have in specific ways), abundant statistics indicate that Americans enjoy a relatively mixed state of health. This revelation is probably principally due to improved intake and diagnostic techniques, but also due to more rigorous data-collection methods as well, which simply gives us a more thorough and accurate picture of real conditions. It is similarly true that along with this improved perception of peoples' needs, there has been greater access to and uses of health care facilities. This is reflected in the greater costs of health care. Government statistics reveal that in five years (1970-1975):

Medical care costs overall have risen	39.8%
Physician fees alone have risen	39.5%
Total expenditures for health rose (from \$69.2 billion to \$118.5 billion)	71.2%
Family medical care budgets rose (from \$564 to \$822)	45.7%
Family budgets (before taxes) rose (from \$10,664 to \$15,318)	43.6%
Family budgets (after taxes) rose	42.1%
Budget food expenditures rose	56.1%
Housing expenditures rose	41.3%
Transportation expenditures rose	40.2%

Federal health expenditures have doubled since 1970. But the number of people receiving Medicaid benefits, now 32.5 million, has tripled. Medical insurance, especially government insurance, has greatly improved access to medical care. As for costs, hospital payroll costs alone have risen from \$33.16 per patient day to \$72.34 (in the five year period), which costs the public ultimately absorbs.

B. Goals And Objectives

The general goal of health care facilities is to provide adequate advisory, diagnostic and medical care services for area residents. In order to accomplish this, health care planning must be combined with implementation within those agencies and facilities that are charged with actually providing the health services. The goal of health care planning is to generate a comprehensive program to meet the actual needs of present and future residents, and do this within a coherent structure that is cost-effective. Such plans must reconcile to the best possible extent the requirements of the service population, and government agencies including those at the state and federal level. Such planning has been charged with the tri-county agency: Genesee, Lapeer, Shiawassee Health Systems, Inc. (GLSHSI), officially designated health planning agency for the area.

The goal of the "health care" section is to review community health needs, health care deliveries and their physical plant and location needs within the City.

The objectives are to:

1. Review the actual condition of health care in the Flint area, utilizing statistical data, to present a comprehensive statement of existing conditions,
2. Inventory existing health care facilities -- primarily the major institutional rather than small or individual offices such as those operated by physicians, dentists and other professionals -- to review the physical plants and facilities available,
3. Summarize and present recommendations for a local and regional health care plans to bring medical care closer and more accessible to neighborhoods characterized by high risk, high rates of death, disease, a preponderance of elderly population, of minorities population and other persons especially in need.

Health Care And Community Health

This study will look at existing health needs, defined in terms of indicators and other statistics speaking to community health conditions. Local data will be featured, with some reference to projected needs. The complementary component, existing facilities, will be outlined, focusing on major institutional facilities or hospitals. No assessment relating the two will be made, but this function will be served by a comprehensive Plan to be drafted by the controlling local agency (GLS Health Systems, Inc.), and which may be expected to serve this critical purpose.

Lastly, land use will be reviewed, along with an outline of known current expansion plans by facilities, in the next sections (addressing hospitals, long-term-care facilities and professional services).

C. Existing Conditions

As a statistical review will indicate, personal health is far less than ideal. Community health planning can introduce a mediating factor that serves to balance facilities in relation to needs, while considering the costs and other impacts of the health system.

The planning agency GLS Health Systems, Inc. practices goal-oriented planning. This begins with a series of statements which describe desired conditions or goals. Having stated such conditions, the next step is to assess to what extent each condition is being met. Such an assessment gives the nature and scope of the problem. Deficiencies in the desired conditions may then be prioritized for action. Such setting of priorities is based on a number of criteria or considerations (the entire set having been formally adopted by the agency). Determination of priorities for action is followed by a series of planning steps which result in the development of programs of policies moving to goal-attainment.

The following planning steps were adopted by the GLS Board of Directors:

- 1) Develop goal statements
- 2) Assess present status of each goal
- 3) Adopt criteria for goal orientation
- 4) Prioritize goals
- 5) Develop objectives
- 6) Develop alternatives to meet objectives
- 7) Develop annual plan to reflect priorities

The comprehensive statement of existing conditions is similar to that step given as (2) above, and is based on the 1975 assessment of health status of individuals and the status of factors in the environment which affect health (given as A-HEALTH STATUS).* Subsequent steps are being pursued by the health planning agency.**

* Health and Environmental Status, 1975, Tri-County Health Planning Council, Flint, Michigan.

**Their environmental health analysis is presently inadequately developed, which deficiency will be corrected after their Health System Plan (HSP) is released. To date some "at risk" factors have not been addressed. See the City Master Plan's Environment element and Health Department Reports.

This is true of both pediatric (young) and geriatric (elderly) patients, although the latter may pose more of a problem. One strategy available to deal with the displacement of patients is to expand other hospital departments to deal with out-patient services or minimum-care. Another may be the encouragement of additional nursing homes or other supervisory (minimum) care facilities. Since the City of Flint is relatively underdeveloped and a surplus of housing exists, either new construction or conversion is feasible.

The relatively high use of existing beds and facilities may provide a transitional factor as well, although this would not conform to the essence of the planning agency recommendation--less critical admissions could continue as acute and serious admissions rise over a period of time, even though this is a costly approach. The other extreme would be the immediate implementation of a close-down plan based on the recommendation that beds be reduced within the three-county area; and the most cost-effective method would be to totally close one or two hospitals. Since Flint is the principal population concentration within the area, at least one such hospital would probably be designated within the City.

It is important to note that the planning agency functions for the entire three-county area (Genesee, Lapeer, and Shiawassee) and that its activities are geared to this three-county population and inventory of facilities. The actual service area of a hospital or other facility is generally considered to be based on actual utilization.

D. Projected Conditions

Measuring the adequacy of facilities for the future creates some difficult questions. The principal problem is projecting population change, both in numbers and composition. It is recognized that the data base provided by the State is only one of several population projections available. Therefore, until projections are coupled with superior indicators of change, the challenges to state projections relate to two areas:

Overall numbers are projected upward at a moderate rate. Recent experience has demonstrated deficiencies in such upward bound estimates. It may also be that the current surplus of facilities is the direct result of over-optimistic population projections.

Population projections should specify subpopulations including the very young and elderly. Yet the statement of existing conditions speaks of extreme differentiation of health conditions by other factors, notably that of race. If this is correct, a continued shift in racial mix, especially one on the order of Detroit's (about 1-2% per year), might have sharp impacts on Flint's needs for health care deliveries.

In contrast to the agency's upward projection, the most recent data available to the City (the Batelle-Genesee County and the DCD Research & Data Analysis in particular) suggests that City population will continue to drop and County growth will be limited.

Given the above discussion, the relationship of needs to facilities is not a problem, at least, not a serious problem. Even if the City population of elderly rises somewhat as a percentage of the total, it should be able to be accommodated within the area.

The locational corridor of hospitals and especially all other professional health services within the City (a West-East strip across the City) does not seem to represent a deficiency or a future problem. However, there is a possible need to decentralize community health centers, especially in those City neighborhoods that are probable high frequency users of health care facilities.

By "decentralization" of facilities, the prime health care facilities would not be affected themselves. Rather, "satellite" or remote facilities or centers could be established within the City to service local neighborhoods. Such centers might act to screen and educate residents, and serve intake and outreach purposes, referring acute patients to the prime facilities. Centers should be located where they are most accessible to clients and patients, which may be on major streets, possibly at shopping or other commercial centers. Re-use of existing physical inventory -- schools, churches, homes and storefronts, and possibly other structures -- should be emphasized.

Justifying such satellite health care facilities is difficult without support of a competent professional study by health care planners. However, a variety of inferential evidence suggests that community health condition might be improved by bringing health care closer to residents, especially those who are impaired or otherwise are constrained from easy access to existing facilities.*

Current information suggests that more than one such facility may be appropriate, to include geriatrics (elderly) and extended health care. Substance abuse programs can also stand strengthening in the community, along with mental health services.

Comprehensive data on the City shows wide variations in the composition of local areas in terms of: race, age, income, education, family size and make-up plus other factors that have some relationship to health and health care. Existing health status, while not sufficiently detailed by local City areas, indicate some pressing needs. Of many variables cited, one of the most significant was that of race (see Goals I, II and VII). Of the City's

*Christianson, Jon, "Evaluating Locations for Outpatient Medical Care Facilities," Land Economics, 52-3 (August, 1976)

35.4% black population, the greatest concentration occurs in the north-central corridor -- Planning Districts 2, 4 and 5 -- where the black population ranges from 75% to 90%. There is also a correlation between black population and the "at risk" characteristics cited, families with income below poverty level, female head of household, overcrowding, elderly population and so on. These factors all tend to show concentration. One method of assigning "best location" would be to define known conditions of poor health or other medical care need, at risk factors, and relate these to particular areas within the City. A very limited analysis of known demographics suggests that localized health care is most needed in the north-central corridor. More intensive study of this would be beneficial.

Satellite Location Considered

1. A drive-in community health center that is conveniently located in or near a shopping or other local center that encourages a high number of shoppers or other routine visitors. This is to encourage patients who by themselves or with others might wish to combine daily chores with personal medical care.
2. A community walk-in health care center that is located in a place central to a known high concentration of sub-population estimated to have high probable need. Such a center might combine a variety of other community functions, as is the case of the present Senior Citizens Center on Flint's north side.

The City can play a role in assisting the establishment of such centers. There are several possibilities:

1. Structures that are, or will become vacant, but are generally sound and only in need of remodeling and rehabilitation, may be set aside as the physical base for a community center. Up to now, many such structures have been demolished since there was no viable reuse for them.
2. Community Schools that have declining enrollments and are in imminent peril of being closed, or are actually closed, are another prime candidate for such centers.
3. City redevelopment or urban renewal projects may have room for community health centers, if only on an interim basis (until leasing or sale totally obligates inside space).
4. Vacant and privately owned structures, typically commercial, may be leased or purchased for reuse as health centers.
5. Zoning requires study, whether nonconforming or conditional uses, or special; including parking and circulation.
6. The City should consider sponsoring and co-funding the construction of new community health care facilities either to

supplant existing facilities or to provide new facilities at other locations where neighborhood deficiencies exist.

Community health care centers pose the opportunity to meet in comprehensive fashion all neighborhood needs. They also pose the prospect of representing the physical nucleus of a community health maintenance organization (HMO), the need for which may exist in the City.

Projecting physical impacts is difficult because of many imponderable factors; federal reappraisal of HEW and related policy, local GLS HSP policy, plus the cited uncertainty of regional or tri-county growth in future years. Local health care facilities appear to have largely completed most of their expansions, with the exception of Hurley Medical Center. It is important to note that local hospitals have a history of expanding at their original and parent site as opposed to growth via satellite facilities. This has important implications for City policy, especially if the recommendations presented here are to be implemented. Further hospital growth that remains centralized will certainly aggravate transportation impacts, especially as to parking and circulation. Recent analysis of site plan reviews of hospital expansions has shown that every site plan proposed exhibited some sort of deficiency as to vehicular use. It is, therefore, desirable that existing zoning ordinances covering parking (Ordinance 2046, Section 50-139) and related controls, be reviewed for adequacy. Such review should also consider the calculations that are the basis of parking space allocations; assigning spaces by the nominal number of beds, doctors and employees may not reflect actual use patterns today. Visitor parking, which has an enormous impact, similarly may not be provided for properly, which is also true of out-patient traffic.

A preliminary review of zoning covering hospitals suggests that there are some inconsistencies that might call for ordinance amendment, or rezoning. But this seems to be the result of hospital development patterns rather than a deficiency in regulation. The most obvious deficiency relates to off-street, on-site parking which seems to be generally inadequate. Some refinement may be necessary in related areas such as access-egress and driveways; similarly, buffering and screening (apart from landscaping or beautification per se) seem to need improvement. Much of this need is based on hospitals being located within residential areas and major streets.

as the above Plan suggests there will be a substantial increase in land use contiguous to their present site.

Present site size: 7.4 Acres

McLaren General Hospital, at Ballenger Highway and Beecher Road, has completed a minor expansion of physical facilities with the completion of their parking structure along Sunset Drive at the north boundary of their 12.35 acre campus. This adds a 440-car capacity to their present structure and surface parking. The hospital complex consists of one large structure, a garage and the parking facilities. To the west, across Ballenger Highway, there is a clinic on .74 acres of land. The new ramp suggested possible traffic problems at Sunset Drive but these are being resolved. Since the ramp was constructed on McLaren's existing property, there is no additional land consumption.

Present site size: 14.8 Acres

Flint Osteopathic Hospital, 3921 Beecher Road, at the southwest corner of Beecher and Ballenger, recently added a 10,000 sq. ft. addition to their cafeteria. Existing facilities also entertained some renovation. A 24 x 32 ft. addition was also constructed onto their existing 28 x 32 ft. storage building. The work was begun in 1974. There was no expansion of their existing site of 18 acres. There are no known plans for further changes.

Donald M. Whaley Children's Center, 1201 N. Grand Traverse Street, has begun a six-classroom addition to their Activity Building. The structure now under construction will house special education programs that are an extension of their treatment of the emotionally impaired. The addition will be completed in August, 1977 and extends from the Activity Building housing a gym and multipurpose recreation center. This is separate from the Administrative Center Building which has a second floor devoted to residential housing. While sharing the same 11.8 acre site immediately to the north of Hurley Medical Center, a Community Mental Health building is not connected either with Hurley or the Whaley Center's activities. There are no plans for Hurley to expand in this direction. All Whaley growth is presently confined to their own site.

Whaley Center activities also embrace three nearby but separate community-based group-treatment residences: Alarie House, 1214 Mackin Road, about one block from the Center; Boylan House, 1014 West Sixth Avenue, and Kenworthy House, 515 West Third Street. These were opened in 1972, 1973 and 1975.

Although essentially a welfare and community service activity, Whaley Center is listed in the Health section because it is a major land user within the City's health care "corridor".

St. Joseph Hospital, 302 Kensington, is completing an extensive major improvement program.

Mott Children's Health Center, 806 West Sixth Avenue, while physically connected to Hurley Medical Center, is actually an independent organization affiliated with an Ann Arbor facility. The Center, serving children up to age 18 having special problems, rents space to Hurley and other organizations. The Center has no plans for expansion but has the architectural option of building more space onto their existing structure.

Long-Term-Care Facilities

Subacute or patients not seriously ill and not kept at home are most economically housed in facilities for long term care. These are variously known as "nursing homes, rest homes, convalescent homes, sanitariums". Since many specialize in, or normally contain large percentages of elderly persons, such facilities are often known as homes for the elderly. Although found elsewhere, there are no homes for the elderly operated by the government, in Flint. Such facilities offer essentially supervisory care, although they often have professional staff such as Registered Nurse and visiting physicians. Over a dozen facilities are in the Flint area and offer various specialized services such as treatment of alcoholism, mental illness and acute behavioral problems. Many are proprietary and some operate as non-profit. Because of their limited land use and small numbers within the City, these "homes" were not studied in detail. Land consumption is indicated as 7.7 acres. Of the nursing home facilities within the City, capacity or in-patient beds, is estimated at 478 beds, while those in the suburbs provide approximately 1,200. Nursing homes are largely decentralized, many at the City's edges. Homes for the aged are relatively centralized, with 229 beds of the County's 336 located in Flint.

Nursing homes, while medically-modeled, are severely limited as to the types of services they can provide by Title XX authority. However, they can function effectively as part of a health care continuum, especially if they are integrated within long-term planning and policy. It has been suggested that these facilities could effectively "unload" much of the more costly acute care beds now being utilized in area hospitals, thus ultimately reducing public costs. This involves a consensus between the providers of health care and those providers of long-term-care, no projection of conditions is possible at this time. Since population projections are essentially calling for limited growth of population including the elderly, a substantial growth of such facilities would only be possible if: (a) a greater percentage of persons began using institutions, which seems unlikely, or (b) patients now making intensive use of hospital acute care beds are diverted to long-

term-care facilities, which is uncertain.* Present legislation and health planning, however, is not conducive to expanding extended care facilities, which deficiency requires attention.

If there is an expansion of long-term-care facilities, the City would have a good opportunity to promote the re-use of existing inventories of housing and other structures. Because the architectural requirements of these facilities are much less demanding than, say, hospitals (with the exception of barrier-free features), renovation costs of existing homes and commercial structures may be attractive. However, many older structures, especially a long-favored conversion, the once elegant mansion, may not be feasible in the long run because of poor energy efficiency and high re-insulation costs, atop normal remodeling costs.

Because of the relatively great decentralization of these facilities, any growth in their numbers would represent an opportunity to recentralize long-term-care facilities. It is assumed that historical movement outward is based on typical high land costs in the center City. Because of the relatively low level of development in Flint (about 10% of the developable land is vacant) and a probable increase in available land, it may be feasible for facilities requiring some substantial site size (for parking, landscaping and so on) to locate within the City. Aside from possible improvement in land acquisition feasibility, there are other attractions:

1. Many ill and elderly probably originate from the center City. Family visiting would therefore be facilitated,
2. Locating patients in facilities close to existing hospitals, laboratories and physicians would improve personal convenience (which appears to be a significant factor) and might improve the cost factor because less movement time is involved,
3. Recentralization provides possible re-use of existing inventory of structures as well as land.

* Health care planning requires that distinction be drawn between long-term-care as discussed here and short-term recuperation or convalescence from a medical condition. The latter may more typically serve to reduce unnecessary hospital days. But both are required to service the population, while not differing greatly as to the nature of the physical facility and its site and location.

with play equipment requires maintenance, whether or not it is used. The Board of Education is presently faced with rising costs created by un-used facilities. Re-use of vacant facilities is highly desirable, but demolition of the structures and site clearance remain the ultimate possibility to reduce maintenance costs.

Since most school buildings were completed in the period before energy costs rose greatly, before barrier-free design was deemed to be important, and other restraints, the continued use or re-use of buildings will not be easy or low in costs.

E. Recommendations

1. Given the limited amount of data available on the composition of neighborhood populations, further demographic study is desirable. This should identify composition factors such as minorities make-up, numbers by ages, educational attainment and needs, ethnic origins, income, health status and any other conditions that may affect school attendance and performance. Projections of composition change should also be addressed, ideally given by annual increments.
2. A comprehensive master plan should be formulated by the Board of Education that includes physical facilities such as schools, their continued use and re-use by the community, whether for academic or other uses. Such a plan should consider the feasibility of integration of non-public and public facilities, both within the City and around the City, possibly within the boundaries of the Genesee County Intermediate School District. A prime objective would be to explore the possible consolidation of facilities throughout the area to optimize the uses of all available facilities.
3. A mechanism should be established to improve citizens' participation, to review the scheduled closings of facilities and to assist in the formulation of re-use or other disposition procedures. Such a citizens' advisory group might play a major role in establishing a prioritized list of schools closings. Such a group should be representative of the community, and operate as long as the facilities problem exists.
4. Re-use utility of existing school buildings and their improved sites, should be examined thoroughly. Both re-use and continued use for education should consider mixed uses even to the extent of leasing space. Single uses include:
 - (a) Park and recreation
 - (b) Community (public) services

- (c) Day care-nursery-pre-kindergarten
- (d) Health care including primary care, outreach, intake and screening
- (e) Vocational training or other educational
- (f) Private commercial offices (zoned C-1 conditional or D-1). City policy may wish to assign greater re-use priority to private uses that will improve the tax base.

Non-Public K-12 Schools

Although non-public schools were studied, no in-depth analysis was attempted, beyond considering enrollment levels and estimating recruiting areas. This is because non-public schools do not consume substantial amounts of public funds directly, do not use very much land (and expansion seems unlikely, although this was not examined), and have accounted for a small fraction of total school enrollments. It is estimated that roughly one-half or 3,861 of the total Intermediate School District non-public enrollments come from within the City of Flint.

Non-public are "alternative" schools, mainly established because of family religious convictions but including other motivations. They appear to be suffering enrollment declines similar to those found in public schools -- in the last five years enrollments dropped from 7,116 to 6,710 with considerable fluctuation within individual schools. However, this is well below the levels of the mid- and late 1960s.

IV. EDUCATION - POST-SECONDARY SCHOOLS

A. Introduction

Post-secondary schools provide education which follows or builds upon intermediate or high school work (above 12th grade). This grouping is essentially academic -- accredited higher education -- in contrast to pure vocational training (not for academic credit) although the distinction today may be small. Roughly two-thirds of Flint residents qualify for post-secondary or college work, as measured by their having a high school diploma. About one-fifth have so opted (15% having some college, 3.9% with college degree, and 0.1% having a graduate degree), in the City. Educational attainment levels are considerably higher out of the City, especially for higher degrees. Of those persons in Flint without college training, only 19.4% have had vocational training, a possible problem. Most of this training has been in trades and crafts, but business and office skills, also nursing and health care rank high. Unskilled workers make up nearly one-half (45%) of the City population, which has some relationship to their levels of education.

Post-secondary schools are not limited to City residents and recruit from a service area at least as large as Genesee County, representing roughly 446,000 population. The University of Michigan-Flint has a designated service area covering 11 counties including Genesee. Since they are not tax supported, private schools do not observe political boundaries.

Local public schools now spend approximately \$3 million per year for adult education at all levels. This represents direct operating costs and ignores a far greater investment in facilities. To include the private sector's contribution, would increase the \$3 million level significantly. The rising emphasis on "adult" education is founded on the relative decline of children as a part of our overall population, the so-called "graying" of America. In 1974, 3.7 million Americans signed up for college courses (for 34% of all college enrollments) -- roughly twice the 1970 level of 1.7 million (22% of the total). By 1980 the U.S. Census estimates that adults could form 40% of college enrollments. The junior college, such as Flint's, was begun to accommodate post-secondary students who were typically recent high school graduates and ranged from 17 to about 20 years of age. The average age of students at Mott Junior College today is over 26. Just as the age of students has increased, so has the educational mix or coursework offerings.

The term "continuing education" has become a catch-all that incorporates a broad and varied number of educational courses and programs. Because of the mobility of Americans, often in response

to changes in their employment -- place, kind and level -- additional training is today practically a life-long obligation. Not all of this is academic and the percentage of non-credit coursework may be rising. Academically certified education must take place in the college or university, but the need for such work is uncertain. The need for continuing education is characteristic of professional employment, especially where teaching or technical work is involved. Certification is important. Many employers require an accredited school, college or university, if they are to pay employee tuition and other school costs. Baker, a business school, obtained such certification and is now a bonafide junior college.

The increase in the age range of students has been noted. Students now also include factors who in numbers are relatively new: women and minorities. The impacts of affirmative action and equal opportunity programs have brought out many persons who were not previously in the labor force or job market, or active in education. It should be noted, however, that headcount totals given for enrollments can be misleading. Many schools have found a trend away from full-time students to a larger number of part-time students.

B. Goals and Objectives

See those given earlier for Education.

C. Existing Conditions

Local post-secondary schools will be addressed in this sequence: (1) Charles Stewart Mott Community College, (2) University of Michigan-Flint, (3) General Motors Institute, and (4) Vocational and Special Schools both public and private. With the exception of the Michigan School for the Deaf, vocational and special schools do not represent important land consumers.

Discussion of and recommendations for Mott College and the University are necessarily somewhat parallel since both share a near-central existing campus and both of these schools have expanded to centrally-located sites adjacent to the central business district. Both continue to generate traffic, circulation and generalized transportation problems at their existing sites and are beginning to generate similar problems at their extended sites.

C.S. Mott Community College

Charles Stewart Mott Community College began in 1923, as Flint Junior College. The City school received its first enrollment of 114 in a Flint High School structure. Eight years later a campus was established in the former Oak Grove Sanitarium facility. In

1963, Charles Stewart Mott deeded 32 acres of land for the present 56 acre campus. The three-level College Center was opened in 1972 as a multi-purpose facility featuring food services. Arrangements were made with the University of Michigan-Flint to use their library resources in 1961. Extended classes are held nearby at the DeWaters Art Center, F.A. Bower Theatre, and J. Dallas Dort Music Center, all located within the Culture Center area.

Academic offerings are broad and diverse in liberal arts and sciences, ranging from business administration, art and music, English and foreign languages, science, mathematics, history, engineering. These all can transfer to any accredited four-year institution. Associate degrees are a popular offering. The College also offers one and two-year programs in vocational concentrations: nursing, auto service, data processing, food technology, and technical programs. Trades programs in 30 fields are offered, along with a variety of pre-professional sequences. Vocational-technical programs have been exceptionally popular. This may be because the College's students are predominantly from moderate and lower-income families, mostly part-time and self-supporting, although Mott College students are so diverse as a group that there is no such thing as an "average" student.

Mott Community College also established a new facility centrally located on Flint's near-north side, the Walter P. Reuther Center for Learning Development located at Fourth, Fifth Streets and Detroit and Chippewa Avenues.

Offering a broad and varied continuing education program encompassing business and technical training, the Center also features cooperative programs and provides space for a number of public agencies. The latter includes job-skills training, plus office space for the agencies themselves. The Center was opened in September, 1975.

The main campus has been handicapped by being located within a floodplain, which creates annual flooding of low lying areas including parking facilities. This has also made more difficult development of limited open land into needed facilities such as those for physical education. It was once assumed that Central High School would be closed, a new plant to be built elsewhere, thus making the existing facility and land available to Mott College. The Board of Education elected instead to remodel Central, retaining it and Whittier Junior High School at their present locations immediately west of Mott College. It is assumed that the College will continue shared use of Central athletic facilities, since no other nearby sites have been made available for College use. The College would benefit from having space to construct its own facilities.

Since nearly all students, faculty and staff at both the College and University drive to and from the institutions, parking and circulation represent a major problem. With the winter 1976 opening of the downtown University of Michigan-Flint campus, the traffic load has eased somewhat and will ease still further when the University relocation is completed. Meanwhile, there is a continuing problem with traffic impacting Court Street, and neighbors have expressed concern with traffic on local streets in the adjacent residential neighborhood. This suggests closer and continuing liaison between the College, University and other major traffic generators in the central City area. This will be discussed in the Transportation Section.

The University of Michigan-Flint

Local interests led by civic and business leaders encouraged the establishment of the University of Michigan at Flint in 1956. The school began with 377 students as a senior college, effectively providing the junior and senior years for graduates of Mott Community College. Thus, the two schools shared a common campus in a functional, complementary way. In 1965 the University became a full four-year baccalaureate institution, operating within a physical structure that had been built and then added to by Mott Foundation's grants. In 1971 the University of Michigan-Flint was designated as a full branch campus of the parent institution at Ann Arbor, and was charged with the implementation of the 1969 Regents' recommendations for campus and program development, a general and regional expansion. The Mott Foundation provided the University with funds to acquire 17 acres of land at Court and Lapeer Streets, immediately west of the existing campus and adjacent to the new I-475 expressway. However, the master plan for development based on 5,000 students, indicated that 17 acres would not be enough to support parking needs. Local leadership marshalled City support, and the City of Flint offered the University a prime redevelopment site of about 38 acres along the south bank of the Flint River, immediately east of the Central Business District. In 1972 the State conditionally approved the relocation of the branch to this downtown site, with development plans approved and ground being broken in 1973. The first building was essentially complete in fall, 1976. Classes were begun with the winter term of 1977, and work continues on other structures and site amenities.

The University of Michigan-Flint offers a four-year baccalaureate program in arts and sciences, as well as professional programs. Its physical development is based on a staged academic development program, starting with a comprehensive college and then developing to a regional university center offering programs of undergraduate education in the liberal arts and a variety of professional and general career options, graduate instruction in a selected range of programs, continuing education and public service. The University's present plan

(Academic Program Plan, 1974) establishes a planning level of 6,500 Full-time Equivalent Students, noting that "growth of the institution and development of its mission are both dependent upon the creation of new academic programs and the delivery of facilities that will be appropriate to a regional campus of the University of Michigan located in an urban environment." An intermediate planning level of 4,000 FTE was subsequently established as part of the University's prospectus for a new classroom/ laboratory building and a library/learning resource center. Present planning thus utilizes the following data:

	<u>Planning Level I</u>	<u>Planning Level II</u>
Headcount students	6,200	8,000
Full-time Equivalent (FTE)	4,000	6,500
Parking levels		
"Limited" program	1,230	2,000
"Full" program	2,805	4,560

Actual enrollments (Fall, 1975 - 3474 HC, 2501 FTE and Fall, 1976 - 3685 HC, 2520 FTE) have fallen somewhat short of original estimates, but long-range planning has not been revised. Such enrollment projections are subject to various uncertainties, and declining traditional college age populations suggest hesitancy in the projection of growth into the 1980's. Nonetheless, the establishment of a full complement of academic programs at UM-F in conjunction with new facilities in an urban setting is cause for an optimistic outlook for the eventual attainment of original goals.

The University here has been, and expects to remain, a commuting school. Although designated as a regional campus, a great majority of its enrollment has come from the Flint Area. Most (80%) drive, or share rides and a few (4.0%) take a City bus. Since the University has no resident housing policy (there is hope that Doyle redevelopment will help) transportation remains the school's principal problem, one it has in common with Mott College with which it has shared a 56-acre campus. Relocation to its new downtown riverfront campus is expected to greatly reduce but not eliminate parking problems. Circulation is a problem likely to remain.

The University has not indicated any further land needs, as for expansion. Since the University enrollments have generally fallen below earlier predictions, there has been less pressure to designate expansion areas or land bays appropriate for growth. University planners have acknowledged this possible need and retain contingency plans for leasing non-contiguous space.

However, it should be apparent that two primary opportunities remain available to the University: To the northeast, the land is relatively undeveloped with the exception of two institutional users (structures that might be incorporated by the University); and to the north, across the Flint River, the IMA complex and its broader environment. Further expansion to the south may be possible, but high land costs would limit this and probably rule out expansion to the west and the Central Business District.

Certain needs remain to be met. Although the University has shared a site and many facilities of Mott Community College, the University's move to its riverfront campus will make such sharing impossible. One of several problem areas is that of providing athletic facilities for University students.

The intention of the University is to provide parking for its students, staff, and faculty without absorbing the scarce parking resources of the downtown area and thus has constructed a 500 car surface lot as well as smaller temporary parking lots. More comprehensive development of the University's campus plan will add additional parking to meet increased enrollment. Completion of I-475 nearby is also vital to transportation.

The University of Michigan-Flint represents a substantial local investment. Major contributions may be simply summarized:

City of Flint	\$13,749,000
Private gifts	8,250,000
State funding, approved budgets and planning funds	17,780,000
Library & Science Bldg., estimated	25,000,000
Federal (highway)	1,091,000
	<u>\$65,870,000</u>

The objectives of this investment include: providing a physical identity for the University of Flint, providing an urban campus setting including physical facilities and academic program meeting the educational needs of Flint area students, plus contributing to the restoration of Flint's Central City and benefit from unique resources of the downtown area. The University is thus a major force in Central City revitalization.

General Motors Institute

General Motors Institute, 1700 W. Third Avenue, is a private undergraduate college of engineering and industrial administration. Begun as the Flint Institute of Technology in 1919 to meet the need for technical staff training, the school became a part of General Motors Corporation in 1926 and later became known as General Motors Institute. Its 44-acre campus is located adjacent to Chevrolet

Motors Division on the west side of the city. Facilities include a Campus Center Building, Academic Building, Student Dormitory and Parking Deck. No expansion land needs have been indicated.

GMI accepts a limited number of high school graduates from throughout the United States and Canada. Baccalaureate degrees are granted in Electrical, Industrial and Mechanical Engineering, and in Industrial Administration. Enrollments have been fairly stable with 2,275 enrolled for Fall, 1977. GMI also serves General Motors personnel internationally.

The Institute students and employees are active in community service and contribute to the area economy. Institute social and cultural programs are often open to the public. About forty percent of its students are housed on the campus, the balance finding residential quarters in the area.

D. Projected Conditions

Mott Community College has identified a need for additional usable land. Part of its existing campus is floodplain, of marginal utility. A substantial portion is absorbed by internal circulation and parking. Of the large amount of facilities that are shared but owned by other institutions, a significant portion is that devoted to physical education, provided by a City high school. The College would prefer its own athletic facilities, space requirements given as a minimum of 8.11 acres; 4.22 acres for baseball, 2.19 acres for softball, and 1.70 acres for tennis court development. Such land should be nearby (up to 1/2 mile) or contiguous to the present Court Street campus.

Walter P. Reuther Center for Learning Development, at its south Oak Park location, represents an exemplary re-use of what was once a busy retail complex. Conversion to offices now involves substantial clientele. If enrollments continue to rise, traffic congestion may become a problem, especially if the City-envisioned Fourth-Fifth Avenue pair is further developed. Doyle redevelopment is only one of a number of factors that will tend to add congestion to the area. The City must remain sensitive to changes in the area, particularly if the current revitalization efforts result in the re-opening of other buildings, whatever their uses.

Projected conditions for the University of Michigan-Flint differ from those of the Mott Community College for slightly different reasons - the College has effectively redirected its growth into largely adult education-vocational areas, while the University has held to its basic academic plan with sustained investments of resources. Thus, the University appears to be meeting its earlier planned objectives, although slightly below and behind level and date projections. Similarly, the University

ENROLLMENTS IN NON-PUBLIC SCHOOLS

<u>NON-PUBLIC</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Luke M. Powers	1,348	1,283	1,240	1,204	1,120
Holy Family	526	540	516	567	559
St. Robert	520	490	496	508	541
Holy Redeemer	575	565	493	454	481
Holy Rosary				375	367
Donovan South Mayotte					332
St. John	306	306	273	276	312
John R. Rice		70	197	253	310
Flint Christian	266	245	141	233	303
St. Mary (Swartz Creek)	149	182	220	255	275
St. Paul Lutheran	206	201	184	232	247
Donovan Middle School North	365	291	264	251	234
Holy Rosary	678	643	602	214	217
St. Mary (Flint)	218	201	186	215	201
Redeemer Lutheran	164	164	124	187	200
Maurice Olk	258	303	220	225	186
Genesee Christian			141	110	157
St. Mary's (Mt. Morris)	85	76	94	114	144
Our Savior Lutheran	88	96	90	75	116
St. Pius X Primary	134	109	94	85	96
Emanuel Lutheran Elementary	107	98	94	76	92
St. Mark Lutheran	58	54	72	80	87
Linden Road Seventh Day Adventist					49
Foss Avenue Christian					47
Good Shepard Lutheran	34	31	28	38	38
The Valley School	181	186	143	157	162
Total Non-Public (Includes schools now closed)	7,116	6,787	6,572	6,710	6,743*
GRAND TOTAL	133,746	131,460	130,086	128,939	125,691

* Non-public enrollments from the City of Flint are estimated at 3,861.

ELEMENTARY SCHOOLS

Name & Address	Year Completed	Year(s) Added to	School Site Acres	Rooms in Building							Pri- mary Units	Mobile Units		
				Class- rooms	Gym	Aud.	Comm. Room	Inst. Mater- ials	Branch Li- brary	Other(a)			Total	
Anderson G-3248 Mackin Road	1965		6	11	1	1	1	1	1			15	9	
Brownell 6302 Oxley Drive	1963	1966	24(s)	23	1	1	1	1	1		1	28	8	5
Bunche 4121 Detroit Street	1967	1971	6	22	1	1	1	1	1			27	7	
Carpenter Road 6901 Webster Road	1965	1969	6	22	1	1	1	1	1		1	27	7	
Civic Park 1402 W. Dayton	1922	1959-1972	7.8	22	1	1	1	1	1		1	28		
Cody 3201 Fenton Road	1925	1964-1971	10.2	21	1	1	1	1	1		1	25	8	
Cook 500 Welch Blvd.	1917	1954-1964	3.7	26	1	1	1	1	1		1	30		2
Coolidge 3615 VanBuren Avenue	1928	1953-1971	4.9	18	1	1	1	1	1			21		
Cummings G-2200 Walton Avenue	1956		11	11	1	1	1	1	1			16	7	

- (a) Other areas such as backstage rooms, basement rooms, etc.
- (b) Purchased in 1963.
- (c) Estimated classroom equivalency of all instructional areas except the gym.
- (d) Rebuilt; completed January, 1976.
- (e) There is a commitment to build a new school on a 6-acre site in Doyle area.
- (s) Shared with another school.

ELEMENTARY SCHOOLS

Name & Address	Year Completed	Year(s) Added to	School Site Acres	Rooms in Building							Total	Pri- mary Units	Mobile Units		
				Class-rooms	Gym	Aud.	Comm. Room	Inst. Materials	Branch Library	Other(a)					
Dewey 4119 N. Saginaw Street	1921	1960-1964	4.2	31	1		1		1			1	35		
Dort (d) 2025 N. Saginaw Street	1976		3.7	25	1		1		1				28		
Doyle (e) 1040 N. Saginaw Street	1902	1954	2	School closed at the end of the 1973-74 school year.											
Durant-Tuuri-Mott 1518 West Third Avenue	1922	1958-1969	21.9	44	1	1	1	1	1			3	51		1
Eisenhower 1235 Pershing Street	1966		6	16	1	1	1	1	1			1	21	8	
Flint Open School 316 E. Pasadena Avenue	1925	1958-1968	21.8(s)	54	2	1	1	1	1			1	60		
Freeman 4001 Ogea Avenue	1951	1959	5	16	1	1	1	1	1			1	22	9	
Garfield 301 E. McClellan Street	1928		21.8(s)	25	1	1	1	1	1			1	29		
Gundry 6031 Dupont Street	1955	1960	10	22	1	1	1	1	1			1	27	4	1

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				Class- rooms	Gym	Aud.	Comm. Room	Inst. Mater- ials	Branch Li- brary	Other(a)			Total	
Homedale 1501 Davison Road	1913	1922-1966	4	28	2	1	1	1				33		
Jefferson 5306 North Street	1926	1955-1971	3.5	20	1		1	1				23	7	
Johnson 5323 Western Road	1967		5.1	10	1	1	1	1			1	15	8	
Kennedy 1541 N. Saginaw Street	(b)	1965	2.3	16	1		1	1			1	20	2	
King 520 W. Rankin	1970		1.9	21(c)	1		1	1				24		1
Lincoln 2820 S. Saginaw Street	1918	1964	4	17	1		1	1				20		
Manley 3002 Farley	1969		4.7	24	1		1	1			1	28		
Martin 6502 Stafford Street	1924	1960-1971	4.4	23	1		1	1				26		
Merrill 1501 West Moore Street	1953		6.7	14	1	1	1	1			1	19	8	3

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Neithercut 2010 Crestbrook Lane	1961	1966	7.3	14	1	1	1	1			1	19	8	
Oak 1020 Oak Street	1908	1954	1.4	School closed at the end of the 1975-76 school year.										
Parkland 3319 North Street	1914	1954	2.7	School closed at the end of the 1975-76 school year.										
Pierce 1101 West Vernon Drive	1952		4.6	14	1	1	1	1				18		1
Pierson 300 E. Mott Avenue	1928	1964-1971	12.8(s)	34	1		1	1			3	40		1
Potter 2500 N. Averill Avenue	1952		12	23	1	1	1	1		1	1	29	7	
Scott 1602 S. Averill Avenue	1961	1965	15.3	14	1	1	1	1			1	19	5	
Selby 5005 Cloverlawn Drive	1956		7.2	8	1	1	1	1			1	13	10	
Sobey 3701 N. Averill Avenue	1962		6.3	11	1	1	1	1			6	21	7	1

- (a) Other areas such as backstage rooms, basement rooms, etc.
- (b) Purchased in 1963.
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Stevenson 510 W. Sixth Avenue	1909	1959	2	15	1		1		1			1	19		7
Stewart 1950 Burr Blvd.	1955	1964	5.5	21	1	1			1			2	27		
Summerfield 1360 Milbourne Avenue	1970		12.4(s)	21(c)	1				1				24		
Walker 817 E. Kearsley Street	1960		1.5	12	1				1				15		
Washington 1400 N. Vernon Avenue	1922	1959	3.7	21	1				1				24		
Wilkins 121 E. York Avenue	1972		5.0	21(c)	1				1				24	8	
Williams 3501 Minnesota Avenue	1969		6.8	30	1				1			1	34		
TOTAL (open) 40				841	42	20	40	40	40	4	37	1024	130	23	

- (a) Other areas such as backstage rooms, basement rooms, etc.
- (b) Purchased in 1963.
- (c) Estimated classroom equivalency of all instructional areas except the gym.
- (d) Rebuilt; completed January, 1976.
- (e) There is a commitment to build a new school on a 6-acre site in Doyle area.
- (s) Shared with another school.

JUNIOR HIGH SCHOOLS

	Year Completed	Year(s) Added to	School Site Acres	Rooms in Building							Total	
				Class-rooms	Gym	Aud.	Comm. Room	Li-brary	Cafe-teria	Other(a)		
Bryant 201 E. Pierson Road	1958		12.8(s)	32	2	1	1	1	1	1	1	39
Flint Academy 401 E. McClellan Street	1928	1961-1967 1953-1956	21.8(s)	54	2	1	1	1	1	1	1	60
Holmes 6602 Oxley Drive	1962	1966	24 (s)	42	2	1	1	1	1	1	1	48
Longfellow 1255 N. Chevrolet Avenue	1928	1962	12.4(s)	46	3	1	1	1	1	1	3	56
Lowell 3301 N. Vernon Avenue	1918(b)	1962	31	65	2	1	1	1	1	1	1	71
McKinley 4501 Camden Avenue	1930	1954	21.7	43	2	1	1	1	1	1	2	51
Whittier 701 Crapo Street	1925	1958-1966	20.5(s)	52	2	1	1	1	1	1	1	58
Zimmerman 2421 Corunna Road	1929	1958-1972	4.6	36	2	1	1	1	1	1	1	41
TOTAL				370	17	7	7	8	8	8	7	424

(a) At Flint Academy: 1 swimming pool

At Bryant: 1 mobile unit

At McKinley: 2 mobile units

At Longfellow: 3 basement rooms

(b) Lewis Elementary School (built in 1918) became part of Lowell Junior High School (built in 1930) in

September, 1964

(s) Shared with another school.

HIGH SCHOOLS

	Year Completed	Year(s) Added to	School Site Acres	Rooms in Building							Total	
				Class-rooms	Gym	Aud.	Comm. Room	Li-brary	Cafe-teria	Other(a)		
Central 601 Crapo Street	1923	1958-1961 -1977(d)	20.5(s)	64(d)	2	1	1	1	1	1	1(d)	71(d)
Northern G-3284 Mackin Road	1971		45	93	2	1	1	1	1	1	2	101
Northwestern G-2138 W. Carpenter Road	1964		63.5	70	2	1	1	1	1	1	5	81
Schools of Choice (b) 571 E. Fifth Avenue	1927	1953		27	1				1	1	1(c)	31
Southwestern 1420 W. Twelfth Street	1959		55	64	2	1	1	1	1	1	5	75
Genesee Area Skill Center G-5081 Torrey Road	1969		60.8	32					1		1	34
TOTAL				350	9	4	5	5	5	5	15	393

(a) At Senior High Schools: 1 swimming pool at each school; 1 additional physical education room at Northern and at Northwestern; 1 greenhouse at the Skill Center; mobile units: Northwestern (3), and Southwestern (4).
 (b) Leasing from the Diocese of Lansing
 (c) Student lounge
 (d) Central's new addition will provide revised facilities in spring, 1977.
 (s) Shared with another school.

POST-SECONDARY SCHOOL ENROLLMENTS

<u>Major Institutions</u>	<u>1966-67</u>	<u>1975-76</u>	<u>1976-77</u>	<u>Projections</u>
U of M-Flint (Full time equated enrollment)	919 (671)	3,479 (2,501)	3,685 (2,521)	6,200 (4,000)
Mott Comm. College (Full time equated enrollment)	11,573	10,800	49,767@ (6,030)	10,000 in 1980 (5,632)
General Motors Institute	1,236	3,039	2,334	3,000 E.
Baker Jr. College (Est.)	N.A.	1,105	1,500	N.A.
Hurley Medical Center Nursing Only	N.A.	188	199	N.A.
All Students	N.A.*	N.A.	355	N.A.
<hr/>				
All college and university-sponsored continuing and extension enrollments**	N.A.	2,000	2,000	2,000+
All non-academic vocational	600 E.	N.A.	1,200 E.	
1,200+				

E = Estimate

To estimate faculty and staff, add approximately 10% to the above enrollments. Hurley Medical Center is an exception. Although a teaching hospital, its educational role is incidental. Hurley's payroll exceeds 2,000.

*A combined total of 438 was given by GCMPC in 1968 for two "professional" schools. Hurley is now the only such school.

**Several universities play an active role here, offering both undergraduate and graduate credit, also non-credit coursework, in Flint and elsewhere. Of these, the University of Michigan-Flint is the largest, currently enrolling about 700 per term or 1,500 per year.

Enrollments are given as headcount totals. For planning purposes, fulltime equivalents (FTE) are useful to weigh total enrollments.

@Such a high headcount is based on a large number of students taking relatively few courses and the current State aid formula calculations, according to Mott College. The full-time equivalents (FTE) should be noted to weigh enrollments.

VOCATIONAL AND SPECIAL SCHOOLS

Business and Secretarial

Baker Junior College, 1110 Eldon Baker Dr., Atherton-Dort "Small Mall", General business courses, plus medical-dental assistants training.

The Career School, 3032 W. Pierson Road, near the Northwest Shopping Center. Key punch instruction only.

Carnegie Courses, by Michael J. Handley & Assoc., 2442 E. Maple Avenue.

Detroit College of Business, Flint Div., 3115 Lawndale. General business courses.

Ross Business Institute, 618 Metro Building. Secretarial Training.

Industrial, Technical and Trade

Careers and Professions Institute, 3320 Flushing Road. Business and computer programming training.

Electronic Schools - R E T S, 4900 N. Saginaw Street. Electronic service and repair technical training; also drafting, technical writing.

Flint Institute of Barbering, Inc., 3214 Flushing Road.

Greater Flint OIC, Reuther Center, Saginaw Street at Fourth. Manpower training programs with direct government assistance.

Iron Workers Apprentice Training School, 1401 E. Court Street.

Ross Medical Education Center, 1007 S. Ballenger. Training in medical assistants programs.

Safe Way Driver Training School, 336 W. First Street. Professional driver training courses.

Academic, other than College and University

Flint Bible Institute, 810 N. Saginaw Street

United Theological Seminary Center, 4801 N. Saginaw Street

Hurley Medical Center, 6th Avenue and Begole (nursing, residents, interns, and other medical students)

Michigan State University Teacher Education Center, 4306 Greenbrook

TOTAL CITY LIBRARY STATISTICS

	<u>1970</u>	<u>1976</u>
Volumes	388,305	404,000
Circulation	1,546,480	1,111,995
Square Feet	77,327	110,397
Staff	77	120

STATISTICAL SUMMARY

	<u>1973-74</u>	<u>1975-76</u>
Population of School District (1970 Census)	193,317	193,317
Library Materials Circulated	1,130,017	1,111,995
Questions Asked	153,929	155,464
Number of Films	726	800
Number of 16MM Films (Circulated)	23,553	22,147
Number of Recordings	12,615	11,670
Number of Volumes	402,735	403,373
Total Number of Persons Entering Main Library	398,845	443,131
Total Budget	\$2,145,390	\$2,293,701

SUGGESTED LIBRARY LOCATION STANDARDS

<u>Facility</u>	<u>Desirable Location</u>	<u>Locational Needs</u>
Central Libraries	Fringe of Central Business District	Accessibility by mass transit and automobile; parking facilities within walking distance
Branch Libraries	At Regional or Community Shopping Centers	Accessibility by mass transit and automobile; access to a major traffic artery; on-site parking
Local Community Libraries	At Community Shopping Centers or fringe of Central Business District	Accessibility by automobile; access to a major traffic artery; on-site parking

LIBRARY SUMMARY

<u>LIBRARY LOCATION</u>	<u>FLR. AREA (Sq. ft.)</u>	<u>FULL-TIME STAFF</u>	<u>BOOK COLLECTION</u>		<u>CIRCULATION</u>
			<u>1970</u>	<u>1976</u>	<u>June, 1976</u>
<u>Main Branch</u> 1026 E. Kearsley	90,966	104	289,052	259,531	608,355
<u>Branches</u>					
Civic Park 1402 W. Dayton	2,200	3	26,934	27,296	115,771
Cody 3201 Fenton	1,431	1	15,801	16,650	44,717
Downtown 200 E. Kearsley	8,300	4	29,094	31,022	61,810
Freeman 4001 Ogema	1,250	1	7,823	9,607	53,108
North Flint 118 W. Pierson	2,400	3	Built 1972	20,037	67,138
Potter 2500 N. Averill	1,050	1	11,044	11,044	49,377
West Flint 3601 Beecher	2,800	3	Built 1971	30,813	111,719

EXPERIENCE FORMULAS FOR LIBRARY SIZE

Population Size	Book Stock Vols. Per Capita	No. of Seats Per 1,000 Population	Circulation Vols. Per Capita	Total Sq. Ft. Per Capita	Desirable 1st Floor Sq. Ft. Per Capita
Under 10,000	3 1/3 to 5	10	10	.7-.8	.5-.7
10,000 35,000	2 3/4 to 3	5	9.5	.6-.65	.4-4.5
35,000 100,000	2 1/2 to 2 3/4	3	9	.5-.6	.25-.3
100,000 200,000	1 3/4 to 2	2	8	.4-.5	.15-.2
200,000 500,000	1 1/4 to 1 1/2	1 1/4	7	.35-.4	.1-.125
500,000 and up	1 to 1 1/4	1	6.5	.3	.06-.08

Source: Joseph Wheeler and Herbert Goldhor, Practical Administration of Public Libraries
(New York: Harper and Row, 1962), p. 554.

GLSHSI GOALS:*

A-HEALTH STATUS

GOAL I.HEALTHY INFANTS BORN FULL TERM

Within the City of Flint the infant mortality rate is 25.6; the rate for blacks is 31.8. The level of prenatal care for mothers in the City of Flint is lower than the State level, and a larger proportion of babies are below normal birth weight: 7.7% for the State and 9.5% for the City of Flint.

The balance of the County has an infant mortality rate which is lower than the State. Out-county mothers have a higher than average level of prenatal care and deliver fewer low birth weight infants. Rate is deaths per thousand live births.

Infant health vulnerability is concentrated in the City of Flint among young black mothers; an increasing number of whom are single parents.

GOAL II.INCREASE LIFE EXPECTANCY

The death rate, by age, in Genesee County is similar to that of the State, with the exception of the under one (1) year old age group. The higher death rate in this category in Genesee County is analyzed in Goal I. When death rates are compared between the City of Flint and the balance of the County, significant variations are evident. The City of Flint has much higher death rates for all age groups, with the exception of those aged five (5) to twenty-four (24) and over sixty-five (65). Comparison of death rates within the City of Flint, by race and sex, show that blacks experience a death rate almost double that of whites under the age of sixty-five (65). Males experience much higher death rates than do females. Black males have the highest death rates at all age levels.

GOAL III.MENTAL OR PHYSICAL DISABILITY REDUCED

Information about local residents is not available at the present time. The ECHO survey for the City of Flint does indicate that sixty (60%) percent of the population saw a doctor in the past year for some reason other than a routine medical checkup.

* Source: Health and Environment Status, 1975, Tri-County Health Planning Council, GLSHSI, Flint, Michigan

GOAL IV.

MAXIMUM RESTORATION OF FUNCTION OF DISABLED

While the U. S. Office of Education estimates that ten (10%) percent of the school-age population has handicaps, six (6%) percent of the school-age population in Genesee County has been identified to date and is receiving special education services.

Adults with disabilities are more difficult to identify. According to a sample Michigan Survey, approximately forty-five (45%) percent of the population Statewide suffers from some kind of chronic condition. The number of people in Genesee County with disabilities who are not functioning at optimal levels is not currently determinable.

GOAL V.

INCIDENCE OF DISEASE REDUCED

Screening or medical checkups may allow for early detection of disease. Good general physical health status is another means of addressing this situation. Fifty-nine (59%) percent of all City of Flint residents surveyed did report having such a medical checkup in the last year.

Based on disease information presented here and death rates by race and age presented under Goal II, it is clear that the City of Flint residents have a more significant disease problem than does the balance of the County.

GOAL VI.

DISEASES PREVENTABLE BY IMMUNIZATION ERADICATED

Generally, immunizations are a part of routine medical checkups. If all people received regular medical care, the incidence of diseases against which there are immunizing agents would be practically zero. In 1974, Genesee County had twice the rate of measles as did the State. Prior to 1974, the County rate for mumps exceeded that Statewide. The rate of rubella is below that of the State. There is a higher incidence of all three diseases in the City of Flint than in the Balance of the County. The highest incidence is for mumps, which is more than double the State rate. In the first two months of 1975 Michigan led the nation in cases of rubella and mumps and was third highest in measles. City of Flint rates, therefore, were among the highest in the nation and pose a serious threat to unimmunized children.

GOAL VII.

ORAL HEALTH ACHIEVED

Achievement of conditions of good oral health are associated with regular dental care, good diets and fluoridated water supply. In 1974,

forty-one (41%) percent of persons in the City of Flint received dental care, according to an ECHO Health Department Survey. The Flint Public Schools health report for January 1975 indicates seventy-four (74%) percent of all school children are currently without dental defects.

The inclusion of dental payments in employee benefit plans for a number of major employers in Genesee County is expected to increase the level of dental care in the community. Medicaid has also begun to include preventive and remedial dental care as well as emergency treatment. The Mott Children's Health Center provides dental care for eligible children not covered under public and private payment plans.

GOAL VIII.

NUTRITION ADEQUATE FOR GROWTH AND GOOD HEALTH

No local measurements are available for the adequacy of nutrition or extent of malnutrition; however, a 1972 nutritional survey by the National Center for Health Statistics found that:

- a) Nearly thirty (30%) percent of people ages 60-74 with incomes below poverty level reported daily intakes of less than 1,000 calories.
- b) Sixteen (16%) percent of people ages 60-74 with incomes above the poverty level reported daily intakes of less than 1,000 calories.
- c) Black children ages 1-5 had higher proportions with daily intakes of less than 1,000 calories than white children in the same age group.
- d) Blacks, women, and persons with incomes below the poverty level were shown to have the largest deficiencies of the nutrient iron. (e.g. black women below the poverty level had fifty-seven (57%) percent of recommended standards for iron intake)
- e) Seventy-five (75%) percent of black women had calcium intakes below recommended standards, compared to fifty-six (56%) for white women.
- f) Daily iron intakes for preschool children were sixty-eight (68%) of the recommended standards.

Groups particularly vulnerable to the effects of malnutrition are infants whose mothers have had poor diets, the aging, teenagers and the poor.

GOAL IX.

SUBSTANCE ABUSE ELIMINATED

Drug arrest have increased steadily for all age groups. Seventy-seven (77%) percent of all drug arrests occur under the age of twenty-five (25). On the other hand, alcohol arrests, in this age group, account for only twenty-eight (28%) percent of all such arrests. Fifty-eight (58%) percent of all alcohol related arrests occur at the age of thirty (30) or older. It should be noted all arrest figures relate to number of arrests and do not take into account those cases in which an individual is arrested more than one time. They further represent only those users who have been discovered by law enforcement officials.

B-EXISTING "AT RISK" CHARACTERISTICS

The concept of "at risk" is valuable in health planning. It identifies particular persons or groups who may be most vulnerable to poor health, stress, illness or disease. This vulnerability may be caused by such things as living conditions which are not conducive to good health; lack of knowledge about prevention of illness or available services; or personal or family instability.

"At risk" information, drawn largely from 1970 Census data, depicts a minimum set of characteristics which identifies those persons least likely to have attained optimal physical and emotional health.

INDICATORS

	<u>Flint*</u>
1. <u>FAMILIES WITH INCOME BELOW POVERTY</u> - Indicates potential family stress due to insufficient money to purchase basic necessities; also potential vulnerability to illness.	10%
2. <u>FAMILIES WITH FEMALE HEAD OF HOUSEHOLD</u> - Indicates potential family stress where one individual cannot share responsibility for family functioning. Such families frequently have the additional burden of low income.	14%
3. <u>FOREIGN BORN OR NATIVE BORN OF FOREIGN BORN OR MIXED PARENTAGE</u> - Indicates potential conflict between competing cultural values of both generations.	14%

* This data in the Health and Environment Status, 1975 was checked against those updates that were available. Although there has been some change, the most conspicuous was that, Female Headed Households more than doubled to 32% of City population in 1975 (ECHO). Of these 18,078 Households nearly one-half were estimated to have 23,382 children including 17.2% which had three or more.

7

ENVIRONMENTAL

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

THE PREPARATION OF THIS REPORT
WAS FINANCED IN PART THROUGH
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AND URBAN DEVELOPMENT; CPA-MI-
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ABSTRACT

TITLE: ENVIRONMENT ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT

SUBJECT: ENVIRONMENTAL CONDITIONS AND NEEDS OF FLINT

DATE: NOVEMBER, 1977

NUMBER OF PAGES: 87

ABSTRACT: THIS REPORT WILL OUTLINE THE SCOPE OF ENVIRONMENTAL
FACTORS OR PARAMETERS, INDICATE APPLICABLE LOCAL,
STATE AND FEDERAL AUTHORITY AND GUIDELINES, SPECIFY
CONTROL AGENCIES AND DETAIL THEIR ACTIVITIES, PRESENT
EXISTING ENVIRONMENTAL CONDITIONS AND PROJECT NEEDS
INCLUDING DEFICIENCIES. THE DEFICIENCIES ARE GENER-
ALLY GIVEN AS RECOMMENDATIONS. THE REPORT RELATES
AND GIVES EMPHASIS TO DEPARTMENT OF HOUSING AND
URBAN DEVELOPMENT PRIORITIES AND PRESENTS AN ENVIRON-
MENTAL DISCUSSION WEIGHTED TOWARD HOUSING AND COMMUN-
ITY DEVELOPMENT, THE MISSION OF THE AUTHOR ORGANIZA-
TION.

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I. ENVIRONMENTAL CONDITIONS

A. General Introduction

In recent years there has been rising concern for our environment. Together with an increasing body of data and knowledge both as to existing conditions and the implications for future generations, such awareness has been manifested as a growing amount of regulation and control. It has also become clear that simply "passing a law" is not enough, and that such legal authority must be combined with economic and technical assistance to localities. The identification of deficiencies, such as inadequate water treatment, may simply create by definition a problem, and one that cannot be solved solely by applying local resources, for solutions are ultimately economic.

It has similarly become clear that most environmental problems or deficiencies, while local are also common to most areas of the state and nation. This is because we all share, to some extent, a common environment such as air and water. This indicates a second major problem, the regional scope of environmental issues. Solutions, while locally based, must be regionally applied if substantial improvement is to take place. The City has an important role, but it is only one of several actors involved in a broader context.

This section will deal with these environmental areas:

1. Water, as domestic municipal supply.
2. Water, as liquid wastes, both sanitary and storm.
3. Water, as surface features such as rivers and streams.
4. Air quality.
5. Soil erosion and sedimentation.
6. Flooding and floodplains.
7. Special environments (noise, lead paint).
8. Environmental policy.

II. GOALS AND OBJECTIVES

The goal of reviewing our physical environment and its prospects is to provide a reasonably clean, safe, and healthful habitat for human and other desirable lifeforms.

(Within this context "health" is defined as the absence of disease, although our physical environment obviously plays a role in accidents.) Objectives therefore represent reasonable or practical attainments which are largely specified by existing legislation.

The objectives for all environmental areas studied here are:

1. To indicate current applicable standards and guidelines and their regulatory basis.
2. To outline our City's existing conditions relative to established standards and guidelines.
3. To project or estimate future conditions based on current and future requirements as known.
4. To cite needs based on current and future environmental considerations. These will be stated as "recommendations."

III. WATER QUALITY

A. Introduction

Water quality, like most environmental considerations, must be approached in a comprehensive fashion. This section will present the three major concerns of water management (watershed, supply and aftertreatment) and show their interrelationship. As with other natural environments, local water must be considered as a part of a regional larger system. The impact of water quality in Lakes Michigan, Superior and Huron will not be detailed although it should be considered in comprehensive planning.

The City of Flint has, in recent years, obtained its water from Lake Huron, through the Metropolitan Detroit Water Supply System. After use and treatment, the water is returned to the Flint River. In prior years the quality of this treated discharge was less than ideal, it along with other sources of pollution, caused poor water quality in that river. This has generally been true of surface water features (rivers and streams) forming the Saginaw River watershed and draining into Saginaw Bay and Lake Huron. Thus we have had to consume our own pollution along with the undesirable effluents of others. Dealing with pollution is expensive. Both the water we receive and the liquid wastes that we discharge require processing, which calls for very costly treatment plants and high operating expenses. In the summer of 1976 the sewer charge for an average family was increased from \$4.56 to \$15.51 for three month's service, largely to pay for the costs of an expanded wastewater treatment plant, whose improvement was expected to cost \$50 million.

Part of the expense of water treatment is because of undesirable and often unnecessary components that we introduce. Phosphorus, like nitrogen, is considered to be a major form of pollution in water. It is a nutrient that encourages the growth of waterlife including weeds and and algae. Most phosphorus introduced to urban liquid wastes comes from synthetic detergents, which could be reduced greatly by the use of low-phosphorus formulations, or soap. By continuing to use high-phosphorus detergents taxpayers simply increase the cost of water treatment while degrading the environment.* Some phosphorus and nitrogen is introduced from fertilizer sprinkled on gardens, lawns and golf courses. That portion not immediately consumed by plants either runs off along the surface to creeks and streams, eventually to the Flint and Saginaw Rivers; or percolates into groundwater tables polluting our aquifers (groundwater sources). This is also true of insecticides or pesticides such as DDT which, unlike fertilizer and other "nutrients" are poisonous and generally highly resistant to natural breakdown.

*Both Congress and the state are acting to ban phosphate detergents.

Urbanized and industrialized areas also generate a large variety of other pollution products such as heavy metals (toxic) plus oil and grease (troublesome). Rural areas are not environmentally "clean" either; they generate large amounts of untreated agricultural wastes such as fertilizer, pesticides and animal wastes without treating these wastes in any way. Leaky or improperly designed or installed septic tanks also discharge raw sewage into our waters, around Flint.

There are various ways to measure water quality, depending on how the water is to be used. For laundry purposes, hardness is important; this is determined by the amount of certain minerals in water. For human consumption, these are unimportant. Federal and state standards focus on toxins plus these parameters:

- o Dissolved Oxygen (DO)*
- o Temperature*
- o Hydrogen Ion Concentration (pH, SU)*
- o Biochemical Oxygen Demand (BOD)*
- o Total Phosphate (as Phosphorus)*
- o Soluble Orthophosphate (as P)
- o Nitrate Nitrogen (as Nitrogen)*
- o Ammonia Nitrogen (as N)
- o Organic Nitrogen (as N)
- o Total Solids (dissolved and suspended)*
- o Total Dissolved Solids
- o Total Suspended Solids
- o Turbidity, JTU*
- o Chlorides
- o Coliform, total
- o Coliform, fecal*

To simplify data and facilitate communication, water quality parameters are often combined to a single-number value, the "Water Quality Index". This glosses over detail to give a simple reading. For example, in 1974 Flint River upstream data indicated a Water Quality Index of 78, but downstream of the City Wastewater Treatment Plant the Index had dropped to 38. (The WQI ranges from 0 to 100, but seldom exceeds 85 in Michigan.) In 1976 Flint River data was generally similar.

Other data is also collected to provide a total picture of water quality. Some very comprehensive studies were made locally in 1968-69-70 and again in 1974, with less data collected in 1975 and later. Beyond the basic parameters given above, water is analyzed for phenol (an industrial pollutant which produces odors), cyanide (toxic, an industrial-commercial waste found in Flint because of metal plating operations), iron (not toxic but troublesome), plus heavy metals (nickel, copper, zinc, lead, chromium and

*These parameters are combined as the WQI.

certain others). These metal which are toxic, are common industrial wastes. Over time, ingestion (swallowing) could cause poisoning, even death. Bacteria and viruses are generally not analyzed except as the coliform group which is used as an indicator of potentially dangerous human wastes (especially fecal coliform). Coliform counts may be the most important factor relative to the safe human use of water. Most other parameters look at water as a living environment for various organisms including fish. These parameters are not irrelevant to man. Trout insist on cool, clean and clear water. So should we. (Water quality parameters are itemized in the Appendix.)

Water Quality Overview

Applicable water quality standards are in process of change. Proposed changes in administrative rules of the Michigan Water Resources Commission were released in 1976 but are expected to be adopted sometime in 1977. These water quality standards conform to Federal law (PL 92-500) and are applicable to the Great Lakes, their connecting waters and all other surface waters (including the Flint River and its tributaries). The revised standards seek more stringent dissolved oxygen standards for streams, generally protect all state waters for total body contact (recreational use) and public water supply, maintenance of the quality of all natural trout streams and lakes, adopt the US EPA "Quality Criteria for Water" for defining toxic materials standards, and adoption of the maximum chemical contaminant levels specified by the Federal Safe Drinking Water Act (PL 93-523) for all waters protected for public water supply. "Quality Criteria for Water," 1976, EPA, published under Section 304 (a) of PL 92-500, covers toxic chemicals, mainly heavy metals and synthetics including common insecticides such as DDT.

The Michigan State Water Resources Commission, a division of the Department of Natural Resources (DNR) has primary responsibility for enforcing water pollution controls in accordance with State Act 245, PA 1929 as amended. The Commission, in 1975, gave the City's role:

"As regards to 'major polluters,' the City of Flint being the largest entity on the (Flint) river contributes the largest point source discharge of wastes and has the largest impact on water quality. The City of Flint has an obligation to properly treat its wastewaters and to police itself and its industrial and commercial users."

A current summary cites the principal local water quality deficiency to be the hydraulic overloading of the treatment plant, because of an undersized interceptor line and combined sanitary and storm drainage (runoff water). Precipitation (rain or snow) drainage from building roofs and streets is added to sanitary sewers

where it quickly overloads both the drain system and treatment plant. The result is that untreated sewage is released into the Flint River. Both outfalls result in a sharp deterioration of water quality immediately following a rain or snow, which continues until storm drains are empty and the treatment system and plant catches up with demand. Even in good weather the old treatment plant effluent was unsatisfactory in some respects.* The largest offender, the City, plus industrial and commercial dischargers, are now monitored closely by the state. Some additional pollution, mainly from sources generally known but not always pin-pointed, is generated by the suburbs as well.

Local monitoring and enforcement has been productive. Most of this work has been conducted by the local Health Department and its Environmental Health Division. Although located in Flint, the Division is active both in the City and County. Monitoring and enforcement within the City have been reduced in recent years by staff and funding limitations, a rechanneling of resources to address most pressing needs, and ascertainment of the principal sources of water pollution within the City. The principal source of pollution within the City is its sewage system (mainly the treatment plant, incidentally storm drains emptying into surface waters). Some minor and sporadic pollution continues from a variety of sources, typically oil and grease from industrial operations including railroads. Attacking such sources will require a continuing operation. The Health Department activity has been particularly useful locally because it has combined environmental monitoring with rigorous and immediate enforcement via the powers granted under law. However, they address domestic or residential pollution point sources and light commercial, having no authority over industrial polluters. It should also be noted that the Department's approach is more than City-Wide, which is desirable since Flint River tributaries range outside of the City and our waters are often polluted outside of Flint. This is consistent with the assumption that all environmental solutions require a regional approach to be effective.

Under federal legislation, 1977 is an important benchmark year. Since Genesee-Lapeer-Shiawassee Region V Planning and Development Commission (GLS Region V PDC) has been designated the regional agency responsible for water quality under the 208 program, their report (now due) is anticipated with interest. Since little is known at this writing, discussion (that follows) will be limited to presenting the general requirements of the 208 Plan, its needs for data, plus some speculation as to the 208 relationship to 701 land use planning.

Because of the close inter-relationships between the major components in our hydrosphere, these will be discussed in close-coupled sections.

* Deficiencies are outlined in Hubbell, Roth & Clark, Facility Plan for the City of Flint, Michigan (Bloomfield, Michigan, 1976).

1. Water quality management planning -- Section 208 of the Federal Water Pollution Control Act has many implications.
2. Municipal water supply -- Our City supply providing for domestic residential, commercial, and industrial needs, via the Water Treatment Plant.
3. Municipal liquid waste -- All our municipal water is discharged for treatment via drains that leave our homes and businesses, enter a comprehensive City-wide system, and end up at the City wastewater treatment plant. Separate storm drains drain streets into the Flint River and other surface waters.
4. Surface water quality -- Our river and streams (and connected lakes or impoundments) are important, both for recreation and as part of our municipal water supply system.

Water Quality Management Planning

The principal legislation affecting comprehensive water quality control, is the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500). As a recipient of Block Grant funds the City is required to comply with the provisions of the Act, as amended. Its mandate may be summarized in citing the three principal goals of the Act:

By 1977 -- best practicable control technology or pretreatment requirements for industrial and commercial discharges and secondary treatment effluent limitations for publicly-owned treatment works.

By 1983 -- swimmable and fishable waters, nationwide.

By 1985 -- elimination of excessive levels of pollutants into the nation's waterways.

Water pollution experts are more aware than ever of one thing: controlling land use may be an effective strategy in reducing the impact of many non-point pollution problems and in providing an alternative to constructing expensive sewers and treatment plants. The 1972 Act, emphasizing prevention of pollution at its source as well as treatment, declared as national policy an attack on water pollution. In section 208 of that Act, land use is seen as a major element in the water quality management strategy.

Land use techniques for reducing water pollution include zoning, subdivision regulations, floodplain controls, public facility development policy to induce development into more compact areas, urban stormwater controls, and sediment controls. Reduction in sediment and urban runoff alone would be an enormous benefit to the purity of our rivers and lakes.

The 208 water quality management planning program has been assigned to the GLS Region V Planning and Development Commission. One of 14 regional planning commissions in Michigan, GLS Region V PDC is designated to assist local governments and the citizens within the three-county area (Genesee, Lapeer, Shiawassee) in complying with the federal requirements. This commission is not a government body but is a service agency working under Federal funding via the US Environmental Protection Agency (EPA) to assist voluntary member local units of government in this planning project. The GLS agency requested, in 1975, approximately \$1.5 million for a two year period, in an application to the EPA and the State Bureau of Water Management.

The purpose of the 208 planning process is to formulate an areawide waste treatment management plan that can be implemented by a management agency (ies), one that integrates both technical needs for pollution control and develops alternatives for attaining water quality goals. The primary emphasis of the 208 plan is to seek non-structural as well as structural solutions to point and non-point source pollutants. Any pollution control strategy may have to be a combination of controls on: (1) land use and growth, (2) municipal wastewater systems, (3) industrial effluents, and (4) non-point sources.

As a comprehensive approach, 208 planning must relate to the 303(e) basin plans prepared by the State which largely structure 208 plans. Basin plans; (1) provide water quality standards and goals, (2) define critical quality conditions, and (3) provide waste load constraints. The other extreme represents local publicly-owned waste treatment works which are covered by 201 facilities planning. This must be coordinated to 208. This is also true of the National Discharge Elimination System permit program or 402, designed to control pollutants so that they do not exceed prescribed emission standards. No permits are allowed for point sources that conflict with approved 208 plans (which are part of the overall 303 basin plan). Similarly, Air Quality Maintenance Areas and air quality planning must be coordinated to 208. This is also true for State plans for solid waste management. Other applicable control activities include: HUD 701, flood insurance and disaster programs, transportation plans under the Department of Transportation (DOT) and coastal zone management; all Federal programs with which the EPA is coordinating.

Since the Region V Planning and Development Commission has not released its plan proposals covering regional water quality management, any discussion of future conditions is somewhat speculative and can only deal with known local factors. The relationship of 701 to 208 is especially uncertain.

The principal issue relative to HUD 701 planning relates to land use. Section 208 (b)(2)(F,H) refers to "land use requirements." The overall requirement is comprehensive, coordinated

planning that allows for expeditious implementation and coherent management. This requires a high order of interplan consonance or harmony. The EPA seems to suggest that if existing land uses plans do not interfere with attaining goals and meeting standards, they need not be revised and may continue as utilitarian plans. However, the 208 process requires that land use plans be considered relative to achieving water quality standards. While there is no mandatory requirement that existing land use plans must be changed if in apparent conflict with meeting water quality standards, local units of government such as the City of Flint could be asked to review their conflicting land use policies were it found that these would prevent meeting water quality standards. In such a case, it would be up to the City to develop alternatives that would best meet local needs and support Federal EPA and State objectives. This might be manifested as restrictions on development, such as limiting building permits in floodplains. In growing suburbs, this might represent tighter subdivision regulations. Within the City, redevelopment and other construction must be environmentally sensitive.

Region V Planning and Development Commission (PDC) activities on 208 planning, in addition to contact with public officials and citizens groups, includes:

1. A contract signed with the Michigan DNR's Environmental Protection Bureau, in July 1976, for three years, to provide water quality data and point discharge data, plus a variety of technical services for the PDC.
2. Listing of NPDES permit holders. In Flint, dischargers were primarily General Motors plants, a small number of other industrial facilities, plus the City Wastewater Treatment Plant (WWTP).*
3. Population growth was profiled, with projections given for five-year increments from 1980 to 2005. Such forecasts would assist in providing adequate future wastewater treatment facilities, and otherwise assist in planning.
4. Building permits data was compiled from 1970 to 1976. Flint City permits fell off sharply in 1974 and have continued at a very low rate.
5. Wastewater projections were begun in spring, to project 1980 and 1995 flow and load data and estimate the capabilities of municipal WWTPs including Flint's treatment plant. Review data was estimated to be available in May.
6. A regional watershed map was being developed, along with other forms of base data.

*Local permit holders are listed in the Appendix E. (National Pollutant Discharge Elimination System.)

Regulating point-source discharges is a principal control in water quality management. The National Pollutant Discharge Elimination System (NPDES) is the major mechanism to regulate discharges into surface waters, established by the Federal Water Pollution Control Act of 1972 as amended. Point sources are those locations that can be specifically identified as originating in one place, as opposed to non-point sources which may cover large areas. All point-source dischargers must obtain a NPDES permit from the State Water Resources Commission. A NPDES permit serves three principal purposes:

1. It restricts the amount of pollutants that may be contained in wastewaters discharged to surface waters.
2. The permit gives a schedule for pollution discharges to be reduced over a specified period of time.
3. It enables the 208 agency to predict future wasteloads and flows of surface waters.

There are five principal categories of permitted point-sources:

1. Municipal, mainly treated sanitary waste discharges.
2. Industrial, treated process water from plants.
3. Private, mainly treated septic tank wastes.
4. Stormwater, mainly of treated stormwater runoff from paved surfaces in the City.
5. Other, various kinds of untreated water from large non-industrial consumers such as car washes.

Regulating non-point source discharges is equally important but more difficult, if only because a much larger area and more complex sources of pollution are involved. The 208 agency is studying this problem. Both point and non-point sources must be addressed in the final plan.

Municipal Water Supply

C-1 Existing Conditions

Although City residents originally used the Flint River, and later, wells for domestic water needs, development of a municipal water system brought virtually all users into a common supply.* Initially, the City used the Flint River for its water source. Irregular and relatively small flow throughout the year and other problems, suggested a more dependable source.

To provide a desirable minimum flow in the Flint River during the dry periods, the City of Flint in 1965 contracted with the City of Detroit to receive Lake Huron water. That permitted the City to stop using the Flint River as the source of municipal water supply. Reservoirs are still used to impound water for recreational use and to store water to flush river to meet environmental needs.

C-2 Existing Conditions (revised)

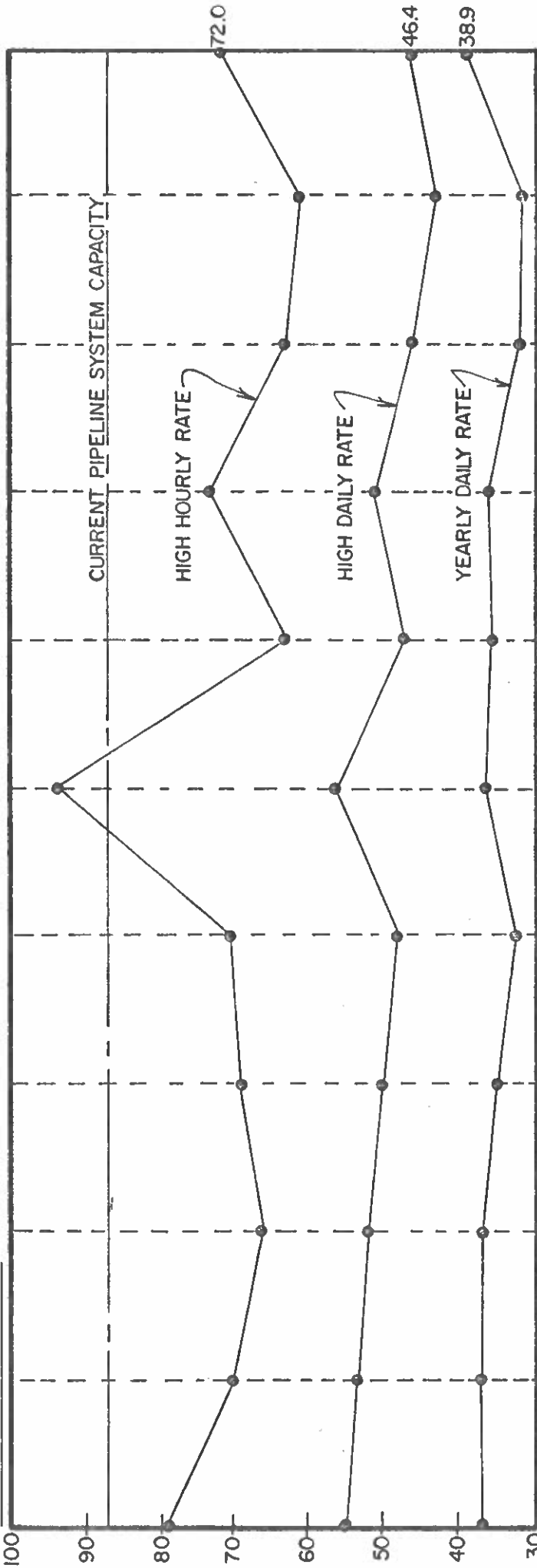
The main 72-inch pipeline from the Detroit Plant at Port Huron has a rated capacity of 87 million gallons. Its high hourly rate of flow has remained under capacity except in 1971, and in 1976 was 72 million gallons. Its yearly daily rate has remained below 40 and was 38.9 million gallons in 1976. All flows peaked in 1971 and reached a minimum in 1975, but have since risen (see Illustration 1 for annual data). Pumpages within the City appear to have stabilized in general, but water sales to out-of-City users may be increasing. In 12 months 1975-76, the City provided 12,104,763.000 gallons of water to the system.

There is also an emergency intake at the Flint River which can, and has been used without any net impairment in water quality. The Flint River Purification Plant has been on a stand-by basis with only brief service since purchase of Detroit system water began December 17, 1967. That facility operated for 27 hours and processed 35.41 million gallons of water during a supply line break in February, 1974. By agreement with Detroit, the Flint Plant was also operated on a part-time basis in October, 1974. It processed 26 million gallons, which was blended with 112.8 million gallons from Detroit with no noticeable effect.

Water laboratory monitoring operates on a full-time basis, collecting samples, testing water and reporting the data. Effective June 24, all public and community water systems must be tested regularly for turbidity, bacteria and other contaminants, under the new National Interim Primary Drinking Water Regulations (which implement the Safe Drinking Water Act of 1974, PL 93-523).

*Although there are a few wells in use in Flint, ground water was not assessed.

WATER DISTRIBUTION



SEWAGE FLOWS

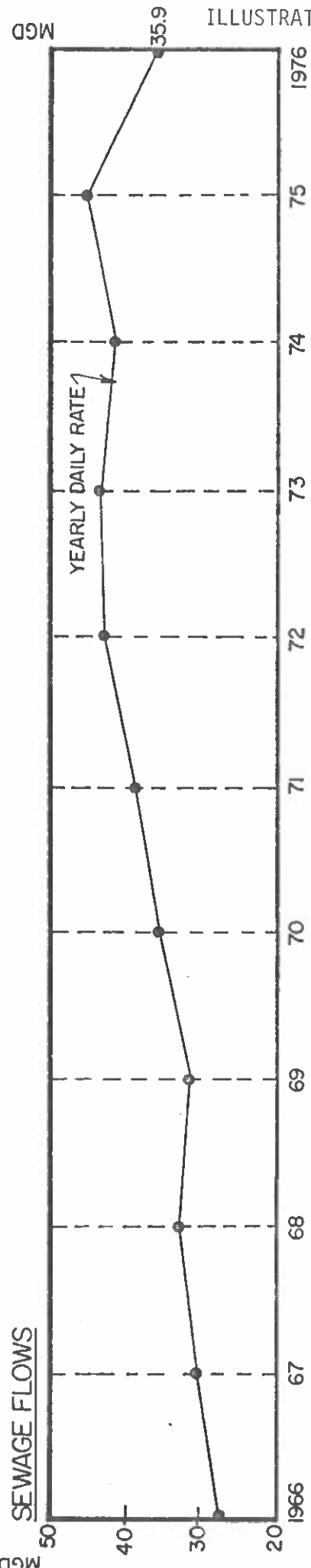


ILLUSTRATION 1

Regardless of quality, the Flint River's flow is inadequate as a City water source except as a supplementary or emergency supply. Its average discharge is 558 cfs, and has ranged from 9.0 cfs to 14,900 cfs.

There is no water shortage in Flint. However, because of rising costs it is desirable to conserve water. In 1974, the City paid to Detroit \$2,565,788 for 1,589,935 million cubic feet or 11,892,721,280 gallons total. Detroit, April 1, 1976 raised water rates 39%, increasing local costs \$1.2 million.

D-1 Projected Conditions

There do not appear to be any important problems with the City water supply. As noted, costs have risen, and consumption may be declining within the City. Water use by the County system is projected to grow so total pumpages will increase gradually. A current deficiency in the County system's capacity in supplying water to the western suburbs is expected to be corrected by construction of a new station drawing water from the east side of Flint. This may require City construction of two booster pumping stations within Flint. These are envisioned to be located at Mott Triangle (Kearsley and Longway), and in the area bounded by Norton, Wager, Industrial and Black Streets.

Municipal Liquid Waste

C-2 Existing Conditions

Liquid wastes represent an effluent commonly called "sewage" just as drain systems are known as sewers. These flows fall into two main categories: sanitary, from domestic drains; and storm, from drains that collect surface runoff from rain and snow. In earlier years, it was common to ignore storm drainage and not treat it. But environmental research shows that each recharge of storm drains and catch basins acts to flush out accumulated oils, bacteria and other undesirable materials that pollute surface waters such as the Flint River. Part of the City's drains system is separated, but part is combined, which adds to the load of the City wastewater treatment plant. During storm weather, runoff is quickly added to sanitary drainage in many areas and thus the system is overloaded. After a recent comprehensive study by Hubbel, Roth and Clark,* the consultants proposed a major drains improvement program which is now being carried to construction.

The City's first major treatment plant was completed in 1931. It was expanded in 1956 and again in 1964, and is currently being further expanded to properly service an area population of 444,000 persons. The plant offers both primary and secondary treatment of wastewaters. Incoming sewage is fed to comminuters and grit tanks,

*Facility Plan, 1976

then to primary clarifiers, and finally to either trickling filters or activated sludge treatment, then final clarifiers. All water is chlorinated before being released to the Flint River. Chlorine treatment has been provided year around since 1970. The operation of the plant is closely monitored by the State via its permit requirement.* Residual sludge is fed to thickeners, anaerobic digesters, vacuum filters, incinerators and finally, sanitary landfill. All solids, with the exception of a minor amount pumped directly from the digestors to the drying beds, are vacuum filtered and incinerated. Deficiencies in the process, mainly due to overloading of the plant during periods of high inflow to the sanitary system, were part of the reason behind the current expansion program.

Although the City wastewater treatment plant offered generally adequate treatment of liquid wastes, rising environmental standards suggested that the facility be improved, in both quality of treatment and quantitative capacity. The City contracted with Consoer, Townsend & Associates and Hydrosience, Inc. to develop a wastewater treatment system of unique excellence. After laboratory, and other small-scale testing, plant-scale experimentation began at the City facility and its 34 million-gallon-per-day secondary treatment plant. A ten-month trial proved the innovative treatment process to be feasible for full-scale operation. A similar plant-scale process was tried by the Calgon Corporation and the City using a Dow Chemical Company process for phosphorus removal. On the average, greater than 80% of the phosphorus was removed from wastewater. Such treatment is highly desirable to remove this nutrient from water being released into surface waters. Like nitrogen compounds, phosphorus provides "food" for aquatic life, which has an adverse effect of water quality.

The City also required maximum feasible removal of suspended solids from wastewater. A four month test period proved that microstrainers would remove all particles visible to the unaided eye. The five microstrainers being installed now make this the largest installation of its type in the United States. Suspended solids are one of the several forms of pollution now found in local area surface waters.

D-2 Projected Conditions

The current expansion of the City Water Pollution Control Plant (wastewater treatment plant) will cost an estimated \$50,118,000. Project design is by Consoer, Townsend & Associates. The plant expansion is being constructed with the approval and joint financing of 75% of the cost by the Federal Environmental Protection Agency.

*Basic regulation is provided by State Act 98, P.A. of 1913, as amended, administered by the DNR's Municipal Wastewater Division, provides for State supervision over the construction and operation of municipal wastewater collection and treatment facilities.

The EPA also has approved the facilities plan as meeting the requirements of the Federal Water Pollution Control Act (PL 92-500). The State Department of Natural Resources is contributing 5% of the construction costs. The City share is provided for by accumulated water-sewer funds and bonds to be repaid by sewer charges. Sewer charges for the average Flint family have been increased from \$4.56 to \$15.51 for three months of service.

The new state-of-the-art plant will have a nominal capacity of 50 million gallons per day, with a peak capacity of 107 MGD for short periods of time. Plant construction is expected to be complete in fall, 1977 with wastewater collection system completion estimated at 1980. The latter project is expected to resolve the current Citywide problem of overloaded system drains.

Surface Waters

C-3 Existing Conditions

Comprehensive testing of surface waters in and around Flint over the years has shown a mixed situation. Water quality has ranged from good to poor, with numerous reports of point source pollution as well as non-point source contamination of waters. A major State DNR study in 1970 cited virtually every form of water pollution in Flint-area waters, both industrial wastes and residential contaminations. Subsequent data, including that developed by the City DPW Water Division, and a comprehensive surface water sampling program conducted by the Genesee County Health Department's Division of Environmental Health, indicated some improvement. The latter study concluded, in 1975;

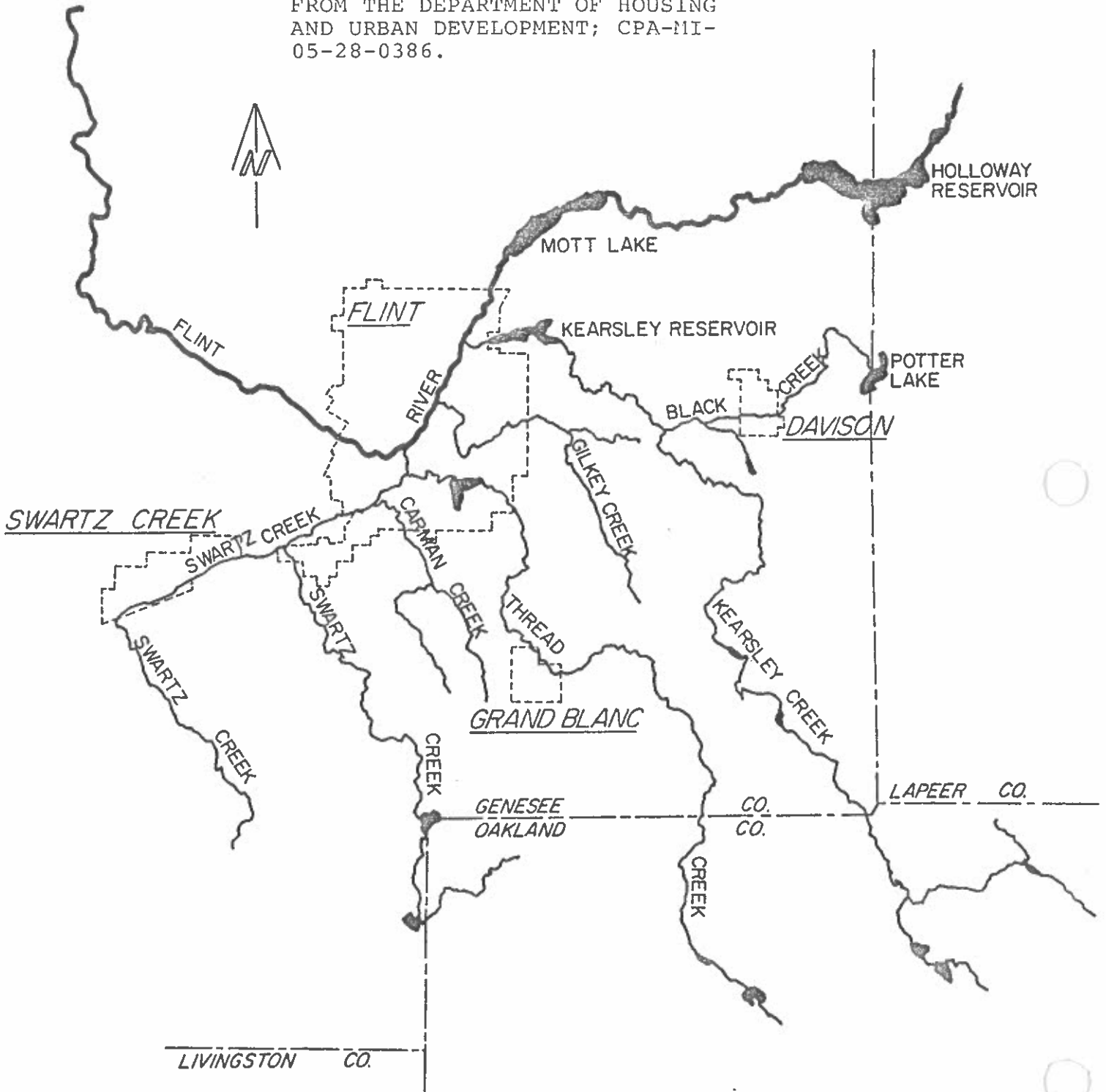
"The data contained in this report clearly reveals dramatic improvement in the water quality of lakes in Genesee County. While many point sources of pollutants have been eliminated over the past several years, water quality of surface waters such as streams, tributaries and creeks, however, has remained constant and substantially unimproved. This is primarily due to the quantity of pollutions having impact...."

Tributary sampling revealed that, "Only a few tributaries remained relatively uncontaminated...the Flint River has generally remained constant or has shown slight improvement." In contrast, local lakes and public bathing areas either remained good or showed significant improvement, the latter being true for C.S. Mott Lake and Bluebell Beach. This compared survey data from 1968 to 1975.

Within the City surface water quality has shown improvement in recent years, primarily because of vigorous monitoring of water and subsequent problem abatement by State DNR and local Health Department Personnel. Public bathing areas have been continually monitored by the Health Department and are in generally satisfactory

MAJOR TRIBUTARIES TO THE FLINT RIVER

THE PREPARATION OF THIS REPORT WAS FINANCED IN PART THROUGH A COMPREHENSIVE PLANNING GRANT FROM THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT; CPA-MI-05-28-0386.



condition. The City has also added limited monitoring of Flint River water beyond that required at treatment facilities.

Flint River quality has remained generally unsatisfactory over the years, with the exception of some recent improvement. In 1969 various sources caused poor water quality, including three Flint-area wastewater treatment plants discharging into the river. The MDNR 1974 study showed that while upstream river quality had improved, downstream water quality was worse than in 1969 largely because of Flint treatment plant and industrial discharges. The 1977 MDNR data showed that in 1976 the difference in the Water Quality Index (WQI) between upstream and downstream data stations was an average of 20 points with a maximum range of 38. This deficiency was mainly attributed to the Flint wastewater treatment plant and collection system. Data readings taken at the center City, often from the Saginaw Street bridge, would provide WQI values somewhere between this range. In August, 1974 upstream water had a WQI of 78 ("good"), downtown readings indicated about 62 ("medium"), but below the City wastewater treatment plant the WQI fell to 36 ("poor"); a range of 42 WQI points. Caution is necessary when considering WQI readings, especially if only one or a few are involved, since they fluctuate with time and also change according to where taken. Downtown or other center City readings partially reflect upstream water conditions but ignore the poorer quality found downstream.

D-3 Projected Conditions

In May, 1976 Chinook salmon were planted in the Flint River some five years ahead of the State DNR's timetable, with additional stocking schedule to take place in 1977. This suggests new optimism after a long period of relatively stable poor surface water quality. The improved City wastewater treatment plant is only one factor in this water quality upgrading.

Future conditions for the City remain uncertain. The GLS Region V PDC has not yet released its 208 water management plan, so its impact must be unknown. Independently, the City has pursued a program of upgrading water quality, focusing on improvement of the municipal wastewater treatment plant, while addressing other sources of pollution. Treated effluents from the plant are improving in quality, which has resulted in better water quality in the receiving body, the Flint River. Study over the next year should show substantial improvement.

The principal remaining deficiency is the City's sewer system, especially combined (sanitary and storm) drain systems which tend to overload the treatment plant and discharge directly into the Flint River. The City of Flint recently received Environmental Protection Agency approval of a facilities plan to improve its entire sewer system. This plan satisfies the requirements of the Federal Water Pollution Control Act 92-500 and provides a

master plan for the rehabilitation of Flint's 650 miles of sanitary sewers. As presently projected, the Flint wastewater collection system should be completed in 1980.

Flint River tributaries remain a problem because of their mixed conditions. City measures will largely correct pollution within the City but much of the stream degradation takes place outside of the City. In spite of aggressive local efforts to control pollution, additional effort is necessary. As the City-County Health Department pointed out in 1975, concentration is required to:

Directing maximum effort and attention to pollution abatement by tracking down and eliminating all remaining point sources affecting the water quality of our tributaries.

Providing necessary agency support in bringing sewer relief to areas with demonstrated need.

Only a comprehensive areawide program will result in total improvement of local surface waters including the Flint River. It is hoped that the 208 plan that emerges will provide for such management and implementation. Even if Flint City effluents met the highest standards for water quality, its river water would continue to be degraded by tributary pollution. Eight major sewer collection system projects are being pursued in the Flint area, for funding under Act 92-500. The comprehensive sewerage of the areas designated within the facilities plan should substantially reduce remaining serious pollution sources within Genesee County.

E. Recommendations for Water Quality

1. Since Regional 208 water quality management plans are presently unknown, the City should continue pursuing its program to improve water quality, while working with GLS Region V PDC.
2. The City program for sewer separation, and other activities aimed at elimination of drain deficiencies City-wide should have top priority.
3. The City should restudy its municipal water supply and wastewater treatment facilities plans, and relate these to current projections for City, County and regional growth, and the 208 water quality management plan. The City should be particularly sensitive to economic feasibility data that is based on obsolete or questionable population growth projections.

IV. AIR QUALITY

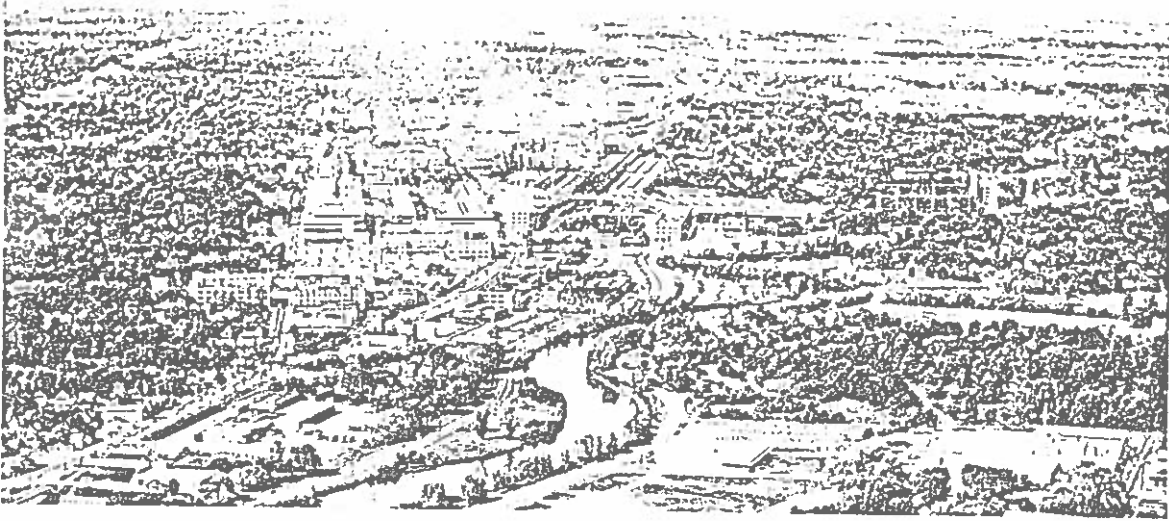
A. Introduction

Since air is constantly around us, its quality is of vital importance. Any obvious deficiencies become an immediate concern, as when air is polluted with dust, odors or other undesirable components. Our atmosphere has been burdened with an ever greater load of pollutants over the last century and more, the rate of which may be increasing. This is caused by rising human population and energy (fossil fuel) use, which may lead to climate modification. While such macroscopic issues are beyond this discussion, it is important to realize that this City's atmosphere is part of a highly developed industrial region. The precise implications of this are unclear, but some portion of Flint's air pollution is generated elsewhere (Genesee County, Saginaw and Bay City, Detroit area, the southern Michigan industrial belt and the Gary-Chicago megalopolis). Flint's problem is both local and a part of a regional problem. For although Michigan does not have true "smog" (the product of photochemical oxidants, characteristic of Los Angeles, California), most of this state's cities generate the same basic ingredients, largely from automotive use, and these chemicals combine to form a pollution product similar to smog.

Until relatively recently it was assumed that Michigan had no smog problem and only local air pollution deficiencies. However, in July, 1975 when oxidant levels (measured by ozone) exceeded Federal "primary" standards, an air pollution emergency was declared. This caused by an unusual period of stagnant air, which may take place during summer months, even though the Great Lakes encourage meteorological effects that regularly move through air from west to east. This stagnation and emergency period only lasted five days, but it can be repeated. Any such repetition will be aggravated by the quality of existing air.

B. Existing Conditions

Flint's air quality has improved greatly in recent years. This is clear from monitoring local air from 1969-70 to 1975 and more recently. In 1975 particulate concentrations (a form of dust) rose somewhat, probably because of an economic upturn, although the primary air standard was not exceeded. Much of the improvement occurred due to upgraded equipment at major industrial facilities in the Flint area. Concerted enforcement of air quality standards by the City reached a peak in 1974, which apparently addressed the principal offenders. Complaints and violations declined in 1975. Because of budget constraints, local enforcement largely disappeared by 1976, leaving only fragmented control of spot violations with the State DNR to monitor major point sources and overall atmospheric. (See Appendix G) There are continuing violations of incineration controls, but illegal burning is rigorously pursued by the Health Department and City Fire Marshal, even though staff is inadequate.



Air quality typical of north-central Flint in August, 1975. Smoke over industrial area is clearly apparent. Subsequent abatement programs have resulted in a major improvement in air quality.

Photo by The Flint Journal

Most recent data (1976), while generally satisfactory, has some areas of concern. Air quality may have reached a plateau, hovering just below primary and secondary standards in parts of the City. Suspended particulates (dirt or dust, our most troublesome form of air pollution) were relatively high -- the secondary 24-hour standard was exceeded 38 times during 1976, with 12 such incidents recorded at the St. John site. Data from this site indicated that the more critical primary standard for 24 hours was exceeded twice, with the annual primary standard exceeded once (the most serious violation in the City). In addition to this one incident, the 24-hour primary standard was exceeded twice. The State DNR attributes these excursions at St. John to construction activities in the area whereby large amounts of dust was generated. This suggests that contractors active in the area were deficient in proper dust abatement practices, a violation of local permit requirements. Since the Buick facility appears to be in compliance with standards, were it not for construction dust air conditions in the St. John area, standards probably would have been met. The DNR Ozone Summary revealed that primary and secondary standards were exceeded at the City Air Pollution Control Office site, 420 E. Boulevard Drive. High ozone would aggravate the hazard of smog if an air stagnation also developed. Sulphur dioxide and nitrogen dioxide were comfortably below standards.

When 1977 data is available, which may show some improvement over 1976, it would be wise to study air pollution within this period of high economic activity. In 1974 it was estimated that the City would be in compliance with both primary and secondary standards in 1975. Yet, it would seem that in spite of fluctuations, air quality, especially as measured by suspended particulates, may not have improved consistently, and may have stabilized at a marginal level or worsened. The State DNR provides "hot-line" response to industrial violations reported by phone.* The County Health Department and City Fire Marshal respond to complaints as to residential sources (illegal back-yard trash burning, and so on). Since illegal incineration and other scattered local smoke sources can contribute 10-15% to overall air pollution, attacking such sources and improperly operated construction activities could result in significant improvements to air quality. This is important when air pollution exceeds standards, as it does today in some City areas.

Comparative data over several years shows that air pollution has varied considerably throughout the City, suspended particulates being generally highest on the north and east sides.** Although the City generally meets air quality standards, certain northeast sites do not, which effectively perpetuates an old problem.

* 517 373-7660 to report pollution emergencies.

**See Appendix H for annual data from St. John site.

Although DNR monitoring appears to be generally adequate, it is not sufficiently sensitive or comprehensive throughout the City, to respond to all pollution excursions above prescribed standards. Nor is such monitoring necessarily responsive to fast or brief changes in conditions. This allows for the possibility of an acute pollution episode taking place without prompt response. It might be difficult to justify a tighter monitoring system. But local monitoring involvement on a day-to-day basis would help assure that Flint air quality is being maintained. At present, data from local monitoring equipment is sent to Lansing, which introduces a time delay of up to a week or more. Data requires several weeks to process normally, and it is only published months after analysis. Data is not now returned to any City office since no environmental control officer exists. Data is only provided on request.

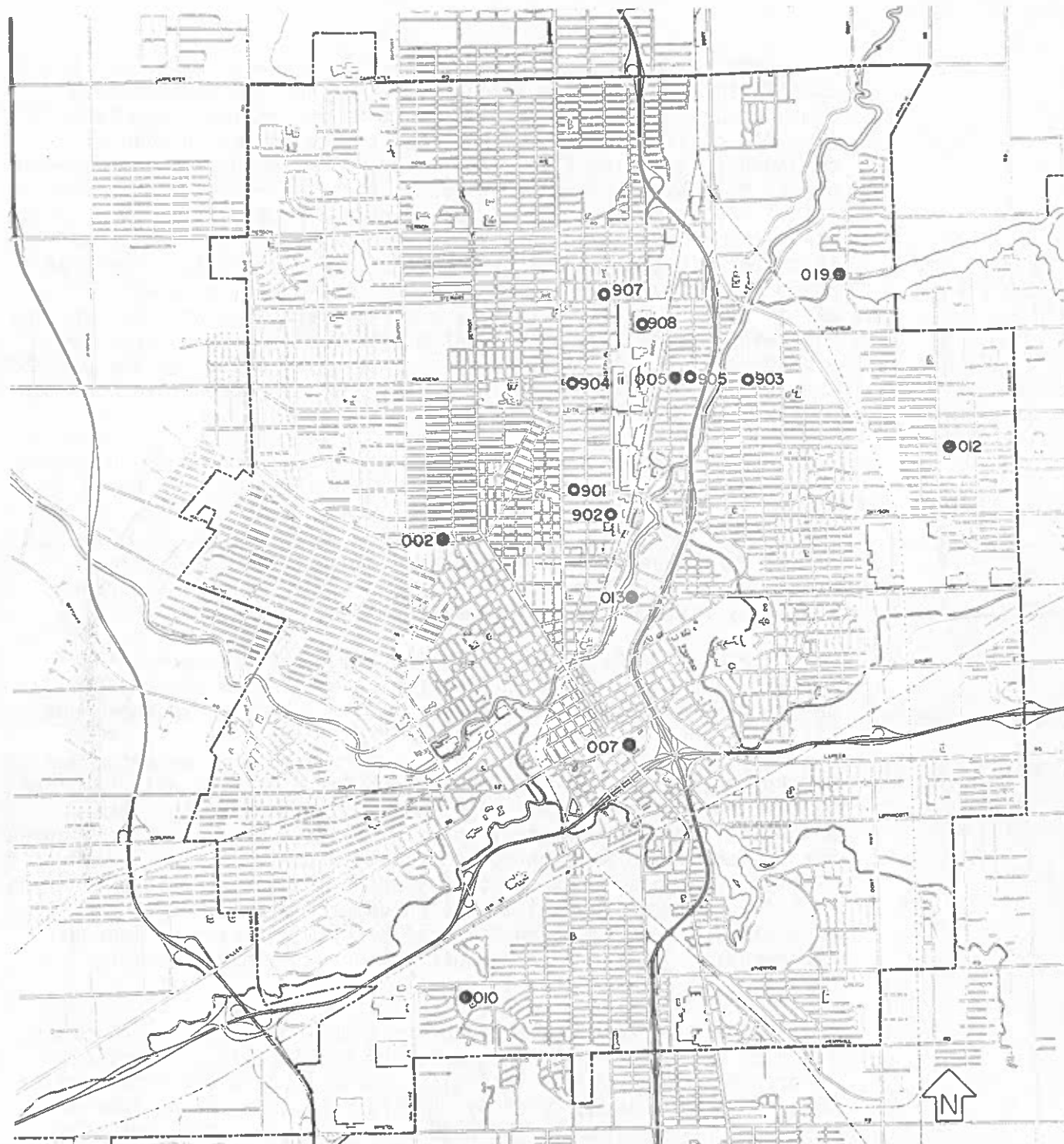
C. Projected Conditions

Flint has the potential of becoming one of the cleanest cities of its size, in spite of its industrialized character. Local industry has been cooperative in improving environmental quality. Buick Division, for example, maintains its own monitoring unit to control effluents (Buick's steam generator is the largest power plant in the area), which unit is supervised by the State DNR. Flint lacks many of the air pollution sources typically found in other industrial communities, including several cities in southern Michigan. If the City maintains strict enforcement of its air pollution controls, air quality may continue to improve and also continue to exceed Federal standards. This assumes that industrial pollution will not increase, that population remains stable or decreasing, and that automotive effluents continue to fall.

The State DNR Air Quality Division will continue monitoring local air conditions as they do statewide. In the recent past, such data has suggested that this region is generally in conformance with the air quality standards. There is no presently known factor that would cause this quality to deteriorate in the future, except for the deficiencies given in Existing Conditions.

It would be wise for the City to enforce existing ordinances that control defective equipment on automobiles, busses, or trucks, restaurant kitchens, plus commercial and industrial sources. The City ordinance of 1970 was replaced by ordinances 2501 and 2494 of 1975. Michigan Public Acts 348 and 250 of 1965 as amended, are the basis for state air control. The Federal Clean Air Act Amendments of 1970 are also applicable. The City must comply with the provisions of the Clean Air Act, as amended, as a recipient of Block Grant funds.

The Implementation Plan of the State of Michigan (submitted to the Federal Environmental Protection Agency on January 30, 1972) deals with the components of air pollution, and requires a "contingency plan" providing for, "taking any emission control action



FLINT AIR MONITORING NETWORK-1977

● MDNR OPERATED SITE ● INDUSTRY OPERATED SITE
 NOTE: ONLY 013 MONITORS GASES; OTHERS MONITOR SUSPENDED PARTICULATES.
 SOURCE: MDNR 1977

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necessary to prevent ambient pollutant concentrations at any location in such region from reaching levels that would constitute imminent and substantial endangerment to the health of persons." (For all practical purposes, "danger to health" would mean air components exceeding the Federal primary standards.) The prevention of air pollution emergency episodes (such as the 1975 stagnation in Flint) involves surveillance, and the prediction of episodes classified by four stages or levels: (1) Forecast, an advisory predicting that poor air quality may be expected; (2) Alert, signaling that pollution is building up; (3) Warning, that further deterioration of air quality is taking place; and (4) Emergency, when air quality has deteriorated to a point that public health is substantially endangered. These stages call for increasing action on the part of the locality, therefore the City must have an appropriate plan to deal with air pollution episodes.

Relying on the State DNR to initiate emergency procedures may be adequate to protect public safety, but this places a heavy burden onto an overly small staff at Lansing and Pontiac. True "fail-safe" protection does not exist, which raises the question of whether surveillance is completely adequate and reliable. Playing a more active local role seems to be the only assurance that City air quality will consistently be maintained.

The City of Flint presently lacks a viable mechanism to identify many air pollution violations, and relies almost totally on limited local State DNR monitoring. This may be adequate but has the danger of ignoring brief or highly localized violations that may only affect small areas. Controlling environmental quality by gross monitoring also tends to be belated; it can only record a problem once it has taken place. As in the case of any form of pollution, effective control is only possible when all point sources can be identified and controlled. Allied to this is enforcement of existing controls on minor point sources, or spot problems, such as defective automotive equipment (including badly worn engines), excessive kitchen smoke and illegal burning of trash or improper incineration, plus improper construction and other practices resulting in excessive dust.

Given a lack of centralized and timely data on air and other forms of pollution, plus the scattered and largely ineffectual enforcement of pollution violations (note in particular the city's marginal status as measured by construction dust in the form of suspended particulates), the need becomes clear. The office of Environmental Control Officer should be established (or its prior counterpart restored) and if possible, a fully staffed Environmental Office be provided. This would centralize authority and data processing, formulate and manage a local environmental plan, plus focus enforcement and abatement programs.

D. Recommendations

1. The City should formulate a comprehensive contingency plan in conformance with the State DNR Implementation Plan as submitted to the Federal EPA January 30, 1972, in cooperation with the MDNR.
2. The City should reactivate its local pollution control program to identify and control effluents at two levels: (1) Large identified sources, mainly local manufacturers, which are monitored by the State DNR, to assure compliance; (2) Small, numerous and unidentified sources which in aggregate contribute to the local problem. Adequate City ordinances now exist, but budget and staff are not adequate. A strong program should be developed that features immediate response to minor as well as major spot problems.
3. The City is in need of an Environmental Control Officer at very least, and a fully staffed Environmental Office, ideally. Such a function would be responsible for identification of all applicable laws and guidelines, the formulation of any local controls more restrictive than state and federal, management of an environmental plan, plus enforcement and abatement; also, regular publication of local conditions in such form as is necessary to process environmental documentation by other departments, agencies and offices.

V. SOIL AND WATERCOURSE MANAGEMENT

A. Introduction

Flooding has been a historic problem to man since most human settlements were located near rivers and streams. After a century of development on the Flint River, City flooding was found to be a serious problem in 1943, 1947, 1948 and other years. The spring of 1947 flood swamped 400 homes requiring the relocation of 150 families, and the closing of Chevrolet plant which idled 14,000 workers. Damage estimates ran to \$10 million.

Although local requests for flood relief assistance began in the 1930s, it was not until 1950s that federal help was possible. The Army Corp of Engineers reported the project favorably for action by Congress under the Flood Control Act of 1958. Planning funds were released in 1960 and construction began in 1964. In 1968 the City requested that the downtown sector work be delayed because of citizens' requests to develop the riverfront. In 1973 the Mayor's Advisory Committee was established. Prior beautification plans were considered and in 1974 further studies were conducted. Meanwhile, basic hydraulic features were being constructed and are now largely complete. Periods of high rainfall have apparently demonstrated that project design is sound. On April 15, 1975, when the Flint River reached 14.92 feet or the second highest level since City records have been kept, no major flooding was apparent. However, the flood control project is primarily designed to protect the center city and will not prevent some flooding at its periphery.

Incidental to flood control, riverfront beautification is currently a primary concern of citizen groups. Since basic project funding allowed for very limited beautification, citizens have been raising incremental funds including local foundation grants. The City has also constructed a bikeway along the riverfront. Beautification, including landscaping by the University of Michigan-Flint at their new riverfront campus, will be finished by the time basic flood control features are completed (now estimated to be spring, 1979). Projected conditions suggest a greatly enhanced environment along the Flint River. There remain some unresolved issues as to property ownership, maintenance and operation (including security and convenience facilities). But since the City has maintained active support of the project, no recommendations seem to be needed.

Floodplains are considered here for different reasons. A floodplain is a level area that is periodically covered by surface water. Man has historically built homes and other structures on floodplains, only to find them damaged or destroyed during periods of high waters. Such land areas are often characterized by hydraulic or otherwise unstable soils that are generally unsuitable for construction, quite apart from flood hazards. As local data suggests, such soils can be found in many Flint areas, along or near

existing natural waterways. This is true of Flint Park Lake (locally, "Devil's Lake") and much of the tributaries of the Flint River. Although one would assume that no development or other construction would take place on unstable waterfronts susceptible to flooding, local history does not support this assumption. Therefore, suitable controls are appropriate to limit or prevent such construction.

Floodplains are part of a much larger watershed and surface soils erosion is directly involved. Much such soil is swept across floodplains while being transported to waterways. Enforcement of the City's Soil Erosion and Sedimentation Control Ordinance of 1975 will do much to reduce erosion caused by man's actions in the future. But extensive development and large areas of hard paved surfaces will continue to have a significant effect on runoff and the eroded soils such waters carry. Heavy development is estimated to increase by 1,000 times the volume of sediment, when compared to virgin woodland. Shallow slopes and heavy vegetative cover greatly reduce the transport of sediments to waterways. Barren or paved waterfronts aggravate the problem greatly. There are other factors to consider as well.

Although Americans first became acutely aware of soil erosion during the dry "dust bowl" period of the 1930s, it is commonly assumed that erosion is strictly a rural and farmer's problem. This is correct, but soil erosion occurs anywhere the natural vegetative cover of soil is disturbed. In cities, this typically takes place incidental to construction activities. But the large amount of hard surfacing -- streets, sidewalks and driveways, and buildings -- accelerates runoff flow and acts to increase ground erosion. The principal forces of erosion are wind, water and gravity. Their effects are heightened in urbanized areas, however, and development is now seen as a major force that acts indirectly to remove soil cover. It was recently estimated that roughly one-third of America's black topsoil has been lost forever. Since topsoil requires 200 to 300 years for one inch to form, such soil may be regarded as a non-renewable natural resource.

B. Goals and Objectives

Although the goals and objectives stated at the start of this Environment element are applicable, closer specification is useful. The goal of this section is to improve our physical environment by better management of the structural relationship between soil and water, and our uses of land at this important boundary.

Four separate but interconnected activities are appropriate, as the objectives here indicate:

1. To assess the need for, and the adequacy of, existing controls on soil erosion and sedimentation.
2. To consider the need for establishing sensitive areas or critical zones along water courses.

3. To identify local needs as to flood plain management designed to protect housing and other development and to assure continued participation in flood insurance.
4. To examine the need for more data on topsoils and subsoils in the City, especially to identify those areas where soil conditions may limit development and construction.

Although the above considerations represent general constraints on land use, they have specific implications. The Environmental Review and Assessment System (ERAS) proposed in this element specifies that site soil conditions of any development be considered, which requires the formulation of appropriate controls which in turn requires data. The above also have some relationship to other environmental management programs such as 208 water quality, and air quality. Objective 3 specifically relates to implementing federal requirements.*

C. Existing Conditions

1. Soil Erosion and Sedimentation

The erosion or loss of topsoil takes place whenever its natural protective cover of vegetation is damaged or removed, or major forces such as floods act upon the surface and wash away soil. Sedimentation occurs when such eroded soils are deposited into watercourses such as rivers, streams and lakes. Sedimentation is a normal and natural process, but it can be greatly accelerated by development and incidental construction practices. The most critical stage of sedimentation takes place during the early construction phases when topsoil is stripped and becomes subject to erosion from running water and air. While the loss of topsoil is a historic problem, it has become acute only in comparatively recent decades, mainly because of the development and use of land.

Soil's movement except when carried by the wind, is slow. Topsoil removed from the City comes to rest in ditches, creeks, the Flint River moving to Saginaw Bay and Lake Huron.* Meanwhile, in its movement soil tends to foul our surface waters. It chokes our streams, ponds, ditches, culverts, and storm drains with mud and silt known as sedimentation. When first falling on surface water it mixes and forms an unstable suspension known as "suspended solids" which is eventually deposited as sediments.

+24 CFR Part 1910

*Hydrographic data studied for the flood control project revealed water runoff of 35% to 75% within the City.

Suspended solids are one of the major factors in water pollution. The suspension clouds the water and has a generally adverse effect on it as an aquatic habitat. The most desirable fish such as trout prefer clear, clean, cool water. Water with a high level of dissolved solids is intolerable to many desirable fish species, but is suitable for more tolerant species such as carp. Fish require food, and sedimentation interferes with many biota that fish feed on. Sediment also affects the spawning habits of fish. In general, solids in water have a definite adverse effect on the quality of water and also waterlife, especially fish. Sediments also have a negative effect on plantlife and profoundly alter plant systems in and around waterways.

Fertilizers and hazardous chemicals such as DDT and pesticides found in many cultivated soils, are also carried into waters creating potential human health hazards while damaging lower life forms in the ecosystem.

The soil erosion and Sedimentation Control Act of 1972 (Mich. Public Act 347) is the basis for erosion and sedimentation control in Michigan. The Act provides that a city, village, or charter township may develop their own local erosion control and enforce it locally, subject to the Michigan Water Resources Commission approval of the local ordinance and implementation program.

Flint City Ordinance No. 2481, in accordance with PA 347 was adopted in 1975. The purpose of this ordinance is to provide a comprehensive and integrated plan of erosion control, to reduce soil erosion caused by earth changing activities, and to provide additional and cumulative remedies for the prevention and abatement of soil erosion. The ordinance requires permits for any earth changing activity of more than one acre or within 500 feet of any watercourse, as well as erosion and sedimentation control provisions on all site or plot plans submitted for approval.

Soil erosion control practices are used as a first line of defense against on-site damage. These include special grading methods, runoff control structures, and temporary and permanent vegetation. Sediment control practices are a perimeter defense to prevent off-site damage; examples are diversion ditches, sediment traps, vegetative filters, and sediment basins. Effective control of a site requires that devices be regularly checked and maintained.

Standards and specifications for the erosion and sedimentation control program in Flint are available in the manual developed by the Genesee County Soil Conservation District, assistance from the U.S. Department of Agriculture Soil Conservation Service. It contains general principles of erosion and sedimentation control.

The Pollution Control section, City Department of Public Works, is responsible for inspection and enforcement of Flint's soil erosion and sedimentation control ordinance. Their staff is not adequate for monitoring and enforcement. Recent air quality data from the State suggests excessive dust from construction, which may mean non-compliance to the ordinance. This is especially important with new construction now starting. Soil erosion has undermined both air and water quality in Flint. The City should reassess its adequacy of enforcement of the Soil Erosion and Sedimentation Control Ordinance of 1975. Additional budget for staff is needed.

2. Sensitive Areas and Watercourses

Streams, creeks and lakes may be defined as "sensitive areas." This is because developmental activity within and adjacent to watercourses has profound effects on stream hydrology, channel and basin geometry and water quality. Desirable local regulation is either site-specific or nonsite-specific. The latter is represented by the City's Soil Erosion and Sedimentation Control Ordinance which regulates certain construction activities near watercourses. In itself, such control may not be adequate to maintain environmental standards, even when properly enforced. But in conjunction with watercourse zonal regulation, such control may be able to retain the area in a near-natural condition and buffer the adverse effects of development. Regulation may be broadened to assure flood plain, floodway, watercourse and wetland protection by ordinance (as was done by the West Bloomfield Township, Oakland County, Michigan).

If we assume that streams and possibly lakes are sensitive areas, site-specific regulation is necessary. This requires the designation of appropriate buffer zones or areas along such waterways that require special consideration. Definition of buffer zones may be difficult because a hard or fixed stream buffer is generally not ideal, while a "floating" zone (one that calls for a specific determination of boundaries) will only be valid under a particular set of conditions at a specific time. This quandary is explored in Thurow, Toner and Erley (1975), which ASPO study is recommended for further reading.* Of the several existing approaches to legislative control, the model Water course and Wetlands Protection ordinance of West Bloomfield, Oakland County bears special attention. This buffer zone is set at 25 feet but buffer zones have ranged to 300 feet elsewhere. When buffer zones are set given a choice between fixed-point boundaries and a floating

*Thurow, Charles, William Toner and Duncan Erley, Performance Control for Sensitive Lands (Chicago, Illinois: American Society of Planning Officials and U.S. Environmental Protection Agency, 1975) especially Chapter 3.



FLOOD CONTROL

— 1947 FLOOD LEVEL

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buffer zone--some trade-offs are necessary, as Thurow points out. Since the City of Flint is moving to the establishment of a defined flood plain (actually several, at various elevations), it may be best to delineate such a buffer zone broadly, for example, to utilize the 100-year or 500-year flood plain boundaries. This allows flexibility.

This discussion focuses on the physical dimension of flood plains, or land use. However, since if for no other reason than their relationship to air and water quality, including possible 208 water management restrictions, other considerations may be applicable including planning to protect the living systems whose habitat is involved. Biological evaluation is advisable. The principal handicap in addressing these sensitive areas, is the current lack of an appropriate management agency in the City, which deficiency might change were a local environmental control office instituted.

3. Flood Plain Management and Insurance

One of the less well known activities of HUD is their operation of the National Flood Insurance Program. The program was established by Congress in the National Flood Insurance Act of 1968 and expanded in the Flood Disaster Protection Act of 1973, to provide flood insurance at rates made affordable through a federal subsidy. In return, communities must adopt and administer local measures that protect lives and new construction from future flooding. The City of Flint established its eligibility for the "emergency" program August 20, 1973. However, since then few persons have taken advantage of the program in spite of the well-known risk of flood damage.

The range of losses covered by the program includes direct flood and flood-related losses such as mudflow and erosion. Sewer back-ups are also covered provided that a general condition of flooding exists and the sewer back-up is clearly a result of that condition. Any property owner whose building is located in the City may purchase a flood insurance policy. The owners or tenants of structures may also purchase contents coverage. Purchase is required where federal or federally-related financial assistance is involved.

In order to take advantage of the program, the City must commit itself to flood plain management. This means the operation of an overall program of corrective and preventive measures for reducing flood damage including, but not limited to, emergency preparedness plans, and any regulations aimed at the future use of the flood plain. Such regulations refer to specific local codes and ordinances which provide standards for the location and design of new development within flood-prone areas. These regulations may be adopted in any manner that is legally enforceable by the City, typically in the form

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VI. SPECIAL ENVIRONMENTS - NOISE

A. Introduction

Noise is defined as any undesirable, disturbing or injurious sound. The importance of noise control in industry, construction and other fields where high noise levels are commonly found is well established. This detailed by the standards issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). There is some controversy as to acceptable limits, however, it is well accepted that levels above 90 dBA (dB or decibels are a measure of sound level) are dangerous and result in hearing loss. Community standards, particularly for residential areas, are of a more complex nature.

Federal Regulation

Federal standards for noise control and abatement are relatively complicated, and primarily address new construction sites. (It is assumed that attempting to apply them to existing housing would raise many problems, since any land use data will indicate homes built overly close to high noise areas such as major roads and railroads.) The Housing and Urban Development Act provides that HUD may make rules and regulations as needed to implement proper community development.* The National Environmental Policy Act of 1969 (PL91-190) is also applicable. It is HUD's general policy to foster the creation of controls and standards for community noise abatement and control by state and local government and to support these activities by minimum national standards by which to protect citizens against the encroachment of noise into their communities and places of residence. HUD requires that noise exposures and sources of noise be given adequate consideration as an integral part of urban environments in connection with all HUD programs assisting planning. This consideration shall be of a form that provides assurances that new housing and other noise sensitive accommodations will not be planned for areas whose current or projected noise exposure exceed the standards given.

For new construction, HUD discourages building dwelling units on sites which have or are projected to have, "unacceptable noise exposures" for HUD-assisted units. For existing construction, including rehabilitation, HUD "encourages" noise control with qualifications. Environmental statements, where required, must address noise exposures, existing and projected. State standards are similar to federal.

The analysis of noise involves two different but related kinds of noise standards and measurements: external and internal to the structure. Most data is collected for site analysis based on

*Noise Abatement and Control: Departmental Policy, Implementation Responsibilities, and Standards, HUD Circular 1390.2 (1971).

estimation and/or measurement of present or existing noise, or noise impinging on the site being developed. This is a predictive measurement, the kind most commonly given in pre-construction documentation. This data is typically projected forward in time to reflect some future state of development as well. Such external sound data does not actually estimate interior sound levels, which would be less, even with building windows open. Interior noise standards focus on sleeping areas and are basically the most restrictive (45 to 55 dBA), and include partywall (that common partition separating residential units) insulation performance.* Interior noise includes exterior noise transmitted inside, plus all interior noise such as that from heating, cooling and utilities.

External noise exposure standards for new construction sites, according to HUD, are give at four levels, measured above site boundaries:

1. Acceptable: Not over 45 dBA over 30 minutes/24 hours.
2. Discretionary-normally acceptable: Not over 65 dBA over 8 hours/24 hours.
3. Discretionary-normally unacceptable: Exceeds 65 dBA 8 hours/24 hours, with loud repetitive sounds.
4. Unacceptable: Exceeds 80 dBA 60 minutes/24 hours, exceeds 75 dBA 8 hours/24 hours.

HUD does not limit the scope of applicability, and current standards and field office updates, should be consulted.

Transportation and Traffic Noise

Federal and state standards place heavy emphasis on the noise created by traffic, automotive or rail, plus airplanes. Airport environs are specially considered by HUD (as in the four levels cited above) and involve a special set of standards and measurements. Aircraft noise, roadway noise and railway noise are all derived and specified (as in environmental assessments) separately and individually. A fourth category, walk-away test, gives a rough measure of overall ambient noise that would include some transportation noise. HUD noise assessment guidelines also provide for a Final Site Evaluation - least favorable of the four categories given. Similar but not identical techniques are utilized by federal and state transportation and highway offices, for traffic noise estimation and assessment.

(See "Right-of-Way and Environment, Procedures for Abatement of Highway Traffic Noise and Construction Noise," Federal-Aid Highway Manual, May 14, 1976, and other U.S. Department of Transportation-Federal Highway Administration data.)

* Noise Abatement and Control, HUD Circular 1390.2 (1971)

B. Existing Conditions

The City of Flint has no ordinance that directly addresses noise abatement. Various ordinances do so indirectly and incidentally. All noise assessments have been on a site-specific basis incidental to State and Federal projects. A new ordinance has been proposed.

The City picture on noise exposure is unknown. Very little data exists and only limited and spot measurements have been made. Most existing data was developed by State and Federal agencies, mainly in connection with planning construction of I-475 expressway (data generally found in the I-475 environmental statement). Other data has been estimated by inferential techniques. Since noise study has only recently been required, relatively little data has been collected. Also, City priorities have not been supportive of noise control programs in past years. Programs envisioned originally were not adequately developed. There is some inferential evidence suggesting that noise is excessive in some areas, arterial roadways such as Dort Highway and railways, but this has not been quantified. The proposed ordinance may be deficient in the respect of not addressing railway noise. Excessive noise from autos and trucks may be controlled to some extent by oblique enforcement, police writing violation notices for "illegal equipment" or loud mufflers (State law violations). Railway trains, not on public ways, are difficult to control.

The City DPW has some of the basic equipment required to make noise assessments (a sound meter). However, an enforcement program is lacking, for need of staff, which is ultimately a funding deficiency.

C. Projected Conditions

No meaningful projection is possible since noise control requires quantification, and this is largely based on measurement. It might be speculated that a reduced population will result in less noise. However, increased commercial and industrial activity (relative to 1974-75) would probably largely offset this. Transportation remains the largest noise source, especially heavy trucks and railway trains. Increased volume here would increase noise.

A proposed ordinance serves to control noise within the City, providing for enforcement, violation penalties and repeal of Ordinances. The proposed ordinance limits construction noise between 7 a.m. and 6 p.m. by specific equipment (75 or 80 dBA except pile drivers at 95 dBA); and motor vehicles on public right of way (up to 86 or 90 dBA depending on size and speed), providing for designation of a truck route map for the City to control truck noise. It does not address rail or aircraft noise, a possible deficiency.

In terms of land use, the ordinance provides for protection of institutional areas (hospital, school, etc.) from any "unnecessary or unusually loud noise." Most importantly, it establishes noise level limits by zoning categories, generally:

Residential (A-1, A-2, B, C-1, C-2)	7am-7pm	55 dBA
	7pm-7am	45 dBA
Commercial (D-1 through D-6)	7am-9pm	60 dBA
	9pm-7am	50 dBA
Industrial (E,F and G)	All day	70 dBA

D. Recommendations

1. The City should study the requirements in order to formulate and enact a specific noise control and abatement ordinance. This should be based on substantial noise data to be obtained.
2. The City should require that any noise control and abatement program is compatible with existing state and federal standards, and provide for revision based on changes in state and federal requirements.

VII. SPECIAL ENVIRONMENTS - LEAD HAZARDS

A. Introduction

"Plumbism" in U.S. kills one child every 36 hours while an estimated 6,000 suffer permanent brain damage. The poisoning is caused by the continued habitation of old housing by families. This is not an indictment of older homes but an acknowledgement of their having been decorated with paint having excessive lead content (over .06% by weight of its non-volatile content). Certain kinds of small children ingest or swallow tiny chips or flakes carrying lead-base paint, which in a very few months poisons them. Children aged one to six are most susceptible but over 50% of deaths occur in two-year-olds. Disproportionately many are minorities, in poor housing. Adults can be affected. Although the death rate is small in numbers, nonlethal incidence is of concern because it often results in neurological problems: cerebral palsy and mental retardation. While there are other lead sources, housing built before 1940 or 1950 is high risk since paints formulated up to that period often used lead.

B. Goals and Objectives

The goal is to protect public health by eliminating plumbism as an environmental intoxication in City housing. The immediate need is for identification of the problem's scope, and establishing corrective, control and treatment methods -- both for housing unit and tenant.

Objectives are:

1. An assessment of the extent of environmental lead in housing.
2. Description of an appropriate program to deal with the problem.

C. Existing Conditions

The exact incidence of environmental lead -- like the incidence of lead poisoning - is generally unknown. Currently there are 25 cases identified with the City. It's likely that there is a much larger number that remains unidentified, which in itself represents a serious problem. Indirect or inferential data based on the age of housing suggests that a very large number of housing units probably have a substantial amount of lead-base paint, nearly one-half the units in the City.

The 1970 Census estimated 29,288 units in structures built 1939 or earlier (based on a 20% sample). By Census Tracts, such old units vary from 1% to 92% of an area. The number of families with small children living in such units is unknown.

The Health Department's Environmental Health Division has cited lead poisoning to be a, "principal problem. Of paramount concern pointing to environmental lead ingestion and resultant intoxication." Recent followups of cases identified by the Medicaid Screening Program, with referrals also provided by the Department of Social Services screening of ADC (assistance to low-income families) applicants, have shown case clustering in three City areas:

- o Sherman, Longfellow, Stewart and Saginaw Streets - 6 cases
- o Mason, Dayton, Saginaw and McClellan Streets - 6 cases
- o Paterson, Mason, Wood and Saginaw Streets - 13 cases

There is good reason to suspect that much larger areas are involved although hard data is not available. Limited prior study was inconclusive. HUD-FHA requires eliminating the lead paint hazard, as part of home transactions, but few structures have been involved.

The only sure way to remove lead paint as a source of poisoning is by physical removal (as by stripping), or covering old surfaces with certain coverings such as wallboard (repainting is not enough). Chicago has estimated this to cost \$1.00/sq. ft. Flint has never had a lead paint control program. Such a program might involve:

1. Education -- Homeowners and parents should be made aware of the problem through a multi-media promotion. Homeowners might be reminded via messages imprinted on tax bills.
2. Identification -- Locating lead-painted homes may be difficult although general locations can be given from Census data. Address-specific identification will ultimately be required.
3. Control -- Enforcement of found lead paint is both difficult because of the costs of staffing personnel, and the costs of compliance by homeowners. Resurfacing the interior of an old home could become an oppressive cost to low-income owners.
4. Screening and diagnosis -- This critical human need can be pursued independently of housing correction, up to a point. High levels of lead in blood require immediate clinical attention, now adequate, but a possible problem if an active program developed that might have to treat a large fraction of the City population.

D. Projected Conditions

Since current conditions are not known no projection is strictly possible. However, high risk conditions will continue for many years without a corrective program, which means that many children will be stricken with lead poisoning, a large number of

these unknown for lack of identification. This assumes no major change in these existing conditions: A low rate of demolition of old buildings, a very limited number of new housing starts, federal and state emphasis on preservation, and large numbers of low-income families with small children.

While no new authority is necessary to enforce lead paint control, it may be desirable to encourage the drafting of a state act modeled after Illinois State Act 78-560 (P.A. of 1973); and an ordinance similar to the City of Chicago Lead Paint Ordinance enacted February 24, 1972. A local ordinance would serve to identify the problem, define the parameters such as specific lead content, specify City policy and regularize enforcement.

Limited efforts of control and abatement of lead hazards have been attempted by the City's Department of Public Works Building and Safety Inspection Division, and the Environmental Health Division of the County Health Department. It is clear that, literally, only the surface has been scratched on this problem.

Recommendations

1. The City cooperating with other units and agencies, should immediately launch an education program to enhance public knowledge and awareness of the lead paint hazard. While area-wide, such promotion should focus on high risk areas within the City, their residents and property owners.
2. Starting with estimates of high risk (probably lead-base paint treated) structures, the City should develop address-specific data on the incidence of lead hazard.
3. The City should encourage and support Building and Safety Inspection activities seeking to identify and control the incidence of lead-painted interiors in family housing, in cooperation with the Health Department.
4. The City should encourage the expansion of lead intoxication screening, diagnosis and treatment facilities, with active consideration given to satellite neighborhood clinics close to high or known risk areas.
5. The City should draft and enact a lead paint control ordinance.

VIII. ENVIRONMENTAL POLICY

The City of Flint presently lacks a formal policy covering the broad and at times vaguely defined scope of "environment." Such a policy is useful and perhaps necessary as the basis of further action - a goal. The purpose of such a declaration would be to establish the general priorities that underlie and precede specific actions, which would typically be based on more specific statements taking the form of "objectives," such as those offered further in this element. This deficiency is also notable in considering various environmental groups at play, and so it may be appropriate to involve such quasi-public organizations. A representative declaration of environmental policy is offered as the possible basis of a community formulation.

The Charter of the City of Flint, adopted by the people on November 5, 1974, in the Declaration of Rights specifies that:

City officers shall pledge themselves to assure residents decent housing; job opportunities; clean air, clean waterways and a sanitary city; health care; convenient public transportation; recreational activities and facilities; and cultural enrichment.

Recommendation

The City should formulate, review and support by Council Resolution, a statement of environmental policy as the basis for more specific actions. Such a statement may require the convocation of a citizens task force.

A broad declaration of environmental policy may be given as:

1. It is the continuing responsibility of the City of Flint and all agencies of the City to use all practicable means, consistent with other essential considerations of State and Federal policy, to improve and coordinate plans, functions, programs and resources to the end that the City and its citizens may:
 - (a) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
 - (b) Assure for all people of Flint, safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
 - (c) Attain the widest range of beneficial uses of the environment without degradation, risk to unintended consequences;
 - (d) Preserve important historic, cultural, and natural aspects of our national heritage;

- (e) Maintain, wherever possible, an environment which supports diversity and variety of individual choice;
- (f) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (g) Enhance the quality of renewable resources and approach the maximum attainable conservation and the recycling of depletable resources.

IX. ENVIRONMENTAL REVIEW AND ASSESSMENT SYSTEM

A. Introduction

The historic development of human settlements has been largely unplanned and uncontrolled. Urban development is a process of cooperative conflict whereby the most influential factors within any community obtain the most desirable locations by applying large resources, mainly economic. In Flint, as elsewhere, these were industrial factors: the lumbering industry, railroads, wagon and buggy manufacturers and finally, automotive plants. The city grew up around these prime industrial facilities. Originally, within the compact "walking city" residential land bays grew in close proximity to the industrial facilities. With the fusion of technology and energy resources, the size of the city greatly increased because of vastly better human mobility. This centrifugal outflow of population is characteristic of the American city of the last century and has held true for Flint.

With less population pressure and also less pressure from industrial and commercial land consumers, it has become easier to emphasize the quality of growth and existence rather than compromising for continued residential, industrial and commercial expansion. Together with increasing emphasis on environmental controls, primarily from the federal level, local governments are increasingly concerned with the quality of environment. Recent experience nationally with environmental controls has been mixed and somewhat disappointing, which explains why federal legislation has greatly expanded and grown increasingly severe within the last decade. The federal partnership with states and local units of government has not been entirely successful in improving the quality of environment. This requires a much more active local role.

Any discussion of the environment includes three sets of actors: the federal government, the state and local units. In the case of Michigan, an additional set has been introduced by state action, the regional agency. The resolution of environmental and many other issues will involve these several actors; their roles will vary depending on the particular issue at hand.

This element's discussion on development seeks to coordinate and regularize the presently inconsistent demands of local, state and federal agencies. What follows is, therefore, a first step as opposed to a final statement, and should be considered to be a local effort to establish a rational environmental analysis process model. This is the Environmental Review and Assessment System (ERAS). It is intended to serve as an outline, or a framework for future local activities.

B. Goals And Objectives

The goal is to apply a process for securing the often-stated goal of a decent home and suitable living environment in a reasonable, rational and consistent manner that best balances a variety of conflicting needs. One way to achieve this goal is relate development to environment by a three-part process.

The objectives are:

1. To provide a process that will rationally relate development to the carrying capacity of the environment or intended site and location of such development. "Carrying capacity" speaks to the various abilities of any environment, natural and built, to support future development such as residential, commercial, industrial.
2. To provide a process that will effectively sensitize and educate both developers and their clients, including local government units, to the needs and requirements of both the existing environment and its projected character. This includes both the physical and the social environment, but emphasis is on the physical, because of the difficulties of measuring the non-physical factors.
3. To provide a process that is consistent with the requirements of all levels of government, with emphasis on conforming directly with federal requirements. Any process must remain compatible with federal environmental review procedures.

C. Existing Conditions

Of the various activities that have taken place within the city and around it, these might arbitrarily be classified into two groupings: those actions that predominantly feature non-local actors, such as state and federal agencies, with only minor local impact and involvement; and those actions which are predominantly local with little, if any, non-local impact and involvement. Examples of the former may be: Flint River flood control, dominated by the Army Corps of Engineers, state highway construction, such as City Interstate I-475, predominantly a state project with only incidental involvement of federal or local government agencies. For the latter, this speaks mainly to those actions which are characterized as "the private sector", primarily residential, commercial and industrial construction.

The quality of environment has become increasingly important to the public, and may be rising as a consideration in selecting residential location. This discussion therefore assumes that any substantial steps taken to improve the built and to-be-lived-in environment may prove to be an amenity for future residents. On the other hand, developers have indicated that they are handicapped

by the rising number of restrictions and other qualifications being imposed upon them by the various units of government. Any review process that is fair, consistent and reasonable, would be therefore desirable. Since human decisions tend to be arbitrary, it would be desirable to review potential actions in some way that allows for quantification and consistent measurement.

A local review process should therefore be internally consistent and externally applicable. The former would require a rational and dependable system of review that calls for reasonably precise measurements that can be applied to an established scale of values. Such a value system should be quantified to the greatest extent possible to reduce any possibilities of arbitrary or capricious evaluation. This approach is already being tested in other communities. The external aspect seeks to create a process that relates well to state and particularly federal environmental review process.

Flint's history, like that of most other communities, has resulted in mixed land use development, because uniform, consistent and comprehensive controls were not applied over time. This is easily demonstrated by considering many parts of the city, or reviewing land-use maps that indicate actual uses on a parcel-by-parcel basis. The results have been an uneven, often unattractive living environment. Similarly, housing maintenance standards have not been uniformly applied, resulting in a deterioration of neighborhoods because, in part, of the multiplier effects initiated by a relatively few deficient structures, or uses that were detrimental to an area. This broad problem has been discussed in some detail, and current attempts to revitalize older areas simply hope to arrest and reverse declines that may have been averted by earlier action by the city. Any general strategy that seeks to improve the physical quality of the city must address both the existing physical environment, and new construction. Improving the existing condition must be addressed elsewhere; this section deals with the future condition.

Since any developer review procedure requiring additional data processing would appear to be more clumsy, time- and cost-consuming than a simple permit procedure, it would be necessary to streamline the system as much as possible. The ideal condition would allow a developer or builder to obtain a preliminary evaluation of proposed construction simply and quickly. A "one-stop" procedure may not be possible. But the more difficulty and delay required, the less likely new construction in the City becomes.

Larger and more complex developments will require environmental review and assessment procedures be involved. Under current conditions, this creates a problem since no environmental office (or officer) exists, with environmental issues being resolved by various City departments.

Although this review process is oriented to new housing construction, primarily multi-unit projects, there is no reason why it should not be applied to all development, commercial and residential, as well as substantial remodeling and rehabilitation, with appropriate modifications.

D. Future Conditions

Reasonable controls applied to new construction, and to appropriate reconstruction such as remodeling, will have a definite positive effect on both the immediate area of action and on the broader community. The ERAS process seeks to address particular environmental factors that have been demonstrated to have a direct effect on both constructed project and its immediate environment, plus various externalities such as city and other utilities and services. The thrust of this is not to take away or reduce private initiative, but to harmonize such actions and coordinate them to existing and projected conditions.

The Environmental Review and Assessment System is a process which involves these major steps:

1. Applicability - It is recommended that the ERAS system threshold be based on current review criteria, those within current City Ordinances: All developments and uses except single family detached dwelling units involving fewer than three dwelling units to be constructed by a single developer on contiguous sites. Exception: Any housing unit or structure that is planned to be built within a "critical zone or area" within the city, in which case ERAS shall be required for such a building permit application.

Applicability shall also be required for major projects such as any larger than 500 housing units, or any project utilizing state or federal funding where an environmental assessment is required by that funding source.

2. Review Ranking System - It is recommended that all parameters of an application under ERAS be reviewed, as indicated, as to applicability (yes-no-exempt) and to ranking if appropriate to apply a point count or other scalar measure. Such a "Rating" system is not indicated at this time, but should be formulated by competent city agencies with the concurrence of the Flint Planning Commission.
3. Critical Zones and Areas - It is recommended that site location be referenced to a graphic system of critical zones and areas, and that this be an integral part of the ERAS process. Such zones and areas are deemed to be essential indicators of locations that are either high risk or otherwise undesirable sites. Criteria for such zones or areas are suggested to include:

- o Noise-sensitive zones (as those created by transportation and railroads), flood plains, air and water quality-sensitive areas, soils unsuitable for construction, natural hazards areas, man-made hazards areas, nuisances, historic and archeological areas; these are seen as potentially prejudicial to review.
- o ERAS evaluation and review shall also consider location relative to: parks and playgrounds, open space, transportation (mass and personal), water supplies, sanitary drain systems, storm drain systems, and other utilities, public and private. Review should also consider other related factors not appropriate to graphic appraisal and display such as radio-TV reception, and site-specific amenities and features.

The ERAS process is described in two sets of materials:

Format 1, which is the application and base review document, and which details the various considerations or parameters to be reviewed; and Format 2, which is the graphic materials that indicate critical zones and areas, to show quickly where any particular site in the city is located relative to critical features. These can be expanded to suit various needs, and data can be applied to microscopic areas as needed. Criteria for establishing and defining such zones and areas shall be federal and state, or local, whichever is applicable. For maximum utility, federal environmental standards and review-assessment guidelines shall prevail where conflicts occur. (See Appendix A for environmental assessment criteria and matrix).

E. Recommendations

1. The City should review and where necessary, refine the Environmental Review and Assessment System, and adopt ERAS by appropriate resolution and ordinance, within the period of time designated for third year 701 activities. This will also require development of a suitable ranking system to apply to proposals.
2. If deemed appropriate, the City should operate the ERAS process, with administrative support embracing the Planning Bureau, Planning Commission and Housing and Inspection, for a trial period not to exceed one year; after which time any necessary revisions are to be incorporated into the final City Ordinance.

X. SOLID WASTES

A. Introduction

In a nation threatened to choke in its own garbage, the question of solid wastes has become a popular topic. Recent polls, however, do not give this a very high ranking as to critical needs, because we are more sensitive to the quality of air and water, our constant companions. A principal problem shown in the literature relates to the relative nearness of wastes, "out of sight, out of mind". For as long as the garbage is picked up weekly by Flint's Waste Collection Division, it is of no concern to us. Actually, the problem of solid wastes may be our most important difficulty today.

Trash represents both a resource and a disposition problem. As a resource, typical trash has energy value, about half that of a comparable weight of coal. It is also "low sulphur" and relatively non-pollutive when burned. However, such burning must be done under controlled conditions. The City of Flint, like most other areas, rigidly shut down incineration including the trash burning by residents, because of the air pollution being created. What is the appropriate solution?

Proper incineration requires proper equipment, which is expensive but even such moves are really wasteful because of the heat value being lost and also the loss of paper and other resources that can be recycled. The community has expressed a desire to participate in such recoveries, but the limited recycling activities have not been adequately supported. There is a revival of "recycling centers" in and around the City, but it will require a vastly greater effort to make this into a full-time activity.

Centralized systems have been considered by the city agencies for roughly a decade, along with other local units of government. The principal handicap, aside from several others, is the high cost of building a facility to process solid wastes. At a minimum, a processing plant would cost several hundred thousand dollars. A collateral energy plant would raise the cost into the millions. It has been generally assumed that funding such facilities would require outside assistance, probably federal. This has only become a real prospect within the last year, although the outlook is uncertain.

Analysis of the general problem of solid wastes disposition was well done both in the 1968 County study and the 1974 update. Both deserve review and reconsideration before further action is taken and both can provide valuable data relating to the experiences of local units of government, including the City of Flint. In particular, conclusions and recommendations should be restudied.

Local experience covering the prior decade also reveals a great deal of experimentation and disappointment. Tests using "glass-phalt" as a substitute paving material found this ground glass composition to be less than ideal as a street surface (although it may have other applications). Although the recycled glass market has recently improved, glass remains the most troublesome recoverable "resource" in solid wastes, along with plastics and other process composition materials but the greatest disappointment has been in public participation in "recycling". Once initial novelty wore off, public interest in the City recycling center fell off badly, according to a Department of Public Works official. Most discussions on solid waste seem to assume that little if any public participation can be expected, which is reflected in system proposals that any solid wastes processing facility must do all tasks required, starting with initial classification of wastes.

If solving our solid wastes problems must rest with disinterested technicians, their number of tools and techniques increases with time. The technology of solid wastes management is growing steadily. With an increasing number of cities involved in full-scale demonstration projects, any new participant's venture becomes less of an uncertainty. This is most important because of increasing activities in resource recoveries and energy, which may represent the City's most important new major project. Resource recoveries have faced a very unsteady and uneven market, with one exception: the price of energy, and therefore the value of its recovery, continues upward and shows no signs of dropping.

B. Goals and Objectives

The goal of this section is to place in perspective the importance of solid wastes to the city and citizen, and to emphasize its ongoing character as a problem requiring better solutions.

The objectives are:

1. To outline the general problem of solid wastes, and to present the principal alternatives for its disposition, a part from direct landfill.
2. To point out the specific problem of disposition and a continuing need for appropriate land sites or "sanitary landfill" areas.
3. To indicate deficiencies and needs incidental to the collection and disposal of solid wastes.

C. Existing Conditions

The City collects about 60,000 to 65,000 tons of solid wastes each year. Detailed records are kept by the City Department of Public Works, which has noted sharp declines in collections in recent years:

"In 1975 the City of Flint showed a decrease in solid waste collection. In 1974 the collection amounted to 69,594 tons compared to 63,893 in 1975. There are several reasons for this decrease... the population in Flint has also decreased, more people live in apartments and the Waste Collection Division does not service apartments."

This volume of wastes, based on an estimated population of 175,000 persons indicates 730 pounds per capita per year or about two pounds per day average. This per capita amount is below national and Michigan State averages, but only includes residential collections.

In 1976, residential collections dropped still further, to 61,422 tons. Assuming a population of 170,650* persons, the per capita residential output also dropped to 719 pounds or 1.97 pounds per day (this may not be significant - the collection data is precise but the population is estimated). However, clean-up bulk collections of 3,500 tons was increased by two special drives for City trash. The bottom line or acceptable total depends on what is acceptable as "solid wastes," since there are several categories collected by the city, including dead animals. Another important category, private collections from commercial, institutional and industrial sources, was not measured.

In recent years, routine collections have required that all garbage be placed at the street curb within approved plastic bags. This practice has become fairly common and was already well established in many cities when adopted by Flint by advice of consultants. While a great improvement over prior methods, this approach has both advantages and disadvantages. The main disadvantage is that such wastes are not dependably delivered to City trucks. (Rodent and fly infestation is risked by premature curbside placement.) For a variety of reasons, ranging from overfilling of the bag to attack by hungry dogs, bag contents are sometimes scattered. The exact incidence of this problem is unknown but it has been identified as a deficiency by citizens. Although City collection crews apparently attempt to pick up spillage and even unbagged refuse, their present incentive system tends to work against meticulous collection efforts. Also, during severe and snowy winters, curbside bags become very difficult to collect and even get lost in snow banks. They also become vulnerable to snow plow blades working close to curbs. Since collection is the largest expense in dealing with solid wastes (\$18.07 per ton in 1974, versus \$4.44 per ton landfill charge), further study may be desirable to ways of reducing collection costs and also reducing spillage of wastes. Totally private collection should be considered.

* Source: ECHO

Earlier solid waste studies have indicated that suitable landfill sites are becoming scarce and rising in cost. The County 1974 study estimated that, depending on whether or not all available and suitable land were licensed for landfill use, the Flint area would have from two to 12 years to continue its present practices, and further estimated costs at \$2.57 to \$3.04 per ton at a minimum. The study also urged that steps be taken to secure new sites and reduce the volume of waste by exercising resource recoveries (the extraction of valuable materials also serving to reduce waste bulk).

Projected costs are not available. The 1974 study only mentioned these incidentally (using data from Commonwealth Associates, a consultant). It can be assumed that costs will be directly related to landfill costs, these in turn being based on Flint-area land costs and whatever management techniques are required by the State Department of Natural Resources (which issues all landfill permits). The picture is changing with the advent of new federal controls that are to be applicable. It seems safe to assume that costs will increase.

The DNR has also expressed concern about local governments that lack their own landfill sites and must totally depend on private contracts to assure the continuing disposition of wastes. While there is no requirement for government ownership, owned municipal landfills are the only long-term guarantee of access.

Landfill - Declining Feasibility

The basic disadvantage of landfill disposition is its increasing cost, which is related to the decline of available land. Costs in general have been rising because of increasing land costs and increasing regulation designed to minimize environmental degradation. Land marginal for development but readily accessible to the city is becoming scarce. And when near to residential areas, citizen opposition is a problem (and has been to Flint). Land close to water sources faces the opposition of environmentalists including water supply managers, whether or not a real hazard is identified. Traffic and circulation, plus dust created by earth movement as well as vehicles, is a negative factor in any populated area. Overall, landfills are basically antagonistic to urban development.

State Legislation and Controls

Act 87 of the Public Acts of 1965 provided for State licensing and regulation of garbage and refuse disposal, and required that all disposal must take place at a licensed site. Under this authority the State Department of Public Health formulated regulations governing solid waste disposal areas and specifically sanitary landfill design, also management practices. Act 89 of 1971 and Act 57 of 1973 amended Act 87, with new rules promulgated to protect

the public health and provide for planning and conducting refuse management systems; to license and regulate garbage and refuse disposal facilities and transporting units; to regulate collection centers; and to provide a penalty for violations of this act.

Act 89 of 1971 required a report including proposals to meet present and future refuse disposal needs through 1990 be submitted to the State by July 1, 1973. The solid waste management section of the State Department of Public Health was transferred to the Natural Resources Department and the deadline was extended one year. The local health department is still delegated responsibility for enforcement of Act 89.

Act 366, Public Acts of 1974, the "resource recovery act" promoted conservation and management of solid wastes, requiring both a state and local municipal management plan. It also established the Resource Recovery Commission and provided for financial and other assistance to localities. But collateral funding was not made available, so relatively little has been accomplished beyond state solid wastes planning. This act may be amended to resolve some deficiencies and follow the model of the related 1976 federal act. But given PL 94-580, which has been funded, there may be no incentive to also fund the Michigan State Act.

In 1972 the Solid Waste Disposal Study, Genesee County, Michigan, dated June, 1968, was submitted to the State Solid Waste Management Section as the planning document. This proved to be acceptable, provided there was some minor updating and a comprehensive survey made to analyze the condition of County landfill sites. The 1968 study was actually completely rewritten and was released in June, 1974, as Solid Waste Study, Genesee County, Michigan, the current official document.

This County Drain Commission Plan proposed that the County:

1. Implement a program to have one or two landfill sites secured and available for land disposal by July 1, 1976;
2. Establish a policy on recycling or reuse of materials salvaged from refuse;
3. Cooperate with other counties that may desire to develop a jointly owned and operated waste disposal system.

These recommendations were not acted on, for a variety of reasons. The local situation now is that government wastes collection is totally dependent on private disposal, and no municipally owned landfill site or sites are available.

An Energy Resource Overview

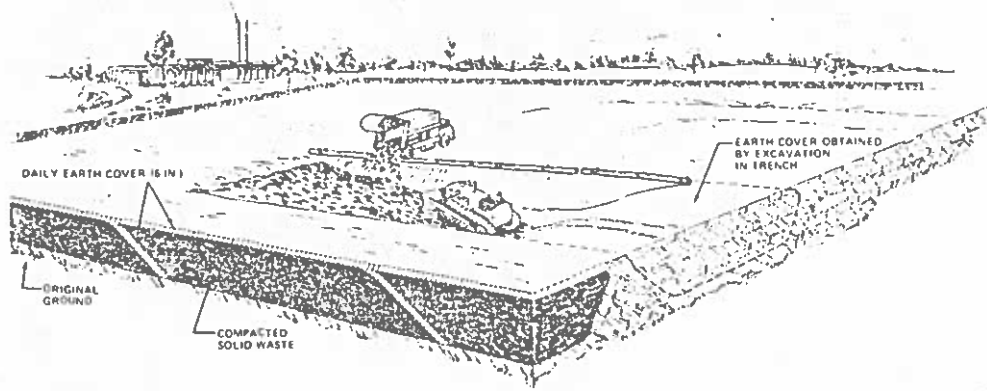
Solid wastes can be disposed of by perpetuating our present method of disposing of municipal garbage in sanitary landfills. But this becomes increasingly difficult and expensive over a period of time. It also deprives the City of valuable resources that may otherwise be recovered to economic benefit. What are the principal alternatives?

1. Wastes have been burned in the past, until incineration was stopped because of its severe adverse effect on our atmosphere. The installation of new and modern incinerators is feasible, given available funds. However, this does not address the problem squarely, it only reduces its magnitude by reducing the volume of landfill required, thus deferring the deadline. Nor does this approach encourage other government assistance. Data suggests that the cost per ton savings over incineration and power generation is not very great. This however ignores capital costs, which are high.
2. Wastes can be processed to reduce their bulk or volume, as by classification. This alone is probably not cost-effective, however, since it requires capital costs for equipment but does not provide new sources of income. Incorporating resource recoveries greatly improves feasibility. However, the markets for recovered materials - paper, metals and others - will probably remain variable and limited but the market for energy is good and is rising and will improve over a long period of time.
3. Processing wastes to recover resources including energy sources can be accomplished by a number of processes. Of these, only two basic methods presently appear to be appropriate: pyrolysis and conventional combustion, once the wastes have been classified and resources such as metals removed.

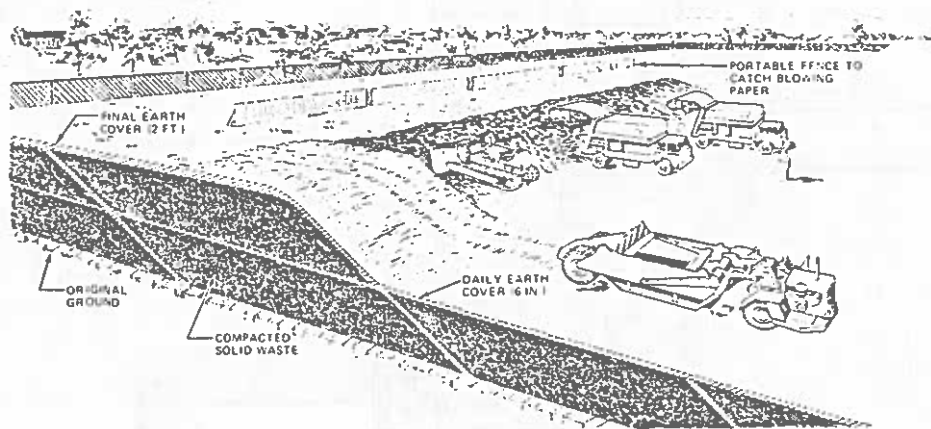
Given the above, a number of secondary decisions are also possible. A combination of approaches may be best, based on the feasibilities established with operating experience. Pyrolysis is quite different than conventional combustion and also yields a fuel that must be burned (it yields no free energy per se). A system employing both pyrolysis and steam generation from pyrolytic oils may be attractive. Variously, the City may elect to operate a pyrolysis plant and then sell its fuels to the private sector.

4. Finally, it must be noted that all alternatives still require final disposition of whatever solid waste residues that remain. Therefore, any solid waste system will require sanitary landfill sites for an indefinite length of time. The processing of wastes can only reduce their volume and not eliminate the problem of disposal (but volume may be reduced 75% to 95%).

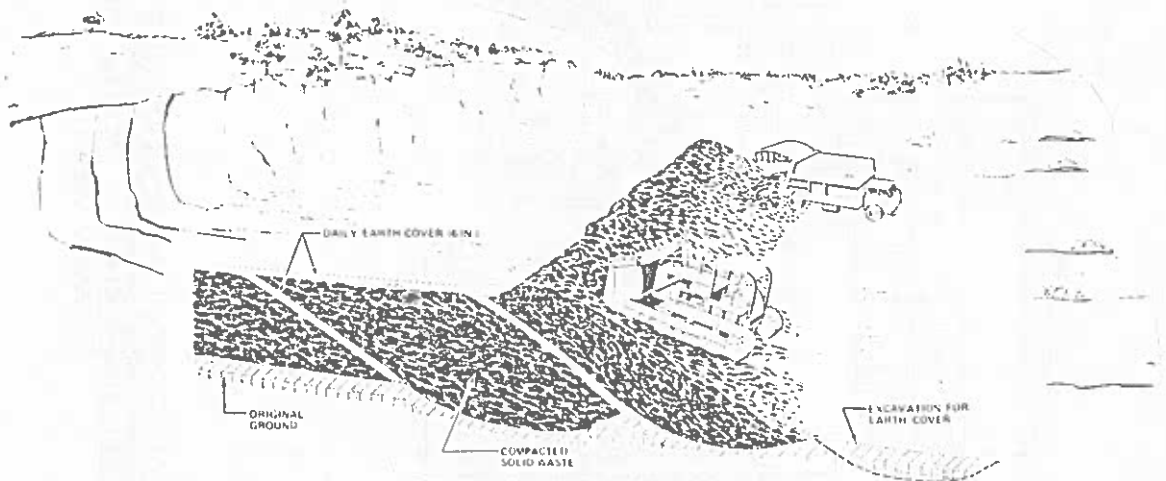
ILLUSTRATION 7



TRENCH METHOD. The waste collection truck deposits its load into the trench where the outdozer spreads and compacts it. At the end of the day the dragline excavates soil from the future trench; this soil is used as the daily cover material. Trenches can also be excavated with a front-end loader, bulldozer, or scraper.



AREA METHOD. The bulldozer spreads and compacts solid wastes. The scraper (foreground) is used to haul the cover material at the end of the day's operations. Note the portable fence that catches any blowing debris. This is used with any landfill method.



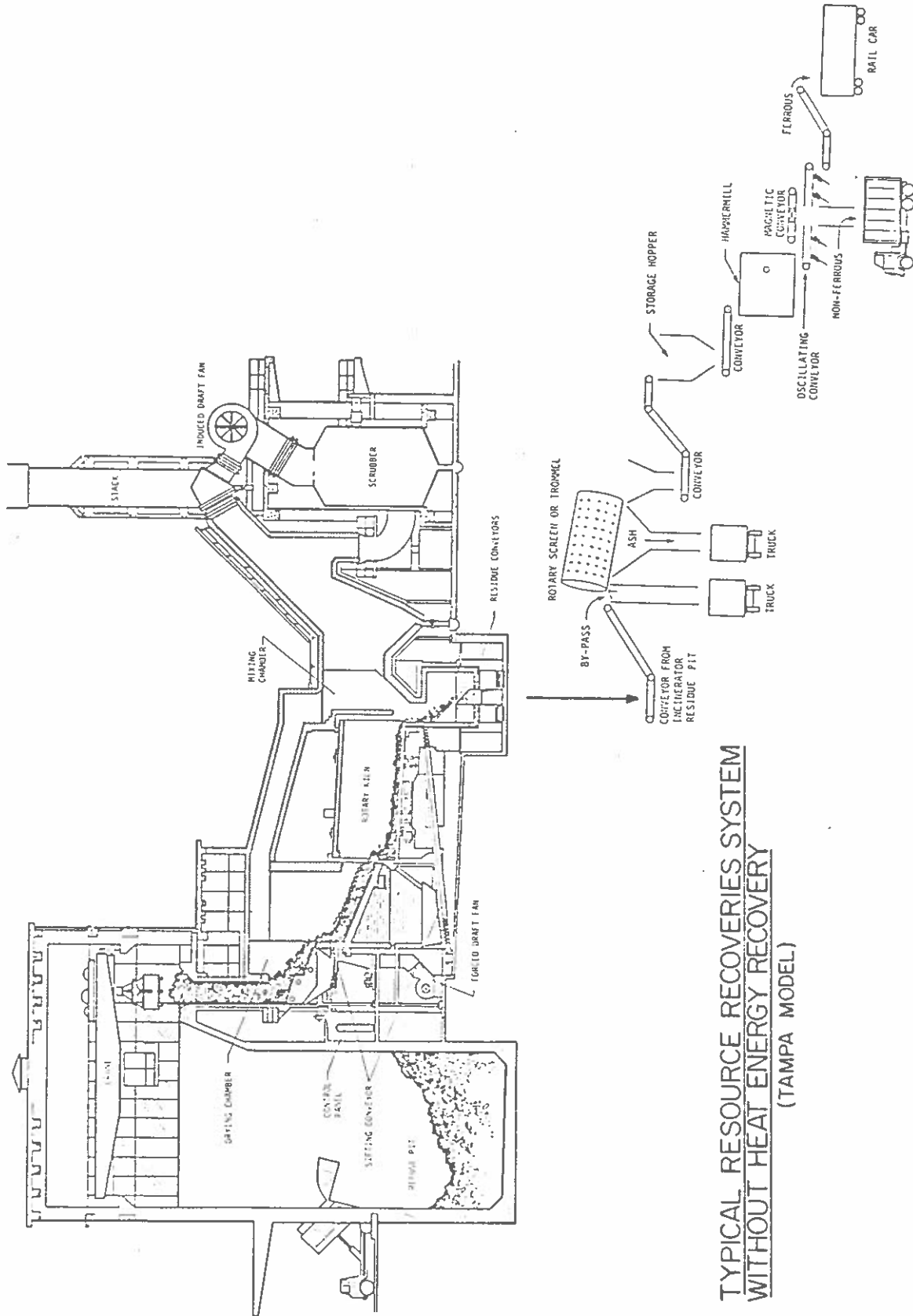
RAMP VARIATION. Solid wastes are spread and compacted on a slope. The daily cell may be covered with earth scraped from the base of the ramp. This variation is used with either the area or trench method.

SANITARY LANDFILL METHODS

SOURCE:

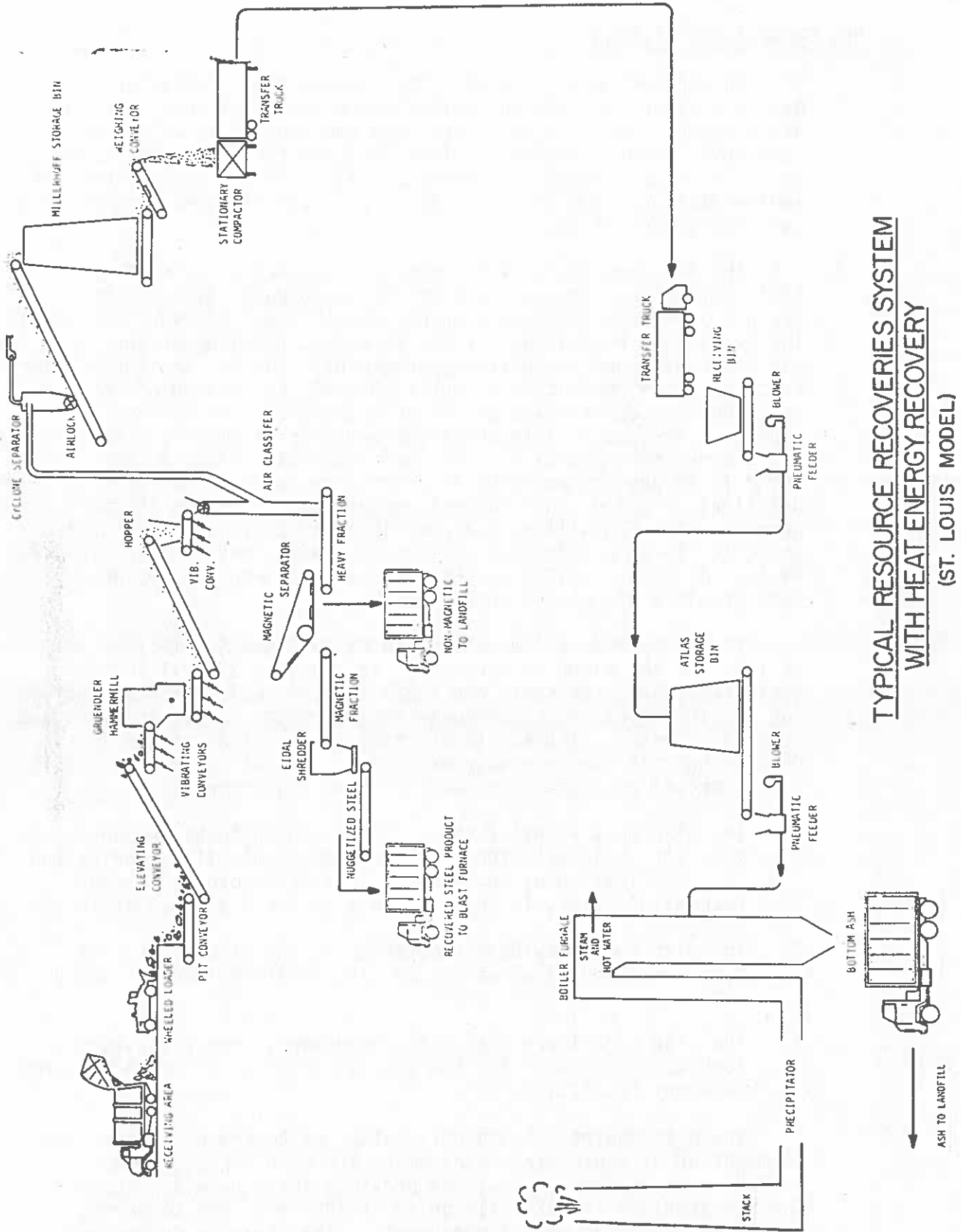
Sanitary Landfill Facts, U.S. Dept. of Health, Education and Welfare,
Bureau of Solid Waste Management — 1970 Publication SW-4ts.

ILLUSTRATION 8



TYPICAL RESOURCE RECOVERIES SYSTEM
WITHOUT HEAT ENERGY RECOVERY
(TAMPA MODEL)

ILLUSTRATION 9



**TYPICAL RESOURCE RECOVERIES SYSTEM
WITH HEAT ENERGY RECOVERY
(ST. LOUIS MODEL)**

New Federal Legislation

In the past several laws - the Federal Water Pollution Control Act, the Clean Air Act, and guidelines established under the Solid Waste Disposal Act - were interpreted and applied so as to afford some environmental protection from contamination resulting from poor solid waste disposal practices. But a lack of specificity or implementation authority resulted in a situation where compliance was largely voluntary.

The Resource Conservation and Recovery Act of 1976 (PL 94-580), effectively an amendment of the Solid Waste Disposal Act, consolidates authority, eliminates ambiguity and provides financial incentives and regulation for the planning, development and implementation of sound solid waste management. The Act has three major sections: the protection of public health, protection of environment and the conservation of valuable materials and energy resources. To assist State and local agencies in improving solid waste management practices, the Environmental Protection Agency (EPA) is to develop and publish guidelines for best management practices of solid and hazardous wastes, including the issuance of permits. The EPA will by October, 1977 establish clear guidelines and criteria to distinguish between open dumps and sanitary landfills. By October, 1978 the EPA will list all open dumps and by 1981 prohibit the use of open dumps.

The Act provides \$30 million in FY 1978 and \$40 million in FY 1979 for the planning portions. It provides \$15 million for these two years, for state and local implementation grants, including feasibility studies, consultation, surveys, market analyses and related expenses. The Act is oriented to assisting states in developing solid waste management plans. States would be eligible for financial assistance by meeting these requirements:

1. The plan must identify state, local and regional responsibilities for implementation of solid waste activities, indicating the distribution of funds to localities according to plan responsibilities, in cooperation with local elected officials.
2. The plan must provide a timetable for the closing of open dumps or disposal sites not meeting sanitary landfill standards.
3. The plan cannot prevent local governments from establishing long-term contracts for the supply of solid wastes to resource recovery facilities.

The Act requires the identification of hazardous wastes, the formulation of appropriate management and handling techniques including those for disposal and provides for a permit program. The Act provides for \$25 million in FY 1978 and 1979 to assist states in hazardous wastes management. The Resource Conservation

and Recovery Act, while providing seed money, does not authorize a high level of financial assistance, either loans or grants. There is emphasis on the use of other federal funds for resource management and a provision requiring federal agencies to purchase resource recoveries. The Act also emphasizes technical assistance, with the EPA cast in a principal role of data source. Resource Recovery Panels featuring expertise in financing, marketing, legal barriers and resource recoveries products have been established and will be available to visit local governments and provide technical assistance.

It is expected that the Michigan Department of Natural Resources will continue playing an important role but the critical function will be served by the local agency that is identified to act in the best interests of the City, County and possibly other counties. This may take the form of the present 208 water quality management planning agency, Region V PDC, since there is a functional similarity both in terms of regional needs and planning process. However, because of the predominantly agricultural-rural-non-industrial character of both Lapeer and Shiawassee counties, the designation of GLS Region V PDC as the key agency may not be appropriate. An alternative alignment of areas and counties, based on a similarity of problems, may be superior.

D. Projected Conditions

The City of Flint, both Department of Public Works (DPW) and Department of Community Development (DCD) have been studying various approaches to solid wastes and resource recoveries in a concerted manner since about 1975. A variety of proposals have been generated, some of which are mentioned in this document. While the scope and central thrust of the two involved Departments are similar, there have been differences of emphasis and other detail. This loose partnership is expected to continue for the time being.

The County (GCMPC) has placed significantly greater emphasis on solid waste and energy management studies over at least the last year, having designated two planners as responsible for these important and related areas of activity. Region V PDC agency has not announced any special allocation of resources. The County Drain Commission continues to play a role in formulation of policy and planning proposals. At this writing, all interested parties are seeking to learn exactly how legislation and funding will be applied locally. A critical issue will be where the prime responsibility for solid waste planning will be placed. The 1976 federal Act requires that the Governor in consultation with local elected officials identify regions within each state to do solid waste planning. This is not unlike the 208 Water Pollution Planning Program, and allows local elected officials to decide which agency should prepare the solid waste plan; failing in this the Governor will make the decision.

Both the City of Flint and Genesee County have launched preliminary studies that focus on and are integrated by special ad hoc committees. Mayor Rutherford of Flint established the Mayor's Task Force on Energy and Solid Waste and the County established the Saginaw-Genesee Ad Hoc Resource Recovery Committee, both in the fall of 1976. Both feature membership involving both public and private sectors, with City of Flint officials and corporate representatives being represented on the committees.

No formal or finished reports have been formulated thus far, but some tentative conclusions are apparent after about six months of deliberation. The (Flint) Mayor's Task Force suggests:

1. The City of Flint should begin immediately investigation of the potentials for resource-energy recovery systems. It is possible that the GM Buick Division's power plant may represent an existing facility which might be used on a pilot or demonstration basis for energy recoveries but any resource recoveries would first require the funding and construction of a large shredding plant as part of the necessary processing of solid wastes, a substantial commitment locally. Further, that the City's St. John Industrial Park lends itself to siting such a facility, along with the potential of offering energy supplies for industrial consumers.
2. Lacking major changes in State permit requirements (even more constrictive), sanitary landfill will continue to be the predominant method of waste disposal, and that needs will continue to grow in future years. Steps should be taken immediately to land bank appropriate sites, in cooperation with other government agencies.

The bi-county Resource Recovery Committee early agreed that preliminary guidelines should be developed for the possible involvement of a consultant to prepare a feasibility study and further:

1. Both Genesee and Saginaw County Solid Waste Plans should be updated to provide a basis for Resource Conservation and Recovery Act planning by a consultant.
2. Both Saginaw and Genesee County Planning Commissions review Act considerations and prepare documentation for submission to the Governor as a recommendation for establishing a delineated planning area and agency as a recipient for federal funding.

The above two proposed actions are still under study by the Committee. At this writing, both the City and Bi-County groups appear to be some distance from final conclusions and recommendations. Publication of federal guidelines, as required by the 1976 Act, are expected to crystallize action.

E. Recommendations

1. The City should assign high priority to the critical need for solving the solid wastes disposal problem.
2. The City should immediately examine what sort of structure and arrangements are necessary and appropriate to: 1) establishing a local consortium, possibly consisting of several local units; 2) funding and otherwise implementing a local area study of the problem, whether or not financial assistance is immediately available from State or federal sources, to address the problem of solid wastes disposal.
3. The City should act, with or without the cooperation of other local units, in seeking further sanitary landfill sites, relative to meeting the certain need for disposal of solid wastes over a long period of time. Such action should seek long-term commitments whether by leasing or purchasing and land-banking suitable sites.
4. The City should assign correspondingly high priority to a continuing study of the technology and other direct considerations relative to resource recoveries from solid wastes, both to reduce the amount of solid waste to be landfilled and to recover valuable and marketable components within wastes now being disposed of without substantial treatment.
5. The City should continue emphasis on involving all facets of the community, and involve all affected public factors along with the broadest possible representation of the private sector.
6. The City should revitalize its cooperative arrangements with concerned citizenry, particularly with dedicated public groups, with emphasis on "recycling" programs and projects and "ecology" interests, with stimulation of environmentalism within the community.
7. The City should restudy present wastes collection technology and also alternatives such as private contract citywide service. Since collection per se represents the highest cost factor, study should be directed to learning whether less costly collection is feasible; also, whether plastic bags can be economically improved upon as a non-spill collection medium.

XI. ENVIRONMENT AND ENERGY

A. Introduction

The so-called "energy crisis" of the early 1970s had a profound effect on the City of Flint--as a transportation-based economy, it was sharply hit. City revenues fell, along with employment, and the population. The issue of energy is still very much with us, and it is important to note that the availability and cost of energy resources are not improving. As the supplies continue to tighten, prices will continue to rise. It has been proposed that the City in some manner enter into the energy business, possibly by the generation of energy from solid wastes suitably processed, and possibly by new ventures into solar energy collection. Both, however, require large development capital. Planning, including power plant site study, should begin immediately.

The energy equation has two parts: increasing the supply, the availability and consistency of energy; and energy conservation. The City has a variety of options to exercise relative to adding to the local supply of energy, as various proposals have detailed. Conservation is also necessary, as was pointed out by the McAllister master plan update of 1973. Up to now, relatively little has been done in either category.

B. Goals and Objectives

The goal is to determine whether energy needs are and will be met, how they might be met and what alternatives are available.

The objectives are:

1. To provide an assessment of current and future (projected) energy supplies as available from public utilities.
2. To study and indicate alternative energy sources are available and to identify the most attractive sources.
3. To consider the prospects for energy conservation and what standards might be applied locally to conserve energy.

C. Existing Conditions

Energy needs and availability represent a critical issue to this and any other city. Practically the entire city is totally dependent on one public utility and a small number of fuel contractors (mainly providing fuel oil). After the first pinch of the "energy crisis", many homes bought space heaters and fireplaces designed to operate on wood. Even if there was sufficient supplies of suitable fuels available at reasonable prices, it is doubtful that more than a fraction of Flint households would find such prime heat sources adequate in lieu of regular furnace heating provided by oil or gas. In addition to sharply rising energy costs, there

have been threats of shortages and delivery curtailments, although actual deficiencies in supply have been minor and brief. Electrical generation was jeopardized, but no "brownouts" or "outages" were required. Thus, the city residents have no real alternatives for energy. This is also true of commercial and industrial users.

It is important to note that the availability of energy -- dependably, and at reasonable and predictable prices -- can encourage, or inhibit economic growth. Consumers Power has not approved new natural gas use permits for commercial and industrial customers, for some time.

The McAllister integrated master planning model cited as its energy supply goal, "The supply of energy or energy producing materials to residences, commercial businesses and industrial firms in the Flint labor market is sufficient to meet the average and peak demands of all existing consumers and to provide enough additional capacity to allow for projected residential, commercial and industrial growth in the area". This was analyzed by measuring attainment of average annual available electrical energy supply to users, electricity measured as a percent of peak monthly demand; and also supply of natural gas as a percentage of annual demand by residential, commercial and industrial consumers. For electrical energy supplies, both annual and peak monthly data was given as 100% for current (1973) and projected (1980) conditions. Annual natural gas supply as a percentage of demand could not be estimated either for 1973 or 1980, however. Similar questions were addressed to Consumers Power Company recently. Their response is given in the Appendix; no definite estimate is possible.

There are a variety of alternative energy sources available, in theory, but their capabilities for displacing conventional sources such as Consumers Power Company supplies of gas and electricity are slight, particularly within a short period of time. The only attractive alternative supplementary energy source presently within reach is that of solar energy collection. A solar demonstration project is planned as part of Doyle redevelopment, with federal assistance. Six residential units will feature solar heating and cooling. Other solar energy activities are being pursued by the City as well. Solar development is handicapped by presently high system costs (\$5,000 to \$15,000 or more per unit). All systems require conventional heating and cooling systems as well. Given the present cost of conventional systems and fuels, there is little incentive to use solar supplements. Virtually all development today is federally funded, partially or totally. Beyond the building's system, special site plan requirements prevail, since the solar collectors must be positioned accessible to sunshine throughout the day. This calls for local regulation of building heights, shapes and location and control of other possible barriers to sunfall. If solar utilization is to be feasible in the future, the city must formulate and enact an appropriate zoning ordinance.

Current city proposals covering the utilization of municipal solid wastes as an energy source must also be considered. As these proposals suggest, a substantial amount of the City's energy needs could be met by resource recoveries. Even if system design is oriented to maximum recoveries of heat energy (whatever its final form), solid wastes cannot serve as the total fuel and must be supplemented with conventional fuels such as coal. This raises the question of how far the City should go into the "energy business" it being entirely feasible to develop a major municipal power plant, given funding. Such a municipal source could effectively remove many of the constraints local businessmen are now subjected to, by assuring a continuing supply of energy. Further, a Total Energy System, one that recovers and uses most of the energy that ordinary systems or power plants now discard as waste heat, could provide useful heat to serve the community.

Conservation remains a highly attractive way of addressing the energy problem, and is almost universally accepted today, however, the city is limited as to what it can do to conserve energy, and has already adopted an energy policy. The technology of conservation is fairly well known and established. This is reflected in the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. proposal, "Energy Conservation in New Building Design". ASHRAE Standard 90-75 is being adopted by the State of Michigan as part of their State Energy Conservation Plan. This Standard, in some form, should be adopted by the city by ordinance. It may be to the city's advantage to adopt a code, such as the BOCA Energy Code (which is based on ASHRAE 90-75) rather than a Standard as part of the Building Code. None of this, however, addresses the problem of existing structures including older homes that were constructed in an earlier time when energy costs were a small part of total housing costs. Older homes, particularly those occupied by persons of limited income, will continue to be a problem. Several local organizations have taken steps to introduce conservation measures. The Genesee County Community Action Agency "Energy Program" has provided training, technical and other assistance to residents but local conservation measures are very small relative to the need. This suggests a need for more active promotion of conservation.

D. Projected Conditions

Relative to meeting energy needs, utilities have hesitated making projections and understandably so. It is known that supplies of fossil fuels are declining while demand is increasing, which requires higher prices. It is assumed that our supply of natural gas will decline more quickly than oil, while both will largely disappear as mass energy sources possibly by the next century. This suggests that Flint will have to begin shifting to some sort of coal-fueled energy system in future decades. Solar energy will probably become important concurrently, and begin to provide a large amount of residential heating needs in time. However, solar

will not be able to do much more than supplement conventional energy sources. At the same time, it creates a large number of problems, only one of which is that of reducing system cost to make it competitive with conventional heating systems (this is simply a matter of time, even if system costs do not fall). With the sun becoming important as a direct energy source, solar shading or the access to sunshine becomes important as well. This will require "sun rights" and zoning designed to protect and preserve consumer access to the sun.

Conservation has begun to, and will rise in importance. It will not be economically feasible to reinsulate all homes and take all the steps necessary to make the large old building energy-efficient. This must be a personal decision but conservation will become increasingly attractive as energy costs continue to rise. The City can improve this situation and encourage conservation. Conservation standards have been developed and should be adopted by the City. The State of Michigan has adopted ASHRAE 90-75 Standard to become effective June 22, 1977. The State Energy Conservation Plan is now in the process of being finalized and should be reviewed by the City.

E. Recommendations

1. The City should adopt a policy of energy conservation and promote residents using sound conservation practices, consistent with the State Plan.
2. The City should develop an energy conservation Code based on the ASHRAE 90-75 standard and periodically review such Code for adequacy.
3. The City should actively pursue the prospects for energy in the future and formulate a comprehensive energy management plan that addresses residential, commercial and industrial needs. The first element in such a plan would be an assessment that identifies energy supplies over future years, including alternatives.
4. The City should support to all possible extent the development of alternative energy supplies, and take whatever steps are necessary and appropriate to utilize alternative energies.
5. The City should formulate and adopt a Zoning Ordinance that deals with necessary sun rights and shading factors to assure an equitable supply of sunshine for its residential solar energy users in future years.

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FORMAT 1 - TYPICAL ASSESSMENT CRITERIA

- A. (1) APPLICANT:
(2) CHIEF EXECUTIVE OFFICER:
(3) ARCHITECT, ENGINEER OR LANDSCAPE ARCHITECT:
- B. PROJECT DATA:
(1) Proposed Development Name
(2) Location and principal streets abutting
(3) Development summary (uses)
(4) Legal description (attachment)
(5) Owner's name and address
(6) Designer-Engineer-Surveyor
(7) Size (Sq. Ft.-Acres) and plat (attachment)
(8) Present uses and condition and use changes
(9) Existing easements including utilities
(10) Abutting or contained waterways
(11) Adjacent uses including plats
(12) Owner(s) of record and deed restrictions
(13) Project funding (specify any government funds)
(14) Site plan (attachment)
(15) Time phasing of major steps
(16) Are there any other or further construction stages planned on or adjacent to this site (outline, giving time phasing)
(17) What alternative sites are available
- C. EXISTING ENVIRONMENTAL CONDITIONS AND TRENDS:
- D. RELEVANT A-95 AND OTHER INTERGOVERNMENT OR OTHER AGENCY REVIEWS:

E. COMPARISON WITH APPLICABLE STANDARDS AND PLANS: The project has been compared with applicable standards and plans, with the following results:

FACTOR:	PROJECT IS		
	IN COMPLIANCE		NOT
	YES	NO	APPLICABLE
(1) City Comprehensive Master Plans, including Land Use and Growth Management elements			
(2) Areawide (or Regional) Plan			
(3) (a) Local Zoning Ordinances			
(b) Site Plan Review			
(c) Renewal or other accepted special plan review			

FACTOR:	RATING	SOURCE/ DOCUMENTATION
(4) Noise Standards		
(5) Flood Plain Standards, Firm*		
(6) Soil Suitability Standards		
(7) Wetlands Standards		
(8) Air Quality Standards		
(9) Water Quality Standards		
(10) Wildlife Standards		
(11) Other Standards (specify)		

* Flood Insurance Rate Map and all applicable standards relating to flood hazards.

F. SITE-STRUCTURE-DESIGN SUITABILITY: PHYSICAL FACTORS. (Matters Affecting the Project) The project has been examined with reference to the effect on the project of each of the factors indicated below, with the following results:

FACTOR:	RATING	SOURCE/ DOCUMENTATION
(1) Slope Stability		
(2) Foundation Conditions		
(3) Terrain		
(4) Soil Permeability		
(5) Ground Water		
(6) Natural Hazards		
(7) Man-Made Hazards		
(8) Nuisances		
(9) Compatability in use and scale with environment		
(10) Neighborhood Character		
(11) Sunfall or solar energy deliveries to on-site collectors*		
(12) Optimization of design for natural ventilation, sun shading, other energy considerations*		

*Energy conservation and solar utilization are suggested for inclusion here even though not traditionally considered.

- G. SITE-STRUCTURE-DESIGN SUITABILITY: SERVICE DELIVERY FACTORS. (Matters Affecting the Project) The project has been examined with reference to the effect on the project of each of the factors listed below, both as such factors now exist and as they are programmed to exist, with the following results:

FACTOR	RATING		SOURCE/ DOCUMENTATION
	EXISTING	PROGRAMMED	
(1) Elementary Schools			
(2) Junior and Senior High Schools			
(3) Employment			
(4) Shopping			
(5) Park, Playground and Open Space			
(6) Police and Fire			
(7) Health Care and Social Services			
(8) Transportation, Public-Mass			
(9) Other Services (specify)			
(10) Water Supply System			
(11) Sanitary Sewer System			
(12) Storm Sewer System			
(13) Solid Waste Disposal			
(14) Other Utilities (specify)			
(15) Paved Access to Site			
(16) Radio and TV Reception (a) Wireless (b) Cable			
(17) Utilities concealment (underground or otherwise hidden)			

H. IMPACTS ON SURROUNDING ENVIRONMENT: PHYSICAL FACTORS. (Matters Affected by the Project. The project has been examined with respect to each of the factors listed below, with reference to whether or not the project will have any effect on the surrounding environment, with the following results:

FACTOR	RATING	SOURCE/ DOCUMENTATION
(1) Impact on unique geological features or resources		
(2) Impact on rock and soil stability		
(3) Impact on soil erodability		
(4) Impact on ground water (level, flow, quality)		
(5) Impact on open streams and lakes		
(6) Impact on plant and animal life, mature trees		
(7) Impact on energy resources*		
(8) Impact on aesthetics and urban design		
(9) Impact on adjacent solar energy collections (solar shading)**		

* Energy conservation practices, including conformance to standards, existing and programmed; also energy collection if applicable.

**Suggested for inclusion.

- I. IMPACTS ON SURROUNDING ENVIRONMENT: SERVICE DELIVERY FACTORS. (Matters Affected by the Project) The project has been examined with respect to each of the factors listed below, both as such factors now exist and as they are programmed to exist, with reference to whether or not the project will have any effect on the surrounding environment, with the following results:

FACTOR:	RATING		SOURCE/ DOCUMENTATION
	EXISTING	PROGRAMMED	
(1) Elementary Schools			
(2) Junior and Senior High Schools			
(3) Employment			
(4) Shopping			
(5) Park, Playground and Open Space			
(6) Police and Fire*			
(7) Health Care and Social Services			
(8) Transportation, Public - Mass			
(9) Other Services (specify)			
(10) Water Supply System*			
(11) Sanitary Sewer System*			
(12) Storm Sewer System*			
(13) Solid Waste Disposal*			
(14) Energy consumption and type (electricity, oil, coal, form of gas)			
(15) Other Utilities (specify)*			
(16) Paved Access to Site*			
(17) Radio and TV Reception (a) wireless (antenna) (b) cable			
(18) Utilities concealment			

* Deficiencies, existing or future must be detailed.

J. IMPACTS ON SURROUNDING ENVIRONMENTAL: SPECIAL FACTORS: (Matters Affected by the Project) The project has been examined with respect to each of the special factors listed below, with reference to the effect of the project on such special factors, with the following results:

FACTOR:	AFFECTED BY PROJECT		NOT APPLICABLE
	YES*	NO	
(1) (a) Historic Properties (b) Archeological properties			
	Carry out and document procedures		
	* Document this conclusion		

FACTOR:	RATING	SOURCE/ DOCUMENTATION
(2) Individuals and Families: (a) Displaced (b) Emplaced		
(3) Impact on Social Fabric and Community Structures		
(4) Other Special Factors (specify)		
(5) Socio-economic and racial impacts (a) Low-income households (%) (b) Moderate income households (%) (c) Minorities households (%)		
(6) Citizens' Participation		

FORMAT 2 - ASSESSMENT MATRIX
(graphic not shown)

Sensitive Zones and Areas
Negatives, Critical Factors

- (1) Noise-sensitive (high known or predicted levels)
- (2) Air quality-sensitive (pollution high)
- (3) Soil-sensitive (surface unsuitable for construction)
- (4) Flood plain (flooding and other hazards), wetlands
- (5) Historical sites

Positives, Amenities (or neutral)

- (1) Green and open space
- (2) Parks and recreation
- (3) Retail services (commercial development)
- (4) Transportation
 - (a) Public-Mass Transit
 - (b) Private car; paved access
- (5) Protection
 - (a) Fire
 - (b) Police
- (6) Water Supply
- (7) Sanitary Sewer
- (8) Storm Sewer
- (9) Solid Waste Disposal (garbage and other)
- (10) Hazards (specify)

THE WATER QUALITY INDEX

Michigan uses a Water Quality Index (WQI) to compare relative water quality throughout the state. The Water Quality Index is a method of reporting general water quality data as a single number or index. Water quality is indicated on a scale of 0 to 100. The higher the WQI, the better the water quality. The WQI is a result of research done by the National Sanitation Foundation (NSF). The basis of the WQI is an equation that summarizes the research results. The research included a survey of water pollution control professionals.

There are nine chemical, physical and bacteriological water quality parameters which are used to compute the WQI for any given situation. Each of the nine parameters is given a weighting in the WQI formula. Listed below are the parameters and their weighting factors. Water quality values are obtained for each parameter from rating curves developed by the NSF. The individual values reflect the differences between optimal and actual water quality conditions. A mathematical formula combines the values and their weights yielding the WQI.

<u>Water Quality Parameter</u>	<u>Weighting Factor</u>
Dissolved Oxygen	0.17
Fecal Coliform Density	0.16
pH	0.11
Biochemical Oxygen Demand (5-day)	0.11
Nitrates	0.10
Temperature	0.10
Turbidity	0.08
Total Solids	0.07
	TOTAL = 1.00

Descriptions of water quality associated with the ranges of the WQI are as follows:

<u>Water Quality</u>	<u>WQI Values</u>
Good	71-100
Medium	51- 70
Poor	0- 50

The water quality index is very sensitive to change in water quality. Therefore a change of 5 or 10 units over time can be significant, depending on the importance placed on the parameter producing the change.

The WQI does not address toxic substances directly, but any Index number may be reduced by excessive toxic concentrations. Source: MDNR, 1974.

APPENDIX C

SCHEDULE NO. 7

GALLONS OF WATER TO DISTRIBUTION SYSTEM

YEAR 1975-76

MONTH	TOTAL GALLONS DISTRIBUTED	DAILY RECORDS - (GALLONS)		HOURLY RECORDS (MGD)	
		AVERAGE	MAXIMUM	MINIMUM	MINIMUM
July	1,097,302,000	35,397,000	42,910,000	24,320,000	61.0 14.0
August	1,100,750,000	35,508,000	43,020,000	22,280,000	53.0 17.0
September	966,070,000	32,202,000	35,680,000	23,070,000	51.0 17.0
October	987,961,000	31,870,000	35,310,000	24,470,000	47.0 17.0
November	936,690,000	31,223,000	35,810,000	22,960,000	48.0 17.0
December	934,930,000	30,159,000	35,190,000	21,470,000	52.0 16.0
January	978,540,000	31,566,000	36,420,000	21,690,000	48.0 17.0
February	940,320,000	32,425,000	35,890,000	25,990,000	49.0 16.0
March	1,009,270,000	32,557,000	35,510,000	24,520,000	48.0 18.0
April	966,570,000	32,219,000	35,260,000	23,420,000	48.0 11.0
May	1,017,290,000	32,816,000	37,120,000	23,690,000	51.0 17.0
June	1,169,070,000	38,969,000	46,470,000	30,220,000	64.0 18.0
TOTAL	12,104,763,000				
AVERAGE	1,008,730,000				
MAXIMUM	1,169,070,000				
MINIMUM	934,930,000				

SEWAGE FLOWS

DAILY AVERAGES IN MILLION GALLONS PER DAY

<u>Year</u>	<u>MGD</u>	<u>Year</u>	<u>MGD</u>
1928	9.6	1955	22.2
1929	10.1	1956	23.0
1930	9.7	1957	23.8
1931	10.0	1958	22.4
1932	11.8	1959	25.6
1933	9.7	1960	21.9
1934	9.3	1961	23.4
1935	9.9	1962	23.2
1936	10.1	1963	24.7
1937	11.1	1964	25.8
1938	12.1	1965	27.0
1939	11.7	1966	27.2
1940	13.2	1967	30.1
1941	14.3	1968	32.6
1942	14.2	1969	31.6
1943	14.8	1970	35.2
1944	16.8	1971	37.3
1951	18.9	1972	42.3
1952	24.1	1973	42.4
1953	22.1	1974	41.7
1954	21.3	1975	44.5
		1976	35.9

NPDES Permit Holders

Under the National Pollutant Discharge Elimination System (NPDES) all point-source discharges are regulated. The following is a list of those organizations holding permits as of December, 1976 and are listed as Flint locations, according to Region V GLS data.

<u>Name</u>	<u>Location</u>	<u>Discharge Point</u>
Anderson Safeway Guardrail	Flint	Gilkey Creek
Cheasapeake & Ohio Railway Co.	Flint	Flint River
City of Flint WWTP	Flint	Flint River
Consumers Power Company Garfield Ave. Substation	Flint	Flint River
Buick Motor Division	Flint	Flint River
General Motors Corp. Chevrolet Assembly Plant	Flint	Swartz Creek
General Motors Corp. Chevrolet Engine & Metal Fab	Flint	Flint River via Carman Creek & Call Drain
General Corp. Chevrolet Mfg. Div.	Flint	Flint River & Swartz Creek
General Motors Corp. Fisher Body Plant #1 Saginaw Street	Flint	Thread Creek
General Motors Corp. Fisher Body Plant #2 Coldwater Road	Flint	Brent Run via Hughes Drain and Lake Drain
General Motors Corp. Fisher Body	Grand Blanc	Thread and Swartz Creeks
General Motors Corp. Parts Division	Flint	Swartz Creek
Grand Trunk Western Railroad Company	Flint	Swartz Creek via Call Drain
Laro Coal and Iron Company, Inc.	Flint	Flint River
Mobil Oil Corporation	Flint	Flint River via Storn Sewer
Oakdale Center WWTP	Lapeer	Farmers Creek
Paramount Industries	Flint	Flint River

FACILITY PLANSUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The overall plan of the study area as established by the State of Michigan encompasses some 368 square miles of Genesee County, including the City of Flint. This Facility Plan is for the City of Flint segment of the area. The City of Flint area of 31 square miles has a population of some 190,000 people supported by substantial industrial and commercial development. The residential, industrial, and commercial development of the City is served by separate sanitary and storm sewer systems. The wastewater flow of the City is treated at the City of Flint treatment plant, which is currently undergoing expansion and improvement to tertiary treatment. When completed, this plant will provide adequate treatment to the wastewater prior to discharge to the Flint River, except during periods of precipitation. During these periods of precipitation, flow in the sanitary sewer system exceeds the capacity of the sewers and wastewater treatment plant resulting in overflows to the River and sewerage backup in basements, creating pollution and health hazards. The resolution of these problems is addressed in this facility planning with the salient features contained in the following conclusions and recommendations.

CONCLUSIONS

1. During storm conditions and spring snow melts, the City of Flint experiences a serious overloading of their separate sanitary sewer system causing wastewater spills to the Flint River for sustained periods at numerous locations and widespread backups into basements. Also, during these conditions the storm sewer system is overloaded causing ponding in the streets and other surface areas.
2. Based upon the infiltration-inflow analysis conducted, the principal cause of the sanitary sewer system overloading is in the flow from basement footing drains which are connected to the sanitary sewer system throughout the City.
3. Previous planning and current wastewater treatment plant construction implementation have substantially established the City of Flint Wastewater Treatment Plant service area as a distinct segment separate from the balance of the plan of study area.
4. Completion of the current expansion and upgrading of the wastewater treatment plant and pump stations will reduce the volume and frequency of the spills to the river but they will still be of a magnitude that is detrimental to maintaining water quality in the Flint River.

5. When the current expansion and upgrading of the wastewater treatment facilities is completed the wastewater from the City of Flint will receive adequate treatment except for periods of precipitation. During a relatively typical rainfall year such as 1974, it is estimated some 560 million gallons of untreated wastewater would have spilled into the Flint River even if the expanded treatment facilities and pump stations had been in operation. These spills would have occurred in 23 different events, spanning 35 calendar days during the year.
6. Wastewater backup into basements will continue unless the footing drains are disconnected from the sanitary sewer system or capacity is provided in a relief sanitary sewer system for the flow from the footing drains.
7. After screening of the alternative solutions to the problem, five alternatives were evaluated in detail. Three of them propose collection, storage and treatment of all wastewater, one proposes disconnection of footing drains from the sanitary sewer system, and the "No Action" alternative discusses results if no action is taken.
8. The "no action" alternative has damaging environmental effects.
9. The disconnection of footing drains from the sanitary sewer system alternative involves a revamping of the internal plumbing, installation of sump pumps, and connection to the storm sewer system for some 50,000 private properties in the City. This will create a myriad of social and practical problems extremely difficult to solve. Also, this alternative is by far the most expensive solution considered.
10. The three storage treatment alternatives differ in the number and location of the storage tanks and the location and sizes of the relief sanitary sewers. All are based upon 20 million gallons of storage being provided, which will reduce the spills to the river to an average of 7 events a year spanning 12 days with a total annual overflow of 290 million gallons. Primary settling, chlorination, and aeration will be provided the overflows prior to discharge to the river.

The alternatives are as follows:

Alternative I - One 10 million gallon storage-treatment tank located at the wastewater treatment plant. A system of sanitary relief sewers affording 10 million gallons of "in line" storage and a 26 MGD peak load pumping station located near Atwood Stadium.

Alternative II - Two storage-treatment tanks, one of 3.5 million gallons located at the wastewater treatment plant and the other of 12 million gallons located adjacent to the Third Avenue Pump Station. A system of sanitary relief sewers affording 4.5 million gallons of "in line" storage.

Alternative III - Four storage-treatment tanks, one of 3.5 million gallons located at the wastewater treatment plant, a 9.1 million gallon tank adjacent to the Third Avenue Pump Station, a 2.7 million gallon tank in Dayton Park, and a 2.5 million gallon tank in Whaley Park, a system of sanitary relief sewers affording 2.2 million gallons of "in line" storage, pumping facilities at the storage tanks, 33 MGD in Dayton Park, 30 MGD in Whaley Park and additional pumping capacity at Third Avenue of 75 MGD.

11. The capital cost of the three storage retention alternatives for the proposed sanitary facilities range from \$46,010,000 to \$53,290,000.
12. In order to reduce flooding and ponding in streets and other surface areas, a system of storm relief sewers is required. The direct and indirect costs of possible damage to property and inconvenience to the public over a long period of years in urban areas have made storm drainage systems designed for a ten year storm frequency a generally accepted standard in the area. The storm drainage system, both existing and proposed, are designed for the runoff from the largest rain likely to occur once in ten years. The estimated cost of the relief storm sewers is \$38,000,000.
13. The total capital cost of improvements to the sanitary sewer system and the storm sewer system will be in the range of 84 to 91 million dollars. This size project will undoubtedly need to be programmed over a period of years. If so, the sanitary sewer system improvements should have the initial priority with the storm sewer improvements following in stages.

RECOMMENDATIONS

It is recommended that Alternative I be the selected plan to effectively eliminate the untreated wastewater discharges into the Flint River. The proposed construction consists of:

1. 125,000 l.f. of trunk sanitary sewers
2. 72,000 l.f. of lateral relief sewers.
3. 10 million gallons retention-treatment structure located at the wastewater treatment plant site.
4. 26 MGD peak load auxiliary pumping station.
5. Complete sewer separation in the remaining 210 acres combined sewer area.
6. New sanitary sewers in the unsewered areas of the City adjacent to Dort Highway.

National Ambient Air Quality Standards

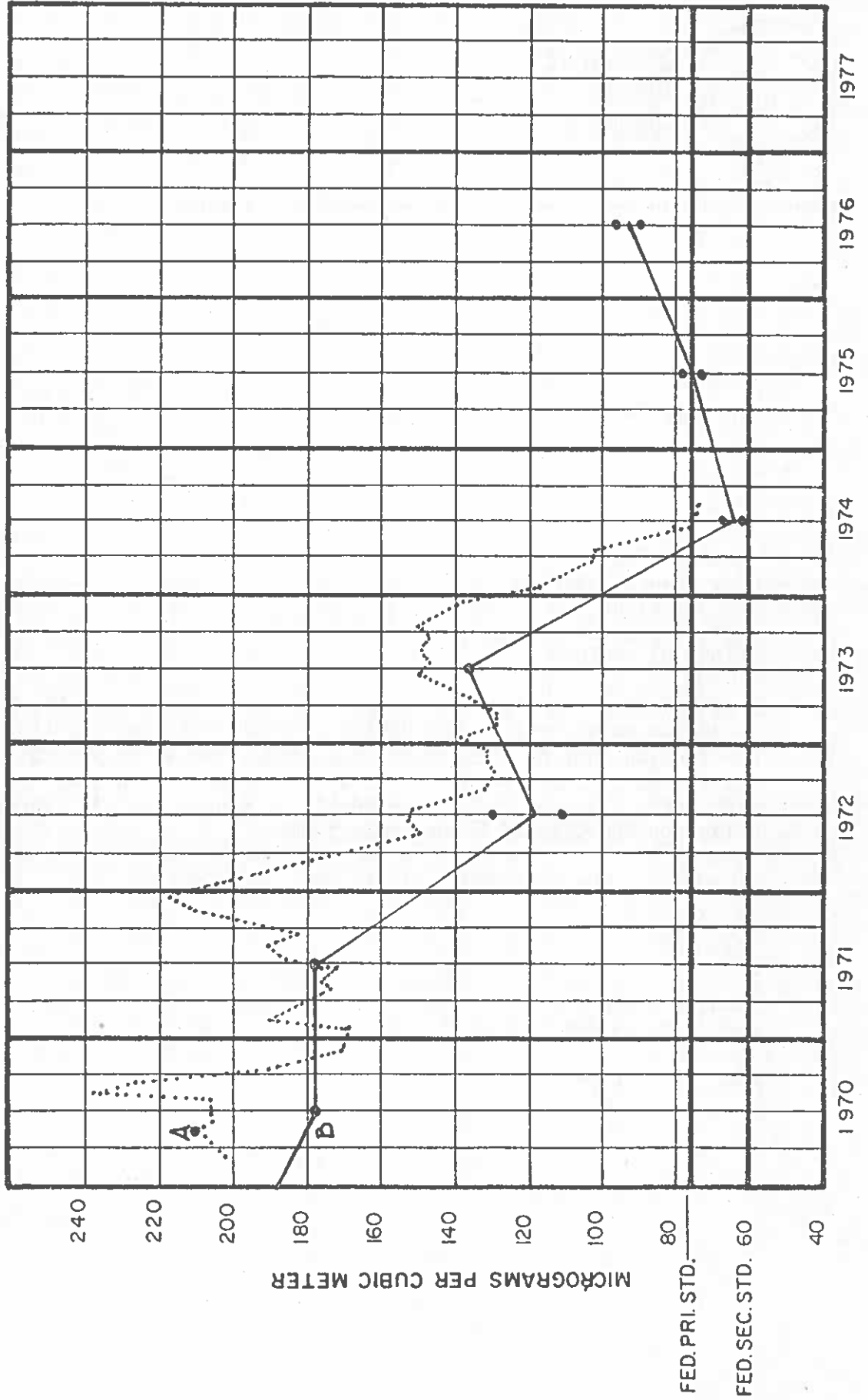
Pollutant	Primary Standards (Protective of Human Health)	Secondary Standards (Protective of Welfare)
Particulate	75 ug/m ³	(a) 60
	260 ug/m ³	(b) 150
Sulfur Dioxide	80 ug/m ³ (.03 ppm)	(c) 60 (0.02)
	365 ug/m ³ (.14 ppm)	(b) 260 (0.10)
		(d) 1300 (0.50)
Carbon Monoxide	10 mg/m ³ (9 ppm)	(e) Same
	40 mg/m ³ (35 ppm)	(f) Same
Hydrocarbons	160 ug/m ³ (0.24 ppm)	(g) Same
Nitrogen Dioxide	100 ug/m ³ (0.05 ppm)	(c) Same
Photochemical Oxidants	160 ug/m ³ (0.08 ppm)	(f) Same

- (a) Annual geometric mean
- (b) Maximum twenty-four hour concentration
- (c) Annual arithmetic mean
- (d) Maximum three hour concentration
- (e) Maximum eight hour concentration
- (f) Maximum one hour concentration
- (g) Maximum three hour concentration

Note: 1, 3, 8 and 24-hour maximum concentrations are not to be exceeded more than once per year.

AIR QUALITY
SUSPENDED PARTICULATE CONCENTRATION - ST. JOHN SITE

ST. JOHN MONITORS - 005, - 905 HAVE INDICATED THE HIGHEST CONCENTRATION IN FLINT





Consumers
Power
Company

S. M. Jurrens
Region General Manager

Eastern Region: 3201 East Court Street, Flint, Michigan 48501 • Area Code 313 235-1511

June 21, 1977

Mr. John Leppanen
City Planning Bureau
City of Flint
1101 S. Saginaw St.
Flint, MI 48502

Confirming our previous conversations the information attached regarding energy supply and demand is still relevant and it is our feeling that no changes are required. Our sales projections and system capacity requirements are considered on a company-wide basis. Therefore, we are unable to supply you with information on the City of Flint projections.

If you have any questions, please feel free to call.

Douglas W. Fowler
Energy Management Engineer

BCC: RECarrier

Attach
WS

8

HISTORICAL PRESERVATION

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

THE PREPARATION OF THIS REPORT
WAS FINANCED IN PART THROUGH
A COMPREHENSIVE PLANNING GRANT
FROM THE DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT; CPA-MI-
05-28-0386.

ABSTRACT

TITLE: HISTORICAL PRESERVATION ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DEPARTMENT OF PLANNING & PROGRAM DEVELOPMENT

SUBJECT: COMPREHENSIVE PROGRAM FOR HISTORICAL
PRESERVATION & IDENTIFICATION

DATE: NOVEMBER, 1977

NUMBER OF PAGES: 37

ABSTRACT: THE INTENT OF THIS REPORT IS TO IDENTIFY GOALS, OBJECTIVES, CONDITIONS, PROCESSES AND SPECIFIC AREAS FOR HISTORIC PRESERVATION. THIS INFORMATION WILL BE AVAILABLE TO THOSE GROUPS, CITIZENS OR AGENCIES INTERESTED IN PROMOTING HISTORICAL PRESERVATION. INCLUDED IN THIS REPORT IS THE DEVELOPMENT OF PRESERVATION POLICY, EDUCATION PROCESSES, TECHNIQUES TO ASSIST IN THE ESTABLISHMENT OF A COMPREHENSIVE PROGRAM FOR HISTORICAL PRESERVATION AND IDENTIFICATION OF TOOLS FOR IMPLEMENTING THE PROGRAM. THE RECOMMENDATIONS EMPHASIZE THE DEVELOPMENT OF A PROCESS WHICH ALLOWS FOR REVIEW AND APPROVAL OF HISTORIC AREAS, DESIGNATION OF AN OFFICIAL CLEARINGHOUSE FOR HISTORICAL LAND USE ACTIVITY, INVENTORY OF ALL POTENTIALLY HISTORICAL ELEMENTS, A MONITORING PROCESS TO ASSURE THE COMPLIANCE OF THE HISTORICAL PRESERVATION GOAL AND THE COORDINATION OF HISTORIC DISTRICTS WITH CURRENT REHABILITATION PROGRAM. THE RECOMMENDATION ALSO SPECIFIES STUDIES TO BE UNDERTAKEN PROMOTING HISTORIC PRESERVATION METHODS FOR CITIZENS INVOLVEMENT, AND A DRAFT OF A PROPOSED HISTORIC DISTRICT ORDINANCE.

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I. INTRODUCTION

Cities today are composed of many physical shapes and urban patterns, and when combined, reflect a community's historic and cultural past.

Viewed as a whole, the city is constantly changing as new concepts and events permeate the old, leaving in their place monuments to future generations. These changes are often swift and complete with very little thought given to the effect upon the surrounding areas, and even less consideration to the past ideals and identities that a particular area contributed to the total community.

On a smaller scale, neighborhoods not only represent the city's overall developmental stages, but also reflect the social and economic characteristics unique to a specific period of development or cultural identity. These areas, once fully developed, change at a much slower rate and appear for the most part, very stable. Modification, even minor, can affect this seemingly tranquil environment, causing concern and apprehension. Drastic or unfamiliar changes which happen too quickly, may have profound effect and result in total change, or even abandonment, of once stable neighborhoods.

Our past heritage plays an important role in the urban scene by allowing us not only aesthetic enjoyment, fulfilling our need to be linked with the past, but also provides the building blocks for present and future values.

The need for preservation of our American heritage is becoming a national concern and gaining momentum in many communities throughout the country. This awareness is part of an even broader concern to better the quality of life and preserve our limited resources. The familiar phrase "down with the old, up with the new" is being replaced by the new concept of the selective reuse of the "best of the old."

Congress has reinforced this approach by providing communities new era of community and historical pride. The National Historic Preservation Act of 1949 created the National Advisory Council on Preservation and authorized matching grants, while the Demonstration Cities and Metropolitan Act of 1966 strengthened preservation opportunities. In September of 1976, President Ford signed legislation that authorized increases in levels of spending from 24 million to 100 million dollars, thus providing a strong commitment for preservation. The State of Michigan has also provided the necessary legislation to allow communities the necessary tools to implement Historic Districts.

Flint, like many similar communities, is in the early stages of an awareness of historic preservation. Although a few structures have been recognized for their historical significance, no really comprehensive plan has been made and no procedure initiated, as a guideline to provide various interest groups or agencies with the means for preserving the "best of the old."

It is only recently that preservation efforts were reinforced by the Flint Historic Preservation Study Committee. This group composed of volunteers appointed by the Mayor and City Council, has begun research into the formation of Historical Districts through the State Enabling Act #169. While not comprehensive, this Act will provide a basic foundation to guide local efforts.

It is the intent of the Master Planning effort to provide further impetus towards preservation and neighborhood conservation by developing processes to identify historic sites and initiate appropriate action to preserve these sites.

II. HISTORIC PRESERVATION

The term "historic preservation" can be defined in several ways, by the interpreter. One definition may refer to a specific period of time such as colonial or to an architectural style, such as Gothic, or to an age.

Care must be taken, however, not to limit the definition too narrowly; many worthy structures could be lost as a result. It should be flexible, encompassing many interests in the community if programs and projects are to be effective. The intent must appeal not only to the environmental sector, but also to the greater segment, further promoting historic preservation as a valuable community asset. Included also in this definition should be the means to evaluate surrounding areas which have a pronounced influence on the ultimate success of preservation efforts.

With this in mind, Historic Preservation may be defined as:

"the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures and objects significant in American history, architectural archeology or culture" and the conservation of adjacent or surrounding environs that have an immediate or intense affect upon this heritage.¹

¹Public Law 89-665, National Historic Preservation Act, United States Congress, 1966.

III. GOALS AND OBJECTIVES

A. Historic Preservation Goal Statement

The Historic Preservation goal was briefly stated in the introduction of this section:

"To provide further impetus towards preservation and neighborhood conservation."

Although the intent of this goal is to promote preservation, we should go beyond this. It is a well-known fact that our generation is fast becoming a "throw away society" with little or no concern for the long-range effect on our environment, not only in dollars, but in our values, ideals, and the quality of life.

We must "communicate the lesson of history in order the present and future may learn from the past." This goal, then, must also encompass and reinforce the educational element if it is to become a viable means for future use.

In order to achieve the goals of preservation and conservation mentioned earlier, basic objectives must be developed. These objectives (short-range goals) serve as basic guidelines to those persons, groups or agencies assigned the task of implementing preservation programs. The next section of this report is devoted to enumerating but a few of these basic guidelines. Caution must be taken, however, not to rely totally on those guidelines to be suggested, but to utilize them as a beginning point for the development of on going processes.

B. Historic Preservation Objectives

1. Develop a preservation policy which expresses support of the Historic Concept and suggests approaches to its implementation.
 - (a) Authorize procedures which mandate closer cooperation between various city departments as well as other public agencies. This will allow for proper planning between the various public entities, preventing the future loss of historic landmarks. This can be accomplished through effective local legislation which directs governmental or public agencies to submit plans per the redevelopment, movement, demolition or alteration of public property to a Preservation Commission for review and approval.
 - (b) Develop inventories which indicate not only significantly identified historic landmarks throughout the community,

but also those buildings, sites, landmarks, and neighborhoods, etc., which may in the near future become of historic value. This can be coordinated with already existing historic bodies or with governmental agencies (such as planning departments) which may be designated as the official clearing-house for this effort.

- (c) Incorporate historic sites, buildings and districts as part of the Comprehensive Master Plan. Once part of this plan is adopted as official policy, proper zoning can be applied in order to lend added protection and preserve these areas.
 - (d) Develop cooperative approaches with already existing preservation and conservation groups, citizens groups, and neighborhood associations that promote the overall preservation goals. Encourage the development of citizen participation throughout the community by means of existing community promotions, publications, and community oriented agencies.
- 2. Develop educational processes and techniques which will promote historical preservation and conservation efforts. Flint has an excellent opportunity to promote historic preservation goals both in the elementary and secondary schools as well as in adult education through the community school program. Working closely with this system, programs can be developed which will communicate the value of this concept and its close alliance with environmental concerns.
 - 3. Develop a process or processes which will establish a comprehensive program for Historic Preservation and Conservation:
 - (a) Survey: A comprehensive survey of the community's historic resources must be compiled. This initial inventory is an identification of the potential historic or cultural resources available in the community.
 - (b) Inventory: This phase consists of refining the basic survey and collecting more detailed data on all potentially significant historic resources. The State² of Michigan provides sample inventory forms which can be used for this purpose. An excellent form is also available from Canada³ which allows a visual inventory to be completed in a relatively simple manner. (See Appendices A, B).

²"Building-Structure Inventory Form" Michigan History Division, Michigan Department of State, Lansing, Michigan 48918.

³(Insert Canadian Address)

- (c) Evaluation: The inventory will contain factual data based on site visitation, old records, mapping, photographs, etc. This can be completed by volunteers or other lay persons. Once completed, each item must be evaluated as to its historic significance. This will require professional expertise and should be handled by qualified persons with the necessary educational background or experience. Criteria must be established which will be based on the community's attitudes towards historic preservation and will allow for final determination of historic significance⁴. A sample checklist or guide can be found in Appendix C.
- (d) Program Development: Once the inventories and evaluations have been completed, a plan must be formulated to allow for the implementation of an appropriate preservation program. An assessment must be made of the available tools already existing which would allow immediate action. This could consist of existing ordinances, zoning laws, state legislation, etc. After this assessment is complete, a plan of action can be outlined which reflects the community attitudes and goals for historic preservation.
- (e) Implementation: Once a plan of action has been completed, implementation becomes a vital concern. Without some type of immediate action, those involved in the initial program activities will lose interest and enthusiasm will deteriorate rapidly. Implementation can be as little as communication with the local representative to initiate cooperation or assistance in the development and promotion of proper legislation.

4. Develop tools which will allow for the implementation of preservation and conservation programs.

- (a) Zoning: This can provide some basic, although limited, protection of historic areas. The City of Flint's Zoning Ordinance deals with proper land use, density, building heights, lot coverage, yards, parking requirement, buffering, signs, etc. These definitely have an influence on the overall make-up of an area. They, however, apply only in a very broad sense and will not prevent an owner from altering, or literally destroying, the historic value of a structure. Controls that restrict alterations or demolition of historic areas are lacking in the zoning ordinances.

⁴Information provided by "Conservation of Historic and Cultural Resources," by Ralph W. Minor, Planning Advisory Service, Report #244.

- (b) Historic District: Although this is discussed later in more depth, a brief description is worth noting at this time. This traditional approach is still another means of preserving and enhancing areas of historical significance. The principal objectives of the Historic District are to identify and define an area of historic value, designating it a Historic District. Once it is so designated, certain ordinances, usually a modification of regular zoning provisions, then take effect. A board is established by this ordinance and acts as the legal entity for reviewing all permits issued to a designated area. The intent of the Review Board is to maintain the architectural integrity of an area.
- (c) Special Commissions: The intent of a special commission is to promote the architectural integrity of historic areas by preventing exterior alterations which are not harmonious with the original architectural design. The basic function of the commission is similar to that of an architectural review board, although it varies depending on the local body.
- (d) Tax Incentives: The application of this form of incentive is to motivate the homeowner to make improvements and restore the property by offsetting a portion of the cost with some type of tax relief. Any proposal of this type must be well thought out and clearly shown to be in the public interest if it is to be assured the required approvals.
- (e) Federal and State Programs: A variety of programs exist at both the Federal and State levels which are directly or indirectly related to historic preservation and conservation. The Community Development Act of 1975 stipulates that all projects identified in the application must undergo a review to assure the protection of historically significant areas and structures. Acquisition, relocation and restoration of structures identified as historic are also an eligible cost under this Federal grant. Other Federal grants are available which share the planning, restoration or other costs related to historical preservation. On a more limited scale, State agencies allocate grants specifically for historical preservation activities.

IV. CURRENT PRESERVATION ACTIVITY

During the last few years there has been a growing interest in preservation in the City of Flint as well as in the metropolitan area. Several active groups have been formed which have been instrumental in enabling several sites to be included in the state and federal historical records. The following summarizes the activities accomplished to date and proposed future goals.

A. Flint Historical Preservation Study Committee

The Flint Historical Preservation Study Committee was formed in 1975 in response to the State Enabling Act 169 which allows cities to appoint legislatively a study committee to conduct research and compile a report on the historic significance of certain buildings, structures, features, and sites in the area.

The goal of this committee is to produce a workable document which will recommend specific areas and sites for historical district designation and an ordinance which will:⁵

- o Safeguard the heritage of the local unit by preserving a district in a local government which reflects elements of its cultural, social, economic, political or architectural history
- o Stabilize and improve property values in such districts
- o Foster civic beauty
- o Strengthen the local economy
- o Promote the use of historic districts for education, pleasure and welfare of the citizens

B. Historic District Concept

A district is "a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects which are united by past events or, aesthetically, by plan or physical development. A district may also be comprised of individual elements which are separated geographically but are linked by association or history."⁶

⁵State of Michigan Public Acts 1970, No. 169, 399.202, Pg. 157.

⁶The National Register Program, "How to Complete National Register Forms," Volume 2, Washington, D.C. National Park Service, U.S. Department of the Interior, 1975.

The Historic District concept offers two major features. First, the district concept benefits the community, neighborhood and individual by: (a) retaining tax producing properties while allowing interior alterations, (b) providing a physical link to our past, (c) fostering community pride and neighborhood stability, (d) promoting reuse and improvements, (e) helping to stabilize property values through the assured constancy of the neighborhood, (f) providing personal satisfaction to the property owner in knowing he plays an important role in our heritage.

The second feature is the provision for a review mechanism through the establishing of an architectural review board. The main objective of the board is to maintain the distinctive character of the district and the architectural integrity of the features within it.

C. Proposed Districts

Four general areas have been surveyed for architectural significance and core districts established within them. These smaller core districts enable the committee to do a more in-depth study and evaluation as required by the state and federal regulations. In the future these core districts may be expanded by residential organizations to include the total general areas. These areas, as well as the district "theme" are listed in Appendix D and illustrations 1- 6.

Several individual sites are also being included in the initial study and evaluation process. These sites include the Market Fire Station on Grand Traverse, the "Harwood" Smith Residence on Stockton, the Whaley House on Kearsley, the Capital Theater, Doyle & Oak Schools, and the old brewery on South Saginaw Street (See illustration 7).

D. State and Federal Designation

The following structures are designated as state historic structures:

1. Durant Garage (date unknown)
116 West Fourth Avenue
2. Superintendent's House (1888-9)
Michigan School for the Deaf
3. St. Paul's Episcopal Church (1872)
711 South Saginaw Street
4. Durant-Dort-Nash District (1895)
315 Water and 307 Mason Street

5. Whaley House (about 1885)
624 E. Kearsley
6. Elks Club (1913)
142 W. Second Street
7. Vehicle City Marker located
at Flint City Hall

Presently, only two buildings, the Durant-Dort Office on Water Street and the Superintendent's House are on the Federal Register of Historic Properties. The Durant-Dort Office on Water and the Superintendent's House are on the Federal Register of Historic Properties. The Durant-Dort building is rapidly deteriorating for lack of maintenance and needs immediate attention if it is to be preserved. The State Historical Register has also defined the Durant-Dort-Nash Historical District (See illustration 5). Future redevelopment in the Water Street area is probable because of its downtown location and proximity to the Riverbank Park Project. The area is zoned D-5 (metropolitan commercial) and E (heavy commercial-limited manufacturing). New Development will probably generate commercial or institutional uses which could either negatively impact the Durant-Dort-Nash Historic District and buildings or conversely preserve and reinforce the district if carefully designed.

The second National Registry Property, the Superintendent's House, is in good condition and is currently a private residence in a C-1 (multifamily) zoned area. No negative impacts are anticipated for the property. For educational purposes, a historic market should be erected at the site.

The other core areas currently under study, East and Grand Traverse Streets, will require attention as pressures increase for development in the central area of the city. Commercial or institutional uses will generate demands for increased parking and new construction, impinging the large older homes. Excellent examples of adaptive preservation exist on both streets which could be furthered by the historic district designation.

The fourth area, Delmar and Forest Hill Streets, as part of Civic Park, retains its original single family use and residential character. Although the buildings are intact, minor facade alterations have occurred, demonstrating neighborhood "improvements" but also a possible lack of awareness of the original architectural significance of the area. Here an appropriate opportunity exists for professional advice to homeowners.

Properties on state and federal registers can be protected by local ordinances which establish review of building permits and site plans for exterior modification to historic properties.

State and federal agencies can provide limited assistance for surveys, plans, acquisition and restoration of historic properties.

Increasing awareness and pride in the uniqueness of the designated properties, which stimulates self-help efforts, is important to any preservation effort. Concurrently, local agencies may help by providing professional design and technical advice. Citizen commitment to the reuse of viable older structures would be encouraged by using a combination of these methods tailored to local needs. The means to retain the best of our historic properties for practical uses exists, but a broad-based awareness and concern must be generated.

E. Whaley House Historic Association

In October of 1975, the Whaley House Historic Association was organized as a result of the availability of the existing structure located at 624 East Kearsley.

This Association was formed from members of several existing historical organizations. Their main goal was the restoration and use of this house for historical purposes. Today, each group retains office and meeting space within this structure. Although the McFarland Foundation retains ownership, the Association has not only undertaken its restoration but also been successful in obtaining State historical recognition as well as in including the house among the 1976 bicentennial projects.

The restoration program is being carried out in several phases, of which two have been completed and the third scheduled for completion this year.

To date, the exterior has been restored as well as several of the many rooms. When completed, this structure will not only represent an excellent example of a period architecture and its historical association with the founding of the automobile industry, but the successful results which can be accomplished through cooperative effort between various organizations working towards the same goal.

F. County Historical Preservation

Genesee County is involved in preservation efforts as a result of Crossroads Village, located within a minor recreational area north of Flint.

This historical village began with the idea of preserving one of Flint's oldest structures, the Buzzell or Little Red House, and has since become a major county attraction.

The Crossroads project was designated as the official 1973 county bicentennial project. During the following year, plans were developed which expanded the original concept to encompass some thirty-seven historical structures and began a "Living Village." Also unique to this village is the recent addition of the "Huckleberry Railroad," complete with an historical train, tracks and stations.

Of the several structures that are already a part of this village, three are directly associated with the City of Flint's early heritage. The K. Buzzell House, M. Durant Barn, and the F. Wisner Carriage Barn serve as excellent examples of Flint's early development.

Although the idea of an historical village is not a new concept, it is one of many excellent ways to preserve a community's heritage, becoming a valuable educational tool as well as an economic asset.

V. RECOMMENDATIONS

If the historical preservation effort is to become an effective tool, if it is to promote historical renovation, conservation, and economic rejuvenation, and if it is to build community pride, then local initiative, both private and public, must be encouraged. This effort must take the form of firm policies and commitments.

The following recommendations serve as basic guidelines for historical preservation. The five basic areas (not necessarily in the order of priority) are: policy, proposed studies, citizen action, and ordinances.

A. Policy

1. Establish a commission or board to review and approve re-development projects or plans within historic areas. In accordance with State Enabling Act 169, a local unit of government may create a seven (7) member commission. The intent of this commission is to review plans and building applications in order to maintain the historical integrity of a district or area and prevent inappropriate intrusions.

The formation of this commission is one of the major steps in a process currently underway by the Flint's Historical Preservation Study Committee. (See illustration 7).

2. Designate a city department (Planning or Research & Analysis) as the official clearinghouse for all historical land use activities. This department would be responsible for:
 - a. Compiling and maintaining historical land use data
 - b. Monitoring and evaluating historical land uses
 - c. Developing historically related land use programs
 - d. Coordinating land use activities with other departments and agencies
 - e. Working with private and public historically oriented interest groups
3. Compile complete inventories of all historically significant landmarks, structures, sites, areas, etc., by using existing inventories and the Environmental Block Assessment (EBA).⁷

⁷ Environmental Block Assessment in a survey of structural conditions completed by Genesee County.

Through a possible modification of existing EBA forms and a simple training procedure, potential structures may be identified and inventoried yearly. This data would be sent to the designated historical clearinghouse for processing.

4. Support the historic district concept as indicated in the master plan and incorporate specific historic districts as part of the official land use policy.

Although potential areas have been studied by the Historical Preservation Study Committee and included in this element, complete documentation reviews and approvals will occur at a later date. Once obtained, official designation should be indicated in the master plan.

5. Develop a monitoring process which will assure compliance with the historical preservation goals and adopted historical ordinance. This can be accomplished by:
 - a. Incorporating a historical designation into land use and zoning policy to be monitored and evaluated in the third year master planning effort.
 - b. Monitoring of yearly updated land use inventories by the designated clearinghouse. (See above Policy #2).
6. Coordinate historical districts with current rehabilitation programs to strengthen housing efforts, promote historical conservation and community pride.

B. Studies

1. Investigate current housing programs and modify where required for application to historic areas.
2. Analyze and evaluate existing land use review and building permit procedure for historical aspects. Strengthen existing mechanisms or develop new ones which will produce coordination between agencies in historical preservation.
3. Investigate and evaluate tax incentive programs dealing with reduced or temporary freezes on assessments of properties within a historically significant area when properties improvement occur. Legal ramifications and economic implications must also be addressed.

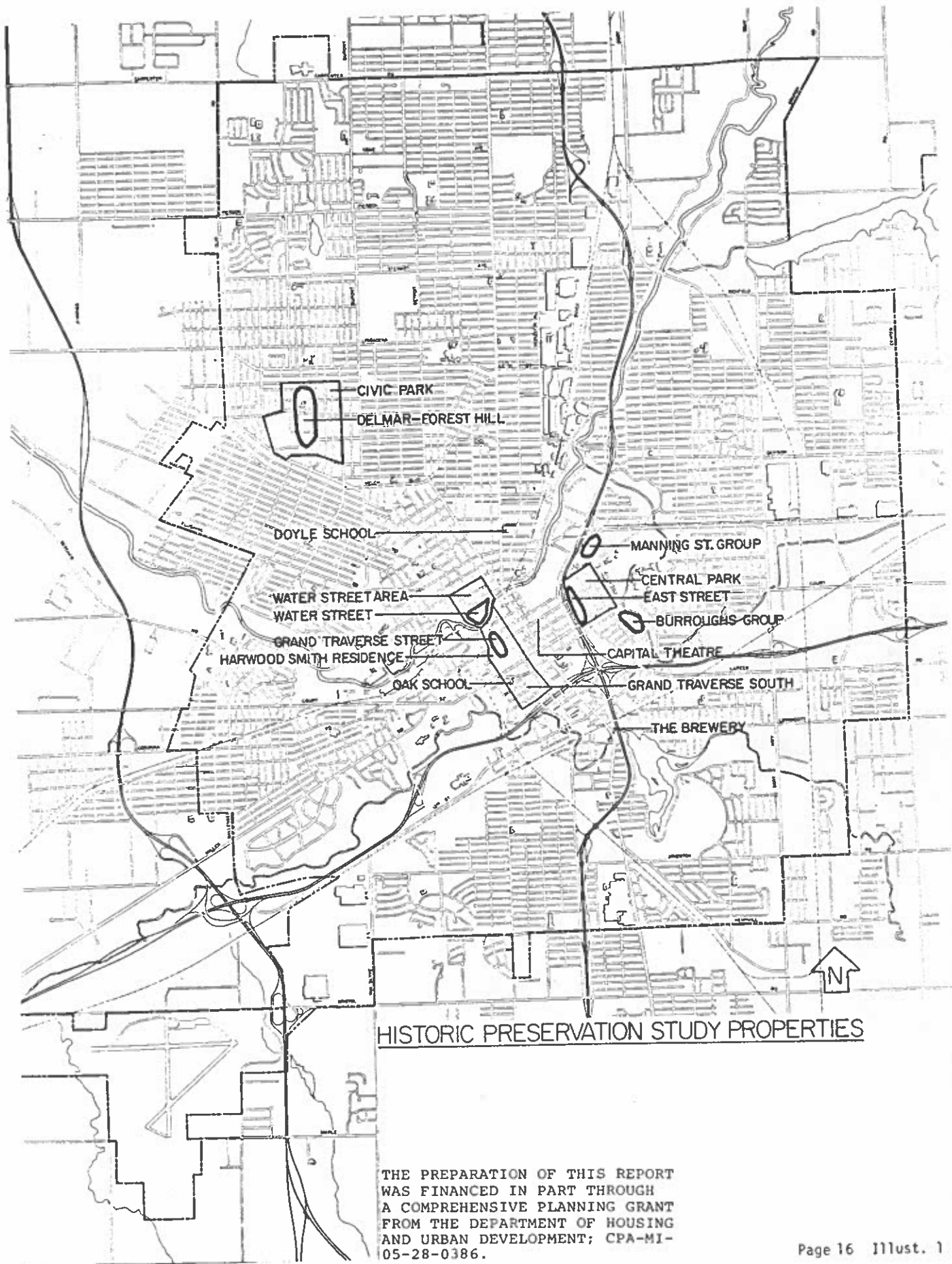
C. Citizen Involvement

1. Develop citizen participation (C.P.) processes in areas designated as historically significant. This can be accomplished through existing neighborhood block clubs or by developing new mechanisms.

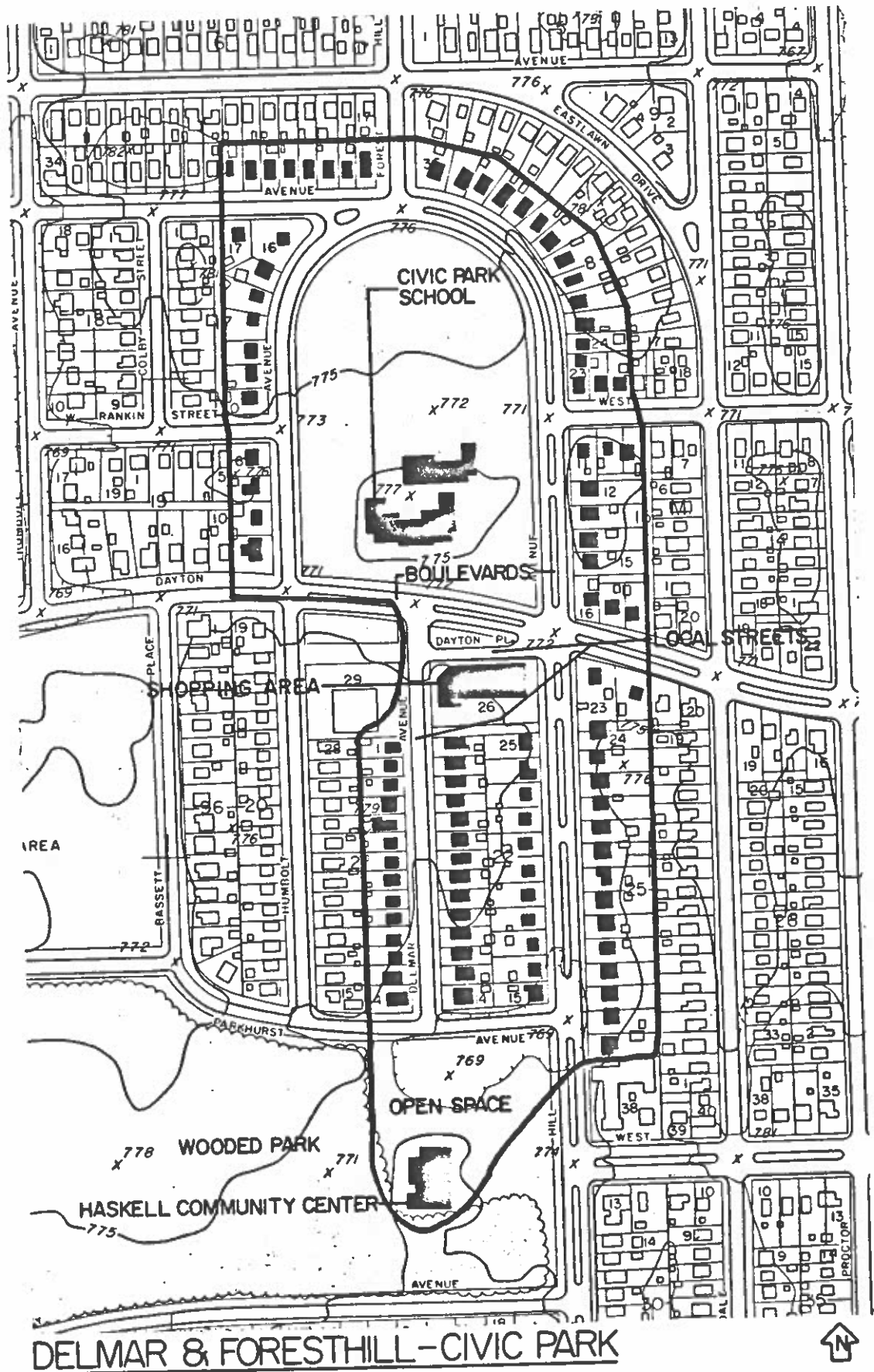
2. Coordinate historical preservation activities with existing citizen participation programs as a means of disseminating and receiving information.

D. Ordinance

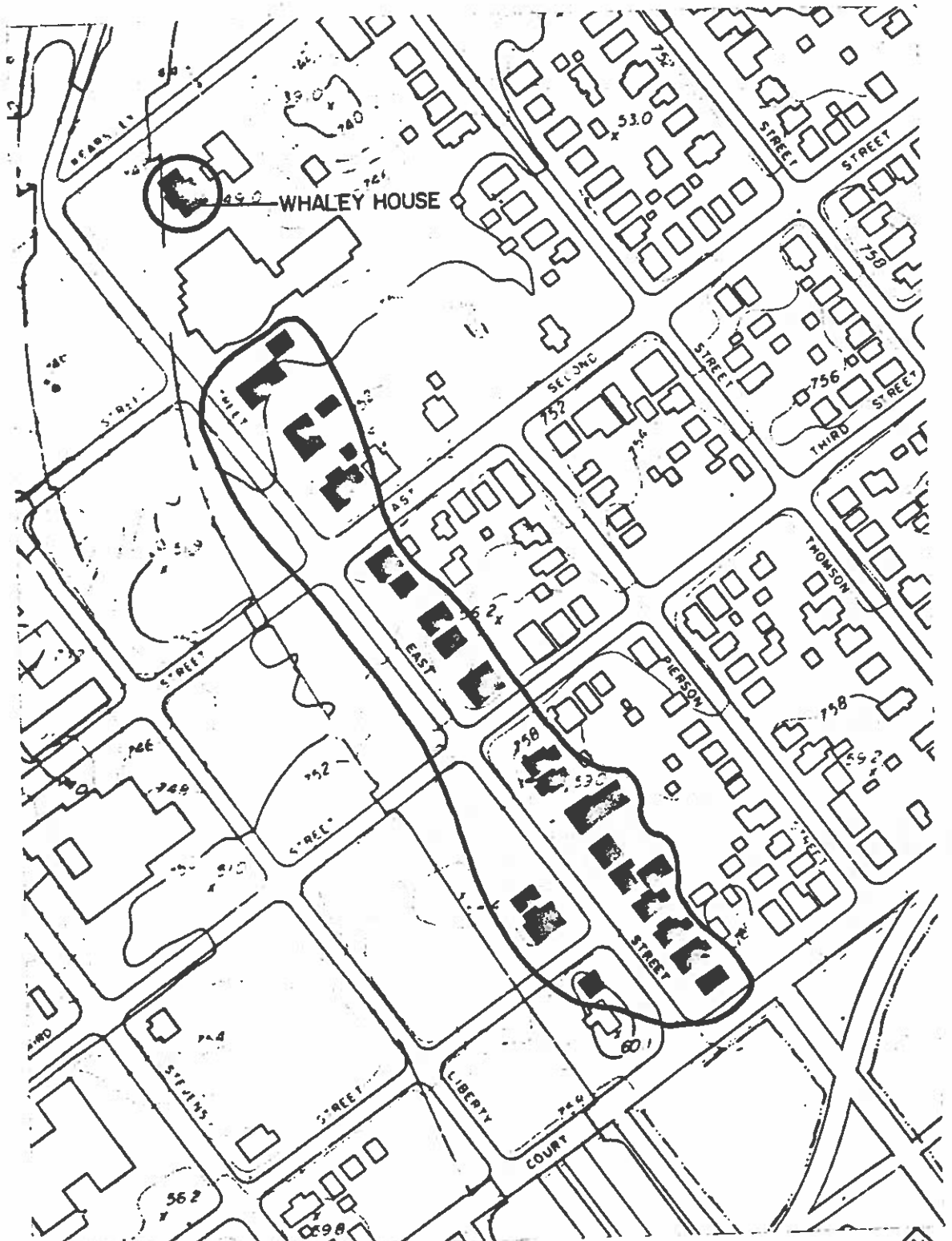
Assist the Historical Preservation Study Committee in developing and implementing a historical district ordinance. This ordinance should establish the basic framework for designating district standards for redevelopment, architectural guidelines and administrative policy.



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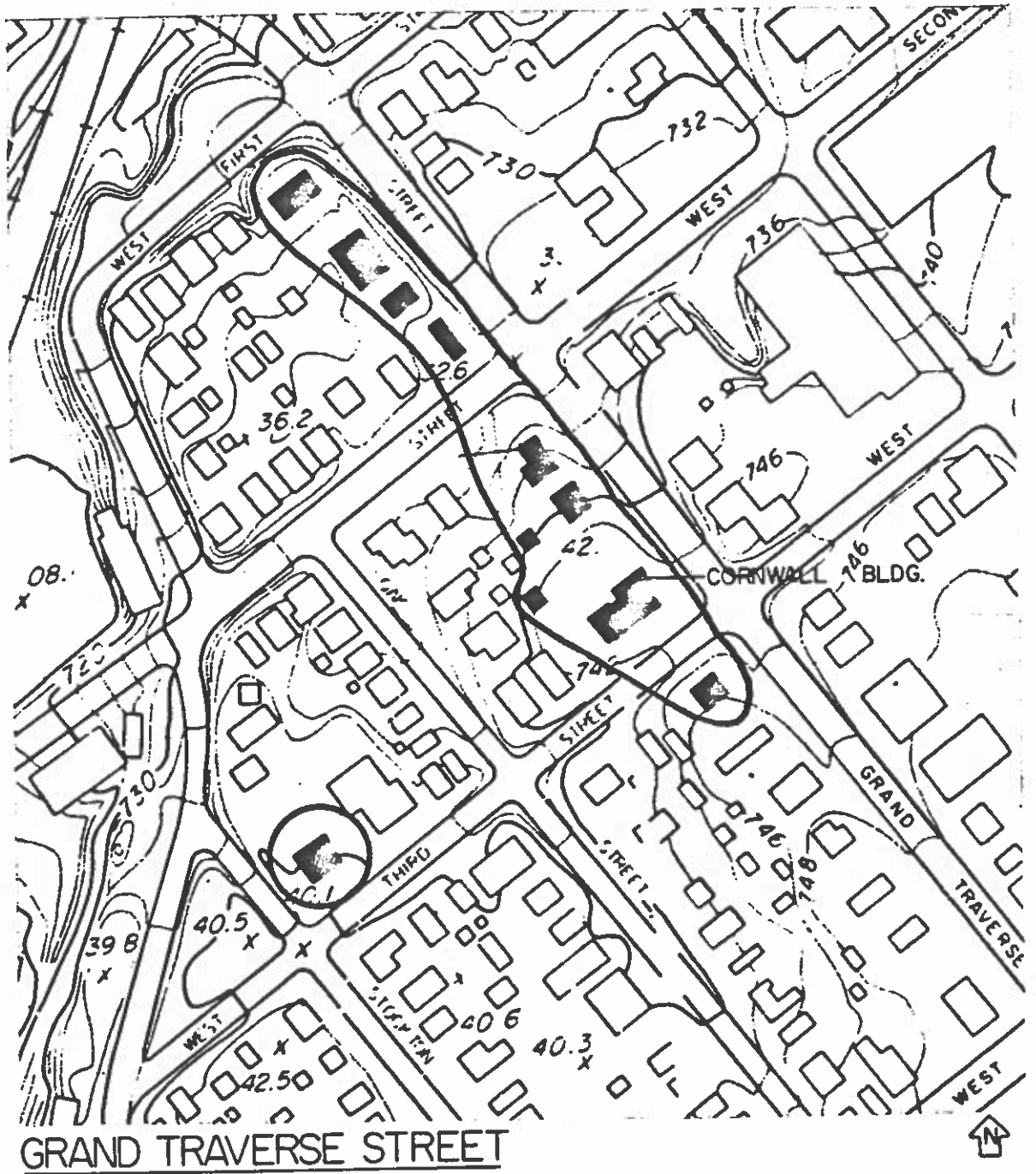


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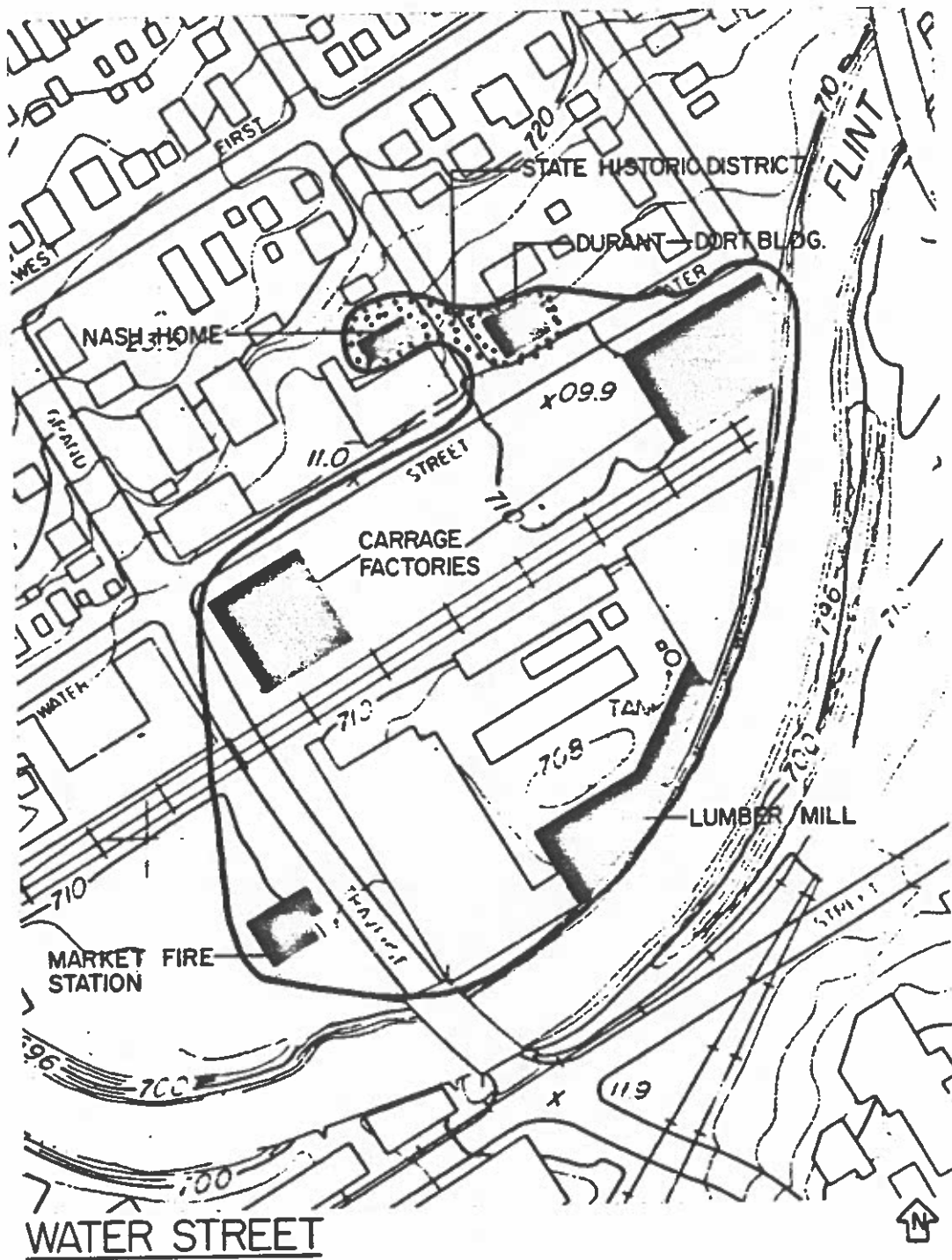
EAST STREET

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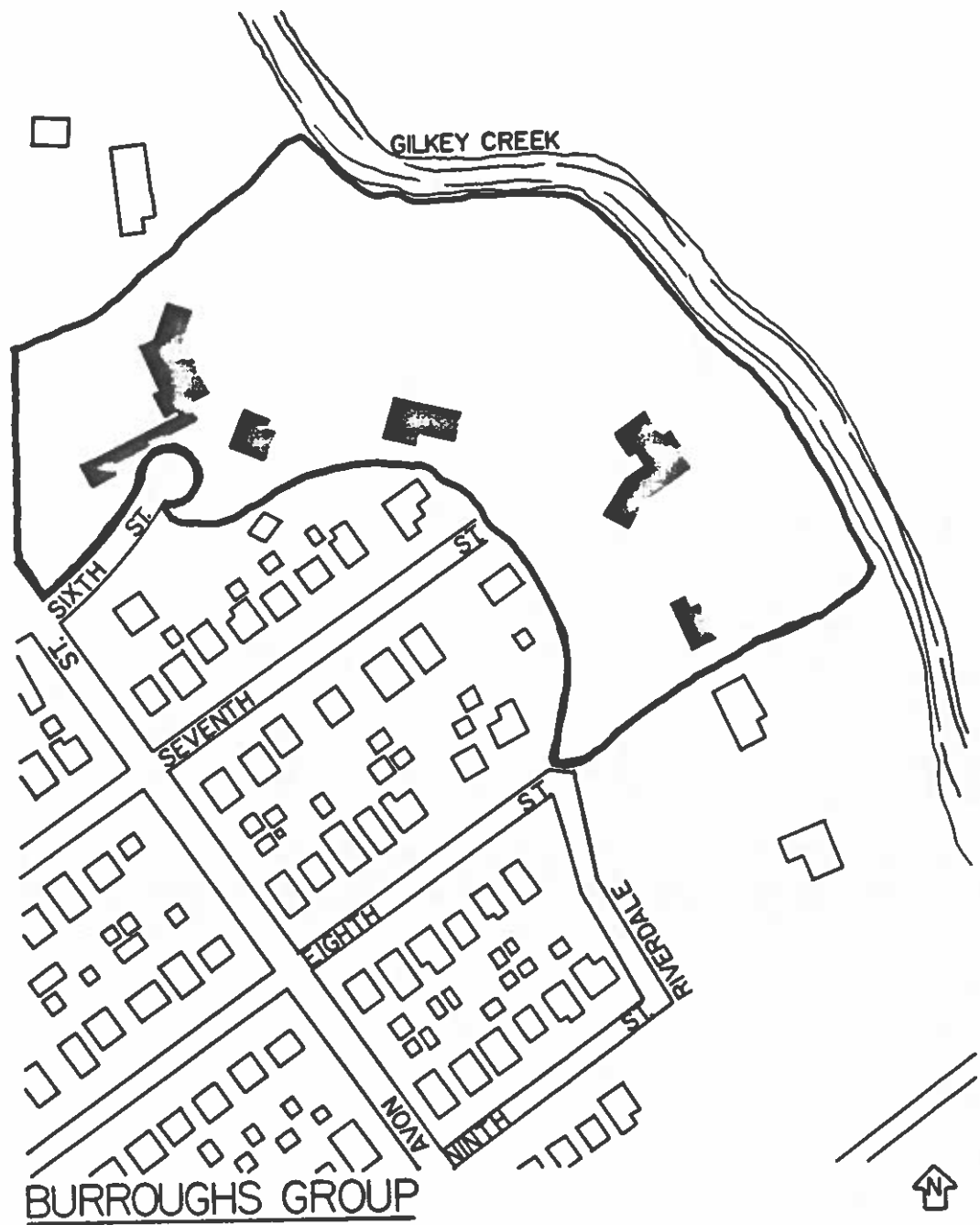


GRAND TRAVERSE STREET

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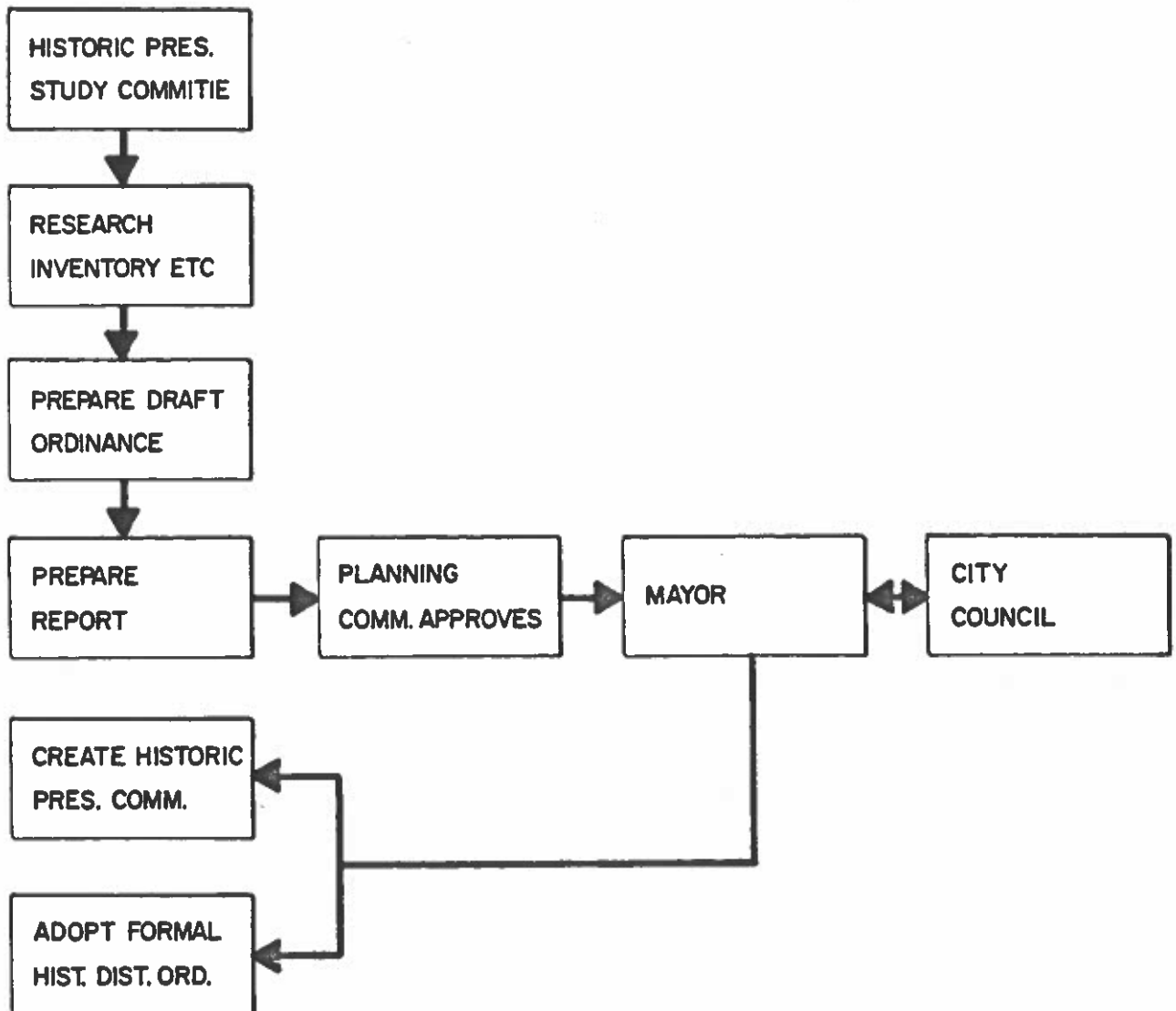
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BURROUGHS GROUP

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HISTORIC PRESERVATION PROCESS



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6. United States Congress, National Historic Preservation Act of 1966, Public Law 89-665.
7. Urban Land, Historic Preservation, July/August 1975.

Province	
Town or Township	
House Number	Concession #
Street	Lot #
(Urban)	(Rural)
Office Use Only	
Building Name	
Present Owner	
Address of Owner	
Tenant	
Original Owner or Tenant	
Recorder	
Recorder	
Date	
Total No. of Photos taken	
Film Roll No.	
GRID	

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2. ARCHITECT OR BUILDER <input style="width:150px;" type="text"/>				Unknown <input type="checkbox"/>				
3. HISTORICAL SIGNIFICANCE		Personage of Historical Importance		Building significant in political, military, social, economic, cultural, or religious history				
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Unknown <input type="checkbox"/> 2		Event of Historical Importance		12 Other <input style="width:100px;" type="text"/>				
		Local <input type="checkbox"/> 6 Provincial <input type="checkbox"/> 7 National <input type="checkbox"/> 8		Name of personage or event <input style="width:100px;" type="text"/>				
4. PRESENT USE		Primary <input type="checkbox"/>		Secondary <input type="checkbox"/>				
(1) Residential 1. Single Dwelling 2. Double Dwelling 3. Multiple Dwelling 4. Hotel or Inn 5. Institutional Housing 6. Other (2) Social and Recreational 1. Club or Lodge 2. Welfare Group Facility 3. Non-Athletic Recreation 4. Participant Sport and Athletic 5. Other (3) Educational 1. School 2. College and University 3. Library 4. Research Establishment 5. Other (4) Exhibition, Auditorium, and Spectacle 1. Museum 2. Planetarium 3. Auditorium 4. Theater or Cinema 5. Exposition 6. Stadium or Grandstand 7. Other (5) Administrative, Professional, Financial 1. Office 2. Bank 3. Exchange 4. Commercial Lab 5. Organization Quarters 6. Other		(6) Mercantile 1. General Retail Store 2. Special Store or Shop 3. Mail Order House 4. Market 5. Wholesale Store 6. Display Room 7. Shopping Centre 8. Storage 9. Other (7) Industrial & Mfg. 1. Factory or Plant 2. Storage 3. Service 4. Mill 5. Furnace and Forge 6. Other (8) Agricultural 1. Farm Building 2. Food Processing 3. Fish Hatchery 4. Greenhouse or Plant Storage 5. Other (9) Communications 1. Telephone Building 2. Radio and TV Station 3. Newspaper 4. Radar 5. Other (10) Transportation 1. Railroad Facility 2. Auto Facility 3. Air Facility 4. Water Facility 5. Other		(11) Governmental, National and Provincial 1. Legislative or Parliament 2. Office 3. Post Office 4. Mint and Treasury 5. Customs House 6. Embassy 7. Court House 8. Other (12) Governmental, City and County 1. City Hall 2. Court House 3. Community Hall 4. Registry Office 5. Other (13) Governmental - Other 1. Public Safety and Service 2. Penal Institution 3. Other (14) Military 1. Barracks 2. Armory 3. Fortification 4. Other (15) Remedial 1. Hospital 2. Clinic and Centre 3. Nursing Home 4. Asylum 5. Animal Hospital 6. Other		(16) Religious 1. Church or Synagogue 2. Monastery or Convent 3. Rectory 4. Church Hall 5. Other (17) Food Service 1. Restaurant 2. Tavern or Bar 3. Other (18) Funerary 1. Cemetery 2. Mausoleum or Monument 3. Funeral Home 4. Other (19) Non-Shelter Water 1. Bridge 2. Aqueduct 3. Tunnel 4. Dam 5. Lock 6. Wharf 7. Lighthouse 8. Water Feature 9. Other (20) Non-Shelter Other 1. Gate or Entry Feature 2. Kiosk or Info Bureau 3. Non-Funeral Monument 4. Clock Tower 5. Bell Tower 6. Other (21) Mixed (More than 2) Other		
5. ORIGINAL USE		Unknown <input type="checkbox"/>		Same <input type="checkbox"/>				
		or use "Present Use" list <input style="width:100px;" type="text"/>						
6. SITE		Unknown <input type="checkbox"/>		Original <input type="checkbox"/>				
		Moved <input type="checkbox"/>		Other <input style="width:100px;" type="text"/>				
7. ENVIRONMENT & THREAT		Secure	Threat	Unknown	Secure	Threat	Unknown	Other
Urban Isolated		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	Rural Isolated	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12
Urban Part of Compatible Group		<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	Rural Part of Compatible Group	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15
Urban Part of Hostile Group		<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	Rural Part of Hostile Group	<input type="checkbox"/> 16	<input type="checkbox"/> 17	<input type="checkbox"/> 18
								<input type="checkbox"/> 19





























8 MASSING OF UNITS										COMMENTS
1. SPIRE DETACHED	2. DOUBLE SEMI-ATTACHED RELATED	3. DOUBLE SEMI-DETACHED NON-RELATED	4. ROW RELATED END	5. ROW RELATED INTERMEDIATE	6. ROW NON-RELATED END	7. ROW NON-RELATED INTERMEDIATE	8. ATTACHED IRREGULAR	9. OTHER		
9 PLAN										
1. SQUARE	2. RECTANGULAR	3. RECTANGULAR	4. L	5. U	6. T	7. H	8. CIRCULAR	9. POLYGONAL	10. CENTRE SPACE	
11. PAVILION	12. IRREGULAR	13. CRUCIFORM	14. APICAL	15. APSE AND TRANSEPT	16. APSE AND NARTHEX	17. NARTHEX AND TRANSEPT	18. OTHER			
10 WINGS										
1. NONE	2. UNBROKEN	3. FRONT	4. EITHER SIDE	5. FRONT AND EITHER SIDE	6. BOTH SIDES	7. FRONT AND BOTH SIDES	8. REAR	9. FRONT AND REAR	10. REAR AND EITHER SIDE	
11. REAR AND BOTH SIDES	12. FRONT, REAR & EITHER SIDE	13. FRONT, REAR & BOTH SIDES	14. IRREGULAR	15. OTHER						
11 FOR CHURCHES ONLY - CHURCH TOWERS & SPIRES										
1. NONE	2. SPIRE, CENTRE	3. SPIRE, EITHER SIDE	4. PAIR, EACH SIDE	5. TWO, CENTRE & SIDE	6. THREE, CENTRE & BOTH SIDES	7. MULTI	8. OTHER			
12 CHURCH TOWERS & SPIRES - LOCATION (Multiple choice)										
1. NONE	2. WEST	3. ARCADE	4. EXTENSION	5. WINGS	6. OTHER					
13 PLOT AREA										
Frontage	<input type="text"/>	Unknown	<input type="text"/>	Depth	<input type="text"/>	Unknown	<input type="text"/>			
14 BUILDING AREA										
Width	<input type="text"/>	Unknown	<input type="text"/>	Depth	<input type="text"/>	Unknown	<input type="text"/>			
15 STOREYS										
1. UNBROKEN	2. 1 STOREY	3. 1 1/2 STOREY	4. SPLIT	5. 1 FRONT, 2 REAR	6. 2 STOREYS	7. 2 STOREYS, OVERALL	8. 2 1/2 STOREY	9. SPLIT	10. 3 STOREYS	
11. 4 STOREYS	12. 5 STOREYS	13. MULTI	14. IRREGULAR	15. OTHER						
16 BAYS - MAIN FACADE										
17 BASEMENT										
1. NONE	2. UNBROKEN	3. OPEN SPACE	4. PARTIAL	5. FULL	6. OTHER					
18 BASEMENT WALL MATERIAL										
NONE	UNBROKEN	GOOD POOR	LOG BELL	MASONRY PIER	RUBBLE	CUT STONE	CONCRETE BLOCK	POURED CONCRETE	BRICK	
1	2	3	4	5	6	7	8	9	10	11

EXTERIOR WALL MATERIAL										COMMENTS
19	EARTH									
	NONE 1	UNDETERMINED 2	TAMPED EARTH 3	MUD BRICK OR BLOCK 4	SOD & TURF 5	EARTH & LIME 6	OTHER 7			
20	WOOD									
	1. NONE	2. VERTICAL LOG	3. VERTICAL SHAPED LOG	4. VERTICAL PLANK	5. HORIZONTAL LOG	6. HORIZONTAL SHAPED LOG	7. HORIZONTAL LOG CORNWOOD	8. HORIZONTAL PLANK	9. SHORTS & TENON (RED RIVER FRAME)	10. PANEL OR PLYWOOD
	11. PLUMB-BOARD	12. SHAPED IMITATION	13. CLAPBOARD	14. SHIP IT WEATHERBOARD	15. SHIP LAP	16. SHINGLES	17. VERTICAL BOARD & BUTTEN	18. OTHER		
21	STONE-SHAPE AND COURSING									
	1. NONE	2. FLAT OR SPIT FIELDSTONE	3. FLINT AND/OR COBBLE	4. SLATE OR SHALE	5. BUBBLE/RANDOM	6. BUBBLE COURSED	7. BUBBLE SQUARE	8. CUT STONE, BRICK (N COURSE)	9. CUT STONE, COURSED	10. PANEL
	11. COMPOSITION	12. OTHER								
22	STONE-TEXTURE OR FINISH									
	1. NONE	2. NATURAL	3. SAWN	4. TOOTH OR HARKENED	5. SMOOTH DRESSED	6. POLISHED	7. ROCK-FACED	8. BUTTICATED	9. VERMICULATED	10. OTHER
23	BRICK									
	1. NONE	2. HEADER BOND	3. STEEPLER BOND	4. ENGLISH BOND	5. PLUMB BOND	6. COMMON BOND	7. GARDEN WALL	8. OTHER		
24	COMPOSITION OR TILE									
	1. NONE	2. UNDETERMINED	3. COMPOSITION BRICKS OR SHET	4. PLASTER OR STUCCO	5. ASBESTOS CEMENT SHET	6. TILE	7. SLATE	8. OTHER		
25	CONCRETE									
	1. NONE	2. UNDETERMINED	3. POURED	4. BLOCK	5. PRE-CAST PANEL, PLAIN	6. PRE-CAST PANEL, SHAPED	7. OTHER			
26	METAL									
	1. NONE	2. UNDETERMINED	3. GALVANIZED TIN OR IRON	4. METAL SHEET	5. METAL AND GLASS	6. CAST IRON	7. OTHER			
27	IS BUILDING SHEATHED ?									
	YES <input type="checkbox"/>			NO <input type="checkbox"/>			UNDETERMINED <input type="checkbox"/>			
28	WALL CONSTRUCTION									
	UNDETERMINED	2. VERTICAL LOG	3. HORIZONTAL LOG	4. HORIZONTAL LOG CORNWOOD	5. VERTICAL PLANK	6. HORIZONTAL PLANK	7. SHORTS & TENON (FRAME)	8. SHORTS & TENON (RED RIVER FRAME)	9. SHORTS & TENON (COLORBAGE)	10. RAILED FRAME
	11. GILDING OR LAMINATED PLANK	12. BARTH	13. STONE	14. BRICK	15. CONCRETE BLOCK	16. CONCRETE, POURED	17. STEEL OR IRON	18. OTHER		

29 EXTERIOR SHEATHING-MAIN FACADE - MORE THAN ONE - Multiple Choice										COMMENTS
NONE	WOOD	TILE OR TERRAZZO	PLASTER OR STUCCO	STONE	BRICK	METAL	COMPOSITION	OTHER		
1	2	3	4	5	6	7	8	9		
30 EXTERIOR SHEATHING-OTHER FACADES										
SAME AS MAIN <input type="text"/>					DIFFERENT FROM MAIN <input type="text"/>					
31 WALL DESIGN & DETAIL Multiple Choice										
1. NONE	2. RECESSED PANEL(S)	3. ARCADING	4. ENGAGED COLUMN OR PLASTER	5. PEE AND SPANDELL	6. QUOINS	7. ENTABLATURE AND/OR FRIEZE	8. STRING OF BELT COURSE	9. CORNICING	10. PLINTH	
			14. OTHER							
11. DECORATIVE PANEL OR CARVING	12. DECORATIVE OR GABLE STONE	13. DECORATIVE DESIGN OR PAINTING								
32 ROOF SHAPE										
1. LOW GABLE	2. MEDIUM GABLE	3. HIGH GABLE	4. CENTRE GABLE	5. CROSS GABLE	6. HIPPED GABLE	7. HIPPED CROSS GABLE	8. BELLCAST GABLE	9. BELLCAST HIPPED GABLE	10. LOW HIP	
11. MEDIUM HIP	12. HIGH HIP	13. TILTHCARD HIP	14. HIPPED WITH CENTRE GABLE	15. BELLCAST HIP	16. GASLED HIP OR GAMBREL	17. GAMBREL	18. HIPPED GAMBREL	19. BELLCAST GAMBREL	20. BELLCAST HIPPED GAMBREL	
21. MANARD	22. GABLE MANSARD	23. BELLCAST MANSARD	24. MANSARD	25. SHED	26. SALTBOX	27. BOOHTOWN	28. FLAT	29. SAWTOOTH	30. MONITOR	
				34. OTHER						
31. DOME	32. PYRAMIDAL	33. CONICAL	34. VAULT							
33 ROOF MATERIAL										
UNKNOWN	TYPHON OR ROOF	WOOD	TILE	METAL	SLATE	COMPOSITION	GLASS	CONCRETE	DIR & GRAVEL	OTHER
1	2	3	4	5	6	7	8	9	10	11
34 CHIMNEY LOCATION-PLAN - Multiple Choice										
							8. OTHER			
1. NONE	2. CENTRE	3. OFFSET LEFT	4. OFFSET RIGHT	5. SIDE, LEFT	6. SIDE, RIGHT	7. CLUSTER	8. OTHER			
35 CHIMNEY LOCATION - Multiple Choice										
						7. OTHER				
1. NONE	2. STEEP SIDE SLOPE	3. LYNCH SLOPE	4. REAR SLOPE	5. SIDE SLOPE	6. EXTERIOR	7. OTHER				
36 CHIMNEY STACK MATERIAL										
NONE	UNKNOWN	TILE	METAL	BRICK	CUT STONE	BRICK	PAVING	CONCRETE	OTHER	
1	2	3	4	5	6	7	8	9	10	
37 CHIMNEY STACK UNITS - Multiple Choice										
						7. OTHER				
1. NONE	2. SINGLE	3. LINKED TOP	4. LAPNER AT BASE	5. PIERCED	6. JOINED	7. OTHER				

44 MAIN WINDOW STRUCTURAL OPENING SHAPE - GROUND OR FIRST FLOOR										COMMENTS				
1. FLAT	2. SEGMENTAL	3. SEMI-ELLIPTICAL	4. SEMI-CIRCULAR	5. 6 CENTRE COGEE	6. 7 CENTRE POINTED	7. TRIANGULAR								
45 MAIN WINDOW SURROUND-HEAD-GROUND OR FIRST FLOOR														
1. NONE	2. PLAIN MOLDING	3. LINTEL	4. LINTEL DECORATED	5. AMPERSHAPED	6. LABEL	7. FLAT ARCH VERTICAL ADJUT	8. ARCH LIGHTNING VOLANSOR	9. ARCH LIGHTNING VOLANSOR WITH KEYSTONE	10. ARCH LIGHTNING VOLANSOR WITH KEYSTONE	11. ARCH LIGHTNING VOLANSOR WITH KEYSTONE				
12. ARCH STEEPED LIGHTNING VOLANSOR	13. SHELF OR BRAMBLETE	14. PERSIAN PLAIN	15. PERSIAN SEGMENTAL	16. PERSIAN DOUBLE CURVE	17. PERSIAN BROKEN	18. WOOD FLAT PLAIN OR BRACKETED	19. WOOD CLEFT PLAIN OR BRACKETED							
46 MAIN WINDOW SURROUND-SIDES-GROUND OR FIRST FLOOR														
1. NONE	2. PLAIN	3. MOLDING WITH	4. COLONNE	5. PLASTER OR BRICKWORK	6. DECORATED	7. OTHER								
47 MAIN WINDOW SURROUND-MATERIAL														
1. NONE	2. WOOD	3. RUBBLE	4. CUT STONE	5. BRICK	6. TILE OR TERRAZZOTA	7. CONCRETE OR CAST STONE	8. PLASTER OR STUCCO	9. METAL	10. UNKNOWN	11. OTHER				
48 MAIN WINDOW SURROUND-SILLS-GROUND OR FIRST FLOOR														
1. NONE	2. UPSILL	3. WOSILL	4. DECORATED UPSILL	5. DECORATED WOSILL	6. OTHER									
49 MAIN WINDOW SURROUND-SILLS MATERIAL														
1. NONE	2. WOOD	3. RUBBLE	4. CUT STONE	5. BRICK	6. TILE OR TERRAZZOTA	7. CONCRETE OR CAST STONE	8. PLASTER OR STUCCO	9. METAL	10. UNKNOWN	11. OTHER				
50 MAIN WINDOW DIVISIONS-GROUND OR FIRST FLOOR														
1. 1 SASH	2. 2 SASH	3. 1 SASH AND TRANSOM	4. 2 SASH AND TRANSOM	5. 2 SASH NO MULLION	6. 3 SASH WITH MULLION	7. 3 SASH OR MORE WITH MULLION	8. SASH WITH SIDELIGHTS							
9. OTHER														
51 MAIN WINDOW SWING or SLIDE-GROUND OR FIRST FLOOR														
1. UNKNOWN	2. DOUBLE HUNG	3. CASSEMENT	4. HINGED	5. PIVOTED	6. HORIZONTAL SLIDING	7. TILTED	8. OTHER							
52 MAIN WINDOW PANES OR LIGHTS-GROUND OR FIRST FLOOR														
UPPER OR LEFT SASH	1	2	3	4	5	6	7	8	9	10	11	12	MULTI	OTHER
LOWER OR RIGHT SASH	1	2	3	4	5	6	7	8	9	10	11	12	MULTI	OTHER
53 WINDOWS-SECOND FLOOR - Multiple Choice														
DIFFERENT FROM FIRST FLOOR	OPENING	HEAD	SIDE	SILLS		SAME AS FIRST FLOOR							NONE	
	1	2	3	4		5							6	
54 WINDOWS-THIRD FLOOR - Multiple Choice														
DIFFERENT FROM FIRST FLOOR	OPENING	HEAD	SIDE	SILLS		SAME AS FIRST FLOOR							NONE	
	1	2	3	4		5							6	
55 SPECIAL WINDOW TYPES-ANY FACADE - Multiple Choice														
1. NONE	2. ROUND	3. HALF-ROUND	4. QUARTER-ROUND	5. POLYGONAL	6. ELLIPTICAL	7. PARABOLICAL	8. TRIANGULAR	9. GOTHIC	10. TRIANGULAR					
11. FLAT ROW OR GABLE	12. PALLADIAN	13. BLIND	14. MULTI	15. OTHER										

56 MAIN DOOR LOCATION							COMMENTS
57 MAIN DOOR STRUCTURAL OPENING SHAPE							
58 MAIN DOOR SURROUND-HEAD							

67 STAIRS - LOCATION AND DESIGN											COMMENTS
1 NONE						7 OTHER					
68 STAIRS - SHAPE											
1 NONE							8 OTHER				
69 PORCHES AND GALLERIES											
1 NONE							8 OTHER				
70 PORCHES AND GALLERIES - SUPPORTS											
1 NONE						7 OTHER					
71 PORCHES AND GALLERIES - SUPPORTS MATERIAL											
NONE 1	UNKNOWN 2	WOOD 3	RUBBLE 4	CUT STONE 5	BRICK 6	TRE OR TERRA-COTTA 7	CONCRETE OR CAST STONE 8	PLASTER OR STUCCO 9	METAL 10	OTHER 11	
72 PORCHES AND GALLERIES - HEIGHT											
NONE 1	1st STOREY 2	2nd & 3rd STOREYS 3	MULTI STOREYS 4	OTHER 5							
73 ADDITIONAL BUILDING FEATURES - Multiple Choice											
1 NONE							8 OTHER				
74 INTERIOR ITEMS OF INTEREST - Multiple Choice											
NONE 1	UNKNOWN 2	STAIRS 3	HALL 4	MAIN ROOMS 5	FIREPLACE MANTEL 6	AND DOOR TRIM 7	WINDOW TRIM 8	DECORATIVE COMPONENTS 9	OTHER 10		
75 APPARENT ALTERATIONS AND/OR ADDITIONS											
NONE 1	WALL 1 2	WINDOWS 1 2	DOORS 1 2	ROOF 1 2	CHIMNEY 1 2	STAIR PORCH 1 2	ADD. STOREY 1 2	OTHER 1 2			
76 CONDITION OF BUILDING											
	WALL 1 2 3	WINDOWS 1 2 3	DOORS 1 2 3	ROOF 1 2 3	CHIMNEY 1 2 3	STAIR PORCH 1 2 3	OTHER 1 2 3				
77 PROPERTY FEATURES - Multiple Choice											
NONE 1	GARAGE OR COACH HOUSE 2	STABLE OR BARN 3	OUT-BUILDING 4	FENCE 5	GARDEN FEATURE 6	WATER FEATURE 7	OTHER 8				
78 PRESENT STATUS											
		INHABITED			ABANDONED			OTHER			

16. Interrelationship of Building and Surroundings

17. Other Notable Features of Building and Site

18. Threats to Building

- a. none known b. zoning c. roads d. developers e. deterioration
f. other _____

SIGNIFICANCE (Indicate sources of information for all statements)

19. Architectural Significance

Date of Construction _____ Architect _____

Builders, suppliers, etc. _____

Notes on original plan and specifications:

20. Historical Significance:

21. Sources (for primary and secondary sources, give complete facts of publication: author, title, place of publication, date):

Prepared by _____ Date _____

Address _____ Telephone _____

Organization _____

SAMPLE ATTITUDE SURVEY

Historic Considerations

Is the structure associated with the life or activities of a major historic person (more than the "slept here" type of association)?

Is it associated with a major group or organization in the history of the nation, state, or community (including significant ethnic groups)?

Is it associated with a major historic event (whether cultural, economic, military, social, or political)?

Is the building associated with a major recurring event in the history of the community (such as an annual celebration)?

Is it associated with a past or continuing institution which has contributed substantially to the life of the city?

Architectural Considerations

Is the structure one of few of its age remaining in the city?

Is it a unique example in the city of a particular architectural style or period?

Is it one of a few remaining examples in the city of a particular architectural style or period?

Is it one of many good examples in the city of a particular architectural style or period?

Is the building the work of a nationally famous architect?

Is it a notable work of a major local architect or master builder?

Is it an architectural curiosity or picturesque work of particular artistic merit?

Does it evidence original materials and/or workmanship which can be valued in themselves?

Has the integrity of the original design been retained or has it been altered?

Setting Considerations

Is the structure generally visible to the public?

Is it, or could it be, an important element in the character of the city?

Is it, or could it be, an important element in the character of the neighborhood (either alone or in conjunction with similar structures in the vicinity)?

Does it contribute to the architectural continuity of the street?

Is the building on its original site?

Is its present setting (yards, trees, fences, walls, paving treatment, outbuildings, and so forth) appropriate?

Are the structure and site subject to the encroachment of detrimental influences?

Use Considerations

Is the building threatened with demolition by public or private action?

Can it be retained in its original or its present use?

Does it have sufficient educational value to warrant consideration of museum use?

Is it adaptable to productive reuse?

Are the building and site accessible, served by utilities, capable of providing parking space, covered by fire and police protection, and so forth, so that they can feasibly be adapted to contemporary use?

Can the structure be adapted to a new use without harm to those architectural elements which contribute to its significance?

Cost Considerations

Is preservation or restoration economically feasible?

Is continued maintenance after restoration economically feasible?

Information provided by "Conservation of Historic and Cultural Resources," by Ralph W. Minor, Planning Advisory Service, Report #244.

ABSTRACT

TITLE: TRANSPORTATION ELEMENT

PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAMMING

SUBJECT: TRANSPORTATION FACILITIES OF FLINT BY MODE

DATE: JANUARY, 1979

NUMBER OF PAGES: 109

ABSTRACT: THE REPORT EXPLAINS THE PRESENT TRANSPORTATION SYSTEM AND GIVES SHORT AND LONG RANGE SOLUTIONS TO PRESENT AND PROJECTED NEEDS. THE BASIC STRATEGY OF THE ELEMENT IS DEVELOPED WITH REVIEW OF THE SOCIAL, ECONOMIC AND ENVIRONMENTAL FACTORS IN THE CITY OF FLINT, SPECIFICALLY THE GOALS AND OBJECTIVES, AND GENERAL CONSIDERATIONS AS SUGGESTED BY THE CITY ADMINISTRATION, PLANNING DIVISION AND CITIZEN INPUT THROUGH THE 701 MASTER PLAN EFFORTS. THE REPORT IS SUPPLEMENTED WITH LAY NARRATIVES DESCRIBING CURRENT TRANSPORTATION PLANNING TECHNIQUES, FUNDING SOURCES, AND LAND USE IMPACTS.

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FROM THE
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
AND THE
DEPARTMENT OF TRANSPORTATION,
FEDERAL HIGHWAY ADMINISTRATION

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I. INTRODUCTION

Introduction and Historical Perspective

Transportation is a major factor in urban growth and development. Conversely, the urban environment influences the character of its transportation systems. Those who have witnessed metropolitan transportation development and planning over the last decades know the large transformation that has taken place. Priorities change quickly, one day the user is most important, the next day the nonuser is equal. Then travel time, cost, and safety or air pollution, the national economy and the worldwide energy situation gain public attention. This report will give a brief history of metropolitan transportation planning and then show the need for a more stable but modular process to deal with the changing concerns of all parts of the transportation system.

Early Approaches to Transportation Planning

Before the early 1950's, the prime concern in planning transportation in urban areas was costs for, and benefits to, the user. There was little "planning" for transportation in urban areas. "Planning" consisted primarily was making straight-line projections of traffic counts and comparing the forecasted volumes with existing capacities. "Transportation" systems referred almost exclusively to highways.

Transportation Planning in the 1950's

The early 1950's saw the advent of large-scale urban transportation studies. The study in Detroit, and a later more elaborate effort in Chicago, was the most significant. The development of the digital computer which allowed for manipulation and analysis of large masses of data made both possible. Improving the technical side of the planning process was emphasized. Data collection methods were developed that cost millions of dollars in large metro areas. The data were used to develop models for forecasting travel in highways and mass transit networks for as much as 25 years into the future. Prime consideration was given to accidents, congestion and investment issues. Others such as air pollution, noise, and discomfort were considered later. The process focused on metropolitan areas, addressed transit, and resulted in fixed plans for capital investment.

Changes in the 1960's

The Highway Act of 1962 recognizing the significance of the new processes required all large metro areas to have a comprehensive, coordinated and continuous (3C) transportation plan to get federal funds. City governments hurried to complete comprehensive transportation planning programs. The studies revealed the deficiencies in the mass transit systems. The Urban Mass Transit Acts of 1964 and 1966 tried to help the poor financial state of urban transit, by allocating \$375 million for a program of grants, loans and studies.

Two results of these acts were significant. First, there was a renewed interest in transit technology; a variety of innovative technologies were identified and some tested. The second and more significant result, was the revelation that many people in urban areas were not being served by the dominant form of transportation, automobiles. If mass transit were allowed to deteriorate, many individuals, primarily the poor, black, young and old would suffer disproportionately. These acts helped to expand the areas in transportation planning and give the metro or regions a review-and-consent power over spending on federal urban transportation projects.

The 1970's and the Future

The National Environmental Policy Act (NEPA) of 1969 required that environmental impact statements be developed and approved for all federal-aid projects. The word "environmental" here includes not only air, water and noise pollution but also social, economic, aesthetic and other related impacts. The NEPA forced planners and designers to consider all the significant environmental impacts. Some plan, strategy or design had to be developed to alleviate the problems or the project could be halted. Paradoxically, many impacts were difficult to identify and define, much less reduce to a quantify. Thus, until new technologies appear, it will be difficult to have more comfortable and convenient travel with less air or noise pollution and energy consumption.

Manheim and Suhrbier have outlined a set of basic "principles" that indicate of the kinds of things which will have to be considered in future planning programs. They provide a basis for discussion of future direction as they relate to broad goals and objectives in succeeding chapters. These principles are:

1. Single Multimodal Transportation System

An organization should work to provide transportation as a service, using all modes and options, including investment in fixed facilities and operating and pricing policies.

2. Alternatives and Options

A range of options are available, and should be developed to bring out the issues and assist the community in clarifying its objectives and decision-making ability.

3. Effects

Identification and prediction of social, economic and environmental effects should be based on the group(s) affected.

4. Analysis Tools

The technical analysis tools should be responsive to the principles of supply and demand and to community-environmental impacts.

5. Evaluation

Evaluation of a planning process should appear periodically throughout the course of study.

6. Public Involvement

Interaction between the technical team and potentially affected communities should occur at all planning levels and provide opportunities for negotiation among affected interest groups.

7. Institutions

The arrangement and organizational structure of political and public institutions influence the degree to which social and environmental considerations are incorporated in transportation decision-making.

These changes will likely alter the context but not the purpose of metropolitan transportation planning. There is a need for a modular framework or process for planning so that changes and modifications can be added without restructuring the system. Fixed resources and energy considerations dictate this approach.

Resource Management

The City of Flint, like many metropolitan areas, is in a significant period in its history. The "boom town" atmosphere of much of this century has been evaporating in the last two decades. Since 1960 Flint's population has dropped by almost 30,000 people, mostly through migration to suburban areas and lowered birth rates. While some city residents may applaud this as reduction of urban congestion, fewer taxpayers are available to support transportation services. The problem is more significant when two other factors are considered.

Since 1960, the population of the out-county areas of Genesee County has increased more than 40 per cent, while the City's has dropped 13 per cent. The population of Grand Blanc, Davison, Fenton, Flint and Mundy Townships has increased more than 60 per cent. The population of Grand Blanc township has more than doubled in the last 17 years.

The stabilizing of population growth coupled with changing population patterns (migration between regions or counties, from rural to urban areas, or from cities to suburbs) has continued to alter the needs for travel in urbanized areas. The energy situation, with rising prices and fears of scarcity, has created concern about the dependence on automobile transportation for trips that can be made by other means.

While population shifts have been relatively severe, employment has been relatively stable in amounts and places. Over 75 per cent of the jobs in the county are still in the City of Flint. The City remains a place to work, but not necessarily a place to live.

This concentration of jobs and dispersal of population means that more workers are commuting from areas in the out-county to employment centers in the City.

The impact on Flint is two-fold. Fewer Flint residents are available to support City services, yet more individuals from the suburban areas are using the City's transportation systems for work and through trips. To compound this situation recent population and employment projections for Genesee County indicate only minute increases over the next 30 years, all in the out-county. The leveling off has already begun to be felt in the area.

Economic recession in much of the world has reduced the capital available for large-scale transportation developments, and countries and states have found it impossible to finance all the projects once planned. The priority in some areas is now to assure the survival of systems and find better techniques to operate them.

Because little growth is projected, the local planners must give priority to providing quality of existence rather than the number of systems or facilities. In planning for this future, only fixed resources will be available to pay the inflationary costs of a high quality services. The planning and development of transportation systems must be consistent with goals and objectives set by the community determining acceptable alternatives must be balanced against standards which were set in previous growth periods.

Land and Transportation

What moves in a transportation system is determined by how the land near it is used. Residential neighborhoods generate one type, commercial and industrial areas another. Concurrently, a transportation system also affects the use of the land. Increased traffic flow and changes in travel purpose can modify or obliterate one land use and promote another. Street modifications (widening, re-alignment, etc.) designed to improve vehicle flow in residential areas often leads to creeping strip commercial development.

It is no longer acceptable to view transportation systems or problems strictly from the viewpoint of the user and the associated geometrics involved. Strict engineering considerations (pavement widths, curb design, horizontal and vertical alignment, intersection configurations, turn lanes and radii) have to be balanced against how they affect the way land is used. What effects will a proposed major street have on a residential area? Will access and egress to the neighborhood be enhanced by the transportation system or will too much unrelated traffic be funneled through? Does the proposed system segregate an area from nearby shopping, recreational, or educational facilities that it once enjoyed? Will precious greenbelt or natural foliage areas have to be sacrificed to change streets? Will orderly, appropriate development in an area be stunted by subsequent transportation development? These problems must be dealt with in any planned transportation program.

Paradoxically, while transportation systems can change land uses, they also can conserve and maintain certain types if well planned. A solid, viable residential area can be strengthened by maintaining the local character of the street system. Improvements and signs can be designed to limit the use of a system to local residents. Buffering and noise abatement techniques can reduce traffic interference. Commercial and industrial uses can be aided by providing adequate curb cuts and service roads for customer access.

These techniques require careful, analytical planning that addresses all the possible impacts on an area and attempts to isolate the alternative least damaging to the viability of the social, and economic fabric and to land uses.

Planning and Programming Functions

Transportation planning is no longer the step-child of the urban planning process. More planners, engineers, and city administrators are realizing that planning for transportation projects and improvements requires thorough analysis and participation from all areas of government from the local to federal level. Transportation is not a supportive "service" responding to demands. It is an element of the City which shapes urban form and environment. As such, the transportation planning process must be sensitive to the social, economic and environmental impacts of any change as well as the user of the system. The decisions based on the process may involve major expenditures of funds and cause in land use, population and environmental quality which can seldom be reversed.

Planning for transportation systems must be predicated on two premises - the users needs for the transportation system and the effects of the system on the surrounding people and land uses. The first is direct and traditionally the most objective. It includes the problem of congestion, safety, capacity, user costs, facility costs, comfort, and user disabilities. The second is more difficult to quantify but no less important. Air pollution, noise, visual intrusion, right-of-way needs, relocation, land values and land use changes are important measures of the impact of the transportation system on the area it may intersect or affect.

The transportation planning process requires a broad description of a future transportation system, its needs and impacts. The major thrust of any planning study is determining the demand for travel in wide "corridors" of a region or city. Then an attempt is made to identify those systems, present and future, that can meet the travel demands in an acceptable manner. Then the plan is detailed, route locations are determined, proposed budget allocations are made, etc. - until the plan becomes reality. More specifically, the "steps" are:

- (1) The planning and design process begins with an attempt to define the types of problems that do or will exist in the area where they are found. The factors affecting or effected by these problems usually are a significant part of the man-made and natural habitat.
- (2) From the description of the problem and general problem domain, objectives and constraints can be identified to guide in the search for solutions. An objective may be to minimize travel time or reduce impact on contiguous land uses.
- (3) The third step is to set up model to simulate the proposed system impacts on: (a) the user, (b) the mode of transportation, i.e. auto, rail, bus, etc., and (c) the effects on the social, economic and land use environment (land use development, air pollution, noise, neighborhood disruption, etc.)

- (4) Step four is to collect data, which is structured to provide the information necessary to establish the constraints for each model variable. This step also allows for the development of more definitive statements of the problems, problem domains and objectives. After analyzing data what may have appeared as a general intersection congestion problem, becomes only a problem at certain hours during the day.
- (5) The fifth step feeds all the data to the model and predicts the future state of environmental and transportation service factors if no changes in the transportation system are made!

At this point serious alternatives can be formulated based on the objectives and constraints outlined in the second step of the planning process. These separate alternatives can then be added directly to the model and further considerations made.

Most transportation problems do not need the sophistication of this modeling process to produce acceptable solutions. Curb repair, or roadway widening to reduce congestion can generally be done without going through all the modeling steps. Planning for new transit systems, corridor networks, and street realignments need this type of analysis to determine their impacts on both the user and the individuals and land near the system.

The transportation planning process for the City of Flint, Genesee County, and Region V (Genesee-Lapeer-Shiawassee Counties) is a structural, co-operative effort made up of various local government officials, administrators, and planners. The following list indicates those organizations which form the backbone of the planning process for the area.

- U.S. Department of Transportation (DOT)
- Federal Highway Administration (FHWA)
- Michigan Department of State Highways and Transportation (MDSH&T)
- Region V Planning and Development Commission (PDC)
- Genesee County Metropolitan Planning Commission (GCMPC)
- Mass Transportation Authority (MTA)
- City of Flint
 - Department of Public Works (DPW)
 - Division of Traffic Engineering (TE)
 - Department of Community Development (DCD)
 - Department of Parks and Recreation (PR)
- Local Units of government in Genesee, Lapeer and Shiawassee Counties

Representatives from these public bodies have formed subsidiary committees to deal with specific transportation problems and issues. The Technical Advisory Committee (TAC) and Transportation Systems Management (TSM) are the principle committees.

Transportation planning activities for the Flint-Genesee County area are guided by the Unified Work Program (UWP) under the United States Department of Transportation (DOT) Order 1120.15., and based on the premise of a continuing, comprehensive and cooperative (3C) process. Planning continuity (and federal funding) is assured through the UWP. Consequently the thrust of the unified approach is to consolidate and coordinate all transportation planning efforts in metropolitan areas such as Flint-Genesee County.

Various internal procedures have been developed to supplement and facilitate the decision-process for transportation planning and improvements. These include cost-benefit analysis, cost effectiveness evaluation, capital improvements budgeting, capacity analysis, and neighborhood impact.

- (1) The cost-benefit analysis methodology is based on the "willingness to pay" premise. How much of a given product people are willing to purchase at a given unit cost? In transportation terms this means that user costs (savings in time, energy usage, maintenance, etc.) are balanced against the cost of building the system (land acquisition, debt service and annual maintenance, etc.). The cost-benefit approach offers the advantage of neutrality. The data used leads to an exact determination of the best alternative, without the involvement of political, personal or environmental biases. On the other hand, this form of analysis can not identify and quantify all possible benefits to either the user or the system. Perceived costs of the individuals affected by the proposed system are also difficult to reduce to a dollars-and-cents basis because a benefit to one person may not be perceived as great a benefit to another. Most importantly this approach fails to support the carefully devised goals and objectives that formed the basis for the analysis.
- (2) The cost-effectiveness evaluation technique is closer to a goal-oriented approach - in that - costs are balanced against indicators of effectiveness. Effectiveness measures the degree to which an alternative achieves its objectives - are the alternative systems compatible with present systems, do these systems materially reduce noise and pollution, do they present visual obstructions, do they require great amounts of land acquisition and relocation of residents? Thus, cost-effectiveness is the way in which information is presented to clarify relationships between alternatives and to outline tradeoffs or compromises that must be made to choose one alternative over others.
- (3) The capital improvement budgeting (CIB) process is a method of allocating resources toward major, non-recurring, physical facility expenditures. Rather than establishing relationships among alternatives as in the first two processes, the CIB attempts to determine allocation of money to areas of the city that are most in need. Similar to the modeling process, goals

and objectives are established and data and information collected for all planning districts. "Desirability scores" and city averages are computed the each district is compared to these to determine their priority for improvements. A planning district with a great need based on the quantitative rankings would be placed high on the capital improvement list. Once priorities are set, alternatives can be priced and judged on their impact on the planning district and their impact on Flint.

- (4) Capacity analysis is a basic tool used by traffic engineers and planners to determine the carrying capacity of any stretch of roadway or intersection. This process is predicated on analysis of those factors that impede the flow of motorized vehicles, such as the volume of traffic, width of roadway, proportion of autos, trucks and buses using the road, number of left-turn movements across traffic, driveways and intermediate intersections along the segment. Empirical traffic studies provide objective, quantifiable factor weights that allow an analyst to compute whether a part of a transportation system is able to carry adequate traffic volumes if it needs relief to reduce congestion. This type of analysis is especially critical for those urbanized areas of heavy use where modifications in the transportation system could impair the integrity of the social environment and land uses abutting it.

It is not suggested that the processes and techniques discussed in this section are the ways transportation planning should be or is being done. In different situations new steps could be added, deleted, or mixed to lead to a process and solutions more effective than portrayed here. However, there is a need to focus on one type of process so that approaches to transportation problems can be systemitized.

Data Sources

One of the major sources of data and information used for transportation planning is the Origin Destination Survey (OD). This valuable tool provides data on the origin and destination of all trips (i.e. where trips are coming from, where they're going), the purpose (work, school, shopping, etc.) travel time, and length of trip, the mode of travel (auto, bus, rail, etc.), and how the land is used at the points of origin and destination. This is the basis for predicting, through the use of computer modeling, the demand and flow patterns of future travel.

The OD survey measures a representative sample of the trips that originate or pass through an urban area. There are three types of vehicular and person trips in an area - those made by people and vehicles from outside the area (external trips), those made by people and commercial vehicles in the area (internal trips); and those made by persons who reside in the area (internal residential). Each requires a different type of sampling, interview technique, and listing.

A cordon survey is used to inventory external travel. A cordon line is drawn around the study area, usually some distance from the population center, where the density of the roads is not too great. All roads which cross the cordon line are listed and traffic volumes are measured. Interviewing stations at the cordon line, vehicles stopped, and drivers questioned as to their origin, destination, trip purpose and so on. Trucks and other commercial vehicles are also stopped and their drivers questioned. The home interview survey measures the largest form of movement in an urban area, internal residential-based travel, which generally is about 85 per cent of all trips. People from a sample of one to 25 per cent of the households in the area are interviewed and data is collected to include both characteristics of the household and information about trips made by household members. Household characteristics that are determined include such things as the number and ages of people, occupation, car ownership and income. Travel data includes origin and destination of trips, trip purpose, mode of travel, time of day, car loading, and land use at origin and destination. Using this information, trip making can be related to land use and then forecast as a function of land use type and intensity.

In 1966 the MDSH&T conducted an origin destination study in Genesee County from which much information was developed to use in the planning process. A more detailed discussion will be presented in Section III, Street Systems.

The Traffic Engineering Division of the Department of Public Works, City of Flint, produce data for their operations which are useful for the modeling and planning process.

From early spring until late fall the division conducts its traffic counts on the major streets and roadways throughout the City. Traffic counting devices are set up generally for one-week periods to record the volumes of traffic passing a particular point. Volumes can range from 2000 vehicles per day on a collector street to over 30,000 on a major arterial such as Dort Highway. Safety considerations are included Intersection accident rates are compiled from Police Department records as well as train volumes across roadway-railroad intersections for example.

The Department of Public Works maintains files on the surface condition of all city streets and uses these to establish priorities for street resurfacing projects and for capacity analysis.

Other data sources such as Genesee County's ECHO (Evidence for Community Health Organization) Program and the U.S. Bureau of the Census supply important demographic and socio-economic information. ECHO provides information on characteristics of the resident population and land use and housing quality for all census tracts in the city. The 1970 Census of Population and ECHO data are used in the computer modeling process to establish a base for population and travel demand projections.

Funding Sources

Funding for transportation systems and projects can come from many diverse and varied sources. The funds can cover roadway construction; acquisition of needed right-of-way; modifications and installations of traffic signs and signals; curb, gutter and storm drain maintenance and repair; street resurfacing and roadway-railroad crossing improvements. The following list of some of the funding sources available for transportation system projects.

Federal Highway Safety Acts:

- 203, 209 & 230 - Railroad Crossing Improvements
- Federal Aid to Urban Systems (FAUS)
- Federal Revenue Sharing
- Federal Aid to Secondary Roadways
- Urban Mass Transportation Administration
- State of Michigan Act 51 (Gas and Weight)
- State of Michigan, High Hazard Intersection Safety
- City of Flint Bond Funds
- City of Flint General Funds

The City of Flint receives the major portion of street maintenance funds through the State of Michigan Act 51, known as the Gas and Weight Tax. The State receives revenue from the nine cent per gallon gasoline tax and receipts from the sale of license plates and driving licenses and allocates these to the cities and towns of Michigan based on population and number of miles of major and local streets.

Flint receives about \$2.6 million a year from this source. The amount varies from quarter to quarter because the factors are constantly being revised. The Gas and Weight Tax funds are used by the city for street-connected activities such as street resurfacing, curb and gutter repair, storm drain and catch basin maintenance, signs and signals, snow plowing. In addition, the administrative, operations and engineering costs for the Department of Public Works and Traffic Engineering Division are financed by money from Act 51. These funds can be used only for maintenance and repair of existing streets and administration and must be allocated both to major and local streets.

For each mile of major street the city receives \$3,000 and for each mile of local, \$800. The City also receives \$7.50 per resident for the major street fund and \$2.50 per resident for the local street fund.

Major street funds must be used on major streets and with local street funds on local streets - one reason why the major streets are resurfaced more often and are plowed sooner after a snowfall. Although local streets account for almost 70 per cent of the street-miles within the City, they get less than 30 per cent of the money. Due to this funding structure the city is generally hard-pressed to meet the needs of repair and maintenance for local streets. This is not altogether unfair since the major streets carry the majority of the city's auto and truck traffic and are corridors for cross-town movements.

Capital improvement projects such as railroad grade separations, roadway widenings, bridge construction and new street construction are paid for from sources other than Act 51 funds. These sources come under the general heading of public improvement funds and are not limited to transportation projects. The Public Improvement Funds are derived from a 2.5 mil assessment as part of the general 8.15 mil property tax assessment for the City of Flint. Most of the funds from this source are used for retirement and debt service on the city's general obligation bonds issued for other capital projects. About \$800,000 annually is retained for use on various transportation capital improvement projects.

Federal revenue sharing funds are also widely used for transportation improvements and related projects. It has been the policy of city administrators to use a large part of the \$4 million annually allocated for capital projects rather than as operating funds. The allocation process is complex but is based generally on population, per capita income and the city's adjusted tax effort from sources such as property and personal income tax.

Various federal and state agencies provide funds to municipalities for transportation system projects. A major source is Federal Aid to Urban Systems (FAUS) provided by the Federal Highway Administration and administered by the Michigan Department of State Highways and Transportation (MDSH&T). These funds are supplied on a local match basis (70 per cent federal - 30 per cent local) and can be used for major roadway construction projects, and various projects designed to increase traffic flow and mass transit options. Both the proposed Center Road and Lapeer Road widening projects will use the funding source. FAUS funds are allocated on a county wide basis through the 3C Transportation Planning Process and require that project applications be subjected to a rigorous evaluation process to determine their priority rating in the Flint-Genesee County area.

The Federal Highway Safety Act, through articles 203, 209 and 230, provide more money to modify high accident intersections and substandard railroad crossings. Crossing improvements on Averill Avenue, Longway Boulevard and Davison Road are being evaluated and specifications set to provide construction funding under the Highway Safety Act.

A potentially larger source of funds for roadway improvements are the Federal Economic Development Administration grants. The City recently received almost \$3 million for major and local resurfacing projects - funds which will be spent in 1978 throughout Flint.

As can be seen from the previous narrative, funds are available from many sources for transportation systems and related projects. Each source has its own set of guidelines and spending constraints which are too numerous to detail here. Suffice to say that each source can be tailored to meet the needs of a particular project and that each project has to be analyzed individually when seeking funds.

II. GOALS AND OBJECTIVES

The starting point of all planning and programming is to define where you are going. "Goals" are desired ends expressed in the broadest sense, derived from a consideration of "values" and conducive to objectives, alternative approaches, and definitive plans and schedules of action. "Objectives" are specific statements denoting a measureable end to be reached or achieved for a particular group of people for a particular time period.

Transportation programs have generally been characterized by a lack of clear statements of broad overall goals, probably because of the complexity of transportation problems and because programs generally have been designed to meet a specific problem, such as congestion, alignment, etc. Transportation is such an important element of the urban structure and so pervasive in its influence that it must be considered a big decision-making area in the shaping of urban form and environment.

The following goal-objective statements reflect a distillation of ideas and concepts generated over the last two years through the 701 Master Planning Citizen Workshops and recommendations from planners and various administrators throughout the city and county. This is by no means an exhaustive or final listing, it is amenable to change or modification as future events dictate. The vagaries of funding sources and uncertainties of energy availability dictate a flexible approach to goal-objective planning.

General Goal

Develop a multi-modal transportation system that compliments land use and affords mobility for the community; balance the need for accessibility with the need for a habitable urban environment.

1. GOAL: Provide a safe transportation system.

OBJECTIVES: (To be quantified and evaluated on an annual basis through Transportation System Management (TSM) Program.

- A. Reduce accident rate.
- B. Reduce fatalities.
- C. Reduce conflicts between different modes of transportation.

2. GOAL: Provide an efficient, and economical transportation system.

OBJECTIVES: (To be quantified and evaluated on an annual basis through the TSM)

- A. Reduce congestion.
 - B. Minimize energy costs.
 - C. Minimize travel time.
 - D. Improve coordination of traffic signalization system citywide.
 - E. Reduce travel distances.
 - F. Distribute peak period assignments of work trips.
 - G. Minimize costs for transportation improvements by implementing low cost TSM options.
 - H. Minimize operating costs.
3. GOAL: Assure environmental, ecological, and aesthetic values in the design, routing, landscaping, and buffering of transportation improvements.

OBJECTIVES:

- A. Minimize air pollutions (emissions).
 - B. Minimize noise levels.
 - C. Reduce visual intrusions to existing land uses, such as residential.
 - D. Minimize loss of street trees.
 - E. Incorporate sufficient landscaping into street project budgets to include appropriate trees, shrubs, grass.
 - F. Preserve visual vistas.
 - G. Minimize disruption of recreational lands.
 - H. Improve buffering of parking lots. Adopt stronger buffering ordinance (see appendix).
4. GOAL: Preserve and stabilize neighborhoods.

OBJECTIVES:

- A. Avoid disruption of housing.
- B. Minimize disruption of businesses, hospitals, and schools.

- C. Avoid displacement of people leading to loss of population and tax base.
- D. Reduce physical barriers within elementary school boundaries.
- E. Maintain effective citizen input.
- F. Restrict through traffic on local streets by design and routing.
- G. Avoid one-way streets which limit local circulation while increasing through traffic in residential areas.
- H. Avoid disruption of historic sites (See historical chapter).

5. GOAL: Coordinate transportation with land use development

OBJECTIVE:

- A. Provide accessibility between major traffic generators.
- B. Maintain effective communications with agencies and individuals affecting or affected by transportation improvements.
- C. Avoid adverse impacts of street improvements which tend to promote land use changes, i.e. conversion of residential to commercial uses.

6. GOAL: Improve maintenance of street system

OBJECTIVES:

- A. Continue annual citywide identification system to set priorities. Develop a cyclic program that will schedule street resurfacing by greatest need on a periodic basis.
- B. Identify more funding sources for street resurfacing, curb and gutter replacement.
- C. Increase amount of street resurfacing to bring all streets below a deficiency rating of _____
- D. Revise FAUS project evaluation system to place more weight on street maintenance projects to compete with street improvements countywide.

7. GOAL: Encourage the use of mass transit (i.e. bus services, carpooling and vanpooling).

OBJECTIVES:

- A. Increase ridership.
- B. Improve Mass Transit Authority (M.T.A.) bus services.
- C. Conserve energy.
- D. Reduce congestion.
- E. Afford opportunities for movement to economically and physically disadvantaged.

8. GOAL: Integrate transportation improvement planning with planning for other capital improvements through a capital budgeting and programming process.

OBJECTIVES:

- A. Eliminate duplication or repetition of effort, minimize overall capital investment and replacement costs by adopting a single, six-year capital improvement program for all improvements.
- B. Coordinate street improvements in neighborhoods with scheduled work in housing rehabilitation, sewer and water, parks.
- C. Coordinate routine street maintenance and other scheduled work with major physical development projects (Urban Renewal, et al).
- D. Coordinate improvements necessary for the promotion of non-motorized transportation with other proposed capital projects.

9. GOAL: Assist in the improvement of railroad facilities to maintain a competitive position for rail services and reduce conflicts with other modes of travel.

OBJECTIVES:

- A. Reduce number of railroad crossings at grade with major traffic arteries. Program construction of separations based on the Hazard Index Formula.
- B. Improve surfaces and signals at railroad crossings. Rubberized surfaces providing an average ten-year life should be used and constructed to time this replacement with grade separation projects.

- C. Maintain communication with C&O, GTW, AMTRAC to identify problems and opportunities on a continuing basis.

10. GOAL: Upgrade air transportation facilities to meet forecasts for increased demands in passenger and cargo movement.

OBJECTIVES:

- A. Meet objectives of the Bishop Airport Master Plan.
- B. Reduce effects of noise on suburban communities created by expanding facility.

11. GOAL: Encourage non-motorized movement between high-use areas and in neighborhoods.

OBJECTIVES:

- A. Increase bicycle facilities (such as sidewalk ramps, exclusive lanes, designated routes and storage areas).
- B. Increase barrier-free design for pedestrians
- C. Minimize conflicts between motorized vehicles, pedestrians, and bicycles.

III. RECOMMENDATIONS

The preceding section of this element, Section II. Goals and Objectives, presented a distillation of various group and individual concerns in the transportation area.

Recommendations based on the goals and objectives present a paradoxical situation, inasmuch as the measures to be addressed are often mutually exclusive. That is, a recommendation or measure formulated to meet one problem may increase the severity of another problem in an area of general concern. For example, widening a roadway to reduce congestion may create excessive noise and air pollution levels on the abutting land uses. In another case, expansion of mass transit activities may reduce direct user costs but also may increase roadway congestion and retard efficient traffic flow.

The complexity and interrelation of transportation systems with the social, economic and environmental fabric of our community precludes simple, clear-cut solutions or recommendations to transportation problems and concerns. Consequently, transportation system improvements and policy must be based on a clear understanding of the various effects and trade-offs involved.

The following list of recommendations represents consideration of the implicit and explicit effects generated by transportation system modifications on both the user and nonuser and attempts to offer solutions that deal with both the positive and negative issues.

The recommendations are grouped under various subcategories to cover the general goal and objective statements previously listed.

RECOMMENDATIONS

A. Safety

1. Preference should be given to improvements at major roadway intersections in the form of turn-lanes and a modification of signals to reduce intersection accidents.
2. Study various vehicle preemptive techniques at intersections to reduce emergency and fire vehicle response times and reduce accidents between emergency vehicles and other traffic.
3. All posted speed limit restrictions should be studied to determine appropriate vehicle speed levels.
4. Analyze all major railroad crossings and appropriate measures taken to modify unsafe crossings through signal or roadbed projects.
5. Analyze horizontal and vertical alignments of major roadways to determine deficiencies and steps taken to alleviate them.

B. Efficiency and Economy

1. Begin analysis of collector and arterial roadway capacity to determine improvements needed such as parking prohibitions and/or pavement widenings.
2. Promote mass transit option in high-density areas to reduce traffic congestion and pollution. Investigate such options as vanpools, jitneys and MTA bus service.
3. Investigate feasibility of staggering manufacturing plant hours to relieve congestion on major roadway corridors serving these facilities during morning and afternoon peaks.
4. Investigate feasibility of reversing lanes to increase capacity of roadway during "rush-hours".
5. Implement computer-controlled signal network to increase traffic carrying ability and improve flow characteristics of major arterial roadways for both 24-hour and peak periods.

C. Environmental Concerns

1. Evaluate projected air and noise levels of major transportation system improvements to determine potential adverse impacts upon surrounding land uses prior to planned construction.
2. Include Environmental assessment in preliminary planning for major transportation systems improvements in project area(s).
3. Include appropriate, tasteful, organic or inorganic buffering techniques along major transportation system improvements such as the form of landscaping, terracing, berming, etc.
4. Avoid unnecessary removal of street trees in system improvements and replace with appropriate types and sizes if necessary.
5. Avoid unnecessary removal of ground cover and turf patches.
6. Provide for aesthetic buffering of all off-street parking areas to minimize visual intrusion on surrounding land uses.

D. Neighborhood Stability

1. Avoid acquisition and relocation of individuals, families and commercial establishments for major transportation system improvements or modifications.
2. Avoid impartion and/or physical segregation of viable neighborhood units, public and institutional functions.

3. Avoid establishment of one-way pair systems through residential neighborhoods.
4. Implement a program of citizen input and participation in the planning and conceptualization stages of transportation system improvements.

E. Street Maintenance

1. Actively seek alternate funding for major and local street maintenance to include federal Economic Development Administration and Public Works sources.
2. Engage private firms under contractual agreements for street maintenance projects when Department of Public Works manpower is insufficient.
3. Coordinate street maintenance efforts with Department of Community Development in Rehabilitation Target Areas.
4. Continue to set priorities for street resurfacing to provide maintenance in areas of greatest need.

F. Planning and Programming Functions

1. Establish modeling and alternative testing processes to evaluate impact of all proposed transportation system improvements on transportation and land use systems citywide.
2. Continue coordination with Genesee County Metropolitan Planning Commission and Flint-Genesee County 3c planning process to formulate short and long-range transportation goals and improvements.
3. Continue participation in the development of the Unified Work Program (UWP) for intermodal transportation planning.
4. Develop short, medium and long-range proposals for achieving improved circulation and land-use patterns in the Central Business District consistent with current downtown project proposals.
5. Encourage coordination and data proliferation among all the legislative and governmental agencies involved in transportation planning, i.e. federal, state, regional, county and municipal.
6. Adopt a single six-year capital improvements budgeting process through the office of the city administrator.

9

TRANSPORTATION

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

G. Non-Motorized Activities

1. Investigate potential of using FAUS and other federal sources for building "people mover" types of transit systems, especially near Riverfront Center and Central City Plaza development projects.
2. Promote implementation of bike-paths and other non-motorized projects through FAUS funding sources.

IV. THE STREET SYSTEM

A. INTRODUCTION

Streets are the framework in which the city develops. They determine the flow of people, goods and services essential to the city's functioning. The streets also heavily influence how land is developed. Any change in street patterns or dimensions creates a ripple effect through the city which will benefit some people and adversely affect others. The critical questions raised by each proposed change is "who will benefit and what is the social and economic cost?"

Traditionally, street improvement programs have placed the major emphasis on ease of mobility and maximum holding space for automobiles. Although these remain important priorities, considerations of environmental quality and neighborhood integrity must be given more stress if the city is to remain a viable place to live.

A successful street system maximizes service to the user while minimizing the impact of the system on the surrounding areas. For example, widening a particular street may reduce congestion and delay but it may increase use with the accompanying increase in noise and pollution, thus eroding the adjoining neighborhoods.

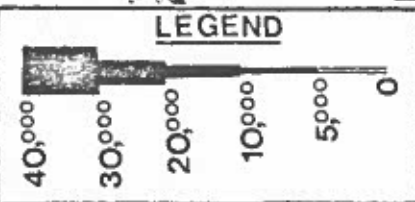
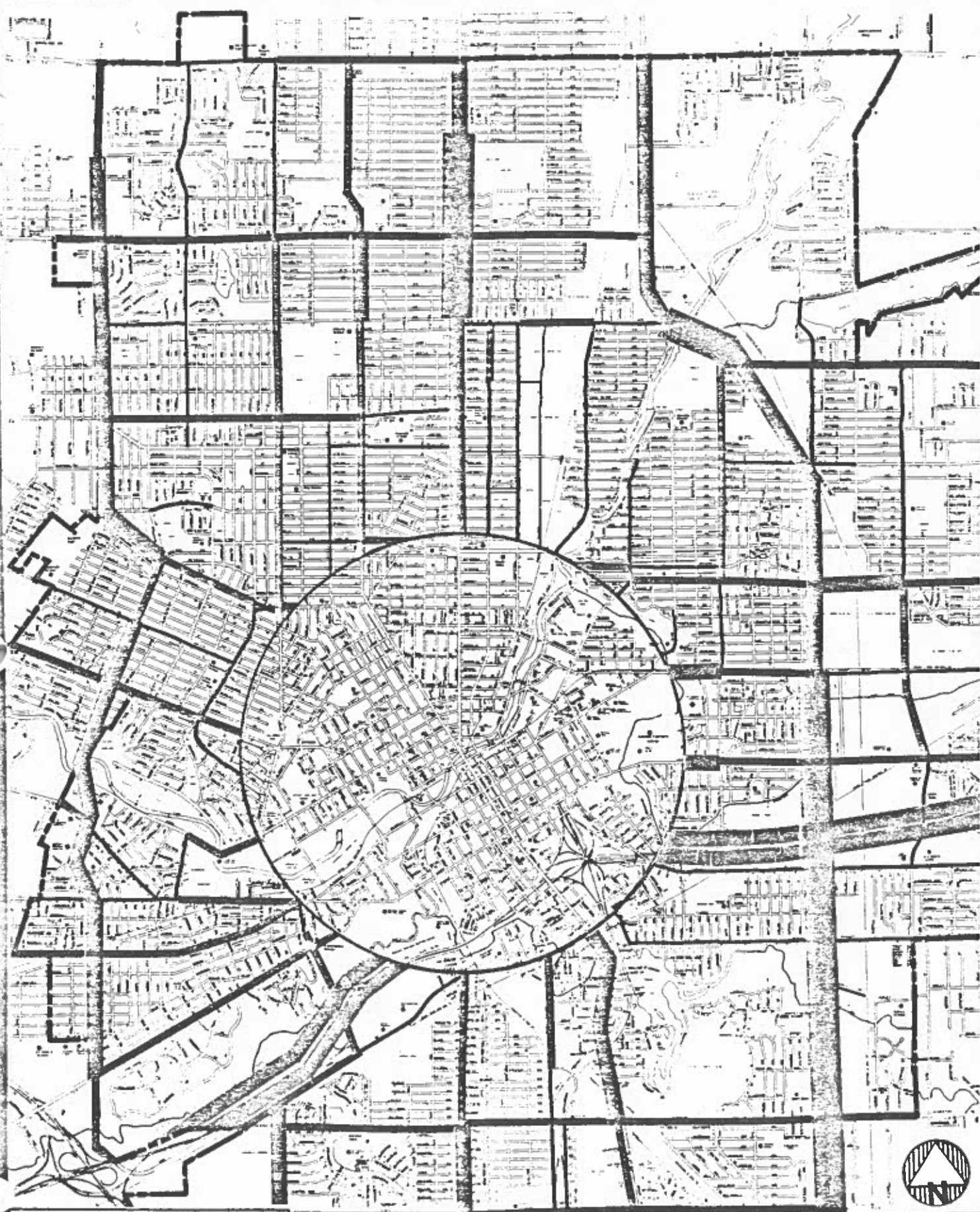
Factors that directly increase the value of streets to the user include: Increasing the capacity where needed; improving the safety; reducing congestion and delays, increasing flexibility; anticipating and designing methods of expediting the flow during these periods; and, anticipating population shifts.

Factors which minimize the impact of streets on surrounding areas include: Reducing pollution; improving safety of pedestrians; preserving the neighborhoods; preserving the natural amenities; preserving historic sites; improving the physical appearance; and, improving land use.

Current and Projected Conditions

The Flint street network is principally a grid system; one-way traffic patterns predominate in the downtown area while two-way flows are the rule elsewhere.

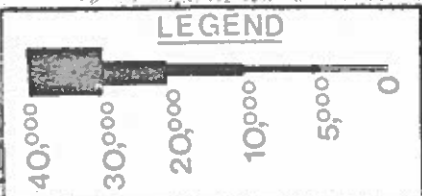
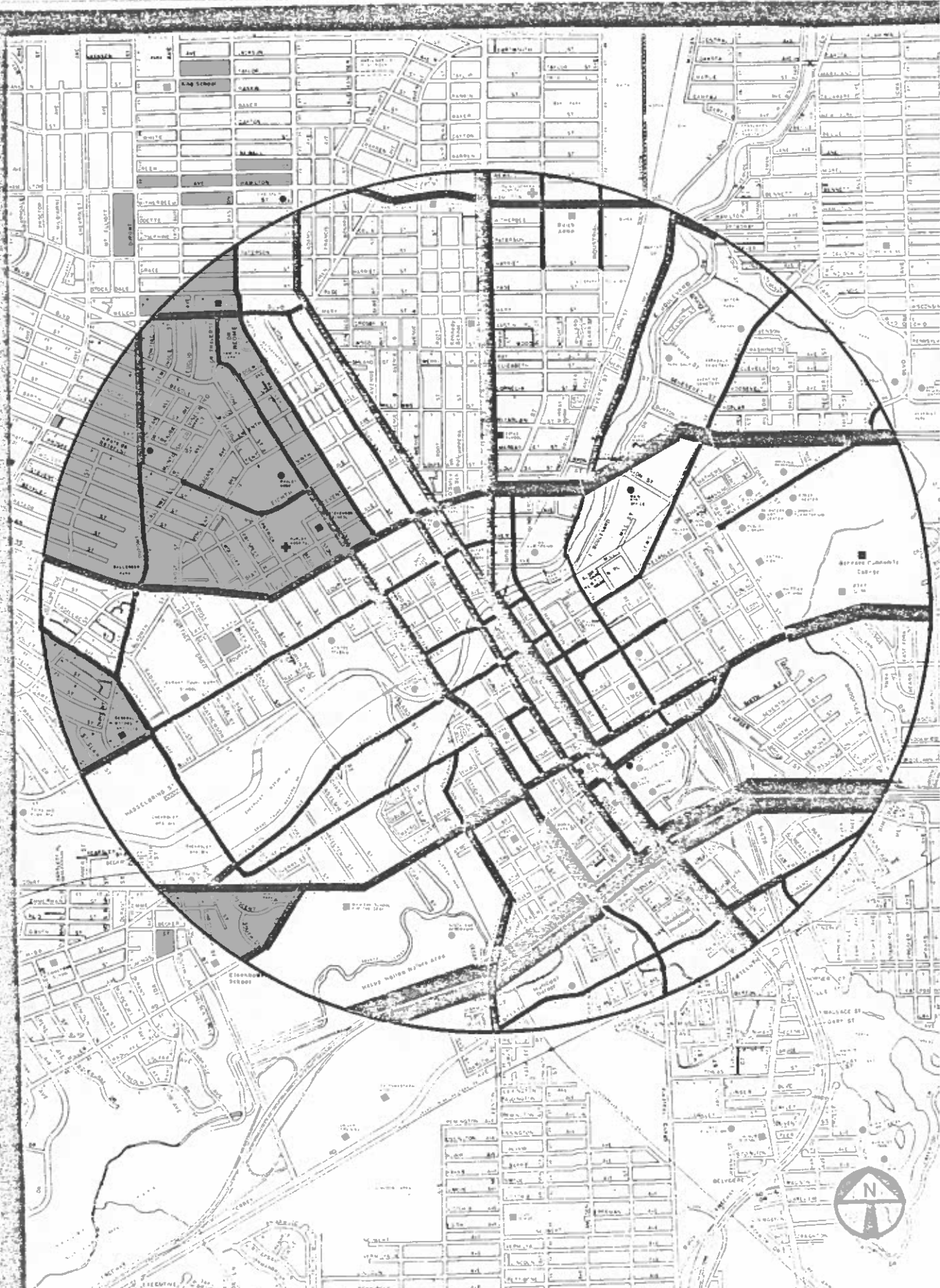
A major interstate freeway, I-75, carries north-south through traffic immediately west of Flint. The Chevrolet expressway, I-69, facilitates east-west movements through Flint south of the Central Business District. A north-south freeway loop, I-475 penetrates the central city and, after completion, should perform a function similar to I-69. North-south streets such as Saginaw, Beach, Harrison and Dort, carry large volume of local as well as through traffic not destined for the downtown area. After completion, I-475 should siphon off some through trips and provide direct access to city areas.



**Average Daily Traffic
(1975)**



CITY OF FLINT



**Average Daily Traffic
(1975)**

CITY OF FLINT

- MAJOR BUILDINGS
- SCHOOLS
- ⊕ HOSPITALS
- ▲ PRIMARY UNITS

SCALE IN FEET
 TRAFFIC ENGINEERING DIV. DEPT. OF PUBLIC
 WORKS
 DRAWN MARCH 1982 BY C. HANSEN
 REV. BY E. M. [unreadable] 1975

Pierson Road-Richfield Road, Pasadena-Leith, Hamilton-Davison, Flushing-5th Avenue-Robert T. Longway, and Corunna-Miller-Court all function as high volume east-west corridor through the city. These, in concert with the major north-south corridor such as, Ballenger-Clio, Dupont, Fenton, Grand Traverse, Detroit-Saginaw, Dort-Western and Center form a high capacity grid network traversing the city and largely determining primary travel patterns. Generally, all are four-lane thoroughfares with on-street parking prohibitions serving a wide variety of land uses from residential to industrial. With few exceptions, all also experience moderate to severe capacity problems (see section on Problems, Current and Projected).

Two major factors have or will affect the present roadway system; (a) the increasing amount of suburban-based traffic generation and, (b) the imminent completion of I-475.

A regeneration of the 1966 Origin-Destination (O-D) Study from MDSH&T's computer model calibrated for 1976, indicates that the city is experiencing increased amounts of suburban-based travel into and through the corporate area. All are aware, at least subjectively, of the growth of the out-county areas adjacent to Flint, but for the first time the impact has been measured on the existing transportation system. Using a variety of contemporary socio-economic and demographic population factors, the model has generated data that indicates an increase in both average trip length (TLD) and average trip times since 1966.

The average trip length (TLD) is a critical component of any analysis of travel patterns in an area. The TLD is derived from the models by accumulating all trips in an area by the actual travel time in minutes and then displaying them in a frequency distribution. This has been done for all trips in the area by travel purpose and at specific locations in Flint.

From an efficiency standpoint, fewer and shorter trips are better for a community for time and energy concerns. Also, different trip purposes as well as different types of modes have different distributions.

Because of their economic necessity, work trips are the most accurately reported and least elastic in any O-D study. A significant growth of the average work trip length since the 1966 O-D from 15.3 minutes to 16.08 minutes reflects the population shifts discussed in preceding sections. Obviously, people are traveling further to get to work because of the outward migration from the central city. Work trips in Flint account for fully one-sixth of the total trips, contributing greatly to the congestion problems on many corridors.

The long distance necessary to get to work is further accentuated by the fact that of the total work trips, only 50 per cent are less than 15 minutes, while 10 per cent are 26 minutes.

Analysis of other trips purposes (social-recreational, shipping, etc.), show only minute increases (less than 1 per cent) in travel times from 1966 to 1976 indicating that work trips to the city still predominate above all other trips.

Another method for observing changes in travel through an area, cut-line analysis, again points out the increased suburban orientation to travel patterns. Cut-line analysis is a technique where travel is monitored at various locations with a count program. These locations cut the major travel corridors in the city, thus cut-line. The analysis shows that travel has increased at the city limits 64 per cent since 1966. This is further confirmation of travel pattern changes caused by the spread of population and the relative centralization of the major employment centers.

The cut-line around the Central Business District indicates a 53 per cent increase over 1966, reflecting largely through movements along I-69, east to west, and I-475 to the south.

A final source of travel change information for Flint is a comparison of vehicle miles traveled (VMT) and vehicle hours traveled (VHT). These figures show a 46 per cent increase in total VMT for Genesee County to 8,130,310 miles of travel. A 30 per cent increase in VHT is also recorded for 1966 to 1976. Comparisons between VMT and VHT indicate that although the trips are longer in distance the time spent for each trip is less. The decrease in minutes per mile of travel is a result of the growth of expressway travel, up 430 per cent since 1966, and a decrease in arterial travel, down 22 per cent in 1966 to 1976. Flint has also experienced growth in VMT, 23 per cent over 1966, but this is considerably less than the average for the whole county - again reflecting population shifts to the out-county or suburban areas.

Continued projected growth of the out-county areas will further strain the capacity of the city's roadway network, provided the major employment centers remain in the city. A shift of large-scale employment to areas outside Flint, would reverse the trends.

The other significant influence on Flint's travel patterns is tied to the completion of the northern section of I-475 from Court Street to Saginaw Street near Coldwater Road. Full operation, scheduled for 1979-80, will allow unrestricted, high-speed vehicular movement through the city in a north-south direction. While this will facilitate access and egress to the city from the out-county areas, the direct impact will be felt more strongly on some of the major non-expressway, north-south corridors.

The Saginaw Street and Dort Highway corridors should experience a marked reduction in vehicular volumes. The MDSH&T computer network model indicates that volumes on both Saginaw and Dort should fall appreciably, to as much as 30 to 60 per cent of present

levels. The effect will be most strongly felt on North Saginaw from Coldwater Road to the Flint River. Interchanges at Coldwater, Carpenter, Pierson, Stewart, Broadway and Fifth Avenue-Robert T. Longway will provide ready access to the expressway for north-south movements and pull much of the existing traffic off Saginaw Street. South Saginaw will be similarly affected as much of the traffic south of the I-69 Interchange moves to I-475. The Central Business District area along Saginaw from the river to the I-69 underpass is relatively unchanged on the model. The trip destinations in this area are related primarily to local shopping and socio-recreation uses so I-475 should have little impact. This part of the model will be reviewed periodically as developments such as the River-front Center Hotel-Convention and Doyle Residential Redevelopment projects become closer to reality. The movement of traffic downtown also has implications for the proposed Center City Plaza which would either close-off a portion of Saginaw Street downtown or restrict through movements to two lanes. A proposed Autoworld Center located near the river would create additional demands on the system and force new travel patterns in and around the Central Business District.

The I-475 influence on traffic and flow patterns would seem to have a lesser effect on Dort Highway than on Saginaw Street. The simulation model indicates that traffic volumes on Dort could drop by as much as 30 to 40 per cent. The traffic shunted to the expressway would be non-local in character, that is, those 30 to 40 per cent would be primarily motorists using the corridor for through travel rather than for an immediate local need.

East-west travelers through the city will find little solace in the completion of I-475. Traffic effect on these corridors will be minimal except at the interchanges where heavy, concentrated volumes can be projected. With the exception of the A.C. electronics complex along Dort Highway, the major employment centers generally are contiguous to the new I-475 expressway route. Travel demand will be heaviest at those interchanges serving the major manufacturing complexes - Chevrolet, Buick and Fisher Body.

Taken together, the completion of I-475 should result in a decrease of through-trip volumes on some of the city's major north-south arterials. East-west movements will not be enhanced to the degree seen on the other corridors.

Movement of vehicles from low-density suburban areas to high-density urban areas and the resultant concentration of traffic must be addressed for future planning in the city.

Functional Classification

1. Federal Highway Functional Classification System

One tool for planning the use of the street system is the classification of streets by primary service function. Under Federal guidelines (1) streets must be identified as "major arterials", "minor arterials", "collectors" or "locals." This classification of streets is primarily used for federal funding and regulation purposes but also can serve to identify where major street improvements will affect land uses within the city. The system identifies progressive levels of traffic accessibility and volume in land bays when properly applied.

For example, an identified land use such as residential, would be considered a land bay. In that land bay, a great number of two-lane streets for local use would be planned. A few wider streets lying outside the residential area land bay would support these local streets. These peripheral streets would connect land bays and provide passage for through traffic around the land bay.

The map above represents a typically well-planned land use bay street system.

Street classifications and their functions are detailed in Appendix A while Maps 3 and 4 show current designations for the city's streets. Information for these classifications of Flint streets was obtained from the Genesee County Metropolitan Planning Commission and the Flint Department of Public Works in 1976.

2. Major and Local Street Criteria

A second street classification system used by the city is authorized by State Act 51, P.A. 1951 (Gas and Weight Tax Allocations). It categorizes streets as "major" or "local". Major streets are defined as "city and village streets of greatest general importance to the municipality." All other streets except expressways and state trunk lines (which are excluded from the system) are local streets.

To be classified as a major street, it must be one of the following: (1) A street that provides extensions to state trunk lines or county primary roads and facilitates through traffic; (2) A street that is an integral part of a network that services the traffic demands created by industrial, commercial, educational or other traffic-generating centers; (3) A street that provides for the circulation of traffic in and around the central business district; (4) A street that is designated as part of a truck route; Or (5) A street that collects traffic from an area served by an extensive network of local streets.

Under this system, local governments may use state funds to build streets classified as major streets. Those classified as local streets can be built with the cost split evenly between local and state funds. State routes are built and maintained entirely by the state.




Flint generally uses funds supplied by the state under Act 51 for street resurfacing projects rather than new construction because of the small amount of money available. Streets are field-inspected periodically by the Department of Public Works which uses three criteria to determine when each type of street will be resurfaced. For major streets the criterion is: (1) Surface deterioration; (2) Use as determined by a daily traffic count; And (3) The length of time the street has been deficient.

(Resurfacing factors are detailed in Appendix B. Streets designated for resurfacing are listed in Appendix C).

After the factors are evaluated and the streets are selected for resurfacing, the Department of Public Works schedules the projects according to areas of need throughout the city.



LEGEND

-  Minor Arterial
-  Major Arterial
-  Collector




The Street System



CITY OF FLINT








LEGEND

-  Minor Arterial
-  Major Arterial
-  Collector

The Street System

CITY OF FLINT

-  PRIVATE STREETS
-  MAJOR BUILDINGS
-  HOSPITALS
-  SCHOOLS
-  PRIMARY UNITS

SCALE IN FEET
 TRAFFIC ENGINEERING DIV. DEPT. OF PUBLIC WORKS
 DRAWN MARCH 1922 BY E. BRADDER
 REV. BY E. W. 10-15-25
 PLAN 710

3. State Trunklines Classification System

Designation as a state trunkline is an administrative rather than a functional classification. It indicates that the street is under sole jurisdiction of the Michigan State Highway Department. Functionally, "state trunklines" are roads which have an interregional or state-wide significance.

Included in this classification are Saginaw Street, Dort Highway, Corunna Road and parts of Court, Fifth and Beach Streets. Freeways (I-69 and I-475) are also included in this classification. They are almost entirely constructed and maintained with state funds, including snow removal, salting, installation and maintenance of traffic signals.

The state may declassify a state trunkline on its own initiative or on a request from the city after an interagency study. After the freeway system is completed, all other state trunklines in the city may be declassified.

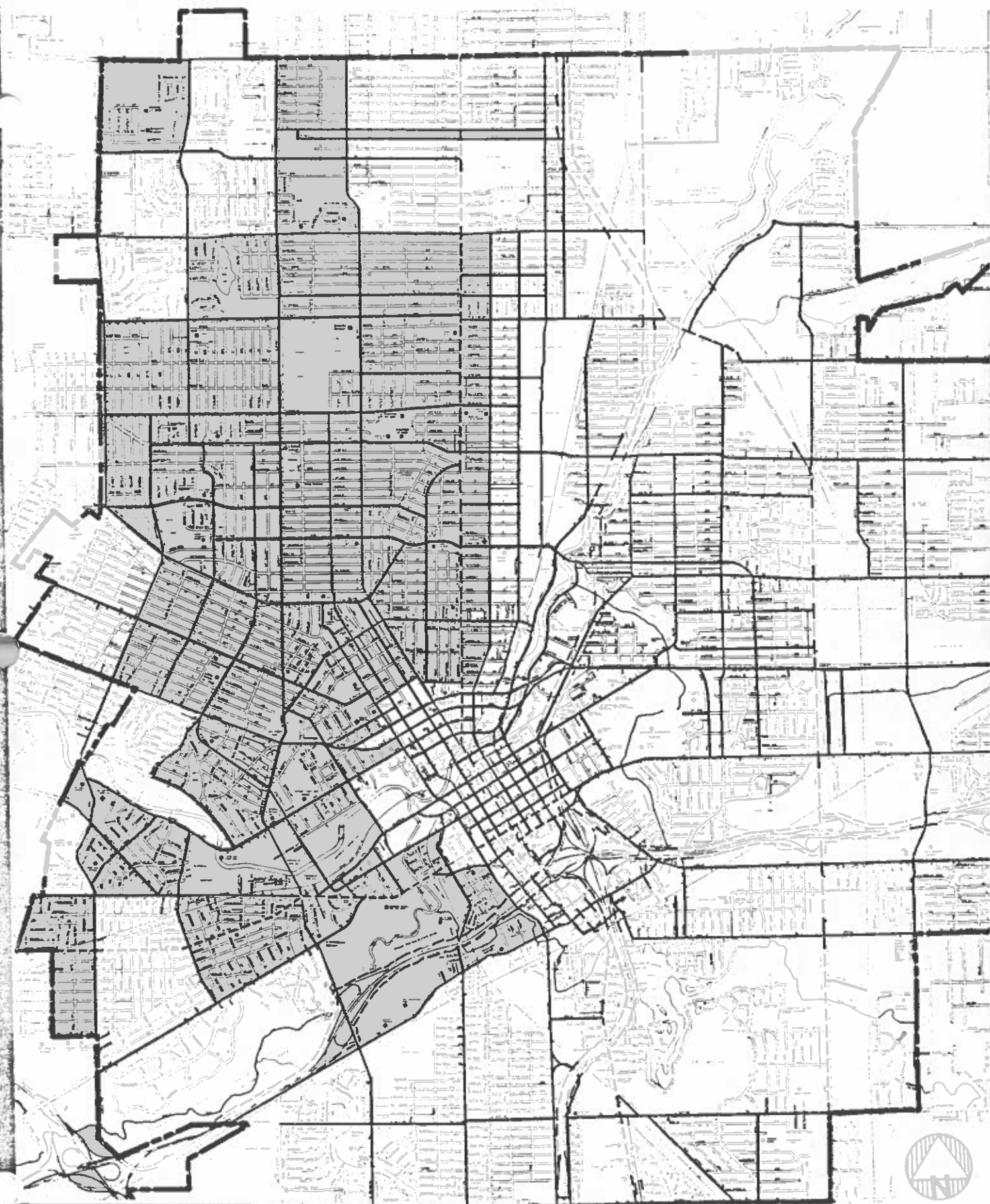
About 67 per cent of the miles of streets and roads in the city are classified as local streets while 27 per cent are major streets, and 6 per cent are state trunklines (including expressways). Map 5 shows the classification of each street.

Analysis and Problem Identification

General Considerations

In line with management of finite resources, planners are giving added weight to environmental and energy conservation factors. This shifting of orientation is in large part due to increasing public interest in the "quality of life". Transportation system modifications are no longer governed solely by the wishes of the traffic engineer, as witnessed by the success of various neighborhood and citizen groups who have been able to influence traffic decisions. The City has a responsibility not only to anticipate traffic demand but to coordinate system improvements with comprehensive land-use planning.

Almost all attempts to improve a situation start with the recognition and statement of a problem. Where and when the problem first emerges is difficult to tell; many are uncovered through the mass media; others are verbalized by citizen groups reporting to local officials; still others surface in discussions between local officials or administrators. It is clear that certain ones come to be held as more important or of broader scope than others and thus are given consideration.



CITY OF FLINT

STATE TRUNKLINE - - - -
 MAJOR STREET ————
 LOCAL STREET ————

The Street System



CITY OF FLINT

Some transportation problems surfaced on a formal basis as an outgrowth of the 701 Master Plan process, initiated under federal grant, in the Spring of 1976. Extensive citizen input was elicited to determine problem areas as perceived by residents in the city's 12 planning districts. Significantly, when totalled, the problem of greatest concern to the participants centered around transportation issues and their relationship to land use. As a whole, circulation and congestion were singled out in the problem identification process as being of critical concern to the citizens. The negative impact of thru-traffic and commercially - oriented vehicular movements in residential neighborhoods was noted as a special land use related problem. Deficiencies in the capital improvements implementation process were also noted, especially as they applied to the maintenance and construction of city streets and sidewalks.

The identification of transportation problem areas by the 701 participants, reinforced knowledge that transportation planners and city administrators held for a long time. The 701 process firmly established the concerns as being of paramount importance to the residents and in the future would shape transportation decisions.

A listing of all transportation problems could fill an entire book and still not be assured of covering all individual cases. A general listing of transportation is presented under three broad categories. The approach here is to divide all related problems into the areas of: (1) those that affect mainly the transportation system user, (2) those that are affected by the transportation system and (3) those that affect the transportation system.

Transportation User Problems

1. Congestion and Capacity

Two major traffic considerations constantly plague the city. Flow, congestion problems and land use impacts are significant areas of concern and will continue to be so.

People actively dislike congestion, presumably because congestion represents two significant wastes - time and money. Waste of money and excessive operating costs can be objectively determined. A vehicle being driven at an average speed of five miles per hour in stop-and-go traffic costs about five cents per mile to operate; the same vehicle moving at an average speed of 30 miles per hour costs half as much to operate. Estimating the value of a person's time is much more difficult. There is clear evidence, that given a choice, people will pay for higher speed, and hence time.

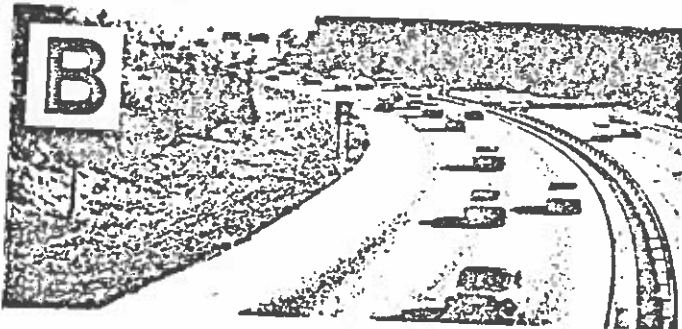
LEVEL OF SERVICE



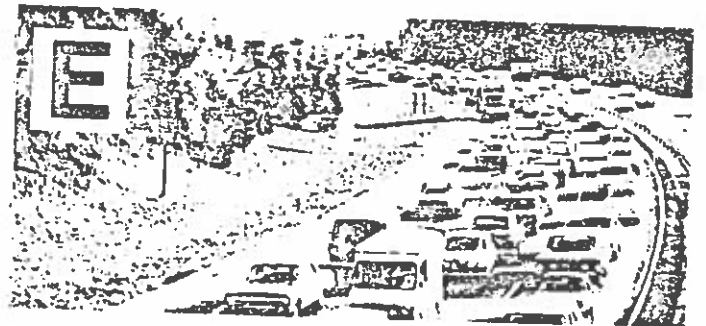
NO RESTRICTION ON OPERATING SPEED



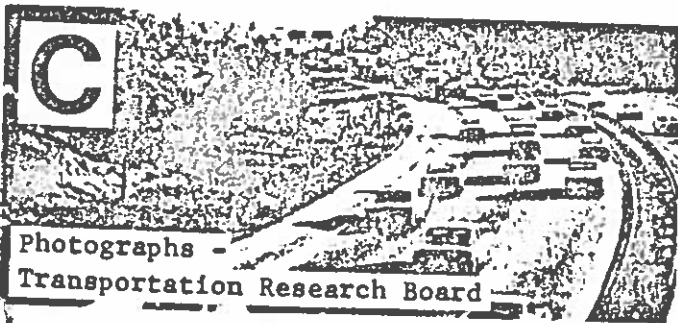
APPROACHING UNSTABLE FLOW -
LITTLE FREEDOM TO MANEUVER



STABLE FLOW - FEW SPEED
RESTRICTIONS



UNSTABLE FLOW - LOWER SPEED -
SOME STOPS



Photographs -
Transportation Research Board

STABLE FLOW - HIGHER VOLUMES -
RESTRICTED SPEED and LANE CHANGING



FORCED FLOW OPERATION AT LOW
SPEEDS - MANY STOPS

A glance at the map 5b. shows the problems of congestion in Flint. The capacity-level of service legend indicates the relative ability of a stretch of roadway to carry vehicles in an orderly, efficient manner, as discussed in Section I. For comparison, table 5a. indicates the level of service and the traffic flow characteristics associated with the level.

The Traffic Engineering Division of the City of Flint strives to design roadways to a level of service "C". A roadway operating at this service level could be said to be operating at design capacity. Operating levels above "C" ("D, E or F") would be over capacity and exhibiting congestion problems. Operation at levels of service "A" or "B" would exhibit little or no congestion.

The level of service ratings for the map were generated on a 24-hour basis, that is, traffic count volumes for a seven-day period were averaged over 24 hours, or one day. Other factors such as, truck and bus volumes, number of intersecting streets, left-turn movements, rail crossings, etc., all serve to decrease the carrying capacity of the roadways.

On-street parking and visual obstructions are also elements of a capacity analysis that have a direct effect on the flow of traffic. Vehicle parking along either or both sides of a street creates a psychological impediment to sustained, stable movement. The anxiety produced by the movement past parked vehicles causes drivers to reduce speed and avoid lane changes. A similar effect occurs when poles or buildings are close to the street. This forms a kind of tunnel effect which restricts vision to the sides and again reduces speed and lane changing.

The existence of transit vehicles and large trucks, especially on narrow streets, causes interruption in traffic flow due to the mass of those vehicles and their need for generous turning movements.

One of the most important elements in a capacity analysis is the total width of the roadway segment and the widths of the individual lanes. Two roadways, one having four, 12-foot lanes and the other having four, nine-foot lanes can have totally different traffic carrying abilities. Narrow lanes streets operate much like the visual obstructions discussed earlier, creating a psychological impediment to sustained speed and lane changing. East Court Street and portions of Flushing Road carry high traffic volumes on narrow four-lane pavement.

Obvious solutions to a capacity problem would be to simply eliminate parking and widen the roadway. The former definitely can have an effect: elimination of parking on one

side of the street alone can increase flow by 20 per cent; a 50 per cent increase in capacity can be realized by eliminating on-street parking from both sides! The second solution presents some problems in execution. On most of the major north-south and east-west street networks little or no right-of-way is available for widening. In many cases where it is, present residential or commercial uses are located so close to the right-of-way-property lines that widening would jeopardize the usability of the structures and impair the integrity of the land uses.

2. Safety

One problem which often has a great deal of personal agony involved is that of safety. It is unfortunate that few of us become concerned about safety until a situation strikes close to home. Although safety begins with an individual's own personally responsible action, the city of Flint is actively engaged in insuring safety for the area's transportation users.

The Traffic Engineering Division uses data compiled by the Flint Police Department to pinpoint problem areas requiring redesign, signal installation or other physical solution.

The data includes information on accidents by month, eight-hour periods and time of day statistics. The greatest number of accidents in the city are at intersections. The 20 worst intersections for 1976-1978 have been analyzed to identify their specific problems (capacity, flow, physical design, signalization, etc.) and design alternatives proposed in the 1976 Transportation Systems Management (T.S.M.) Report available through the Genesee County Metropolitan Planning Commission. Appendix D lists these intersections.

3. User Operation

The problems of congestion, cost and safety confront us every time we travel. Many others are not as obvious but still are important to various individuals or sub-groups.

The auto-highway dominant form of transportation places certain operational requirements on the user. If a transportation system is created which necessitates an active, physical role from the user, then many physically or economically disabled people will not be able to participate in the system. The unfortunate ones are already disadvantaged in some way - the poor, young, elderly, handicapped, and so on.

The increasing attractiveness of suburban living will preclude certain parts of the population. Mass transit service is virtually non-existent in the outcounty areas

making the ownership or availability of a least one automobile a necessity for shopping and recreational trips. The inability to own and maintain a car is a problem faced by the young, handicapped and elderly. As the proportion of elderly population rises in the succeeding decades more attention will have to be directed to less user-participatory types of transportation systems.

Problems Affected By Transportation

1. Air Pollution

The problem of air pollution is one that affects all of us. It is significant that various air pollutants such as sulphur oxides and carbon monoxide can cause acute and chronic plant injury, irritate the eyes and upper respiratory tract, may be cancer producing, and in some cases impair mental processes. These, in addition to corrosion of metals, obviously are serious problems. Transportation, especially automobiles, is a major contributor to air pollution.

Transportation sources as a whole contribute over half of the emissions every year in particular, carbon monoxide, hydrocarbons and nitrogen oxides. Air pollution from transportation would appear to be a major and costly concern for governmental agencies and private firms.

2. Noise

A problem that is similar to that of air pollution is noise. The effects of noise on health are both physiological and psychological, though primarily psychological. Psychologically, the affects are widespread:

- o Noise can interfere with speech communication and the perception of other auditory signals.
- o Noise can disturb sleep and relaxation.
- o Noise can interfere with an individual's ability to perform complex tasks.
- o Noise can be a source of annoyance, it can influence mood, and can otherwise detract from quality of life.

Physiologically, excessive noise is capable of producing hearing loss, although it is unlikely many have suffered from highway generated noise.

As of yet no one has been able to calculate the cost of noise in dollars, but it is generally agreed to be high. Highway noise affects property values, impairs health and lowers working conditions. There are strong indications that highway noise reduces property values when the property use is incompatible with the highway, as in the case of many residential areas.

The following figures indicate typical decibel (db) readings for common sounds.

<u>db</u>	<u>Source</u> (source-observer distance = 100')
150	Jet Take Off (at close range)
140	Threshold of pain
130	Riveting Machine
94	Jackhammer
86	Sportscar, truck, shouted conversation
85	Vacuum Cleaner
71	Automobile
50-60	Normal Conversation
50	Quiet Street
40	Quiet Room

The Department of Transportation/Federal Highway Administration (DOT/FHWD) has published noise standards for five land use categories as shown on Table ____.

Other federal agencies, such as the Department of Housing and Urban Development, have also adopted noise standards for activities falling under their jurisdiction.

TABLE

The Department of Public Works, through its Traffic Engineering Division, has made great strides in the area of aggregating and isolating transportation problem areas in the city. The table in Appendix E, Priority Ranking Urban System Projects, indicates of needs throughout Flint. The 114 projects listed have been identified as having some combination of safety, capacity, physical condition, service, or demand deficiencies based on accident rates, roadway widths, and current and projected traffic volumes for the particular intersection or roadway segments indicated.

Unfortunately the analysis stops short in two critical respects, coordination and impact. Even a cursory glance at the list shows many diverse projects that appear as isolated projects. To date, no attempt has been made to co-ordinate these various projects or schedule their implementation. The unpredictability of funding sources dictates some form of capital improvements budgeting process to minimize "crises-oriented" decision-making and to smooth out annual fluctuations in the money available. The impact of the Hamilton Bridge or Fourth-Fifth couplet projects, as examples, will extend far beyond their respective project boundaries, requiring an integrated approach to the implementation of project improvements.

Routine street maintenance and sidewalk repair must also be co-ordinated to prevent having to tear-up newly laid pavement for subsequent street modifications.

Impacts on land use and neighborhood integrity have not been fully addressed in relation to the projects. Right-of-way costs indicated for the roadway or intersection represents only the actual acquisition and do not take into account the costs associated with the relocation of individuals or commercial enterprises. Often these costs are greater than the project improvement itself.

There is a definite need to take a closer look at the various positive or negative influences on neighborhoods caused by the planned transportation improvements. Substantial ground has been broken in this area for the Fourth-Fifth Avenue one-way pair study scheduled to begin in the spring of 1978. This study, conducted by an independent consulting firm, will attempt to assess the social, physical and economic impacts of various alternative relief solutions for the capacity and safety problems along Fifth Avenue. The methods and conclusions generated by this effort should serve as a model for future determining the affect of transportation improvement projects.

Beach Street has also experienced increased traffic volumes, 4000 to 5000 additional trips passing over this stretch of roadway south of the river every day. Although no current data is available on the traffic volumes on Grand Traverse near downtown, the Traffic Engineering division of the city of Flint estimates an increase of about 10 per cent. Grand Traverse under normal conditions operates at service levels (both peak and 24-hour) over capacity, so additional volumes on the street only increases the congestion problem. The congestion seen on Harrison and Grand Traverse, and to a lesser extent on Beach Street is certainly only temporary. Completion of the Saginaw Bridge improvements will restore the diverted traffic back on to Saginaw Street.

Paradoxically, the situation now seen offers an interesting look at how future downtown developments could affect the CBD street networks. A proposed Center City Plaza on Saginaw Street between, Kearsley and Fourth Streets would replicate the situation now being experienced with the closing of the bridge over the Flint River. If the plaza were to completely close Saginaw to through traffic, then Harrison and Beach Street would again become major arterials leading into and through the CBD area. Consideration would have to be given to easing the flow of traffic along Harrison by providing connectors to Saginaw both north and south of the downtown, presumably at Fifth Street and somewhere near Second or Third Avenues. On-street parking would have to be removed from both sides to allow adequate lanes to handle traffic in a safe, expeditious manner. Likewise Beach Street, carrying traffic southbound, would need a connector to Saginaw at First or Second Avenue (north of the river) and a similar connector at the south end near Twelfth Street. All these connector proposals have been addressed at various times by Urban Renewal Plans, special studies, and urban systems analyses.

The congestion and flow problems could become more critical if projects such as the Riverfront Center Convention-Hotel Facility, State Office Building and Autoworld are built. These projects will add traffic to the system in and around the CBD. Estimates from studies by Traffic Planning Associates and Zuchelli and Hunter Associates predict there will be about 6000 additional trips per day made near the river.

The proposed State Office Building would provide 158 parking spaces for visitors plus 370 for employees. The turn-over period for the visitor spaces could be as short as one-half hour indicating a potential for high volume. The proposal site is just west of Harrison Street directly south of the river beautification project. Harrison and Saginaw streets are major access routes to the building.

The Autoworld project, tentatively selected for a site north of the Flint River between Grand Traverse and Lyon streets, could produce as many as 1600 auto trips per day during peak periods. Both Grand Traverse and Church Streets become prime paths for this traffic since projections

indicate more than 75 per cent of this movement will come from the south off I-69 and I-475. The Fifth Avenue-Longway corridor to the north, due to its ready access to I-475, would also be another major route to the Hall of Fame providing access for east-west movements.

Serious consideration should be given to reducing traffic on Grand Traverse street because of it's current congestion-capacity problems and potential effects of Autoworld. Right-of-way constraints and land use impacts mitigate against widening as a solution. A proposed one-way pair system with Church Street would give immediate relief and improve access but would require two connectors. One, located between Ninth and Twelfth Streets would divert northbound traffic on Grand Traverse to Church. The other, spanning the Flint River at Kearsley Street, would connect Church to Mason Street and provide one-way movement through the CBD north past Fifth Avenue. High capital costs and environmental impact problems would have to be solved but the one-way proposal offers certain traffic movement advantages.

The Riverfront Center Convention-Hotel facility located between Beach and Saginaw Streets south of the river will affect both Grand Traverse and Church Streets and probably Harrison. Conceptual schemes show various arrangements and numbers of rooms and parking spaces for the center. Although the design is not finished, ease of access is necessary. To function, the facility must have an adequate, high capacity roadway network.

The street system in the Central Business District is a closed, rigid system. The position and alignment of the roadways are set and no additional right-of-way is available to expand or modify individual routes. Land bays are small, which tend to discourage large developments. Closure of two major arterial routes, Kearsley and Steven Streets, points out the necessity of maintaining flow and access to the downtown, an area which should function as a local circulation system. In light of the development now taking place and potential for future growth the street system must be allowed to function to its fullest potential. This means wherever possible to reduce or eliminate on-street parking, provide for adequate mass transit access for those unwilling or unable to use autos, and investigate the potential of further paired systems. Future growth potential for the downtown will hinge on basic transportation issues.

Computer Modeling

The transportation modeling process is designed to answer four main questions:

1. How many trips?
2. Where to?
3. By which mode?
4. By what route?

To answer these questions, relationships between social, economic, and land use conditions, and trips are developed. These relationships are the model.

To answer question number one, Trip Generation Models are developed. Information obtained from the 1966 Origin and Destination Survey is used to build equations which determined the number of trips a household is likely to make for each trip purpose in the area. An example of a Trip Generation equation is Home Based Work Production = $22.48 + 1.71$ (resident labor). This means that a house will make 1.71 (RFL) trips for work per day.

Because a trip has two ends, it is also necessary to model the attraction end of the trip. For example, Home Based Work Attraction = $61.14 + 1.43$ (Total Employment). Thus, a large industrial area will attract 1.43 (TE) trips per day.

This brings us to the second question, "Where are the trips going?". We have generated trips at both the home and work end which now must be linked together. This is the function of the Trip Distribution Model. The model used in the study is the Gravity Model. It is based on Newton's theory of gravity and says that the relative attractiveness between any two activities (object) is inversely proportional to some function (square of the distance) of the physical separation between the objects. Time is used as distance in the distribution of the trips. The model builds a travel matrix which, based on the function of time-distance, connects the two ends of a trip. Therefore, the closer one activity is to another, and the larger the activities are, the more attractive they are to each other and the more likely they are to be linked as trips.

A different model is developed for each trip purpose that is identified. The work purpose is the most consistent, since the choice factor is less dominant. One must go to work, whereas a shopping trip is based on personal preferences and locational factors.

Having developed and distributed trips, it is important to determine by what mode these trips will travel (question 3). The Modal Split Model divides the trips generated and distributed by purpose, into cars, bus, train, etc. (these are the Modal components). These splits are based on relationships developed between the preference of a person to use different travel modes, and income, sex, age, service characteristics (e.g.; the difference in travel time of the same trip by car or bus) and location (does the person live in the CBD, City, suburbs, rural areas?).

The last question deals with route selection. This is the Traffic Assignment Process. It utilizes two major elements; 1) a simulated street and highway network of Genesee County, and 2) Moore's Algorithm to find the shortest path through a maze (all or nothing assignment).

The network is built based on the travel facilities of an area. Testing alternative facilities plans obviously necessitates changing the network. The basic network is a series of links (a link has an index at each end) which has the following data detailed:

1. Link Distance
2. Link Speed (calibrated posted speed)
3. Link Volume (Count)
4. Link Capacity
5. Link Direction (one or two way)
6. Link Travel Time
7. Link Functional Class
8. Link Jurisdiction

The assignment model (all or nothing) takes this data and the trip matrix developed in the trip distribution phase and allocates trips to these links. It literally starts with Zone 1 and builds a minimum path (by travel time) to all other zones. It then does the same thing for Zone 2 and so on. These loaded minimum paths are then overlaid by adding them together to get the travel volume on a particular link.

There are certain problems with this type of assignment process which is the most widely used. The most critical is that this model assumes complete knowledge on the part of the traveler - that a traveler will take the shortest route. This, as we know, is not always the case. Problems with congestion, equally quick routes, or any number of factors can intervene. Internal adjustments to the process partially compensate for these problems. While other, more humanistic approaches have been attempted, this is the most consistent and widely used approach.

This brief review of the transportation modeling process is designed to acquaint the reader with the system level planning tools used in this study. A more indepth discussion is available in the developmental report for the study through GMPC of MDSH&T.

Current Plan Proposals

As of November 1978, the Traffic Engineering Division has recommended 114 street improvement projects. (See Appendix E). The projects, proposed for completion during a capital improvement plan to span about 12 years, are subject to approval by the Department of Public Works. DPW's decision on individual projects is based on a continuous review of factors including available funding, state requirements, land use projects, utility interface, citizen input and planning requirements.

V. DOWNTOWN PARKING FACILITIES

Introduction

We have become so accustomed to the convenience and freedom provided by the automobile that most people automatically use their car for any trip more than a few blocks. This universal attitude makes it necessary to provide for storage of autos at the destination. If suitable parking is not provided, routine trips to the area are unlikely.

Over the last two decades, suburban shopping centers have developed in part as a response to the demand for convenient parking. Flint's downtown has lost much of its retail business to six major shopping centers on the periphery of the city. Shoppers cite the more convenient parking and store hours at shopping centers as well as a broader range of goods for preferring them to downtown.

The downtown has evolved into a place for the weekday activities of government and financial institutions. While these functions attract people for employment or business two other roles are developing for the downtown. The first is educational because of the University of Michigan-Flint campus is downtown. The second is as a regional convention center as part of the Riverfront Center development.

These developing functions offer opportunities for revitalizing the downtown. An increase in employees, students and visitors will provide an increased market for restaurant, entertainment and specialty retail businesses.

Yet most of these people remain a "captive" population - coming to the central area because they have no option. Their needs will begin the revitalization process and provide a nucleus for diversification. Many more people in the metropolitan area must be motivated to come to the downtown. To attract these people will mean there will have to be adequate parking close to their destinations in safe, clean facilities.

Current Conditions

Parking in downtown can be categorized into four types - private-paid, private-customer, bonded-city, and curb parking. Although the purpose of these types of parking is to provide storage for automobiles, they are competitive. Private-paid parking is usually operated as any other private business - for profit. It is also a means of holding land in anticipation of future development. Private-customer parking is usually provided a service to customers of an adjacent business. Bonded-city parking is either surface lots or structures built with guaranteed bonds sold to the public who expect to profit from their investment. Curb parking downtown is free or metered parking provided on a first-come, first-serve basis for short-term use.

There are about 5,400 parking spaces in downtown. Private-paid parking accounts for 2000 spaces, private-customer parking 900 spaces, bonded city parking 1790 spaces and curbside parking about 700 spaces. Results of two surveys (1) (1974 and 1976) on parking demand show about a 91 per cent use of on-street parking, an 84 per cent use of private off-street parking, and a 63 per cent use of public off-street parking during the peak hours (12:30 to 2:30 p.m.). Peak-hour use of all facilities downtown is 78 per cent. This indicates that there is an adequate supply of parking for now. Map 6 shows an even distribution of this parking with radii for maximum walking distances (800 feet) overlapping the downtown.

Analysis and Problem Identification

Although there is enough parking spaces now, future downtown development, traffic volumes, and governmental requirements will drastically alter the situation. The major developments, the University of Michigan-Riverfront Center and River Beautification will cause the vacation of streets used for curbside parking, take about 900 off-street general use parking spaces and increased the traffic on remaining streets. These developments will also generate more traffic require some off-site parking. While most of the direct parking needs of the developments will be handled internally, surrounding areas will be pressured to accommodate overflow situations. If, as anticipated, these developments generate new businesses and more customers for existing business, more parking will be needed for the downtown.

Concurrently, state and federal transportation agencies are pressuring the city to eliminate curbside parking on major streets downtown or face loss of funding for construction and maintenance on those streets. Compliance would eliminate about 225 curbside spaces if parking is also removed from Saginaw Street. The criteria for parking on streets is listed in Appendix F.

The 5,400 spaces now in the downtown for the general public will be reduced by 24 per cent to 4200 spaces after new development and the elimination of curbside parking. At a 78 per cent use now, this will mean saturation of downtown parking at peak hours with no allowances for convenient location, increased demand or new development. The Riverfront Center is projected to need 2,200 more spaces of which about 1,800 spaces would be on the site. The difference of 400 spaces required at peak hours will not be available off the site unless new parking is built.

Although accurate estimates of increased demand are elusive adequate parking is essential. If the downtown is to be revitalized, parking must be conveniently located and exceed peak-hour demand. Additional spaces for about 800 cars within 800 feet of the Riverfront Center are critical. Given a 95 per cent use of all parking, another 320 spaces should be built in the downtown area by 1990. Any further developments must provide all parking on the site, by shuttle from remote lots, or share parking only at non-peak hours.

Central Business District

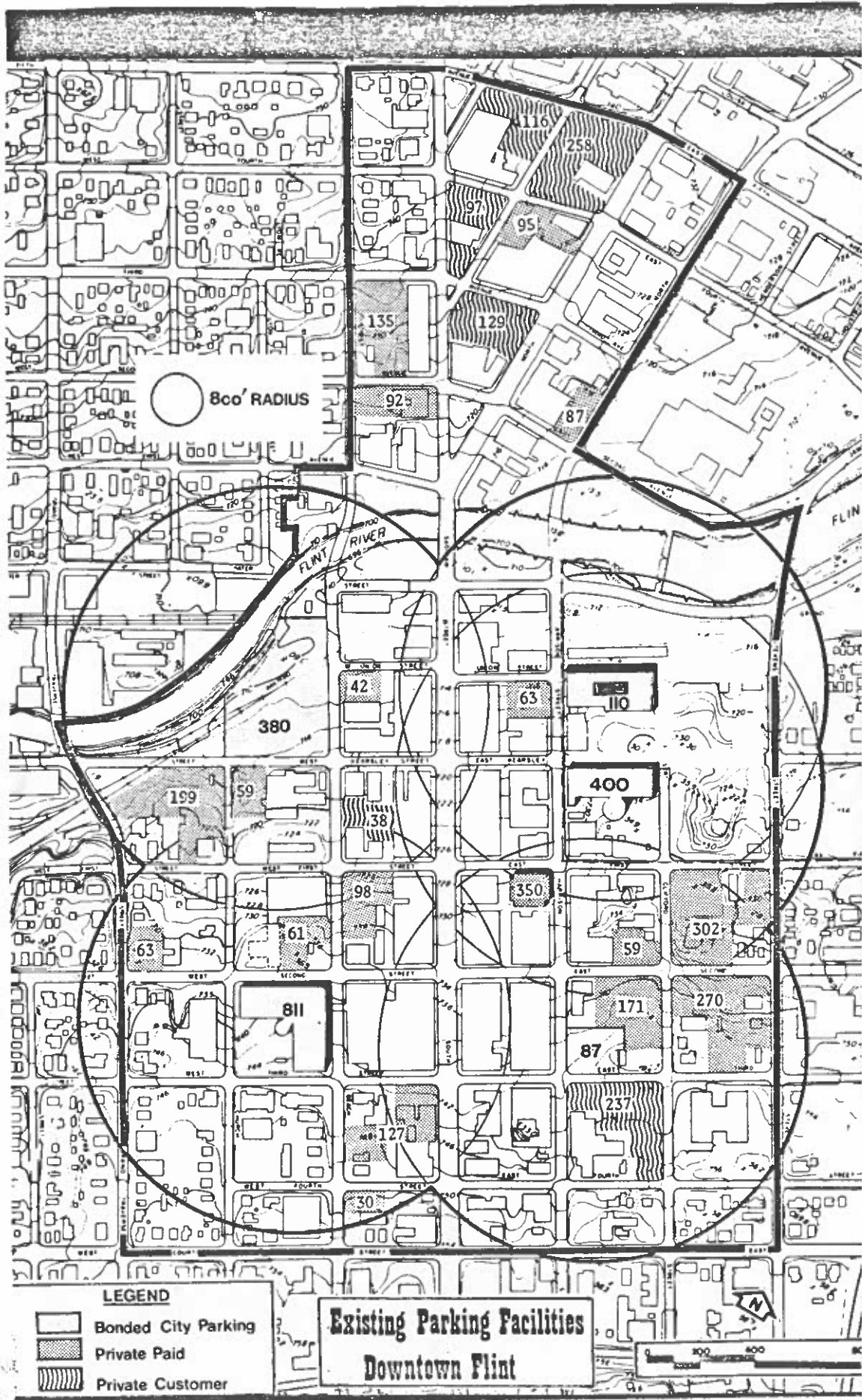
The Central Business District (CBD) has experienced a great upheaval in the last two years. Various projects, such as the new downtown campus of the University of Michigan, Riverfront Beautification, Doyle Redevelopment and the construction of the northern portion of I-475, have all impacted the CBD and the transportation patterns and networks in it. The reconstruction and upgrading of two major river bridges at Saginaw and Harrison streets have forced motorists in the downtown area to seek alternate routes.

The completion of the UM-Flint Classroom-Office Building and subsequent work on the new Student Center forced the permanent closing of Kearsley Street from I-475 to Harrison, and Stevens Street from the Flint River to First Street. Both Kearsley and Stevens had functioned as minor arterials; Kearsley traversed the downtown area from Robert T. Longway near Mott Community College to Glenwood Avenue at Court Street, and Stevens connected the Municipal Center to both James Cole and East Boulevard Drive. Closing of segments of these two arterials seriously hampered the flow of traffic through the CBD. The loss of Stevens as a through street will be minimized when the I-475 service roads are completed in 1978. The loss of Kearsley will be harder to rectify as the street represented the only continuous westbound link across the CBD area. First Street in Kearsley's place has now been renovated to provide the west-bound pair with east-bound Second Street.

Closing these street segments vividly illustrates the traffic circulation constraints in the downtown. All the streets, with the exception of Saginaw Street, function as one-way pair systems, which from a safety and flow point of view offer obvious advantages over two-way systems. The development of large land bays for future projects is precluded by circulation needs for traffic on the one-way systems. The Central Business District is changing. Whether these changes will benefit the economic well-being of the area depends in large part on maintaining effective vehicular and mass transit access from all regions of the city and out-county.

The closing of the Saginaw Bridge structure in early 1977 had the most significant effect on circulation downtown. Over 25,000 vehicles per day were shunted to alternate routes, a situation that will continue well into 1978.

All these closures have created problems for motorists going to the CBD in terms of congestion and traffic circulation. As a result of the closing of the Saginaw Bridge, Harrison, Beach and Grand Traverse streets have been forced to bear the brunt of the recirculation movements in the area, because these streets are the only major north-south routes across the Flint River. Latest traffic counts, taken in May and June of 1977, indicate that Harrison Street is carrying volumes about 14,000 to 17,000 vehicles per day between Court Street and the river, well over capacity and almost double the volumes normally experienced.





The Pereira Report of 1973 designates four kinds of parking for the downtown.

1. Parking for shoppers requiring several well-distributed, medium-size sites (100-200 spaces), within 600 feet of major shopping destinations.
2. Large parking facilities (500 spaces or more) for employees strategically located in intercept positions along major approach routes to the central area. Walking distance of up to 800 feet to the ultimate destinations are acceptable. Some form of shuttle service is necessary for longer distances.
3. Small (less than 20 spaces), well-distributed, short-term (less than 30 minutes) parking facilities for people on short trips.
4. University parking to meet most of its needs on campus, or in near shared facilities, such as at the I.M.A.

These recommendations provide a general guide. The University will meet its needs on its site while parking for shoppers and employees is appropriately outlined. The location and size of these facilities will determine their effectiveness. Remote surface parking may be impractical since it would require a basic change in drivers' attitudes as well as an efficient shuttle system. Parking structures, although costly, may be more acceptable in terms of economical land-use and convenience. Dominating many of these recommendations will be the cost both to the developer and patron. The idea of any parking charge may discourage many shoppers unless that cost can be seen as acceptable due to the quality of the experience.

The revitalization of the downtown will depend on a parallel development of quality services and convenient access to those services.

- (1) 1974 Traffic Engineering Survey, Department of Public Works and 1976 survey conducted by Traffic Planning Association, Inc., Atlanta, GA.

3. Visual Intrusion and Poor Appearance

One aspect of the impact of transportation on its environment is visual. Naturally, nothing creates more arguments than a discussion over what is "good looking" and what is not. It is important to try to design transportation facilities and systems that have a pleasing appearance both as they stand and in their environment.

The problem of visual intrusion can take many forms. There is the intrusion by a multitude of signs and signals - directional, one-way, no parking and so forth - that give that "scattered" look. Increases in the number of automobiles create intrusions by parked vehicles around and between buildings. Usually the only storage space available for the auto is in the already crowded confines of the city streets and open spaces.

4. Excessive Right-of-Way and Relocation Requirements

Transportation systems, especially highways, bring about problems associated with right-of-way and relocation requirements. These two problems arise because of the need for a very precious commodity land. Right-of-ways are required and acquisition is expensive, both in initial cost and in productive land taken from the tax base. Additionally, people are usually living on the desired land, and relocation can be a trying experience for both the displaced and those implementing the displacement.

It is difficult to use any land in the City of Flint urban area since someone is bound to be adversely affected either directly because he must move, or indirectly because a favorite social, recreational or commercial spot has been eliminated.

It is remarkable how much land area is occupied by transportation systems or facilities. In Flint, almost 25 per cent of the corporate area is consumed by streets, alleys or parking areas. Only the concentration of single-family residential uses exceeds this proportion.

5. Inappropriate or Undesirable Land Development

The potential access to land which transportation provides can also produce problems. It has been shown that an increase in land value, and hence development, go hand-in-hand with access. The enhanced development potential of more accessible areas can lead to certain inappropriate or undesirable land use. Growth regions have experienced this phenomenon, witness the commercial development taking place along Linden and Miller roads in the out-county areas near Genesee Valley Shopping Center.

The City of Flint has relatively little area for development left in the corporate limits. Further development here would largely be a result of transportation system improvements or modifications to existing systems. The threat of inappropriate or undesirable land development must still be contended with to minimize deleterious uses.

Unequal Impact Upon Certain Groups

Unfortunately, transportation systems do not affect evenly the whole urban area or urban population:

1. The non-user may be subject to the noise and air pollution caused by the automobile user.
2. The poor may get much worse transit service than the rich.

The list could be extended, but it is important that not all people stand to gain from new or improved transportation systems and this can create problems.

The poor, handicapped, the secondary worker, the elderly and the young are groups that too often are neglected in planning transportation systems. Typically, the poorer the person the more dependant he is on public transportation systems. United States Department of Commerce figures indicate that less than half of all families with incomes under \$4,000, half of all black households, and half of all households with heads over 65 years own no automobiles. As more central business district jobs become white-collar, and unskilled and semiskilled jobs move to outlying areas, poor people are more disadvantaged than ever by mass transit systems that focus on central city areas and stop at the city limits.

Obviously any efforts towards betterment of transportation systems must attempt to identify special groups of interest and not treat the population of an area homogeneously.

Problems Affecting Transportation

Three major considerations influence and impact the transportation system explicitly: (1) increased population growth and dispersion, (2) increased automobile ownership, and (3) peakedness in the amount and timing of travel.

On a national scale population growth rate is decreasing. In Flint growth has been replaced by population decline. The loss of population in the city would seem to be a benefit to transportation systems, but the influence of out-county growth

and suburban orientation on city travel patterns tends to cancel out this advantage. As stated earlier, this suburban growth and dispersion places added impacts and constraints on the city's transportation system.

The increase in automobile ownership, a direct result of its popularity and utility, appears to be unhampered by recent energy problems. Of course, present trends are not expected to continue, but the number of vehicles will increase markedly, creating problems both for overtaxed roadway networks and parking areas.

While auto ownership has increased transit ridership has decreased markedly - an indication of increased consumer buying power and higher life-style. It appears that transit alternatives necessarily will have to be given increasing weight in developing suitable transportation systems.

The quantity and temporal-nature of vehicle usage have a direct effect on the transportation system. Vehicle miles of travel have increased faster than either the Gross National Product (GNP) or population. To make matters worse, allowances must be made for the significant hourly peaking in travel that takes place in the urbanized area. In Flint, the "rush-hours" (7-9:00 a.m. and 3-6:00 p.m.) account for almost 40 per cent of total traffic volumes during an average day. As a result, the city's roadways must provide for roughly three to four times as many trips as would occur otherwise. It has been the policy of Flint to design roads to accommodate these peak volumes at a level-of-service "C", which in itself is a compromise between "congestion" and "underutilization" of the street lanes. As has been shown, most of the city's major and minor arterials operate over the designed level of service on a 24-hour basis, not to mention peak hour.

Outside the Central Business District

Identifying transportation problems in areas outside the Central Business District is not as clear-cut as it is in the CBD. Varied land use considerations tend to mask the effect of the traffic problem. Impacts on residential neighborhoods or established uses complicate efficient and expedient solutions to seemingly pure transportation related problems. As an example, the proposed widening of Lapeer Road from Twelfth Street to Center Road appears at first to be a straightforward solution to a chronic congestion problem. In practice, the potential affects of noise and air pollution on the contiguous residential area may require a less severe, compromise solution. Situations such as this dictate a problem solving approach predicated on both traffic and land-use considerations.

VI. MASS TRANSPORTATION FACILITIES

Introduction

Mass transportation is becoming an important consideration as vehicular congestion, environmental concerns and energy costs increase. The cost, both in dollars and quality of life paid for by unlimited use of the private automobile, will be difficult if not impossible for many to accept. Even now, some people are prevented from traveling freely because of the effort and cost. Income, safety, health, age and inconvenience all help to restrict essential travel. The "extras" such as entertainment and recreation are even more affected.

Although adequate mobility for society is not east to define, the concept of mobility is ingrained. Many transportation alternatives must be encouraged to promote this mobility on a local and regional scale. To be true alternatives a majority of people must view them as efficient and convenient. Mass transportation is one alternative.

Current Conditions

Flint is served by three inter-regional and one local bus system. The Greyhound Lines operates interstate and intrastate service. Indian Trails operates point-to-point express service between Chicago, Benton Harbor, South Bend, Kalamazoo, Battle Creek, Lansing, Owosso, Flint, Saginaw and Bay City, with secondary routes to Port Austin, Bad Axe, Imlay City and Detroit. The third, Valley Coach Lines, operates a Flushing to Port Huron route with service to intermediate points. These three systems use the Greyhound Bus Terminal in downtown Flint. Map 7 indicates the intrastate routes of these systems.

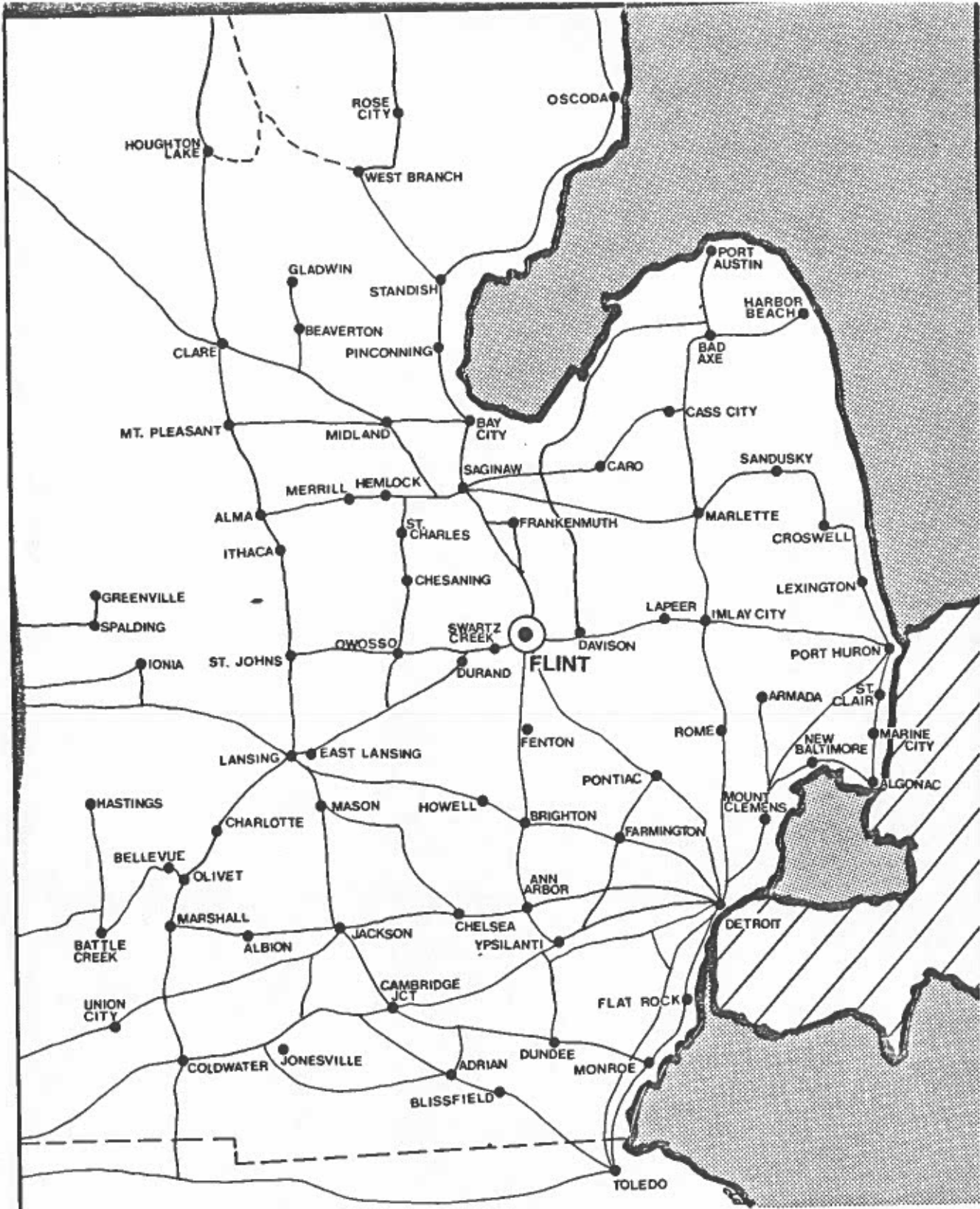
Flint and the greater metropolitan area is served locally by the Mass Transportation Authority (MTA), established in 1971 by the Flint City Council. This organization replaced the Flint Transportation Authority (FTA), which went out of business that year. From an initial 26, 45-passenger buses, the MTA fleet has expanded to 61 buses. These vehicles vary in size from 18-passenger minibuses to 66-passenger school buses.

The MTA has 12 routes in the Flint area. These routes (map 8) 86 miles one way, radiate from the downtown where all bus transfers occur. The MTA bases its route locations on the number of residents and major traffic generators within a quarter mile of a regular line-haul route.

"Within the City of Flint, about 80 per cent of the residents (154,650 people) live within a quarter mile of a regular line-haul route."

Regular service is provided six days a week on 30-minute headway except on the Fenton Road route, which operates on an hour headway. The service is provided Monday through Friday between 6:30 a.m. and 6:45 p.m. and Saturdays 8:30 a.m. to 6:45 p.m.





LEGEND
 Bus Routes ———
 Seasonal Routes - - -

**INTRA-STATE
 BUS SERVICE**



The MTA also provides three separate types of service to the College and Cultural area.

1. Service between the University of Michigan and downtown.
2. Service between the two University of Michigan campuses on 15 minute headways.
3. Service between the C.S. Mott Community College and the Career Development Learning Center.

The combined ridership of these three services exceeds 1,000 per day.

Ridership on the MTA has increased from 936,775 in 1972 to 3,319,442 in 1976, or a 169 per cent increase in four years of operation. While ridership on all routes has increased, vehicle miles have remained fairly constant, indicating more efficient use of the vehicles. The MTA has installed 60 bus shelters at high boarding points, elderly housing developments, hospitals and colleges. Bus stop signs giving bus arrival times are also planned, some of which have been installed.

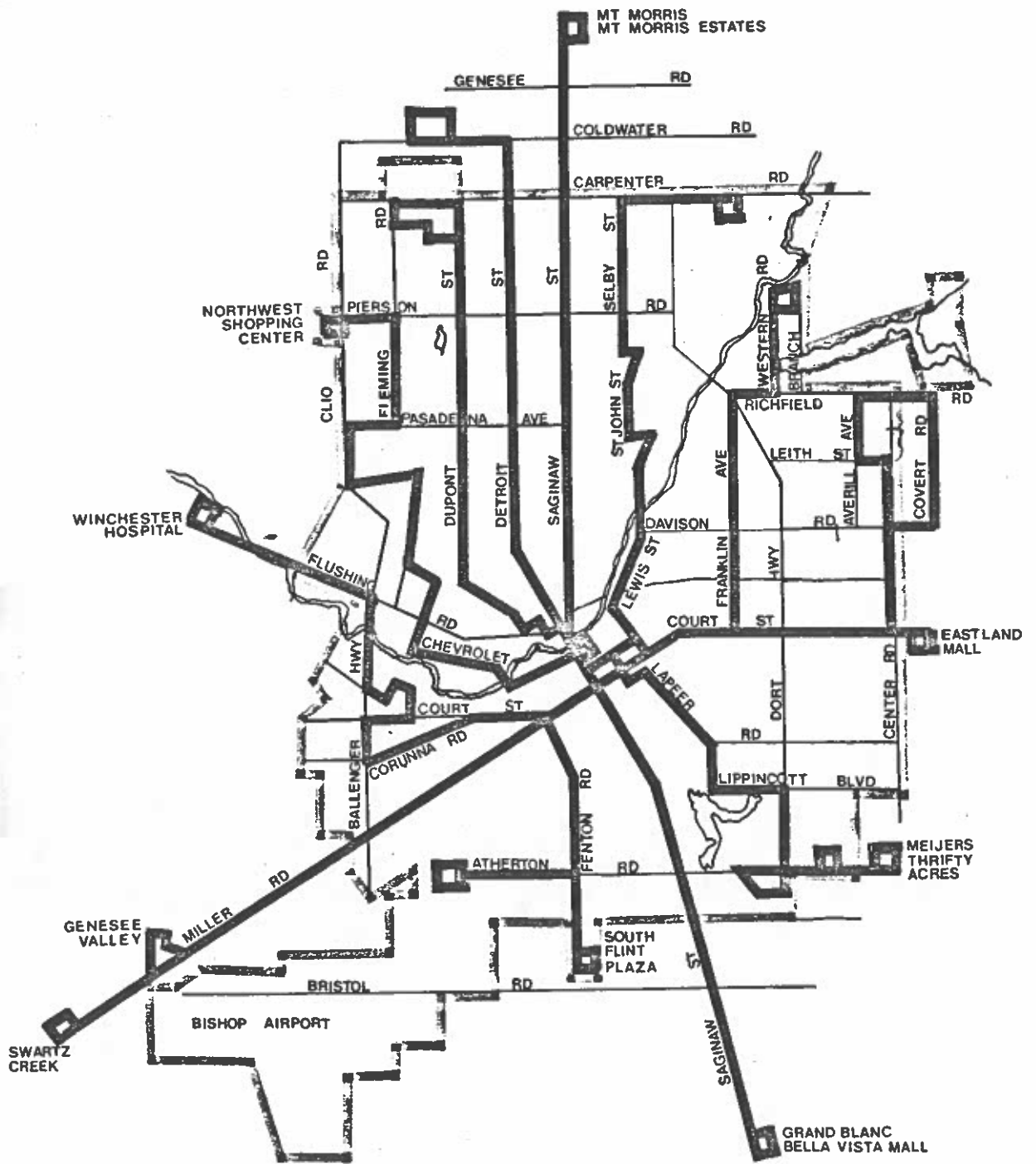
Capital projects completed and planned included:

1. \$2.5 million office and maintenance facility built at I-69/Dort Highway interchange to increase both operational and maintenance efficiency. The facility covers about six acres of the 17-acre site allowing for future expansion and a potential "transportation center" with rail and intercity bus terminals.
2. \$3.0 million for 38 new 45-passenger air-conditioned coaches.
3. Two additional vehicles equipped with hydraulic lifts to serve to the elderly and handicapped. This will, allow the MTA to triple its existing service to these groups.
4. 35 additional passenger shelters (which brings the total number of MTA shelters to 95).

Analysis and Problem Identification

The MTA sees several short to medium-range problems with the increase in public use of their facilities. These problems, which are detailed in the S.S.M. Program Report listed, before, include capacity overloads at peak times, lack of factory service, insufficient number of passenger shelter areas and continued funding for two state demonstration projects which provide special service to the elderly, handicapped and college students.

Increased public transit patronage will be based on provisions for a continued upgrading of the system's headways, visibility, operating hours, efficiency, speed and comfort level. Mass transit must be able



LEGEND

Bus Routes

City Limits

**MTA
BUS ROUTES**



to compete with the automobile to draw riders. Less tangible factors such as safety, pollution or even cost will not, on a daily basis, induce people to drive less.

The MTA program concerns itself with a number of improvements to an ongoing system which should increase the efficiency, speed and comfort of the system. Money for the improvements is primarily from federal and state sources as governmental agencies shift emphasis from highway construction to all modes of transportation. This need for support should continue as multi-modal needs increase.

Additional attention should be placed on the visibility of the transit routes. Unlike the streetcars of the past, no tracks act as continuous links to identify the system. Headways of 30 minutes and an hour may not be enough for areas of high use. Operating hours extending into the evening may be required to improve the system's convenience. Special systems other than buses may be appropriate for the downtown or inter-campus movement.

The long-range success of mass transit will be closely linked to its ability to exceed the private automobile in efficiency, convenience and comfort.

VII. NON-MOTORIZED FACILITIES

Bicycle Networks

Traditionally, bicycles have been regarded as recreational machines - primarily for children too young to drive motor vehicles. Now a sizable minority sees them in a far different light. A growing number of adults have found that bicycles are a financially viable alternative to the automobile for short-distance travel as well as a pleasant device for the promotion of personal health. In addition, many see bicycle riding as a personal contribution to the general welfare--helping to ease the "energy crisis", reducing air pollution, lowering the urban noise level, etc. In short, a great many people have concluded that riding bicycles is good for them and for their community and they have emphasized their conviction by investing money in these machines.

Yet the obvious benefits from an extensive use of bicycles (for riders and non-riders alike) will not be obtained until provisions are made to make riding safer and more convenient.

Current Conditions

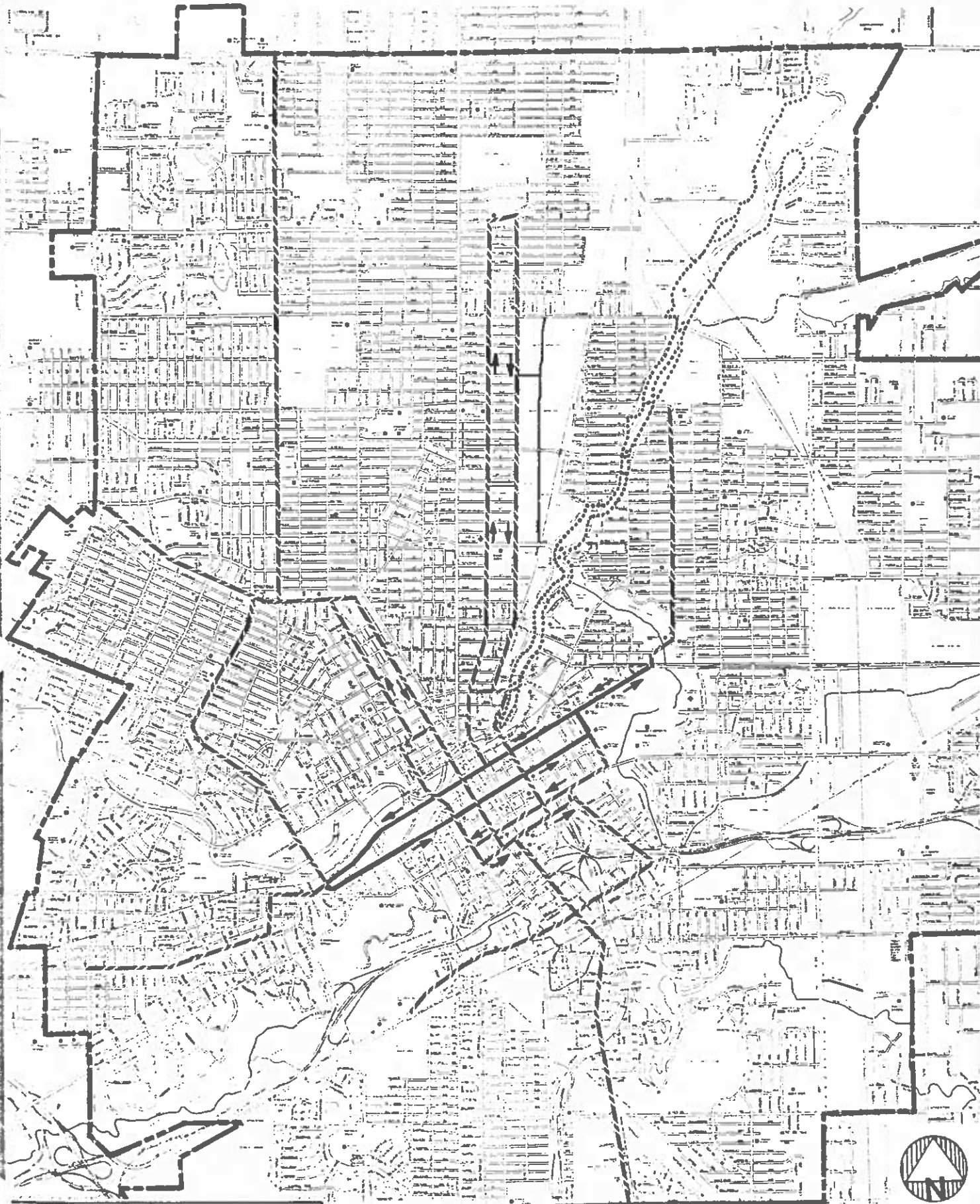
Local and national bicycle sales have increased substantially in the last decade. Sixteen million were sold in 1973 as opposed to 11.5 million automobiles. According to the Bicycle Institute, more than one person in three owns a bicycle and one-half of the population will own one by 1978. A high proportion of those sold are light-weight, precision models with variable-speed gear systems.

The bicycle route systems were designated by the Department of Parks and Recreation in cooperation with the Department of Public Works, Traffic Engineering Section and local bicycle clubs. The routes (Map 9) were selected to achieve three primary objectives.

- a. To connect residential neighborhoods to the Central Business District
- b. To provide north-south and east-west routes across the city
- c. To serve as collectors of bicycles from local streets.

These routes are on existing streets and will be identified with the international bicycle symbol and the words "Bike Route". Although signs have been purchased, they have been installed only on streets linking the College-Cultural Center to the central business district. The Department of Public Works is responsible for installing the signs.

The primary purpose of the signs is to make cycling safer by reminding motorists that cyclists have an equal right to use the streets. The signs also alerting the motorists to watch for a heavier concentration of bicyclists on the designated routes than on other streets.



LEGEND

- RIVER ROUTE
- STREET ROUTE (SIGNED)
- STREET ROUTE (UNSIGNED)
- CITY LIMITS

BIKE ROUTES



CITY OF FLINT
City of Flint, Michigan
 Planning Department
 1000 East University Street
 Flint, Michigan 48906
 Phone: 313.487.1234
 Fax: 313.487.1235

Analysis and Problem Identification

About 20 of the 28 miles of the network fall on city-designated truck routes. Although these streets provide the shortest distances for bicyclists, they are also inherently less safe for cyclists than non-truck route streets.

The cyclist must compete for roadway with motor vehicles in all non-residential areas. City Ordinance, Section 11.118 (h) states:

"...no person shall ride any bicycle upon any sidewalk in the City of Flint except on sidewalks in residential districts..."

While this does not pose any major problem for the experienced rider, it does for the inexperienced. Representatives from local bicycle clubs have told the Park and Recreation Board that experienced riders prefer to use main streets because they have signal-controlled intersections and they are usually the shortest route to the destination. In contrast, the inexperienced riders (both adults and children) would probably be safer riding on sidewalks and low-use streets.

Maintenance of the bicycle network is crucial. Variable-speed gear bicycles (those most likely to be ridden on the network) have precision mechanisms and thin tires, easily damaged by uneven or littered surfaces. This will make frequent cleaning of the routes necessary. On the positive side, bicycles themselves put less stress on the surface.

Thus while it is necessary to keep the bike route in better condition, bikes will cause less damage than automobiles to surfaces from which motor vehicles are excluded.

Additional problems should be investigated in a coordinated study prepared by the Department of Parks and Recreation, the Department of Community Development; and the Department of Public Works. The study should include the following problem-areas:

- a. Safety
 - (1) Conflicts between automobiles, bicycles and pedestrians.
 - (2) The location of bike paths, lanes, and routes
 - (3) Bicycle route signs
 - (4) Maintenance of bike routes
 - (5) Condition of bike route surfaces
 - (6) Curb ramps
- b. Security for parked bikes at destinations along routes

c. Enforcement of bicycle ordinances

(1) Licensing

(2) Proper use

Plan Proposals

The Recreation and Park Department has designed a Flint River Bikeway route from the downtown north to Carpenter Road. Construction was begun in 1976 on this federally funded project and was completed in 1977.

Breakdown of Flint River Bikeway

<u>Total Length</u>	<u>East Side</u>	<u>West Side</u>
4-foot bike paths	4.07 miles	4.46 miles
8-foot bike paths	13,000 linear feet	8,600 linear feet
street bikeway/other	6,000 linear feet	8,600 linear feet
	8,700 linear feet	6,750 linear feet

The university impact study by Pereira proposed that the part of Kearsley Street through the University of Michigan Campus (Harrison Street to the I-475 Expressway) be used exclusively by bicycles and pedestrians. Motorized traffic on this street segment ended in 1976.

Pedestrian Networks

The most basic and oldest mode of transportation is walking. Because walking has no age limits and it requires only minimum physical abilities, it can be the most efficient, healthy and enjoyable form of movement. Although the needs of pedestrians are few, these needs have generally been treated as add-on items in the transportation network. But in the urban areas we can no longer afford to treat this mode of transportation so casually.

Density of land development, particularly in the downtown, will impose limits on vehicular use of streets and parking. Rising energy costs and environmental concerns dictate a search for alternatives to unlimited use of the automobile.

While increased pedestrian movement offers an alternative, greater use of this mode cannot depend on external economic forces. The impetus must come from a reduction in conflicts with vehicles, elimination of physical barriers and sufficient amenities to create an enjoyable walking experience.

Current Conditions

The terrain of Flint is flat to gently rolling, allowing long, comfortable walking distances. A 10-minute walking distance is about

2,200 feet (.4 of a mile). This distance makes the downtown internally accessible and also places adjacent residential areas within walking distance.

Outside the downtown, little data is available about pedestrian circulation needs. Accumulation of city-wide information depends on development of physically defining limits of pedestrian movement. These limits include distance, seasonal constraints and natural and man-made boundaries.

Analysis and Problem Identification

Although there are no comprehensive studies of pedestrian movement on a citywide basis, planning for the development of downtown has produced some analyses. Studies have been directed primarily at the movement of pedestrians from parking areas to the downtown. Walking radii of five and 10-minute distances are drawn around the development areas to point out adequacies and deficiencies of automobile storage.

In the university site, an exclusive pedestrian-bicycle system will be maintained. This will eliminate internal conflicts with automobiles and promote free movement for pedestrians. Other developments such as Riverfront Center and River Beautification will also promote pedestrian movement with overhead walkways and by closing streets. Yet since these plans are essentially internal they do not deal with the needs of pedestrians citywide.

Outside the downtown area, the 10-minute walking distance can be used as a guide to determine neighborhood units and local services for those areas. Natural and man-made barriers form boundaries for these potential neighborhoods and can be used as a starting point. The 12 areas of the city designated as planning districts can be subdivided using the 10-minute walking criteria modified by the natural and man-made boundaries.

Availability of small retail functions, parks and schools could then be evaluated on a pedestrian scale. Those areas lacking such services would be pinpointed for more investigation. A local system of pedestrian routes to these facilities could be planned or improved. Priorities for limited funds could be set based on this barrier-free pedestrian network, much the way street improvements are allocated now.

In a simplified example, major and local sidewalks could be designated to avoid conflicts with major streets. Priorities for tree planting could be scheduled along these pedestrian routes and rest areas provided for longer routes connecting neighborhoods. Basic to the system would be the defined area comfortable for walking. The networks would promote pedestrian movement, set priorities for public works projects, and define neighborhood needs.

VIII. RAILROAD FACILITIES

Introduction

Railroads are an essential part of Flint's transportation system because of their vital role in moving freight for the automobile industry. The three major facilities of Buick, Chevrolet, and A.C. Spark Plug depend on railroads to bring in raw materials and parts and carry out finished products.

Railroads are also important to other parts of Flint's economy since they carry in or out much of the lumber, scrap, paper and other goods used or made here. AMTRAK has offered passenger service to metropolitan areas east and west of Flint since 1975. Although new, this form of mass transit provides a pleasant, safe and inexpensive alternative to automobile travel for intercity travel in a time of rising energy costs, traffic fatalities, highway congestion, and destination parking or storage problems.

Current Conditions

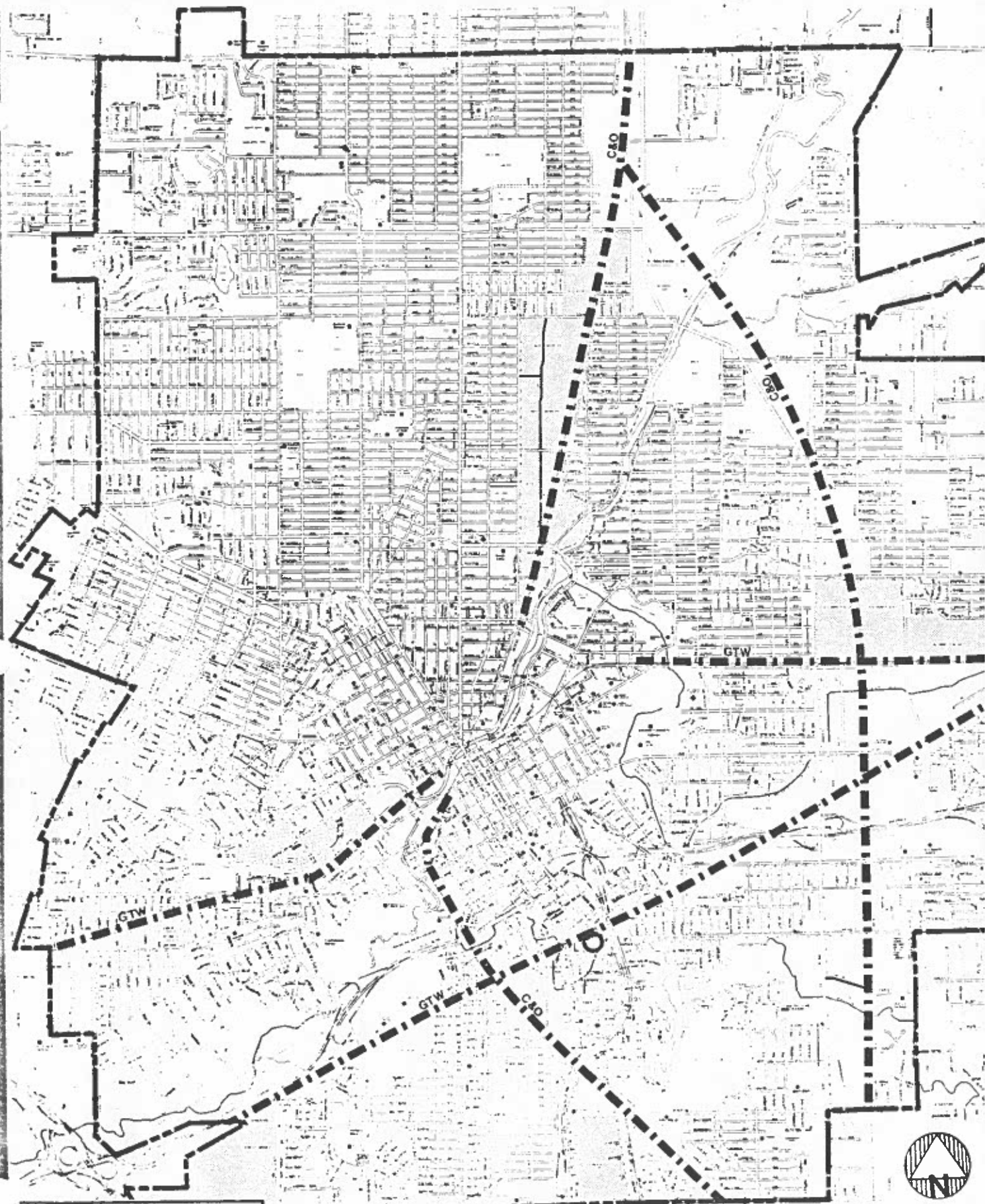
The Grand Trunk Western Railroad (GTW) and the Chesapeake and Ohio Railroad (C & O) operate in Flint. Their main lines cross the city in an east-west (GTW) and north-south (C & O) directions. Facilities, including railroad tracks and primary rail traffic users, are shown on Map 10.

Originally, both railroads ran all trains through the central business district (CBD). Now, however, those tracks serve local customers on the right-of-way while the main lines circumvent the CBD.

The C & O is on the main line connecting Saginaw, Toledo, Chicago, Detroit and Port Huron. The railroad provides freight service to about 150 customers in Flint. Buick and A. C. Spark Plug are the largest users while the lumber, scrap and liquor industries are heavy users on a lesser scale. In 1975 eight to 10 trains a day, hauling 31.4 million cars for the year, passed through Flint.

The Grand Trunk Western Railroad is on the main rail line between Chicago and Port Huron. It serves 24 communities in Michigan. The railroad provides freight service to Chevrolet and A. C. Spark Plug as well as local lumber, glass, paper and general warehousing customers. Each day about 200 loaded cars arrive in Flint and 250 loaded cars leave. This is about 3.33 million tons annually. About 24 trains passed through Flint a day in 1975. Although the G.T.W. does not provide passenger service, AMTRAK uses its main line.

The federally supported AMTRAK system provides daily passenger service from Chicago to Port Huron and back with eight stops in Michigan. Connections are also available from Port Huron to Toronto Canada.



LEGEND

- RAILROAD TRACKS
- DEPOT—Amtrack
- ▨ Primary Rail Traffic Generators

Existing Railway Facilities



CITY OF FLINT

The schedule is listed below.

AMTRACK SCHEDULE
(as of May 1977)

<u>Depart</u>		<u>Arrive</u>
3:25 p.m.	Chicago, Ill. (CST) (Union Station)	12:00 Noon
6:10 p.m.	Niles, Mich. (EST)	11:00 a.m.
7:05 p.m.	Kalamazoo	10:05 a.m.
7:40 p.m.	Battle Creek	9:35 a.m.
8:55 p.m.	East Lansing	8:20 a.m.
9:30 p.m.	Durant	7:42 a.m.
10:10 p.m.	<u>FLINT</u>	7:07 a.m.
10:34 p.m.	Lapeer	6:35 a.m.
11:30 p.m.	Port Huron	5:45 a.m.
5:40 a.m.	Sarnia, Ont. (EST)	12:15 p.m.
8:55 a.m.	Toronto, Ont. (EST)	8:15 p.m.

Analysis and Problems

The strong demand for freight service by the automotive industry should continue in the future. Bulk freight needs for lumber and other wholesale customers in the greater metropolitan area should continue but may vary in location due to normal business activities. The revival of federally supported passenger service must compete with the automobile, the bus and air services to draw travelers. To succeed railroads must provide efficient, quality movement which requires massive upgrading of tracks, road beds, cars and terminals and more frequent runs.

Locally, the city's major problems are land- use conflicts with the railroads. One conflict is where railroad grades intersect the street system. A second is the environmental impact of trains on adjacent land uses, especially on residential areas.

Railroad grade crossings cause problems for automobiles - especially traffic delay, accidents, and rough street surfaces. The best solution is to separate the grades allowing the railroad line to pass under or over the street. Due to the high cost of building grade separations, all arterial street crossings need to be reviewed and priorities established.

According to C & O and GTW railroads there are grade crossings conflicts at Carpenter Road, Pierson Road, Grand Traverse Street and Bristol Road. Conflicts with adjacent land are a second problem area. Most industrial and commercial land uses are appropriate along main rail lines. Their operations often are linked closely to direct rail access. In contrast, rail lines create serious problems for nearby residential areas. One major concern of those living nearby is the danger to curious children and pets. Another is the danger of derailments or accidents which cause the release of toxic chemicals.

A third class of problems are vibrations, noise and air pollution. Appropriate zoning could prevent some of these problems and buffering neighborhoods would alleviate some of the impact.

IX. AIR SERVICE AND AIRPORT FACILITIES

Introduction

Nationally, the expansion of airports has confronted communities with the problem of balancing a growing need for air service and the protection of the environment. Flint is no exception to this trend. Future transportation will create a need for more flights, larger airplanes and expanded facilities at Bishop Airport. The orderly development of Bishop Airport will be closely linked to adjacent land development. Although most land adjacent to the airport is not in the city limits, portions of Flint are near the airplane approach and take-off patterns. Orderly airport growth depends on compatible land uses in these impact areas.

Current Conditions

Flint is served by Bishop Airport, a facility which accomodates the commercial flights of United and North Central airlines. They provide an average of 22 direct flights per day from Flint to Detroit, Cleveland, Chicago, Lansing, Alpena and Saginaw with connections to other cities in and out of the state (see Map 11). The number of passengers using these airlines has increased from about 23,000 in 1962 to over 107,000 in 1974. During this period, cargo including mail, has fluctuated from 480 tons in 1962 to a high of 1455 tons in 1969. It was about 860 tons in 1973.

A daily commuter service, Comutaire, Inc., provides six round-trip flights to Detroit Metropolitan Airport. Each flight can carry 19 passengers. The service is projected to carry one to two per cent of the passengers at the airport.

Bishop Airport also provides facilities for general aviation aircraft (non-commercial) with about 200 based there now. The combined operations of general and commercial aviation results in about 150,000 runway operations per year.

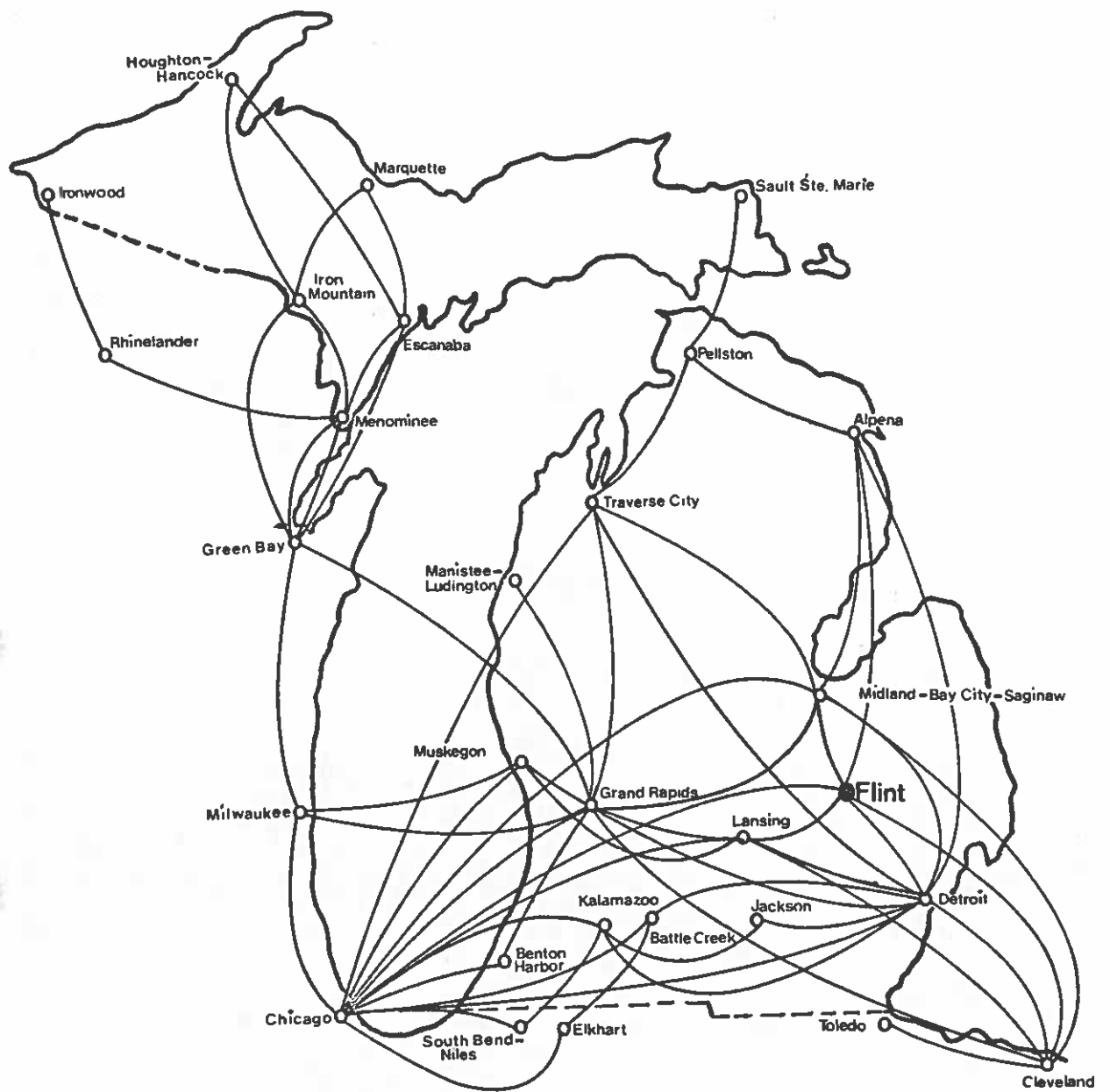
Analysis and Problem Identification

The recently adopted airport master plan (1) forecasts that by 1980, present hangers will be inadequate to house the increase in general aviation aircraft. Secondly, by 1985, the present terminal building, parking, and runways will be inadequate to handle a continued 7.4 per cent annual growth rate in number of passengers and a continued 15 percent annual increase in cargo. The increased demand for future service will generate needs for additional land and new facilities at the airport.

Although continued advancement in aircraft technology should produce quieter aircraft with less exhaust emmissions, the advancement historically has been offset by the increase in size and number of aircraft. Additionally, the trend is to a change in land uses around the airport from agriculture to less compatible uses such as residential.

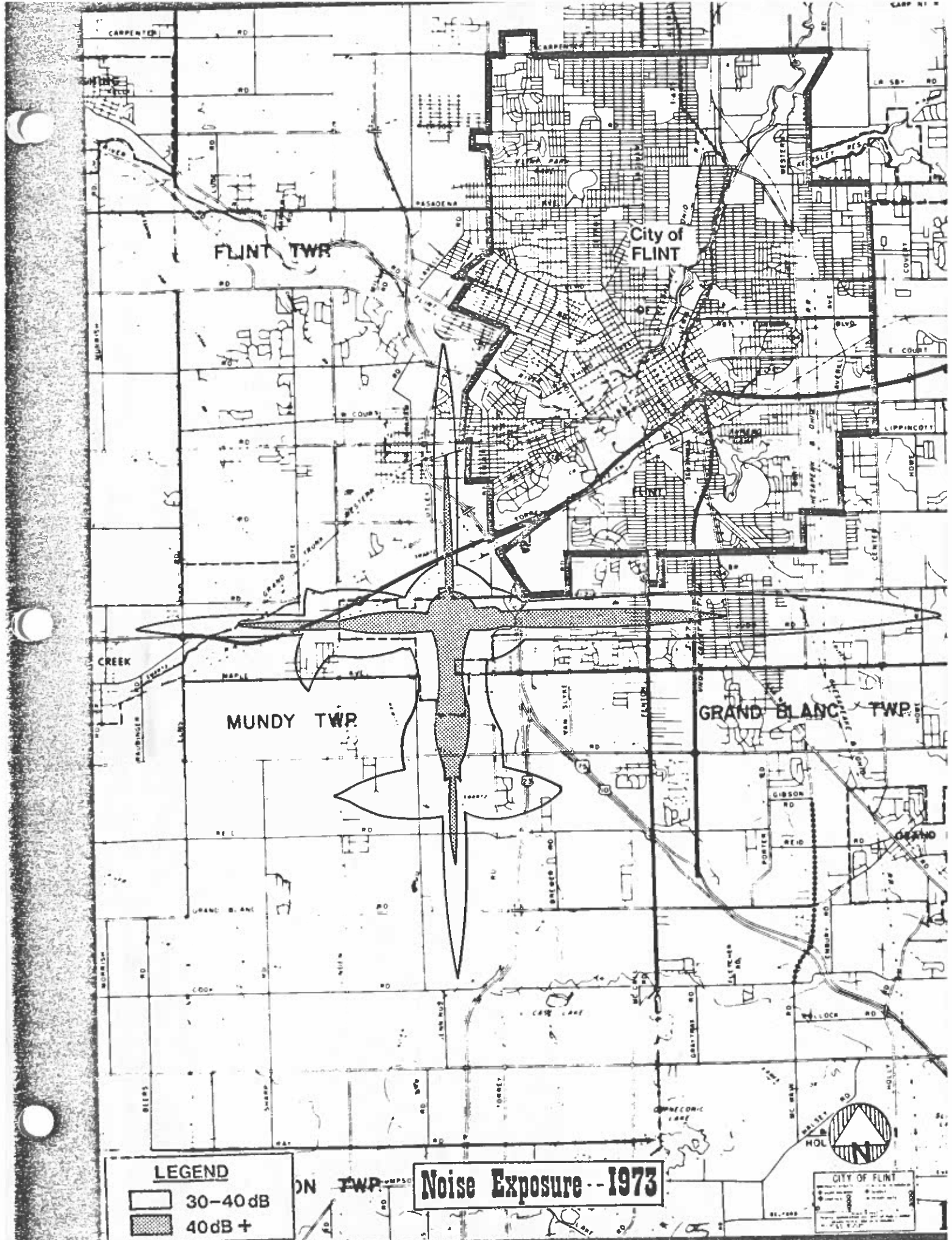
Land adjacent to the airport is outside the city's jurisdiction but portions of Flint lie near existing and future noise exposure areas. These areas are shown on Map 12 for 1973 and Map 13 which shows projected growth for the year 2000 (1) Federal guidelines have established noise exposure levels for differing land uses listed in Appendix H. Although 30 NEFs (noise exposure forecast) generally falls outside the south and west limits of the city, prevailing southwesterly winds bring noise and emissions into the city.

An orderly development of the airport will be closely linked to compatible land development and the environmental impact of flight activity.



Direct Air Service

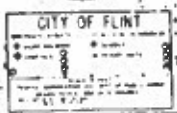
Non-Stop Routes between Michigan cities,
and service to Chicago and Cleveland 'hub' terminals.

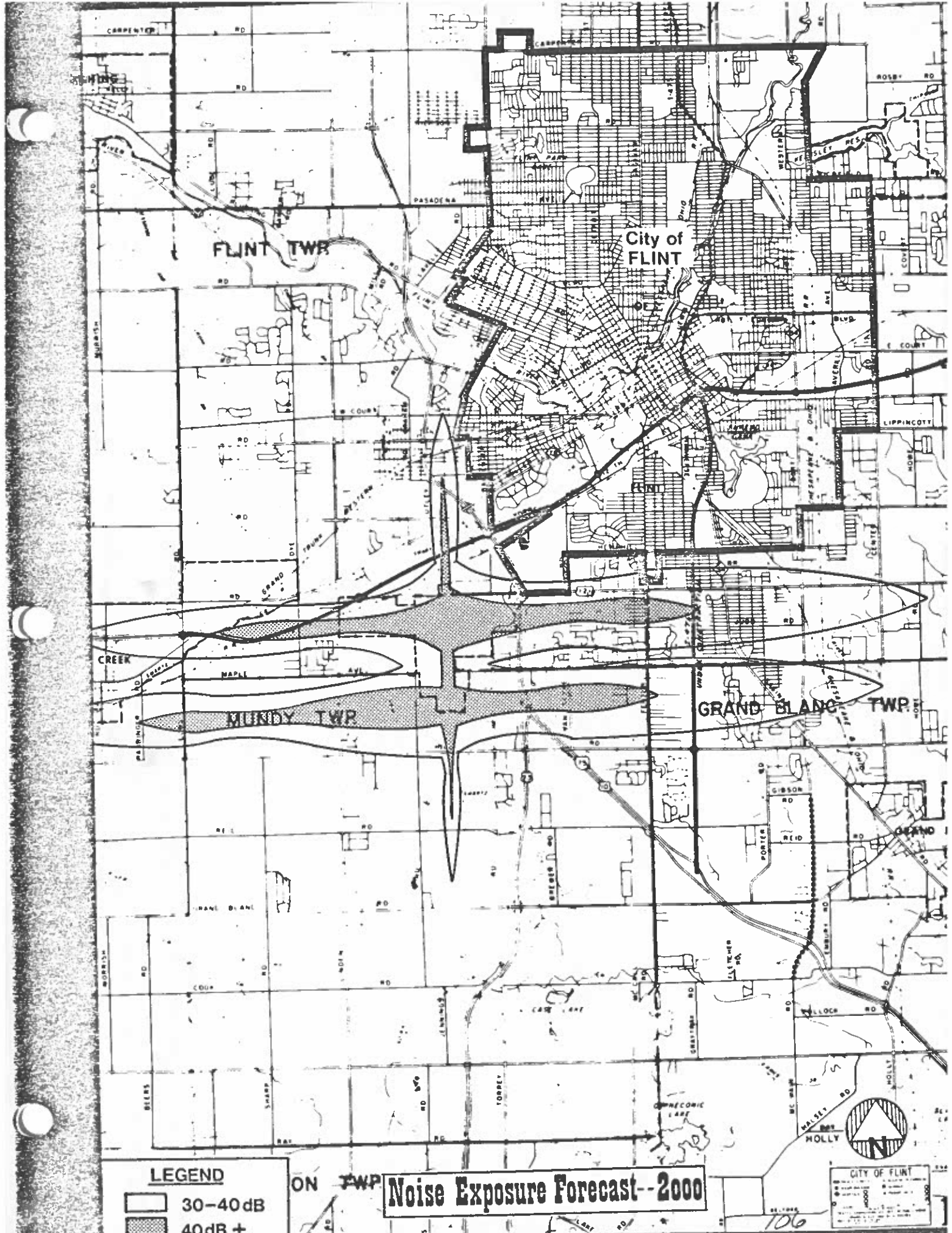


LEGEND

	30-40dB
	40dB+

Noise Exposure - 1973





LEGEND

- 30-40dB
- 40dB +

ON TWP Noise Exposure Forecast--2000

CITY OF FLINT

Scale: 0, 1000, 2000 feet

106

-APPENDIX A-

FUNCTIONAL STREET SYSTEM

System Classification	Primary Service Function	Access Control	V.M.T. (Vehicle miles of travel per total system)	Federally proposed Miles In City By %	Miles Of Flint Streets	Miles Of Flint Streets By %
<u>Principle Arterials</u>	<ul style="list-style-type: none"> -Through traffic -Intercity bus routes -Intercept rural arterials -Inter area (Ex. CBD to residential) -Little or no access to adjoining land -Highest mobility 	<ul style="list-style-type: none"> Fully Controlled & Partially Controlled 	40-65%	5-10%	40	7.9%
<u>Minor Arterial Streets</u>	<ul style="list-style-type: none"> -Interconnect principle arterials -Routes for local buses -Does not penetrate neighborhoods 	Partially Controlled	60-80%	15-25%	61	11.9%
<u>Collector Streets</u>	<ul style="list-style-type: none"> -Circulation within residential -Neighborhood, commercial, and industrial areas -Provides access to adjoining land 	None	5-10%	5-10%	48	9.3%
<u>Local Streets</u>	<ul style="list-style-type: none"> -Direct access to adjoining land -Low mobility -No through movement -No bus routes 	None	10-30%	65-80%	364	70.9%

APPENDIX B

MAJOR STREETS PRIORITY EVALUATION CRITERIA

<u>RATING</u>	<u>Surface Deterioration Factor</u>
0-50	None or very little deterioration
51-100	Some initial deterioration, but not yet requiring maintenance
101-225	Occasional deterioration requiring occasional maintenance
226-350	Frequent deterioration requiring frequent maintenance
351-500	Intolerable deterioration requiring continuous maintenance

Added to above:

<u>RATING</u>	<u>Traffic Count Increment (Daily)</u>
0-56	0-900
57-110	901-2400
111-166	2401-4500
167-224	4501-6500
225-282	6501-8600
283-340	8601-9700
341-400	over 9700

Added lastly:

<u>RATING</u>	<u>Years of Deficiency on List</u>
25	one year
50	two years
75	three years
100	four years

LOCAL STREETS PRIORITY EVALUATION CRITERIA

<u>RATING</u>	<u>Surface Deterioration Factor</u>
0-60	No or very little deterioration
61-120	Some initial deterioration, but not yet requiring maintenance
121-270	Occasional deterioration requiring occasional maintenance
271-420	Frequent deterioration requiring frequent maintenance
421-600	Intolerable deterioration requiring continuous maintenance.

Added to above:

<u>RATING</u>	<u>Land Use Factor</u>
0-100	Pure residential
101-230	Residential-school arterial
231-300	Residential--semi-commercial

Added lastly:

<u>RATING</u>	<u>Years Deficiency on List</u>
25	one year
50	two years
75	three years
100	four years

NOTE: The above rating factors will result in a street prioritized list with a point spread of 0-1000 for each major or local street.

APPENDIX C

PRIORITIZED RESURFACING LIST FOR FY 77/78 AND OTHER INFORMATION

RESURFACING COMPLETED IN 1977 PRIOR TO JULY 1

<u>STREET</u>	<u>LIMITS</u>	<u>AREA S.Y.</u>
ATHERTON TERRACE	3300-3200 blocks	1500
COMSTOCK	PASADENA*SONNY	2041
DAYTON PLACE	DELMAR*FOREST HILL	361
LAPEER	HOWARD*DORT	9500
RUSSELL	SAGINAW*INDUSTRIAL	4692
TORREY ROAD	BRISTOL*S. CITY LIMITS	11450
TWELFTH STREET	E. OF BEACH	63
WHITE	600 Block	50

MAJOR ST. RESURFACING COMPLETED IN 1977 FROM 7-1-77 TO DATE

LEITH	NORTH*INDUSTRIAL	3161
ATHERTON	DORT*SAGINAW	34269
LEITH	BRIDGE*FRANKLIN	11246

LOCAL ST. RESURFACING COMPLETED IN 1977 FROM 7-1-77 TO DATE

CAMDEN	BLOOR*PADDINGTON	2060
SEVENTH ST.	GRAND TRAVERSE*ANN ARBOR	2742
HUGHES	CORUNNA*HERRICK	4261
CADILLAC	#423*BLUFF	1568
PHILADELPHIA	HORTON*INDUSTRIAL	3621
NEUBERT	FENTON*GRAND TRAVERSE	7557
DARLING	CORUNNA*REYNOLDS	664
LEXINGTON	FENTON*E. DEAD END	3966
TACKEN	CORUNNA*REYNOLDS	679
PETTIBONE	TUXEDO*FENTON	2273
KNAPP	FIELDING*CORUNNA	1277
DURAND	MILLER*RAMSEY	1677
HUGHES	FIELDING*CORUNNA	1600
FOREST HILL	PASADENA*MCCLELLAN	2415
CHIPPEWA	WOOD*FIFTH	6397
RAY ST.	STEVENSON*RAY CT.	904
RAY CT.	ALL	462

MAJOR ST. RESURFACING TO BE COMPLETED BEFORE 7-1-78

WELCH	FOREST HILL*CHEVROLET	6843
BROADWAY	LEWIS*RIVER	8666

LOCAL ST. RESURFACING TO BE DONE BEFORE 7-1-78

<u>STREET</u>	<u>LIMITS</u>	<u>AREA S.Y.</u>
FOURTH AVE.	BIECK*FROST	968
IOWA	IOWA*MONTANA INTERSECTION	312
BEGOLE	BALLENGER*W. DEAD END	6665
BARTH	BALLENGER*W. DEAD END	6665
IOWA	IOWA*ARIZONA INTERSECTION	312
IOWA	IOWA*COLORADO INTERSECTION	312

MAJOR ST. G. & WT. RESURFACING FY 77/78

<u>WARD #1</u> FLEMING RD.	HOME*CARPENTER	7800
<u>WARD #2</u> FLEMING RD.	PIERSON RD.*HOME	7800
<u>WARD #3</u> LEITH ST.	ST. JOHN*BRIDGE	3258
<u>WARD #4</u> BENNETT	DORT*FRANKLIN	7800
<u>WARD #6</u> CALDWELL MARQUETTE DETROIT	WOLCOTT*MACKIN PUDUCAH*CHEVROLET SAGINAW*THIRD AVE.	1500 1662 3733
<u>WARD #7</u> FOX NEBRASKA	GLENWOOD*COURT KEARSLEY PK. BLVD.*VERNON	2100 7200
<u>WARD #8</u> BRADLEY	CRESTWOOD*SUNSET	6361
<u>WARD #9</u> GRAND TRAVERSE	HEMPHILL*LELAND	6769

LOCAL ST. G. & WT. RESURFACING FY 77/78

<u>WARD #1</u> WOODBINE BISHOP CHATEAU PULASKI	WESTMORELAND*PIERSON 100' E. & W. OF AUBREY OXLEY*KAREN SAGINAW*DETROIT	2400 746 533 4650
<u>WARD #2</u> SENECA GENESEE	100' S. OF COPEMAN*BEGOLE DUPONT*# 1601	1892 5250

<u>WARD #3</u>		
LOMITA	SAGINAW*NORTH	5250
ESTHER	PASADENA*EDMUND	4200
<u>WARD #4</u>		
WHITTIER	BRANCH*CURRY	1744
UTAH	FRANKLIN*MINNESOTA	2559
MARYLAND	IOWA*FRANKLIN	4244
<u>WARD #5</u>		
PAGE	SAGINAW*INDUSTRIAL	1144
<u>WARD #6</u>		
RASKOB	FORREST HILL*MILBOURNE	2166
FIRST AVE.	GARLAND*SAGINAW	1056
FROST	FLUSHING*FIFTH AVE.	2900
HUBBARD	COURT*VAN BUREN	2250
<u>WARD #7</u>		
KEARSLEY PK.	OHIO*INDIANA	4957
UNION	GARLAND*SAGINAW	2339
<u>WARD #8</u>		
OSSINGTON	CAMDEN*FENTON	3753
ARLENE	BALLENGER*NEDRA	3600
CLANCY	CORUNNA*BROWN	1609
AUGUSTA	BALLENGER*NEDRA	3600
<u>WARD #9</u>		
COLERIDGE	MILTON*SAGINAW	722
TOBIAS	SAGINAW*X-WAY	924
LAKEVIEW	SAGINAW*COLLINGWOOD	3139
McKINLEY	SHAWNEE*OGEMA	2700
KENT	BARKS*McPHAIL	2679
<u>HUD LOCAL ST. RESURFACING FOR 1978 CONSTRUCTION SEASON</u>		
BELLEVIEW	CARPENTER*ALMA	3450
LORADO	SAGINAW*STAFFORD	900
MARY	ROOT*SAGINAW	1800
BONBRIGHT	OREN*WITHERBEE	900
ROOT	PAGE*MARY	900
MARY	DETROIT*ROOT	5400
ADAMS	OREN*PATTERSON	1500
ALBERT	MARY*WITHERBEE	900
<u>HUD MAJOR ST. RESURFACING FOR 1978 CONSTRUCTION SEASON</u>		
HAMILTON	DUPONT*MASON	4200
DAYTON	DETROIT*MASON	2550
DAYTON	DUPONT*MASON	4200
AVENUE A	MARY*PAGE	600

APPENDIX D

1976 - 77 - 78 - HIGH ACCIDENT LOCATIONS
TRAFFIC ENGINEERING DIVISION
CITY OF FLINT

1976 RANK	INTERSECTION LOCATION	NO. OF ACCIDENTS	1977 RANK	INTERSECTION LOCATION	NO. OF ACCIDENTS	1978 RANK	INTERSECTION LOCATION	NO. OF ACCIDENTS
1.	12TH ST. & VAN SLYKE	32	1.	PIERSON RD. & SAGINAW ST.	51	1.	PIERSON RD. & SAGINAW ST.	48
2.	FIFTH AVE. & GD. TRAVERSE	30	2.	COURT ST. & GD. TRAVERSE	47	2.	I-475 & FIFTH ST.	47
3.	DORT HWY. & LAPEER RD.	28	3.	BEACH ST. & FIFTH ST.	43	3.	FIFTH AVE. & GD. TRAVERSE	43
4.	COURT ST. & DORT HWY.	23	4.	COURT ST. & DORT HWY.	42	4.	DORT HWY. & LAPEER RD.	39
5.	DETROIT ST. & PASADENA AVE.	22	5.	DORT HWY. & LAPEER RD.	41	6.	12TH ST. & VAN SLYKE	39
6.	DORT HWY. & R.T. LONGWAY	21	6.	DAVISON RD. & DORT HWY.	38	6.	DETROIT ST. & PASADENA	33
7.	DETROIT ST. & STEWART AVE.	20	7.	FIFTH AVE. & GD. TRAVERSE	37	8.	DORT HWY. & LIPPINCOTT	33
8.	BEACH ST. & FIFTH ST.	19	8.	CLIO RD. & PASADENA AVE.36	36	9.	DORT HWY. & R.T. LONGWAY	31
10.	RICHFIELD RD. & WESTERN RD.	19	9.	DORT HWY. & R.T. LONGWAY	35	10.	DUPONT ST. & WELCH BLVD.	28
	CENTER RD. & DAVISON RD.	18	10.	GD. TRAVERSE & THIRD AVE.	28		COURT ST. & GD. TRAVERSE	26
	DORT HWY. & RICHFIELD RD.	18		12TH ST. & VAN SLYKE	28		DAVISON RD. & DORT HWY.	26
12.	COURT ST. & SAGINAW ST.	17	12.	CENTER RD. & DAVISON RD.	27		DUPONT ST. & PASADENA AVE.	26
	DORT HWY. & LEITH ST.	17		DORT HWY. & RICHFIELD RD.	27		I-475 & COURT ST.	26
	FENTON & HEMPHILL RD.	17		DUPONT ST. & RICHFIELD RD.	27	14.	BALLENGER HWY. & CORUNNA	25
15.	DAVISON RD. & DORT HWY.	16	15.	DORT HWY. & PASADENA AVE.	26		BEACH ST. & FIFTH ST.	25
	DETROIT ST. & FIFTH AVE.	16	16.	DORT HWY. & STEWART AVE.	26		CLIO RD. & PASADENA AVE.	25
17.	ATHERTON RD. & VAN SLYKE	15	17.	DORT HWY. & LIPPINCOTT	25	17.	COURT ST. & PASADENA AVE.	24
	DUPONT ST. & PASADENA AVE.	15	18.	DETROIT ST. & PASADENA AVE.	24	18.	COURT ST. & DORT HWY.	22
	DUPONT ST. & WELCH BLVD.	15		BEACH ST. & NINTH ST.	23		BALLENGER HWY. & BEECHER	22
	PIERSON RD. & SAGINAW ST.	15	20.	COURT ST. & SANINAW ST.	23		GD. TRAVERSE & THIRD AVE.	22
	SAGINAW ST. & WOOD ST.	15		BALLENGER HWY. & BEECHER RD.	22		RICHFIELD RD. & WESTERN	22
	I-475 & FIFTH AVE.	15		ATHERTON RD. & DORT HWY.	21			

(COMPILED: MARCH 1977 & JANUARY 1978 & JANUARY 1979 BY: M.R. NOVARA AND P.A. MANNING)

APPENDIX F

UNIFORM CRITERIA FOR MAJOR STREETS

Category 1 - Existing Major Streets

The existing Major Street System throughout the state, in some instances, is not functioning as intended due to excessive on-street parking and sub-standard widths. Such deficiencies materially decrease capacity, impede traffic flow and increase the accident potential to both the traveling public and pedestrians.

It is essential that an existing Major Street facilitate at least two 10-foot lanes, unencumbered by parked vehicles. A minimum pavement width is 20 feet.

The following minimum criteria will apply, in order to maintain an effective and safe existing major street network.

Curbed Streets	Face to Face of Curb
Parallel parking-one side	28'*
Parallel parking-both sides	36'*
Diagonal and perpendicular parking	Not Permitted**

*Add at least one foot to these widths for average daily traffic volumes in excess of 5,000, or peak-hour two-way traffic volumes in excess of 600.

**Upon approval by the Michigan Department of State Highways and Transportation, existing diagonal or perpendicular parking may be allowed to continue in extenuating local circumstances where traffic conditions and accident experience justify such continuance.

Category 2-Reclassification of an existing Local Street to a Major Street

For the acceptance of Local Streets which meet the other requirements into the Major Street System, the following minimum width requirements must be met:

Curbed Streets	Face to Face Width
No parking	24'
Parallel parking-one side	29'
Parallel parking-both sides	38'
Diagonal parking	Not Permitted

Category 3-Construction of new Major Streets and the reconstruction of existing Major Streets.

Curbed Streets	Face to Face Width	
	Minimum	Desirable
No parking	26'	30'
Parallel parking-one side	32'	36'
Parallel parking-both sides	40'*	48'
Diagonal parking	Not permitted	

*In the event the 20-year traffic projections indicate the need for a four-lane facility, a minimum width of 46 feet is necessary.

- (1) Uniform Criteria For Major Streets, Michigan Department of State Highways & Transportation, 1974.

APPENDIX G

<u>Land Use Type</u>	<u>Noise Exposure Forecast</u>	<u>Noise Impact</u>
Residential &	Less than 30 NEF	Little or no noise impact. Areas can be developed with no special noise insulation requirements.
	Between 30 to 35 NEF	New construction recommended only after detailed noise evaluation. New buildings should be noise insulated.
	Greater than 35 NEF	No construction advised.
Commercial	Less than 35 NEF	Little or no noise impact.
	Between 35 to 45 NEF	New construction recommended only after detailed noise evaluation. New buildings should be noise insulated.
	Greater than 45 NEF	No new buildings except those directly related to the airport. Provision of adequate noise insulation.
Industrial	Less than 40 NEF	Little or no noise impact.
	Between 40 to 50 NEF	New construction recommended only after detailed noise evaluation. New buildings should be noise insulated.
	Greater than 50 NEF	No new buildings except those directly related to the airport. New buildings should be noise insulated.
Open Space	Less than 40 NEF	Little or no noise impact.
	Greater than 40 NEF	Land uses that could involve concentrations of people such as in spectator sports should be avoided.

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JR:gwa:S/5



APPENDIX E
CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Compiled By:
D. Baehr - TE
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Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
1	83	R. T. Longway Blvd. (Cole Blvd. to Avon Street)	23	FAUS 1976	ADT-10,000 one-way	Existing Longway L.S.-E A.R.-5.1	East Bound roadway of one-way pair with R.T. Longway Blvd. Westbound. New bridge over Flint River and approaches ADT-18,000 (one-way)		Cross-town one-way Need ROW from post office
2	76	Fourth Ave. (Garland St. to Cole Blvd. -- one-way pair with 5th Ave.)	9	FAUS Submit 1976-77	ADT-10,000 One-way ROW-60'	L.S.-E A.R.-5.1 Surface & width on existing 5th Ave.	Widen 4th Ave. 48' + curb & gutter to serve as one-way Eastbound. ADT-16,000 (one-way)		Cross-town one-way pair ROW needed
3	76	Fourth Ave. Ext. to 5th Ave. (Prospect St. to Stone St.)	36	FAUS 1976-77	ADT-eastbound 5th Ave. is 8,000 ROW-60'	Existing 5th Ave. L.S.-D A.R.-5.7	One-way pair with 5th Ave west end connector. Construct to 36' + curb and gutter accommodating one-way east bound traffic. 5th Ave. will become one-way west bound. ADT-east bound 5th Ave. 15,000		Most ROW has been purchased Cross-town one-way pair

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
4	72	Fourth Ave. (Stone St. to Garland St.)	39	FAUS submit 1977	ADT eastbound 8,000	Existing 5th Ave. L.S.-D A.R.-3.7	One-way pair with 5th Ave. Widen 4th Ave. from 26' to 36' + curb & gutter Stone to Grand Traverse, 48' from Grand Traverse to Garland		Cross-town one-way pair ROW needed.
5									
6	72	Broadway Blvd. (Stever St. extension @ west end to Hamilton and east end to Davison Rd.)	44	Submit 1976	ADT-6500 Average on Broadway Row 100' ADT-12,000 on Davison Rd. ROW-66'	Existing Broadway L.S.-D A.R. 3.6	One-way east bound connector to Davison Rd. Widen west end to 33' + curb and gutter; east end taper from 36' to 40' + curb and gutter. ADT-21,000 (one-way) ROW 60'		Completes Broadway-Stever interchange
7	78	Church St. ext. (Kearstley to Water at Mason)	6	Public Works 1977-78	ADT 12,000 N. bound on Grand Traverse	L.S.-F AR 8.8 on Grand Traverse	One-way N.B. connects over Flint River from Church to Mason, includes new bridge		ROW needed

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROM	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
8		Hamilton Bridge-Broadway (C&O) R.R. to Lewis St.)	44A						Inadequate 4 lanes.
9	78	Atherton Rd. (Fenton Rd. to 200' east of C&O R.R.)	5	FAUS 70/30	ADT-15,882 ROM-66'	L.S.-E A.R.-4.9 width-curbs surfaces	Widen from 36' to 44' ADT-26,000 ROM- widen C & O R.R. crossing @ Fisher Body	\$250,000	Links with I-475 Service Rd. @ Grand Traverse
10	67	Church St. Ext. to Grand Traverse (12th St. @ Grand Traverse to Church & 9th St.)	45	1976-77 Bond	ADT-G.T. North bound 12,000 ADT-Church St. north bound 2,300	L.S.-# A.R.-1.04	Built connector for one-way north bound 33' to 44' + curb & gutter ADT-Church N.B. 19,000 ROM-80'	\$225,000-Road	Freeway Related
11	80	Hamilton Ave. (C&O RR to 500' West of Saginaw)	3	FAUS 70/30 1978	ADT-19,938 ROM-100'	L.S.-F A.R.-4.0 Surface	Widen roadway from 44' to five lanes		Bisects Buick Complex and serves St. John Industrial Park
12	77	Lapeer Rd. (12th St. to 300' east of Center Rd.)	8	FAUS 70/30 Submit 1977-78	ADT-9,000 ROM-66"	L.S.-E A.R.-5.6 Width, Drainage & Surface	Widen from 20' to 44'+ curb & gutter. Add turn lanes @ Dort Hwy, Center Rd. and Averill & widen south leg of Averill at Lapeer Rd. for turn lane. ADT-15,000		Tree Removal

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
13	76	Dupont Street (Pasadena Ave. to Pulaski St.)	11	FAUS Submit 1977-78	ADT-12,607 ROW-80'	L.S.-E A.R.-5.1 width drainage	Widen existing bottleneck from 26' to 44' + curb & gutter. Add continuous turn lane from Moore to Bishop. ADT-19,000		Turn lane for commercial district traffic
14	74	North Street extension to Saginaw St. (2nd Ave. @ North St. to 4th Ave. @ Saginaw St.)	32	FAUS 1977-78	ADT north-bound 6,500	Without connection a capacity & safety problem would develop at 5th Ave.	One-way north bound connector to Saginaw St. serve the downtown one-way pair of Harrison & Beach Sts. Proposed 36 ft. with curb & gutter. ADT-15,000		Project Under Review
16									
17									
18	74	Cedar Street (Fenton Rd. @ Cedar St. to Second St. @ Chase St.)	56	Bond proposal 1978	Fenton Rd. ADT-12,367	Alignment	Relocation of Fenton Rd. to provide more direct connection with Court St. & Second St. ADT-19,000 ROW-80'		New Rdkwy. CBD bypass ROW needed

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
19	76	Beach Street connection to Saginaw Street (12th St. to 9th)	18	Bonds 1980	ADT Beach - 4,000 Saginaw-10,300	On Saginaw St L.S.-F A.R.-5.3	New one-way south bound connector to Saginaw St. 36' + curb & gutter. ADT-Southbound ROW-21,000		ROW needed.
20	74	Saginaw St. Ext. to Harrison St. (6th St. to Court St.)	19	Bonds 1980	ADT-2 way on Saginaw 27,499	L.S.-F A.R.-8.97	Connector to Harrison oneway Northbound 44' + curb & gutter. ADT-one way Saginaw 16,300 ROW-70'		ROW needed. Impacts on City Hall frontage
21	74	Fenton Road (Markham St. to Alford Street)	20	FAUS 1978	ADT-19,178 ROW-80'	Width L.S.-E A.R.-9.94	Widen existing 36' to 44' + curb & gutter. ADT-24,000		Inadequate four lanes
22	74	Ballenger Hwy (Flint River to Miller Rd.)	21	FAUS 1977	ADT (Inbound) 28,474 ROW-Ballenger 100', Court St. - 80' ft.	Width L.S.-D A.R.-1.35	Widen Ballenger Hwy. from 44' + curb & gutter. to five lanes ADT-38,000		Continuous left turn lanes on Ballenger
23	73	R.T. Longway Blvd. (Commerce St. to Center Rd., except Longway-Averill intersection-safety project.)	22	FAUS 1979	ADT-12,485 ROW-66'	Width L.S.-F A.R.-2.41 drainage open ditches dirt shoulders	Widen to 44' + curb & gutter entire length to match safety project. ADT-16,000		

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
24									
26	72	Flushing Rd. (Stevenson St. to Battenger Hwy.)	26	1978	ROW-60' - 70' & 80' ADT-18,270	Width L.S.-E A.R.-3.47	Widen to five lanes ADT-14,000 (1980)		Residential area. Limited ROW. EIS may be required.
27	71	Beach Street connection to Saginaw St. @ First Ave.	28	1980 Bond Proposal	ROW-ADT-15,000 one-way	L.S.-E A.R.-.258 Saginaw St. Data	48' + curb & gutter ADT-25,000 one-way ROW-80'	Realign Beach St. Bridge	ROW needed North side of River
28	71	Stewart Ave. to Horton Ave. to Saginaw St. M-54 BR.)	29	FAUS 1977	ADT-12,000 ROW-60'	Width	Widen to 48' + curb & gutter entire length. Must accommodate interchange with I-475 ADT-26,000		Inadequate four lanes
30	70	Court Street (west city limits to Grand Trunk R/R)	34	1979 FAUS	ADT-12,200 ROW-66'	Open ditches dirt shoulders L.S.-D A.R.-5.63	Widen existing 20' pavement to 44' + curb and gutter ADT-16,000	\$1,173,000	
32	69	Fleming Rd. (Pasadena Ave. to Pierson Rd.)	37	1979 FAUS	ADT-7,300 ROW-80'	Open ditches dirt shoulders L.S.-D A.R.-f.63	Widen from existing 20' to 44' + curb & gutter ADT-20,000		

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CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
34	68	Grand Traverse St. (6th Ave. to 8th Ave.)	40	1976-77 FAUS	ADT-13,900 ROW-60'	8th St. is major St. at ADT of 6,600 with 87% turning movement @ Grand Traverse. There's an extreme vertical climb at N.B. Grand Traverse. L.S.-E A.R. -4.93	Widen from 26' to 44' + curb & gutter ADT-28,000		Expansion of Hurley Medical Center warrants this widening. Stevenson Elem. to be closed
35	68	Twelfth St. (1200' east of Hammerburg Rd. to I-475 overpass)	41	1978	ADT-9,000 ROW-60'	Width, open ditches & dirt shoulders L.S.-D A.R.-3.26	Widen from existing 24' to 44' + curb & gutter and add turn lanes @ Saginaw and Grand Traverse.		
36	68	Davison Rd. (Vernon to Dort Hwy.)	42	1978	ADT-14,000 ROW-65'	Width L.S.-D A.R.-6.65	Widen to 55' Vernon to Dort ADT one-way-17,000		ROW needed at inter-section
37	68	Broadway Blvd. Ext. (Broadway Ext. from Broadway-Franklin intersection to Vernon Ave.-Davison Rd. inter-section.)	43	Submit in 1977	ADT-14,000	L.S.-D A.R.-4.9	Connector to complete oneway pair with Davison Rd. 36' + curb & gutter ADT-17,000 oneway		ROW needed

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
38	67	Welch Blvd. (Forest Hill Ave. to 250' East of Ballenger Hwy.)	45A	FAUS 70/30 1977	ADT-12,000 ROW-100'	Broken curbs & surface	Widen from Ext. 36' to 44' + curb & gutter ADT-16,000		Tree removal needed. Inadequate four lanes
39	67	Detroit St. (Stockdale St. to Pasadena)	46	1980	ADT-12,926 ROW-80' bottleneck	Hazardous traffic ADT-16,000 L.S.-D A.R.-8.58	Widen from 42' and 52' to 55' + curb & gutter		Remove on-street parking
41	67	Saginaw St. (peer St. to 15th St.)	48	1981	ADT-22,000 ROW-99'	Only existing 44' section on entire length of Saginaw St. through city. L.S.-E A.R.-4.11	Widen existing 44' to 57' to provide left turn lane.		
42	66	Detroit St. (Pasadena Ave. to Philadelphia)	49	1980	ADT-17,185 ROW-60' & 80'	Hazardous bottleneck L.S.-D A.R.-6.28	Widen from 40' and 44' to 55' + curb & gutter ADT-21,000		ROW needed for side-walk
43	66	Detroit St. (Stockdale to Welch & Garland)	49A	1980	ADT on existing 13,000	Hazardous AR 6.2	26 ft. wide connector to Garland St. SB. 8,000 one-way pair with Garland.		ROW needed

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
44	66	Oren Ave. (Hamilton to Welch Blvd.)	3A	FAUS 1979	ADT-5,000 ROW 60'	Curb Surface width	Widen from 26' to 44' + C & G		Urban Renewal area- Oak Park. Related to Hamilton.
46	69.5	Beecher Road (Edgemont to Court St.)	51	1979	ADT-8,600 ROW-80'	Dirt shoulders Open drainage ADT-13,000	Widen from existing 20' to 44' + curb & gutter	\$427,000 (1978)	
47	65	R. T. Longway Blvd. (Dort Hwy. to Rachel St.)	52	1978	ADT-18,000 ROW-100'	L.S.-D A.R.-2.0	Widen from 22' X 22' to 33' X 33' + curb & gutter. Construct median between Rachel and Franklin. Turn lane @ all intersections ADT-32,000		Limited access roadway
48	65	Franklin Ave. (Illinois to Broadway)	53	1978	ADT-10,342 ROW-60'	Alignment L.S.-E A.R.-4.99 Drainage	Widen from 36' and 40' to 44' + curb & gutter. 4 lanes. Realign job @ Davison Road.		Inadequate 4 lanes
49	65	Western Road (Leith St. to Carr St.)	54	1977	ADT-9,723 ROW-60'	L.S.-E A.R.-2.74 Drainage width	Widen from 20' to 44' + curb & gutter. ADT-15,000		Reevaluate priority ranking

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
50	64	Second Street Ext. to Court St. (Chevrolet Ave. @ Second St. to Court St.)	55	1980	ADT-for Glenwood 7,405 Westbound ADT for 2nd St. 7,808 eastbound ADT for Chevrolet Ave. 10,000	L.S.-E A.R.-86	Connector to complete one-way pair with Glenwood. ROW-70' ADT Glenwood WB-10,000 ADT 2nd St. EB-10,000 ADT Chevrolet Ave-14,000		ROW needed Reevaluate priority ranking
52	68-1972 62-1976	Kearsley Street (I-475 to Crapo St. connect campuses)	42A	75 Bond Issue	ADT-4,000 ROW-60'	Deteriorated curb & surface	Widen existing 26' to 44' + curb & gutter (2 X 4' bike paths included) Proposed bridge over (I-475 will have 50' road width. ADT-7,000	\$250,000	Widening cannot be justified at this time. Except for 36 ft. road & bike ways
53									
54	61	Hemphill Road (Van Slyke Rd. to Tuxedo Ave. plat line)	62	City/County 1977-78	ADT-7,000 ROW-80'	L.S.-C A.R.-3.82 Drainage width	Widen from 24' to 44' + curb & gutter ADT-12,000	\$247,209	

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
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Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
55	61	Court Street (Grand Trunk R/R to Corunna Rd.)	63	Proposed Bonds 1978	ADT-12,182 ROW-60'	L.S.-D A.R.-2.49 width curb surface	Widen existing 38' to 44' + curb & gutter ADT-18,000	\$215,500	Inadequate four lanes and remove parking Reevaluate in respect to M. Court widening
57	60	Aver-111 Ave. (Davison Rd. to Longway Blvd.)	65	1978	ADT-14,549 ROW-80'	L.S.-C A.R.-10.76	Widen from 44' to 55' + curb & gutter. Center lane will serve as continuous turn lane for A.C. Spark Plug Plant ADT-20,000	\$200,000	Reevaluate priority ranking
58	60	Dupont Street (Flushing Rd to Stockdale)	66	1978	ADT-11,000 ROW-80'	L.S.-D A.R.-2.05 Width alignment	Widen from 36' to 44' + curb & gutter. Realign curve @ Ballenger Park. ROW from Park needed.		Inadequate four lanes ROW needed
59	60	Dupont Street (Chevrolet to Flushing Rd.)	67	1984	ADT-7,000 ROW-60' & 80'	L.S.-C A.R.-6.2 width	Widen 2 x 18' to 2 x 22' (cut from median strip) ADT-16,000		Part of future Dupont ext.

CITY OF FLINT MICHIGAN
PROPOSED URBAN SYSTEM IMPROVEMENTS
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
62	60	Hammerburg Rd. Extension (Hemphill Rd. to 12th St. @ Hammerburg Rd.)	69	1980	ADT Does not exist.	L.S.-D A.R.-4.18 Van Slyke data.	New extension passing under G.T.R.R. Direct link with I-69 interchange and Dupont St. extension all the way north to city limits. ADT-29,000 ROW-100' & 80'		Part of Dupont St. Extension ROW needed. Van Slyke relief.
63	59	Pasadena Ave. (Saginaw St. to Wisner St.)	71	1982	ADT-8,500 ROW-80'	L.S.-C A.R.-4.29	Widen from 38' and 40' to 44' + curb & gutter. ADT-15,000		Inadequate four lanes
64									
65	57	Stevenson St. (Flushing Rd. to Kearsley St.)	73	1980	ADT-4,557 ROW-60'	L.S.-B A.R.-3.87 width	Widen existing 26' roadway to 44' + curb & gutter. Existing bridge over Flint River has 40' roadway. Roadway bisects Chevy Mannu-facturing Plant. ADT-13,000		ROW needed Part of Cedar St. extension
66	56	Pierson Rd @ Saginaw St. (Saginaw St. to 400' East of Saginaw St.)	74	Capital Improvement 1976-77	ADT-17,000 ROW-100' M. Leg 66' E. Leg	L.S.-D A.R.-1.21 alignment	Widen Pierson Rd. to 55' @ intersection. ROW triangle 13' X 200' needed in North/East quadrant. ADT-20,500		Reevaluate priority ranking

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
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Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
67									
68									
69	55	Leith St. (Lewis St. to Franklin Ave.)	77	1980	ADT-10,745 ROW-60'	L.S.-C A.R.-4.98	Widen existing from 36' to 44' + curb & gutter ADT-21,000		Reevaluate for St. John Industrial Park influence. Inadequate four lanes remove on-street parking
70									
71									
72									
73									
74	51	Ann Arbor St. (Court to 2nd Street)	85	1979	ADT-6,500 ROW-60'	Alignment L.S.-C A.R.-4.5	Realign sharp curve @ Third St. Need additional ROW. Widen road from 26' to 44' + curb & gutter. ADT-9,000		ROW needed. Reevaluate priority ranking

CITY OF FLINT MICHIGAN
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Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
75	50	Crapo St. to (2nd St. to N. bound I-475 service road.)	86	Bonded 1975-1976 Urban Renewal Grant	ADT-6,000 ROW-60'	L.S.-B A.R.-5.48 width	Widen from 38' to 41' + curb & gutter. ADT-10,000		Serves college & cultural center and F.B.E.
		Ballenger Hwy. (Mackin Rd. to Sloan St.)	90				Widen from 40' to 44' + curb and gutter		Inadequate 4 lanes.
		Bradley Avenue (Mansfield Ave. to GTM RR)	91				Widen from 26' to 36' + curb and gutter for left turn lane.		Increase capacity
		Hamilton Avenue (Dupont St. to Forest Hill Ave.)	92				Narrow median to widen 2x18' pavement to 2x24' pavement.		Increase capacity.
		Leith Street (Saginaw St. to Industrial Avenue)	93				Widen 36' & 40' to 44' + curb and gutter.		Inadequate 4 lanes.
		Lewis Street (Kearsley Pk. Blvd. to Hamilton Ave.)	94				Widen 38' to 44' + curb and gutter.		Inadequate 4 lanes.
		Clifford Street at Lippincott Blvd.	95				Re-align curve.		ROW Needed.

CITY OF FLINT MICHIGAN
 PROPOSED URBAN SYSTEM IMPROVEMENTS
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Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing System ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
		Mason Street (Water Street to Fifth Avenue)	96				Widen 26' to 33' and 44' + curb and gutter		Part of Church, Mason & Grand Traverse one-way pair.
		Torrey Road (Bristol Road to City Limits)	97				Widen 24' asphalt pavement to 48' + curb and gutter.		Bishop Airpark
		Wood Street (Saginaw St. to C&O RR)	98				Widen 24' to 44' + curb & gutter.		Doyle Urban Renewal Area
		Broadway (Lewis Street to Franklin)	99				Adjust geometrics for one-way M.B. traffic.		Part of Broadway Davison One-way pair.
		Chevrolet Avenue (Dupont St. to Third Avenue)	100				Widen 36' to 44' + curb and gutter. Widen to 55' north of Third for left turn lane.		Inadequate 4 lanes.

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Priority Number	Rating %	Road & Location	Urban System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT-ROW	Deficiencies	Planned Improvements 1990 ADT	Estimated Cost	Comments
		Chevrolet Ave. (Welch Blvd. to Rankin St.)	101				Narrow median to widen 2x18' pavement to 2x24' pavement.		Increase capacity.
		Detroit St. (Pierson Rd. to Pulaski Street.)	102				Narrow median to provide N.B. left turn lane.		Increase capacity.
		Franklin Avenue (Utah Ave. to Oklahoma Ave.)	103				Widen 36' to 44' + curb and gutter.		Inadequate 4 lanes.
		Franklin Avenue (Missouri Ave. to Kansas Avenue)	104				Widen 20' concrete slab to 26' + curb and gutter.		

NOTES:

- (1) Urban System number is a reference number for location of project on map.
- (2) ADT (Average Daily Traffic) count
- (3) ROW (Street Right-of-Way) usually one foot outside of sidewalk from the center of street.
- (4) L.S. (Level of service) is a qualitative measure of the effect of speed, travel time, traffic interruptions, maneuverability, safety, comfort and convenience.
- (5) A.R. (Accident rate per million vehicle miles) = $\frac{\text{No. of accidents (1,000,000 miles)}}{\text{Length of street segment in miles}}$ (ADT X 365)
- (6) 1990 ADT's are normally taken from I-475 Freeway Engineering Report # 1658 unless otherwise noted.

CITY OF FLINT MICHIGAN
 PROPOSED HIGH HAZARD SAFETY IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
75		Averill Ave. @ Longway Blvd. + RR crossing	57	Section 209 90/10 (submitted 2/11/76)	ADT inbound - 23,533 ROW 100'	Surface, width, & RR protection A.R.-1.77 L.S.-E/C	Widen N. leg to 58' + curb and gutter. Widen E. and W. legs to 55' + curb and gutter. Rebuild RR crossing and gates.		
66		Oakley @ Saginaw St. (400' N. of Oakley to 400' S. and 250' W.)	50	Section 209 1979	ADT-inbound 26,208 ROW-60' on Oakley ROW-100' on Saginaw.	L.S.-EB-C/D WB-D/E NB-E	Widen Saginaw St. from 44' to 57' + curb and gutter. Widen Oakley from 26' to 36' + curb and gutter.		High accident location
61		Richfield @ Western Rd. (400' in all directions)	114				Widen all four legs to 5 lanes.		High accident location
		Stewart Ave. @ Saginaw St. (500' W. of Saginaw to 500' E.)	64	Section 209 1979	ADT Inbound-41,692 ROW-60'	Alignment LS-WB-E AR 1.12	New alignment to connect jog from E. to W. Widen both legs to 55' + curb and gutter to provide turn lane.		ROW needed Simplify signal arrangement
		Miller Road (Court St. to Boston Ave.)					Add turn lanes.		Part of Chevrolet Avenue Extension
		Battenger Hwy. @ Mackin Road (500' in all four directions)		Section 209			Widen Battenger to 60' + curb and gutter for left turn lane, widen Mackin to 48' plus curb and gutter for 4 lanes.		High accident location. Remove trees.

CITY OF FLINT MICHIGAN
 PROPOSED HIGH HAZARD SAFETY IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
		Pasadena @ Detroit	109	Section 209			Add left-turn lanes @ all four legs.		ROW needed. High accident location.
		Pasadena @ Dupont	110	Section 209			Add left-turn lanes @ all four legs.		ROW needed. High accident location.
53		Fenton Rd. @ 12th St. (400' in all directions)	79	Section 209	ADT-25,000 ROW 66'	A.R.-0.77	Widen all legs to 55' to accommodate left turn lanes.		ROW needed
		Fenton Rd. @ GTM RR viaduct	111	Section 209			Replace structure and eliminate center pier		Structure is deteriorating and center pier is safety hazard.
53		Welch Blvd. @ Dupont St. (500' on N., S., W. and Euclid Ave. to E.)	80	Section 209 1979	ADT-12,000 ROW-80'	L.S.-C A.R.-1.96	Add left turn lanes @ all four legs.		High accident location. Inadequate four lanes.
		Court St. @ Center Road (500' E. & W.)	112	Section 209 Cities of Flint and Burton			Widen Court St. to 55' + curb and gutter for left turn lane.		High accident location. Eastland Mall.

CITY OF FLINT MICHIGAN
 PROPOSED HIGH HAZARD SAFETY IMPROVEMENTS
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
		Atherton Road @ Fenton Road	113	Section 209			Widen all four legs to 5 lanes. Realign reverse curve.		High accident location. ROW needed.
		Fenton Road @ Hemphill Road (500' in all directions)	15	Section 209 Cities of Flint, Burton, and GCRC			Widen S. leg to 60' + curb and gutter. Widen other three legs to 55' + curb and gutter.		

CITY OF FLINT MICHIGAN
 PROPOSED PROJECTS FOR FUTURE EVALUATION
 AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
70		Lapeer Rd. @ C&O RR (500' W. to 500' E. of C&O RR)	35		ADT-8,000 ROW-60'	LS-D AR-3.4	Grade separation to 44'		ROW needed
62		Atherton Rd. @ Van Styke Rd. (500' E. to Van Styke Rd.)	59		ADT-inbound-27,624 ROW-80'	LS-AR-1.28	Build exclusive rt. turn lane for west-bound Atherton Rd.		
60		Russell St. (Saginaw St. to Selby St.)	67A	1979	ADT-2,400 ROW-50' Residential	LS-D AR-5.81	Widen existing 26' to 44' + curb and gutter.		I-475 related. ROW needed.
60		Dupont St. extension (Court St. to 3rd Ave.)	68	1985	ADT-does not exist	LS-C AR-3.7	New connector from Dupont St. @ 3rd Ave. to Court St. @ Pershing St. New bridge over Flint River required.		ROW needed.
56		Atherton Rd. @ Fisher Body RR siding (500' E. and W. of tracks)	75	Public Works or Section 209	ADT-15,882 ROW-80'	LS-E AR-0.86 width	Build grade separation		

District Commission" will have primarily responsibility for (1) review of building permits that seek to demolish or modify building exteriors, (2) property maintenance, (3) acquisition of Commission-designated properties; and function in concert with the Flint Planning Commission.

A final draft of the City Ordinance to be proposed has not been completed by the Flint Historic District Study Commission.

The Flint Historic Preservation Study Committee, a quasi-public organization, was established in 1975 with City support, and via Flint City Council Resolution. The Committee had two objectives:

1. To survey the City for places of historic and/or architectural significance;
2. To draft an ordinance to preserve the continuity, and integrity of any of the above mentioned sites and/or areas.

Toward the first objective, the Committee worked with the State to formulate a workable plan to identify appropriate sites/areas. Four core districts were identified with general study areas:

1. Water Street Area registered as Durant-Dort-Nash Historic District, focus of Flint's beginning with prehistoric location on the Saginaw Indian Trail.
2. Grand Traverse Street and Grand Traverse South, an early residential neighborhood.
3. East Street, with Central Park an early residential neighborhood.
4. Belmont Street and Forest Hill including Civic Park, which grew greatly when intensively developed as Flint's first planned community.

A variety of other sites and areas have already been addressed. Some currently listed in the registers, and still others have been proposed for study and possible registration, such as Burroughs group and Civic Park.

The City, mainly via the CDBG funding (FY 1975), has provided support to this volunteer organization, largely to provide some funding for minor operating expenses. No funds have been provided for acquisition, construction and other operative costs.

Toward the second objective, the Committee has formulated a draft now under study as the possible City Ordinance covering historic preservation activities.

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and structures, for the creation of historic district commissions, for the maintenance of publicly owned historic sites and structures by local units.

Public Act 10 - Public Acts of 1955, established in Michigan the State Register of historic sites.

The State established the Michigan History Division, Department of State, Lansing, to administer local programs and refer sites to the National Register while maintaining a state historical register. The State Division must approve all referrals.

The Genesee County Historical and Museum Society, a private organization, located in Flint, has had a variety of programs over the years including the development of Crossroads Village (outside the City) with County assistance. With the establishment of a new City organization, historic preservation within the City was largely separated.

No local (City) ordinance exists, but a draft is being formulated.

Policy proposed incidental to the drafting of a City Ordinance covering historic preservation, has been stated to be:

- A. To provide for the protection, enchancement, perpetuation and use of those districts and structures which are illustrative of the growth and development of the City of Flint and which are of particular historic or aesthetic value to the City;
- B. To recognize and insure the preservation of those elements of the City's past which represent many and varied architectural, artistic, and cultural achievements which cannot be duplicated or otherwise replaced;
- C. To promote the use of Preservation Districts and Protected Structures as a means of providing enjoyment and unique educational benefits by perpetuating the physical evidence of Flint's past;
- D. To stabilize and improve property values in such areas and otherwise promote their re-use;
- E. To protect and enhance the City's attractions to tourists and visitors and the support and stimulus to business and industry thereby provided;
- F. To foster civic pride in those elements of the City's past which gives Flint its unique character and set it apart from other cities.

Under Michigan Public Act 169 (1970) local government may establish historic districts, a commission to administer and maintain such properties and otherwise control designated areas. The envisioned "Flint Historic

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The only adverse impact is the loss of tax income to local government since the Durant-Dort building was purchased by the City. This loss is small since the building was under-used by its former owners, a fraternal group.

Any adverse impacts which cannot be avoided should the proposed plans or policies be carried out.

Since being acquired by the City for public use, property tax income to local government is lost.

Alternatives to the proposed plans or policies.

Since the subject property is by definition unique, no alternatives, other than "no project," are possible. No project would result in the continuing deterioration of the building and its eventual loss.

The impact of proposed plans and policies on the long-term maintenance and enhancement of National Register properties.

Since the Durant-Dort building was listed on the National Register, maintenance and enhancement is facilitated and is being pursued locally. Current activities seek to stabilize and protect the building and district, and only later add improvements and detail restorations.

Applicable Federal, State and local controls or programs for conserving and enhancing historical properties.

Matching grants for historic preservation are available from either the Department of the Interior (Historic Preservation Act of 1966, PL 89-665) or Department of Housing and Urban Development (Housing Act of 1961, PL 87-70 as amended). Applications may be submitted to either agency for 50% grants for the acquisition and restoration of structures listed in the National Register of Historic Properties (24 CFR 4.211).

Under the Historic Preservation Act of 1966, the Department of the Interior's National Park Service is responsible for expanding the National Register, for providing assistance to the states for preparing statewide historic surveys and preservation plans, and for awarding grants for the acquisition and restoration of historic sites and structures ("Grants for Historic Preservation - A Guide for State Participation," National Park Service, January, 1969).

Under an amendment made by the Housing and Urban Development Act of 1970 to the open-space land program authorized by the HUD Act of 1961, the DHUD's Office of Community Development is authorized to make 50% grants to public agencies for the acquisition and complete restoration costs of historic properties (24 CFR 4.245).

The State of Michigan, under Act 169 - Public Acts of 1970, provides for the establishment of historic districts, for the acquisition of land and structures for historic purposes, for preservation of historic sites

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice to ensure transparency and accountability.

2. The second part outlines the procedures for handling discrepancies between the recorded amounts and the actual cash received. It states that any such variance should be investigated immediately and reported to the appropriate authority.

3. The third part details the process for reconciling the accounts at the end of each month. It requires that the total amount recorded in the books must match the total amount shown on the bank statements.

4. The fourth part describes the requirements for the physical custody of the cash and the safekeeping of the records. It mandates that all cash must be stored in a secure, fireproof safe, and the keys to the safe must be held by two authorized personnel.

5. The fifth part discusses the periodic audits conducted by an independent party to verify the accuracy of the records and the proper handling of the cash. It notes that any findings from the audit must be addressed promptly.

6. The sixth part covers the reporting obligations to the relevant regulatory bodies. It requires that a detailed report of the financial activities be submitted at the end of each quarter.

7. The seventh part provides information on the consequences of non-compliance with the established procedures. It states that any failure to adhere to these rules may result in disciplinary action and legal penalties.

8. The eighth part concludes with a statement of commitment to the highest standards of integrity and ethical conduct in all financial dealings.

- 1-B. Continuing and expanding support of housing rehabilitation to improve housing assets will improve both the short- and long-term productivity of man's environment. Economic analysis suggests that rehabilitation is the most cost-effective approach to providing housing. Although the costs are partly carried by government, most cost is the responsibility of the homeowner beneficiary. The only exception is the relatively small number of low-income owners who require rehabilitation grants. While residential owners and tenants are the prime beneficiaries, all City residents are expected to benefit to some extent, with some improvement as well to City tax incomes.
- 1-C. Establishing a City-wide residential code enforcement schedule will improve both short- and long-term productivity by restoring housing to standard levels. Beyond the need to fund additional inspection staff, all costs will be carried by homeowners who must pay for code correction work. This will benefit all persons in the City and also City incomes.
- 1-D. Curtailing major demolitions is designed to improve the long-term productivity of man's physical environment by retaining structures to the greatest possible extent. Short-term environmental impacts, primarily noise and air pollution, would also be reduced. Such conservation will also reduce costs. Some demolition will be limited to a relatively few structures.
- 1-E. Encouraging housing maintenance through education will improve both short- and long-term productivity. Focusing efforts to organized groups will enhance efficiency of effort. Matching private with public dollars will improve cost-effectiveness and tend to reduce costs.
- 2-A. Promoting the formation of block clubs and citizen action groups will improve both short- and long-term productivity by improving coherent action and government relationships. Costs will be minimal.
- 2-B. Protecting residential neighborhoods from encroachment and/or conversion to more intensive uses will improve short- and long-term productivity of housing. The effects on commercial and industrial productivity are uncertain. But it is assumed that necessary commercial uses will be accepted within or adjacent to residential areas. City policy now promotes industrial uses within industrial parks which are separated from residential areas. Assigning high priority to neighborhood preservation should not have an adverse effect on other uses, and will enhance City tax incomes from residential uses.

IV. ENVIRONMENTAL ASSESSMENT - HISTORIC PRESERVATION

Summary or abstract of the proposed plans or policies.

Durant-Dort Carriage Company Office Building Historic District.

The Durant-Dort building and site may be the most important historic preservation project undertaken by the community to date. The property was registered by the National Register of Historic Properties September 2, 1975, the second Flint City property to be listed by the National Register. The Michigan State Historical Register added the property September 17, 1974 (site 343) as the Durant-Dort-Nash Historic District which includes 316 Water Street (the office building) and the Charles Nash house at 307 Mason.

The building is important not just as the office of the most important carriage producer at the turn of the century, and the office of Flint magnate William C. Durant, but because it was the physical focus of the origin of General Motors. Charles Nash was then Durant-Dort superintendent, later to become GM executive and finally head of Nash Motors (now American Motors).

The Durant-Dort building was selected for priority treatment because it was in jeopardy of deteriorating seriously, was located in a historic area which was also designated for a variety of major community projects, and had potential for re-use housing public or private offices relating to community needs. Both historic preservation organizations, along with several community groups including the Flint Bicentennial Commission, recommended immediate acquisition and limited restoration. This was proposed in an application to the Michigan History Division, seeking recognition by the National Register Grant Program, and requesting \$55,000 for acquisition of the property. The local match will provide security rehabilitation and necessary repairs. The 1976 application was funded and the property was acquired by the City. Private funds are now being obtained, along with contributed labor and professional services, by the community. Initial work is directed at restoring the exterior to prevent further structural deterioration, and to meet safety and other City Code deficiencies. Largest items are major structural repairs, windows and roof repair.

The impact (beneficial and adverse) of the proposed plans or policies, if they are carried out.

Beneficial impacts are generally those given in the local policy stated incidental to the drafting of the proposed City ordinance (See VI.) or: the protection and perpetuation of historic districts, and physical evidence of Flint's past; stabilization of property values; promotion of tourism; the fostering of city pride. The Durant-Dort building will also provide a public facility to house community organizations such as an office for the Riverfront Park nearby.

THE HOUSE OF COMMONS
IN PARLIAMENT ASSEMBLED
THURSDAY 11th DECEMBER 1958
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meet all local housing demand, a subsequent tri-county plan would have little significance; variously, if housing was developed on a tri-county basis the City would be over-committing its resources and there would be waste. A regional plan however is presently unlikely.

Statement setting forth applicable Federal, State and local environmental controls.

The following authority and related guidelines are applicable:

National Environmental Policy Act of 1969 (PL 91-190)
Housing and Community Development Act of 1974 (PL 93-383),
Sec. 701, Housing and Community Development Act of 1954, as amended,
Title XVI, Housing Act of 1968, as amended (Goal statement)

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neighborhoods are irretrievably lost for residential use because of their long history of commercial and industrial encroachment. Assigning neighborhood preservation a high priority, as in traffic planning and capital investment programming, or better planning in general, will minimize resource waste.

- 3-A. Adopting the Responsive Municipal Services Program, and improving the City's capital budgeting and programming procedures to provide for community development and neighborhood inputs, is designed to avoid any irreversible and irretrievable commitment of resources not beneficial to a neighborhood.
- 3-B. Measuring City service levels by neighborhood or planning district, and encouraging local inputs, would serve to optimize service deliveries and avoid waste.
- 4-A. Encouraging a regional housing plan will avoid the irreversible and irretrievable commitment of resources in less than optimal sites or areas. Without the flexibility of a regional plan, the very limited land resources of the City of Flint must be consumed, and the City may not have adequate space available in suitable locations. Much of the City's vacant land is located either in neighborhoods that are racially or economically impacted, or where environmental conditions are inappropriate for housing.
- 4-B. Encouraging new construction for upper-income families has no direct and immediate effect on resources. Successful implementation of this would commit resources in a beneficial way.
- 4-C. Continuing participation in subsidized housing programs has no known direct and immediate effect that is adverse. It is assumed that such participation will involve the continued commitment of resources for beneficial effect. Also, that participation with other agencies and units of government will result in the best possible use of scarce resources including land and funding.
- 4-D. New construction of assisted housing requires the commitment of funds, also appropriate building sites, the land having salvage or re-use value. The meeting of public housing needs for larger families with existing units requires only the investment of funds for acquisition, thus involves the least commitment of scarce resources.

The City policy seeking a regional "fair share" housing plan introduces a possible variable. Were the City to commit substantial resources to implementing plans to

STATE OF TEXAS, COUNTY OF DALLAS, ss. I, the undersigned, a Notary Public in and for said County and State, do hereby certify that the foregoing is a true and correct copy of the original as the same appears from the records of said County.

Witness my hand and the seal of said County at Dallas, Texas, this _____ day of _____, 19____.

Notary Public in and for the County of Dallas, State of Texas.

My commission expires on the _____ day of _____, 19____.

Notary Public in and for the County of Dallas, State of Texas.

My commission expires on the _____ day of _____, 19____.

Notary Public in and for the County of Dallas, State of Texas.

My commission expires on the _____ day of _____, 19____.

- 3-A. Adopting the Responsive Municipal Services Program is designed to improve both short- and long-term productivity of residential areas.
- 3-B. This is similarly true for improving capital budgeting and programming procedures to allow for inputs from local areas and their citizens.
- 4-A. Encouraging formulation and adoption of a regional housing plan is designed to improve both short- and long-term productivity of our land resources by utilization of all land available within the three-county region. At present there is competition for prime residential land, while a great deal of land is either vacant or is poorly used. The decentralization or scattering of housing may also have the effect of reducing impacting of minorities or the poor, which groups are now relatively concentrated in the City.

Since vacant land outside the City is less costly, a regional plan would also improve the cost feasibility of housing, a benefit to all.

- 4-B. Encouraging new construction within the City to attract upper-income families seeks to improve both short- and long-term productivity by adding tax and other income plus valuable human resources. The cost benefits are uncertain; simply "encouraging new construction" has no intrinsic cost per se. But financial assistance (which is not proposed) would require evaluation.
- 4-C. Continuing participation in subsidized housing programs will improve both short- and long-term productivity by stabilizing the community and restoring standard housing. It is assumed that cost-benefit ratios are attractive, but this is uncertain; each assisted program requires specific and individual analysis to assess its attractiveness.
- 4-D. Expediting assisted new construction to provide housing for smaller families is specifically geared to enhance local short-term uses of our environment, to support a large number of such families. However, new construction that conforms to current environmental regulations and controls will maintain the quality of our environment. The projected long-term outlook, specifically the continuing shift to smaller family size, will enhance long-term productivity by assuring a continued market.

Meeting public housing needs for larger families similarly addresses short-term local uses, especially since it is projected that large families will disappear, in time.

The maintenance and enhancement of long-term productivity will represent that period of time corresponding to the useful life of such housing.

Any irreversible and irretrievable commitments of resources which would be involved if the proposed plan or policy should be implemented.

- 1-A. Establishing a housing data base has no impact on resources other than the cost of gathering the data.
- 1-B. Continuing rehabilitation has no irreversible or irretrievable impact other than cost, since such housing could easily be cleared and the land be restored substantially to its original condition. Rehabilitation acts to enhance land use and stabilize population, a beneficial effect.
- 1-C. Establishing a City-wide code enforcement schedule would not have an adverse effect, as noted in rehabilitation above. Code and other City inspections have already been applied to historic properties, with beneficial effects (see Historic Preservation). Had such inspections been more rigorous in the past, the City's National Register property would probably now be in better condition and require less restorative investment.
- 1-D. Curtailing major demolition acts directly to reduce the loss of resources, primarily in the form of existing structures, many of which have viable re-use utility. Reduced demolition also avoids the irreversible and irretrievable commitment of resources by eliminating unnecessary clearance and related costs to government. In connection with occupied clearance and related costs to government. In connection with occupied residential, and commercial properties, the cost of acquisition has been very high, far in excess of the final step or demolition of the structure.
- 1-E. Encouraging housing maintenance avoids wasting resources by preservation of housing. Encouraging coherent group efforts reduces costs.
- 2-A. Promoting block clubs and groups should improve the utilization of all resources and avoid waste.
- 2-B. Protecting residential areas from non-residential uses will preserve housing and avoid wasted resources. Allowing rezoning and other use changes inevitably requires the commitment of resources. Very often, especially when other uses have failed, such resources are wasted and there is also risk of other negative multiplier effects. It has been argued that some City

maintained units or to buy poor condition housing that they cannot afford to repair or keep up. There is also a ghettoization aspect to this since low-cost housing is typically where minority poor are concentrated. One solution, is to provide government subsidies, either as direct assistance to renters or assistance to developers; this is consistent with the City proposed policy.

Meeting deficiencies via new construction is not necessary; there may be an adequate number of housing units existing to meet the needs of smaller families, the elderly and the handicapped. However, older homes tend to be larger than necessary which introduces the burden of costly wasted space to those who can least afford it. Most such homes also require rehabilitation. Existing units are generally not satisfactory to meet the special needs of elderly and handicapped tenants. Special barrier-free architectural features are easily incorporated into new construction but can be prohibitively expensive when added later. In general, the average existing home is poorly suited to a smaller family (one averaging three persons) of lower income. It is doubtful that very many old homes could be utilized to meet the total demand.

The obvious alternative for using existing homes to meet the need for housing large families, is new construction. This is prohibitively expensive relative to the capabilities of the local housing authority, and also politically unpalatable to an electorate progressively losing access to any prospect of owning a new home. The critical assumption however, is that the large family is a transitional problem, and the large home of today will become an unmarketable white elephant at some future date. There is a secondary alternative as well. Existing homes in Flint range in price from (one dollar to over \$100,000 and average about \$20,000, with standard housing available at less than \$10,000. Unit costs can be reduced even more if extensive rehabilitation is considered in combination with less desirable locations. Thus, a much broader range of existing housing is available than would be the case for economically accessible new construction.

The relationship, under the proposed plan or policy, between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

- 1-A. Establishing a housing data base should improve the relationship between short- and long-term productivity by providing a rational basis for decision-making. This would not require a major cost.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part outlines the procedures for handling discrepancies and errors, including the steps to be taken when a mistake is identified. The third part provides a detailed breakdown of the financial data, including a summary of income and expenses. The final part concludes with a statement of the total balance and a recommendation for future actions.

whereby the development of conventional or market-level housing is largely left to the private sector. Given the very limited amount of vacant land left in the City and the demands of upper-income families, the development of appropriate housing is only possible outside the City. The only exception to this is Doyle redevelopment, which is a conventional urban renewal project near the City center. There also appear to be some middle- and upper-income residents who prefer to live in better quality existing housing, some of which is relative old (as noted in the Residential element). However, overall population trends suggest that if the City does not actively promote the development of housing, whether new or existing, for higher-income families, the continuing in-migration of lower-income groups will effectively displace the higher-income. If this population shift continues, the result would be that the City will largely house lower-income families and persons or groups that cannot afford quality housing including the maintenance of such housing. This is also related to code enforcement. The residence of lower-income groups will also be affected by City policy and the development of assisted housing.

- 4-C. The principal alternative to active participation in subsidized or assisted housing, is default or not meeting the needs for lower-income housing for various population groups. This would be unacceptable from the federal point of view and could result in a loss of funding and consequently a catastrophic emergency in City government. Such default would also have a long-term adverse effect on the peoples not being housed in standard units. There would also probably be a perpetuation of poor housing conditions because of the resulting pressure on the low end of the housing market. Therefore, were the City to elect not to participate in assisted housing, "slum" or substandard housing would effectively place the City in the position of promoting slum conditions and their several negative multiplier effects. One of the adverse effects is that upper-income residents would have a disincentive to remain within the City of Flint.
- 4-D. The principal alternative to expediting assisted new construction for smaller families, is to be met wholly by the private sector. This approach has not been satisfactory in the past (as evidenced by a serious lack of such housing today). Deficiencies apart from numbers of units needed to meet demand, include poor maintenance and a rising number of poorly maintained housing units. While this is typical of rental units, poor maintenance is also common with owner-occupants. Expecting lower-income families to compete for conventional market housing either forces them to live in low-rent and poorly

The following table shows the results of the experiment. The data is presented in a clear and concise manner, allowing for easy comparison of the different conditions. The results indicate that the proposed method is effective in reducing the error rate, particularly in the case of the more complex tasks.

Task	Condition	Mean Error Rate (%)	Standard Deviation (%)
Task 1	Control	12.5	2.1
	Proposed	8.2	1.5
Task 2	Control	18.7	3.2
	Proposed	11.3	2.4
Task 3	Control	25.4	4.1
	Proposed	15.6	3.0
Task 4	Control	32.1	5.3
	Proposed	20.8	4.2
Task 5	Control	38.9	6.1
	Proposed	25.7	5.0

The results of the experiment are consistent with the hypothesis that the proposed method will lead to a significant reduction in error rates. The improvement is most pronounced in the more complex tasks, where the error rate is reduced by approximately 50%. This suggests that the proposed method is particularly effective in handling complex and ambiguous information.

rezoning is hardly feasible or likely. The costs of converting a residential neighborhood to heavy industrial use is improbably great, just as the need for such a land bay is uncertain and possibly nil.

The real alternatives are roughly two: Continuing to handle zoning and other City controls on land use as has been done, with some unevenness and prejudice to compatible uses and also abuses; or implementation of the proposed policy of conservative change and the protection of residential neighborhoods. Thus a policy is offered without strong promise of enforcement. For if City incomes continue to decline or remain stable in the face of rising costs, pressure to rezone or otherwise change land use to improve local incomes, will become great and such conversion of uses will occur given an opportunity to redevelop residential land. Although there has been some shift away from local government's total dependance on property taxes (as to personal income tax) real property still pays most of the expenses, and therefore will continue to have primacy as an income source.

- 3-A. The alternative to adoption of the Responsive Municipal Services Program is maintenance of the existing measures system.
- 3-B. As above, the alternative is maintenance of the existing system. Both are deemed unsatisfactory to meeting local community needs.
- 4-A. Alternatives to a regional housing plan are many and mixed. The essence of the proposed policy however, is that the City should be relieved of its traditional burden of housing the poor. Either the City will remain as the repository of poverty and minorities or the metropolitan area and region will open up to accept assisted housing for these needy families. The feasibility of this is uncertain and appears to be slight. Local experience with a metropolitan form of government, as has been proposed, suggests reluctance by local units to combine when any loss of power or authority is apparent, or when some other loss will take place. The introduction of the poor and minorities is conventionally taken to be a disadvantage. If federal agencies required such a regional housing plan and fulfillment of housing assistance plans as a condition precedent to disbursing the HUD entitlement (and possibly revenue sharing), more substantial progress, and possibly new alternatives, might develop.
- 4-B. Alternatives to encouraging higher-income housing within the City seem to approximate the existing condition,

- 1-D. Alternatives to the curtailing of block-scale demolition are basically, an as-is or limited demolition schedule, or expansion to the higher level characteristic of the period 1973-1975 in Flint. This is because demolition has fallen off greatly and is effectively "curtailed." However, legal action of some residents in renewal areas seeks acquisition of their properties, and this is a prelude to extensive demolition. A limited or small scale and highly selective demolition program is currently deemed to be best, even though it seems to reject acquisition prospects. A return to major renewal programs including large-scale demolition would meet the desires of a few property owners but would work contrary to both local and federal policy as it has evolved in recent years. Large scale demolition would also have negative consequences environmentally. State monitoring of construction activities in St. John (where residential structures are still being cleared for industrial re-development, along with other work) have shown significant air pollution, apparently inevitable in such a situation. This suggests that any major demolition activity would result in a degraded physical environment within the City. While it would be possible for the City to acquire slum properties without clearing them, experience has demonstrated that demolition is the only prospect for vacant housing.
- 1-E. Encouraging housing maintenance through educational efforts, and matching private with public funds, is only one of a variety of approaches that can be taken. It is recognized that education is very limited and can only have major beneficial impact when it is the only deficiency found in homeowners. This is not the case typically, and so a multi-faceted strategy is more appropriate. The probable result is a diversified program aimed at improving the maintenance of homes.
- 2-A. Alternatives to establishing block clubs or other organizations, are limited and basically resolve themselves to "no activity." Without organization, the City must deal with individuals as they now do, which handicaps progress.
- 2-B. Alternatives to a policy of protecting residential neighborhoods from rezoning and the encroachment of more intense uses, basically allow for adjustments in level. A "perfect" implementation of this policy would result in no rezoning ever again. This may not be ideal however since circumstances change and all neighborhoods tend to follow life cycles that involve changes in their populations (which may change in age structure, race, ethnicity and so on). The other extreme is similarly difficult to accept, since unlimited or unconstrained

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4. The fourth part of the document addresses the challenges of managing financial data in a complex and rapidly changing environment. It offers strategies for overcoming these challenges, such as investing in technology and training staff.

5. The fifth part of the document concludes by summarizing the key points discussed and reiterating the importance of a strong financial management system. It encourages the company to continue to improve its processes and to stay up-to-date with the latest developments in the field.

activity. Current levels are not even adequate to meet the current rate of deterioration in housing, so the City's housing stock is falling but at a slightly lesser rate than if no rehabilitation were taking place. Either rate (with or without current activity) is unacceptable to the City, since projected conditions suggest major deterioration in future years, a dilapidated town housing only the poor.

- (2) Maintaining present activities hoping for a windfall from the federal government, whether via Section 312 bonus funds or other programs, represents a viable alternative and one that other governments have followed. However, history suggests too little funding, and future prospects suggest no great improvement. Waiting and hoping for improvement has not been rewarding.
 - (3) A vast expansion of rehabilitation, on the other extreme, may be possible. This would require diversion of a large part of the City's HUD entitlement and also local funds from several sources. Reallocating a much greater part of the entitlement to rehabilitation would seriously cut into other local projects, since much of the funds are effectively pre-committed by federal guidelines such as the need to reduce land inventories and loan payments, and so on. Local funding sources are presently assumed to be effectively consumed, so nothing else remains.
 - (4) Another possible alternative would be to reduce emphasis on rehabilitation and promote new construction. This would effectively return the City to the conventional urban renewal activities of the 1960s, which is not acceptable to HUD. Prior experience also shows that the capital needs of total clearance (required for redevelopment and new construction) are far beyond reasonable expectations for future funding.
- 1-C. The alternatives to establishing a City-wide residential code enforcement schedule are basically, "no project" (or as-is activity) and possibly a much higher level of inspection activity. The latter may be desirable since a five- to seven-year inspection cycle might be excessively long to prevent major deterioration in housing. The present level of inspection is inadequate to prevent progressive deterioration, as data now show. The effective limit to inspection activities is probably political rather than economic, however.

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3. The third part of the document discusses the consequences of failing to comply with these requirements, including the potential for fines, penalties, and the loss of the right to participate in certain financial activities.

4. The fourth part of the document provides guidance on how to implement these requirements, including the use of standardized forms and procedures and the importance of regular audits and reviews.

5. The fifth part of the document discusses the role of the regulatory authorities in enforcing these requirements and in providing support and guidance to individuals and entities.

6. The sixth part of the document discusses the importance of transparency and accountability in the financial system and the need for individuals and entities to be open and honest in their reporting.

7. The seventh part of the document discusses the importance of ongoing education and training for individuals and entities involved in the financial system.

8. The eighth part of the document discusses the importance of cooperation and communication between individuals and entities and the regulatory authorities.

9. The ninth part of the document discusses the importance of maintaining the confidentiality of sensitive information and the need for individuals and entities to take appropriate measures to protect this information.

10. The tenth part of the document discusses the importance of staying up-to-date on changes in the financial system and the need for individuals and entities to adapt to these changes.

Although the above suggests a competition for scarce resources -- land and capital -- and therefore may appear to be contradictory, local redevelopment planning has emphasized the need for both lower- and higher-income residents. Such vertical integration is seen as desirable even though its implementation costs may exceed traditional single-class housing planning, a possible negative or adverse impact.

- 4-D. No unavoidable adverse long-term environmental impacts are projected if new construction of subsidized units for smaller families is expedited. New construction always has an adverse short-term impact because of dust, noise and other undesirable by-products incidental to such work. Specific impacts would have to be assessed on an individual project basis however and would be subject to mitigating measures. The diversion of funding and other resources may represent a long-term negative impact, but this is difficult to assess since this policy is based on the assumption that such housing construction is necessary to improve community living standards and is therefore beneficial.

No unavoidable environmental impacts are envisioned if existing residences are used for public housing, since most adverse impacts have already been sustained (for example, construction impacts or the development of environmentally sensitive land). Some community objections remain possible. It is possible that the private sector could develop suitable housing for large and small housing, but government assistance will be necessary to align lower incomes to market development costs. Since the "average" new home today is \$50,000 plus loan and other costs, the prospect of building public housing residences for families having an annual income of perhaps \$6,000 is slight. Finally, some degree of overcrowding and substandard housing will remain until all needs are met, whether for small or large families. Since population change is dynamic there will always be some degree of mismatch between housing supply and demand.

Alternatives to the proposed plan or policy and an analysis.

- 1-A. Alternatives to additional data-gathering do not provide the needed product, and therefore ignore the need.
- 1-B. Several basic alternatives exist to expanding housing rehabilitation:
- (1) Extension of the status quo or recent existing conditions is not exactly "no project" but does represent a continuing relative low level of project

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- 3-A. Adoption of RMSP, like any other basic change in procedures, is difficult to introduce to organizations accustomed to working in a different way for a long period of time.
- 3-B. As noted above, there is always a negative implication when a basic change in procedure is to be introduced. Revamping the capital budgeting and programming process to accommodate additional inputs would also add complexity and possibly cost. This is uncertain.
- 4-A. Adoption of a "fair share" regional housing plan has a variety of adverse effects, mainly those dealing with the difficulty of introducing new policies and procedures, and also, of coordinating the workings of several units of government. The difficulties are not unlike the prospect of introducing a single metropolitan form of government to the area. Such difficulties may be aggravated by the fact that a often highly controversial element is the subject, that of diffusing minority and lower-income housing throughout a three-county area. Given the difficulties of "bussing" school-age minorities to more affluent areas, such a proposed undertaking may have severe implications within the social environment of the City.
- 4-B. Encouraging new construction for the affluent has minor and speculative negative effects; this is mainly because such a policy has not been operative in Flint. In the typical American city the wealthy seldom live within the city, but when they do they tend to move out, in time. Many cities have actively pursued a policy that promotes redevelopment that encourages higher-income tenants and owners. However, such programs tend to work at the expense of urban poor minorities. Knowledge of this is reflected in federal priorities that favor minority poor and reduce the feasibility of assisting the wealthy either directly or indirectly (via the construction of middle-income housing).
- 4-C. As noted above, continued participation in subsidized or assisted housing programs tends to work at the expense of conventional or middle-income housing. Also, such participation is limited by the local and nonlocal structures of government. It is also possible, although this has not been studied, that given the increase in certain categories of needy families, local production of housing for lower-income groups simply has the effect of encouraging the in-migration of more such families.

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- 1-B. Expanding rehabilitation would be very costly and would sharply cut into the City's HUD entitlement. Given the continuous deterioration of Flint's housing inventory, a very large program would have to be operated simply to maintain the status quo of local residences.

Another negative effect relates to the feasibility of continued rehabilitation of inner-city housing; maintaining the standard condition of such housing simply perpetuates it as a human environment without encouraging change. This means that racial and poverty impacting is also perpetuated, while no incentives are available to change this.

- 1-C. Expanding housing inspection to a regular schedule would be very costly because of a very large increase in personnel. Only a small and uncertain portion of this added cost would be offset by taxes generated by home improvements.
- 1-D. Curtailing major demolition will frustrate that fraction of the population still owning and/or living in housing in urban renewal areas who believe or expect to be bought out incidental to acquisition prior to clearance.
- 1-E. No adverse effect is projected, although it must be recognized that seeking housing maintenance through educational efforts has its limits of effectiveness.
- 2-A. No adverse effect is projected, although not all residents will be interested in forming block clubs or other organizations.
- 2-B. Protecting residential neighborhoods from encroachment or conversion to more intensive uses has always been stated to be desirable as a general goal, but also often has been violated in specific situations. This appears to be a reality of land use planning and control. Part of the problem seems to be that economic and short-term benefits appear larger and more attractive than do uncertain and longer-term detriments. Given the essentially economic forces at play here, the corollary is that, protecting residential low-density development will guarantee that the tax base will not improve. This assumes that such residential land could be redeveloped at higher housing density, as commerce or as industry.

Whether or not the introduction (as via conversion by rezoning) of commercial uses to residential areas is negative is uncertain and in general a mixed situation. Acting to "protect" residential areas from commercial encroachment may simply reduce local retail services that are useful to residents, which would be a negative impact.

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Meeting the large-family housing need with existing residential units is also consistent with the local market, since Flint is heavily oriented to single-family detached housing. Public housing reflects this local preference and for some years the Flint Housing Commission has pursued a policy of providing scattered-site residences located throughout the City. Private sector brokers appear to support, and have proposed City use of larger existing homes for public housing.

The adverse impacts of expediting construction for smaller families are essentially no different than those for any new construction; there are adverse short-term effects. The exception (noted above) would be carefully planned single-site development which should minimize adverse environmental effects. The principal negative implication may be that assigning priority to new construction for assisted housing diverts some economic resources from government. Such housing might be made available by the private sector. The actual prospect of this taking place is uncertain but is assumed to be poor unless developer subsidies are made available and promoted actively. Finally, the Housing Assistance Plan (HAP) indicates a sufficiently large demand for smaller assisted units that cannot be met quickly, so that some deficiency will continue for an uncertain period of time. This will encourage overcrowding, substandard housing and other adverse community effects.

There are no adverse environmental impacts to utilizing existing homes for public housing since the structures exist and nothing new is being introduced to the environment. There may however be claimed some adverse socio-economic impacts, aside from private sector beneficiaries such as real estate brokers. This would largely depend on where public housing is located. Other adverse impacts are problematic. There may also be negative reactions voiced by builders who would prefer to construct new housing. Whether scattered site or broadly dispersed public housing is beneficial per se, is uncertain. Since vacant homes are fairly well distributed throughout the City, implementation of scattered site public housing is simple.

Any adverse environmental effects which cannot be avoided should the proposed plan or policy be implemented.

- 1-A. The only adverse effect of data-gathering is an unavoidable cost.



income families have elected to live outside of the City where virtually all new construction has taken place. While there is no disagreement as to the desirability of attracting new construction for housing upper income families, there has been developed no plan or approach to implement this policy.

While the policy is beneficial, the most workable way to implement such construction within the City -- direct assistance -- runs contrary to private practices and public policy, including that promoted by HUD (which requires that preference be given to minorities and lower income groups). Although there appears to be a surplus of housing in the area today (as indicated by vacancy rates), any plan to promote upper income housing might also have the effect of reducing opportunities to lower income groups, if only by reducing the vacancy rate and therefore local need.

- 4-C. Continued participation in subsidized housing and other assistance to lower income groups is probably desirable and certainly will be continued. Some federal programs have a bad image because of a small number of highly publicized abuses, while public housing will probably always have some degree of stigma attached to it and its participants. However, housing assistance is necessary if lower income persons and families are to enjoy standard housing. The complexity of various programs and difficulties of meeting all applicable guidelines will continue to handicap housing assistance. The City of Flint also has not been successful in obtaining Urban Home-steadying programs (as opposed to PROP) to date, for uncertain reasons. Technical and administrative difficulties and the need to invest local resources, may be the essential negative implications of this policy. The fact that responsibility for assisted housing does not rest with the City and is effectively divided between several local agencies, may be a major handicap. While the Flint Housing Commission has prime responsibility, both City and County are required to play some role in such housing production.
- 4-D. The primary benefit of expediting construction of new units for smaller families, the elderly and handicapped, is that the availability of more units will meet the pressing need identified in the Housing Assistance Plan (HAP). Because of fundamental demographic changes the average family size has fallen to about three, with the typical family now ranging from two to four persons. In this, Flint is only slightly above the national average.

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2. The second part of the document outlines the various methods used to collect and analyze data. It describes the process of gathering information from different sources, such as interviews, surveys, and focus groups. The text also discusses the importance of ensuring the reliability and validity of the data collected, and the need to use appropriate statistical techniques to analyze the results.

3. The third part of the document focuses on the interpretation of the data and the drawing of conclusions. It highlights the need to be objective and unbiased in the analysis, and to consider the limitations of the data. The text also discusses the importance of communicating the findings in a clear and understandable way, and the need to provide practical recommendations based on the results.

4. The fourth part of the document discusses the ethical considerations involved in research. It emphasizes the need to obtain informed consent from participants, to protect their privacy and confidentiality, and to avoid any potential conflicts of interest. The text also discusses the importance of being transparent about the methods used and the results obtained, and the need to acknowledge any limitations or biases in the study.

5. The fifth part of the document provides a summary of the key findings and conclusions. It highlights the main points of the research and the implications for practice. The text also discusses the need for further research in this area, and the potential for future studies to build on the findings of this study.

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The relatively rising numbers of elderly are typically one- or two-person households. Greater priority is now being assigned to meeting the special housing needs of the handicapped. HAP indicates that meeting the housing needs of lower-income smaller families is easily Flint's greatest problem, one not being fully addressed by the market. Meeting this need will represent a major benefit to the community. Some collateral benefits also may be realized, as where development can be planned to take place within planned unit developments (PUD) or other carefully structured aggregations. In such situations, environmental pollution is often reduced. Coherent developments also enhance the feasibility of adding solar energy utilization (as is being done in Flint's Doyle project). Providing a variety of amenities that will be shared is also more feasible when a single intensively planned site is developed. Adding smaller housing units has immediate utility for meeting market needs (given the large local deficiency). Given a projected continuing decline in average family size, marketing feasibility is expected to increase over time, which further improves prospects for new construction.

Meeting public housing needs for larger families by acquiring larger-size existing units has several advantages and is expected to be beneficial to the community as a whole. The primary advantage is that this policy deals with several problems in a mutually complementary way, quickly and with least cost. Speed is an important factor, since government programs typically involve long periods of time compared to private conventional housing production. Utilizing the existing market inventory is fastest of all. If direct assistance is available, housing may be leased and need not even be acquired, which would reduce time to an absolute minimum. Making available units for large families has always been difficult to do, partly because local housing authorities find it difficult to justify. Costs of large (multi-bedroom) units are very high, and new construction requires a disproportionately high initial cost. Its feasibility may be handicapped by uncertain long-term prospects (assuming that the size of public housing families also continues to drop over time). Using existing housing units also will serve to reduce the high local vacancy rate (estimated to be over 8% in 1976) which is based on a large number of empty homes. Many of these homes were vacated via mortgage defaults during the recessionary and energy crisis-impacted 1974-76 period, and many multi-bedroom residences remain on the market today.

and a lack or related controls such as performance standards (e.g., noise level limits), buffering and other site plan amenities.

- 3-A. Adoption of the Responsive Municipal Services Program that measures City service levels by neighborhood or planning district would have a beneficial effect the residential areas and their residents. RMSP would quantify and indicate public services by local areas, facilitating further analysis and prioritization. Comparison by district would be simplified.

The only negative effect might be some difficulty in gaining acceptance and use of a new approach to planning City services.

- 3-B. Improvement of the City's capital budget process, to add inputs from local groups and areas, would be beneficial. This is one of the major complaints from residents, that services are provided or withheld without advice of the taxpayers that support costs.

Negative impacts are speculative, aside from probable resistance in the several City administrative offices responsible for capital budgeting. Without some controls, areas of greatest need and/or persuasion could gain disproportionately at the expense of other areas. Similarly, commercial and industrial interests may require more representation to avoid imbalance.

- 4-A. Clearly beneficial, a GLS Region consortium and housing plan would be a major step in scattering minority location. No plan limited to the City alone could be completely effective; at best, this could only redistribute minorities within the City boundaries. The most acute difference in distribution is that between the City and the out-county, the latter having much higher income and far fewer minorities.

The principal negative implication is the probable difficulty of implementing such a housing plan in the several units of government. Minority neighbors and the poor are sensitive subjects to many persons, and their acceptability to higher income homeowners is questionable. Although a tri-county agency exists it has no authority to formulate, adopt and enforce a regional housing plan.

- 4-B. Encouraging new construction within the City for upper income residents is clearly beneficial, and has been cited as a desirable policy locally for some years. This runs contrary to actual trends however, as most upper



- 2-A. Promoting the formation of block clubs and other citizen action groups would have a beneficial effect for various reasons. From the City's point of view, such local groups focus interest and action and make it convenient to deal with neighborhood residents via their appointed representatives.

Such promotion is never adverse, even when a few residents abuse their positions for reasons of personal gain. However, there remains the question of what can be done when such promotion does not result in the coalescing of local residents into a group; how the City is to deal with unorganized and scattered residents?

- 2-B. Protecting residential neighborhoods from non-residential encroachment and/or conversion to more intensive uses, through strict application of Codes and other controls; and making neighborhood preservation a high priority in traffic planning and capital investment programming -- this would appear to be completely beneficial.

It must be assumed that the amount of commercially-zoned land is adequate, that it is accessible, and reasonably priced. The pressure to rezone is always economic. However, the procedure of rezoning is more complex; it reflects contemporary conditions and largely ignores future impacts which are typically detriments to residential areas. Rezoning part of a street may have beneficial effects such as providing additional retail services; but the traffic generated during business hours may be a negative. A more clearly negative impact is rezoning to provide industrial land adjacent to residential. Assigning high priorities via traffic and capital planning also seems attractive and beneficial. However, as with zoning, it must be realized that competitive economic processes are involved. The City administrators may prefer to assign a higher priority to economic activities that are immediately rewarding; zoning that will result in higher tax revenues, new jobs, and other income.

Negative impacts -- residential neighborhood protection and preservation may not have as attractive a cost-benefit ratio as City investment in other land uses. Rezoning is the least costly investment that the City can make toward improving income, while major capital projects are often no more expensive when servicing commercial or industrial lands as opposed to residential.

The Residential and Land Use elements have recommended that the City's rezoning history be studied specifically to determine negative impacts caused by variances, rezoning,

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certain while maintenance of vacant land is a continuing expense to owners. Extensive demolition has only been common in the poorest areas of the City which are also those that are least attractive to redevelopment. All redevelopment is very costly and slow even given maximum support, and projections suggest that federal and state assistance will be declining rather than increasing. Local government has demonstrated reluctance to support demolition funding, largely because it is a cost that is difficult to recover.

No negative effects are given, except that some areas of the City, those where extensive demolition was promised to meet earlier renewal plans, have become deteriorated on the expectation that housing was to be cleared. Owners further have demanded acquisition claimed due them.

- 1-E. Encouraging private maintenance is clearly beneficial, with some limits and reservations. Those areas in most need of maintenance and repair (via rehabilitation) typically have residents and owners least qualified for, or interested in, such preservative activities. In many areas home ownership is at a very low level, and non-resident owners are typically the least interested in, or capable of, effective maintenance of housing. Several programs now exist to provide help and information, generally at low cost, but these have proven to be difficult to utilize for a variety of reasons. Some City areas have a preponderance of elderly residents who are marginally able to participate in maintenance programs themselves, which means that a much more costly assistance program is required for their homes.

Related to the above, the feasibility of maintenance education is limited, and in many areas a much stronger program is required to bring housing to standard levels, which forces a major involvement on the part of the City. In some cases, such maintenance will never reasonably bring a home to compliance with Code, a severe handicap to public programs which must require standard housing. Educational efforts can only succeed if a lack of knowledge is the only deficiency that a homeowner has. Therefore, the principal negative impact is that educational efforts will not meet the total need.

The matching of public with private dollars is seen as beneficial, recognizing that neither can do the job alone, and that such a policy is presently most attractive to private foundations and governments alike.

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4. The fourth part of the document provides a summary of the key points discussed and offers recommendations for further action. It encourages the company to continue to refine its accounting processes to ensure the highest level of accuracy and transparency.

5. The fifth part of the document discusses the importance of communication and collaboration between different departments. It highlights how clear communication can help ensure that all transactions are recorded accurately and that any discrepancies are identified and resolved promptly.

6. The sixth part of the document provides a detailed overview of the company's financial statements, including the balance sheet, income statement, and cash flow statement. It explains how these statements are prepared and how they can be used to assess the company's financial position.

7. The seventh part of the document discusses the role of the accounting department in providing financial advice and support to management. It emphasizes that the accounting team should be proactive in identifying opportunities for cost savings and revenue growth.

8. The eighth part of the document provides a final summary and concludes the document. It reiterates the importance of accurate accounting and encourages the company to continue to strive for excellence in all its financial activities.

less costly). Importantly, rehabilitation requires that housing be restored to local code standard, which does much to eliminate possible negative impacts to tenants. From the City's point of view, a major deficiency remains, the erratic and very limited federal funding of Section 312 rehabilitation loans, also the lack of Section 115 grants to low-income homeowners; this need sparked the creation of the City's own rehabilitation program.

- 1-C. Establishing and funding a City-wide residential code enforcement schedule would have beneficial effects, except from the perspective of some vested interests. Flint's housing inventory is progressively declining in quality, as the Residential element points out, and the present inspection program is inadequate to meet the need. Given the demand for industrial, commercial and multi-unit housing and safety inspections, the City cannot possibly cover anything approaching 100% inspection City-wide. This deficiency requires that Inspection only addresses high-priority inspections, leaving much of the City without regular attention.

Regularly scheduled City-wide inspections would serve to: (1) restore housing to safe, standard condition, necessary for safety, (2) facilitate housing programs including relocation, (3) reduce blighting influences and their adverse multiplier effects, (4) improve the attractiveness of neighborhoods and so stabilize population and enhance rental and resale economics, and (5) improve City tax incomes.

The only adverse impact, beyond funding the costs of additional inspection staff, is that of possible hardship on lower-income homeowners. This has been cited as a principal handicap to expanding City inspections. Property owners have also pointed out that being forced into making costly improvements that will also possibly raise their taxes, without any guarantee that such investments will be recovered via rentals or sale, are a disincentive that forces them to oppose inspections. Tax abatement only partially counters this resistance. Finally, any code enforcement schedule is necessarily somewhat discriminatory since only a fraction of housing units can be inspected at any one time. It is also possible that an inspection cycle specifying a five- to seven-year cycle would actually require a very large additional staff, one having unacceptably high personnel costs.

- 1-D. Reduction of large-scale demolition is generally seen to be beneficial today since prior experience has demonstrated that redevelopment is typically slow and un-

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- (2) Rehabilitation has an immediate and utilitarian impact on the local housing inventory, since it simultaneously meets deficiencies in existing inventory while providing standard housing, and also provides the basis of meeting future needs (which otherwise would require new construction);
- (3) Rehabilitated housing meets local needs based on actual market demand, because of its immediate availability, low cost, and standard condition;
- (4) Rehabilitation is highly beneficial to the local economy. In the short-term it provides construction and related jobs, materials sales and a variety of other local investments. In the long-term, higher property taxes result (subject to a short-term loss due to tax abatement);
- (5) Rehabilitation is virtually the only housing activity taking place within the City, as new construction is virtually non-existent. Based on recent experience, any new units would be built outside the City;
- (6) Rehabilitation, especially in connection with other programs such as PROP or urban homesteading, is the only feasible option for low- to moderate-income families, since new residential construction now averages over \$40,000 per unit.

The adverse effects of rehabilitation are somewhat speculative. It may be argued that all housing production is locally unjustified because recent statistics indicate a high vacancy rate; this is hard to prove and may have changed with vacancies dropping. One criticism is that rehabilitation is only a short-term solution for older structures; this may be true but there is too little experience to be sure. Recent Flint data suggests the homes rebuilt under the original Section 312 authorization (ca 1969-70) remain generally in good condition. It must be acknowledged that rehabilitated homes have a predictable life expectancy that is less, perhaps one-half that of new construction. Another objection is that many families will not accept an older home even if restored to standard condition; for these only new construction is adequate. Also, that older homes are generally in neighborhoods that are unacceptable to upper-income families; again, the private sector will build to meet the popular demand. Finally, it could be argued that rehabilitation simply perpetuates the ghetto but without "slum" housing; this is conjectural but requires consideration of the high correlation between minority concentration and older housing (which is also

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The second part outlines the procedures for handling discrepancies and errors, including the steps to be taken when a mistake is identified. The third part covers the requirements for the format and content of financial statements, ensuring they are clear, concise, and easy to understand. The final part discusses the role of the auditor in verifying the accuracy of the records and providing an independent opinion on the financial statements.

The following table provides a summary of the key points discussed in the document. It is intended to serve as a quick reference for all stakeholders involved in the financial reporting process. The table is organized into columns representing different aspects of the process, such as the type of transaction, the required documentation, and the specific steps to be followed. This structured approach ensures that all necessary information is captured and that the process is consistent and transparent. The table also highlights the importance of regular communication and collaboration between all parties involved to ensure the accuracy and integrity of the financial data.

- B. Improve the City's capital budgeting and programming procedures to incorporate City-wide community development as well as expenditure measures, and input from individual citizens and neighborhood groups.
4. Alleviate racial/low income impaction and promote economic diversity in housing.
- A. Encourage formulation and adoption of a regional "fair share" housing plan through cooperation with other units of government in Genesee, Lapeer and Shiawassee Counties.
 - B. Encourage new construction within the City which will be attractive to those in the middle- and upper- income housing market.
 - C. Continue to participate in present and future housing programs which provide subsidies, outright grants or other forms of assistance to low and very low income households.
 - D. New construction of subsidized units for smaller families, the elderly and handicapped should be expedited. Public housing needs for larger families should be met by acquiring larger-size existing units rather than new construction.

The environmental impact (beneficial as well as adverse) of the proposed plan or policy if carried out.

- 1-A. Establishing a housing data base will have several beneficial effects: Data will become available to guide formulation, development and implementation of HAP and other housing plans, programs and policies, both for the City of Flint and other local units and agencies. This is also expected to have transfer utility for other aspects of community development, plus local public information and education efforts. Such data will form the basis for decision-making and action-oriented planning.

Since costs have not been precisely determined, economic impact is uncertain, possibly significant but not major. No adverse effects are apparent.

- 1-B. Continuing and expanding support for housing rehabilitation will have a variety of beneficial effects, as local experience has demonstrated.
 - (1) Rehabilitation of housing is necessary in order to meet the Housing Assistance Plan (HAP) and related housing need programs,



III. ENVIRONMENTAL ASSESSMENT - RESIDENTIAL

Summary or abstract of the proposed plan or policy.

1. Preserve and enhance the stock of decent, safe, structurally sound housing within the City of Flint.
 - A. Establish a housing data base so that housing-related policy and program decisions can be based on the most complete and recent factual information available.
 - B. Continue and expand support of housing rehabilitation programs as a primary means of fulfilling the requirements of the federally-mandated Housing Assistance Plan and enhancing the City's existing housing assets.
 - C. Establish and fund a City-wide residential code enforcement schedule in which each dwelling unit is inspected for code violations at least once every five to seven years.
 - D. Curtail block-scale demolitions, but use limited, expeditious spot demolitions to complement neighborhood housing rehabilitation programs.
 - E. Encourage private group and individual efforts in the field of housing maintenance through educational efforts and the matching or private with public dollars.
2. Preserve the integrity and enhance the livability of residential neighborhoods within the City of Flint.
 - A. Promote the formation of block clubs and citizen action groups in order to increase individual involvement and especially homeowner involvement, in neighborhood problem resolution and constructive neighborhood-oriented activity.
 - B. Protect residential neighborhoods from non-residential encroachment and/or conversion to more intensive uses through strict interpretation and enforcement of zoning and other City codes, and through making neighborhood preservation a high priority in traffic planning and capital investment programming.
3. Provide adequate City services to all residential neighborhoods and dwelling units.
 - A. Adopt the Responsive Municipal Services Program which measures present City service levels by neighborhood or planning district.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

2. The second part of the document outlines the various methods used to collect and analyze data. It includes a detailed description of the sampling process, which was designed to be representative of the entire population. The analysis then focuses on identifying trends and patterns within the data set.

3. The third part of the document presents the results of the study. It shows that there is a significant correlation between the variables being measured. These findings are supported by statistical tests and are consistent with previous research in the field.

4. The final part of the document discusses the implications of the study. It suggests that the results could be used to inform policy decisions and to guide future research. The authors also acknowledge the limitations of the study and provide suggestions for how these could be addressed in future work.

5. The document concludes with a summary of the key findings and a final statement on the importance of the research. It reiterates that the data collected is reliable and that the conclusions drawn are well-supported. The authors express their gratitude to the funding agencies and the participants who made the study possible.

6. The document also includes a list of references, which provides a comprehensive overview of the literature that has informed the study. This list includes both primary research articles and secondary sources, such as books and review papers. The references are formatted according to the standards of the journal in which the document is published.

7. Finally, the document includes a list of appendices, which contains additional information that is relevant to the study but is too detailed to include in the main text. These appendices include raw data, detailed calculations, and additional charts and graphs. This information is available to anyone who is interested in the study and wants to explore the data in more detail.

able. St. John Industrial Park is a re-use of blighted residential land, beneficial since the City needs jobs and income and does not and does not need space for housing. Bishop Industrial Airpark develops vacant land with poor prospects otherwise.

4. Integrating land use and transportation planning seeks to avoid wasted or lost resources, especially poor land uses at highway interchanges and service drives. The latter uses were essentially unplanned or inadvertent commitments which integrated planning might mitigate or avoid by better land use controls.
5. Regulating development within flood plains is required under federal law to qualify the City for flood insurance. Little if any land would be lost or wasted since watercourses are now almost totally undeveloped except for that riverfront that also includes flood control features. The small amount of flood plain remaining and developed is marginal and would not stand development even without restraining ordinances. No resources, therefore, are committed.
6. No substantial commitment of resources is needed for comprehensive development review. The process (ERAS) itself seeks to economize resources.
7. The regulation of solar rights is designed to minimize the commitment of resources in such a way as would prejudice or reduce access to the sun and the utilization of solar energy. In addition to assuring optimal solar access, such regulation would attempt to balance resource development in future years.

Statement setting forth applicable Federal, State and Local environmental controls, including flood plain management and noise abatement and control.

The following authority and related guidelines are applicable:

National Environmental Policy Act of 1969 (PL 91-190)
Housing and Community Development Act of 1974 (PL 93-383)
Sec. 701, Housing and Community Development Act of 1954, as amended
National Flood Insurance Act of 1968, as amended
Flood Disaster Protection Act of 1973, as amended (PL 93-234)
Policies and Standards for Flood Plain Management (24 CFR Part 1910)
Noise Abatement and Control (HUD Circular 1390.2, 1971)
Federal Water Pollution Control Act Amendments of 1972 (PL 92-500)
Federal Safe Drinking Water Act of 1974 (PL 93-523)
Act 245, Michigan Public Acts of 1929, as amended
Federal Clean Air Act Amendments of 1970
Implementation Plan of the State of Michigan (1972)
Soil Erosion and Sedimentation Control Act of 1972 (Michigan PA 347)
Soil Erosion and Sedimentation Control Ordinance 2481 of 1975
(Flint)

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3. Development of industry with industrial parks will improve both short-term use and long-term productivity, but the latter may have the greater importance. This is because the costs of juxtaposing industry with residential neighborhoods has been shown to be high, both to residents and the whole community. While the effects to industry is minor, industrial facilities have a severe negative impact on residential areas both in the short- and long-term.
4. Integrating land use planning with transportation planning will improve both short-term use and long-term productivity for whole systems as well as for special highway-impacted areas such as interchanges and service drives. Highway and other transportation impacts could easily be ignored for short-term uses but at a detriment to long-term productivity.
5. Development within flood plains and other watercourse zones must be regulated to meet federal and other environmental requirements, especially those necessary for the City to qualify for federal flood insurance. In this, there may be some impairment of short-term use because of restrictions on development in flood plains, but this is expected to improve long-term productivity. Other, collateral proposals are oriented to long-term improvements.
6. Comprehensive development review (ERAS) will have some direct, immediate benefit to short-term uses since it seeks to assist in bringing about better quality development. Enhanced long-term productivity is the major objective.
7. Regulating solar rights may have some adverse effects on short-term uses, if development should ever be handicapped. It is designed to have a sustained benefit in future years when solar energy utilization becomes extensive. The relationship cannot be assessed until an ordinance is formulated and its effects can be predicted.

Any irreversible and irretrievable commitments of resources which would be involved if the proposed plan or policy should be implemented.

1. Integrating all land use plans has, in itself, no significant effect. Such action brings together proposed commitments of resources. Such assembly facilitates and encourages resource review.
2. Clustering commercial development would have no adverse effect since it seeks to focus normal growth into coherent areas or sites rather than allowing it to sprawl out along streets. The re-use of vacant structures seeks to preserve resources already committed.
3. Promoting industrial parks seeks to focus development into special areas with added amenities, which will conserve resources. Making available such land is a commitment of both land and economic resources, but this is not necessarily irreversible and irretriev-



5. Watercourse regulation by ordinance is required, as is formulation of a local flood plain management program, in order to qualify for federal flood insurance. There are, however, other alternatives to the general direction proposed beyond meeting flood insurance and flood plain management requirements. These collateral proposals, in the Environment element, suggest that further study is needed before more extensive water course regulation is established. The proposed soil map is one such study, aimed at providing data to assist in decision-making by local planners.
6. There is leeway at two levels of the proposed comprehensive developer review process, the Environmental Review and Assessment System (ERAS): Whether the City is to review developer proposals beyond simple licensing of construction; and whether comprehensive review is to take place. Site plan review is already required by ordinance for all residential construction over three units, plus commercial and industrial plans. ERAS simply expands the process so that all environmental factors are considered. The Environment element proposes that the exact scope of comprehensive review be tested, so a wide range of alternative review formats is available. The recommendation simply limits these to a process that is consistent with federal environmental guidelines.
7. Since solar rights are not now regulated, the basic alternative is no action. The Master Plan proposal is not specific as to the nature and scope of an ordinance but recommends that the City formulate appropriate regulations.

The relationship, under the proposed plan or policy, between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

1. Revising and updating land use plans, particularly zoning, for consistency with the Master Plan, will enhance both short-term use and long-term productivity of man's environment. This is necessary because the inconsistencies between the various plans, especially those for renewal areas, will grow with the adoption of the new Master Plan.
2. Promoting clustering of commercial uses will have a short-term benefit, but will have greatest impact for long-term productivity because it will reduce conflicts between other land uses. The greatest reduction of conflicts will take place when extensive buffering and other controls are applied to cluster development. Promoting the re-use of vacant structures is designed to eliminate blighting influences that are immediate and short-term but multiplier effects will have long-term benefits, particularly if local business would otherwise disappear or be displaced out of the City. The costs are not only those to the property owner but to the whole community.

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7. The establishment of solar regulation or "sun rights" is assumed to be beneficial but no local experience exists to support this. Since some constraints to development appear to be necessary if sun rights are to be protected, there may be some adverse effects on adjacent properties. This could result in less intense development, and there could be a long-term effect on development patterns within the metropolitan area (to reduce height and bulk, also site coverage, and to extend outward urban development). Beyond the need to formulate an appropriate zoning ordinance, there would be greater complexity and difficulty in applying such controls by the City. While most of the difficulty relates to man's built environment, solar shading would have some impacts on his natural surroundings including landscaping by large trees. The sale or leasing of air transfer rights may also become a problem as via the character of title to real property.

Alternatives to the proposed plan or policy and an analysis.

1. The revision of land use plans to be consistent with the Master Plan for the City has only one alternative: continuation of the existing condition. This is unacceptable since a variety of special plans, such as those for eight renewal areas, would be perpetuated; further complications and conflicts would be introduced with the new Master Plan.
2. The primary alternative to encouraging cluster development of commercial, is to continue allowing development patterns as they are. Existing linear or strip commercial development is assumed to be undesirable for a variety of reasons given, and requires correction. Some variations of the basic cluster concept may be possible, but all have the same disadvantage of requiring a major change in existing patterns of development.
3. Development of industry within industrial parks has essentially two alternatives: continuing the juxtaposition of industry and other land uses more or less as they exist, or no new industry to be allowed within the City. The latter is unacceptable locally because of a shortage of jobs and continuing high employment rates, also the need to obtain tax incomes for local government. Unregulated industry closely mixed with housing and business has been demonstrated to be undesirable, as has been detailed. Planned industrial parks offer the best compromise.
4. Integrated planning that embraces land use and transportation is seen to be necessary if for no other reason than the need to improve planning including zoning. Attention to freeway conflicts represents a special aspect of integrated planning necessary to reduce adverse impacts in small land areas typically ignored by planners. The alternative is to allow existing and unsatisfactory conditions to continue.

3. Promoting the location of industry within industrial parks having substantial amenities has basically two adverse effects to the City: Development costs of such parks is large and represents a substantial diversion of local and other government resources, and the sale or leasing of such land is an uncertain prospect and one that adds significantly to an already major time factor. There is also, as previously noted, no real improvement in the physical environment in terms of air, water and noise pollution. Some degree of environmental degradation must be accepted as the price of economic development and industry. The location of industrial parks within the City (one of the two now under construction is relatively centralized) may also serve to further impact lower-income minorities where they now live, although this is uncertain. Whether City industrial parks will have an adverse effect on the human environment remains uncertain, although such parks are now carefully designed to reduce the known adverse effects such as visual blighting, noise and traffic.
4. Integrating land use and transportation planning is predicated on the assumption that adverse environmental effects will be reduced. Earlier environmental analysis incidental to transportation planning has been shown to be imperfect, and to have ignored important impacts. It is now assumed that further refinement of the planning process can largely reduce adverse impacts, which is a critical aspect of the Master Plan's proposal. Two areas of predictable deficiencies remain: It is probably impossible for the City to correct all adverse effects of prior planning and construction; also, some degree of environmental degradation will inevitably remain. The first deficiency is based on the lack of local funding to take comprehensive corrective measures, while the second reflects the reality that transportation (autos, trucks and rail traffic) always causes some degree of environmental pollution along with other adverse effects. Only the elimination of traffic can result in a complete elimination of such adverse impacts.
5. The regulation of watercourses including flood plains is expected to be a major benefit to the community. Its negative aspects relate to implementation, including any costs of reimbursing property owners for any loss of development rights and also any administrative, planning or construction costs necessary.
6. Comprehensive development review of proposed construction in critical and other areas is assumed to be beneficial. Its negative implications are largely speculative. One claim that local review is a disincentive to developers, is unsupported because little development has been proposed within the City. A related claim, that bureaucratic processing is a handicap, is also poorly supported; the Master Plan also proposes that administrative procedures be reviewed to facilitate developer processing.

Any adverse environmental effects which cannot be avoided should the proposed plan or policy be implemented.

1. Revision and updating of land use plans to make consistent all local plans including those for renewal areas, has no predictable adverse impacts upon the physical environment. However, some residents, especially living within or affected by renewal areas, may find objection to specific proposals that tend to modify prior renewal plans for NDP areas. This objection is already known in the case of NDP areas originally planned for extensive clearance which is necessarily predicated on property acquisition and tenant relocation, and where property owners claim default on the part of the City in not acquiring their properties. This is related to a decline in property quality and value within such areas which is claimed to be the result of the City's inaction and also alleged refusal to issue owners building permits to allow property improvements.

There may be possible adverse effects due to rezoning and other land use controls, but this is uncertain and would require assessment on an individual case basis. Since rezoning, like renewal plan changes, requires public hearings, any adverse effects perceived by residents and owners of property affected would be identified incidental to such hearings. It is the intent of such changes, especially zoning, to reduce adverse effects.

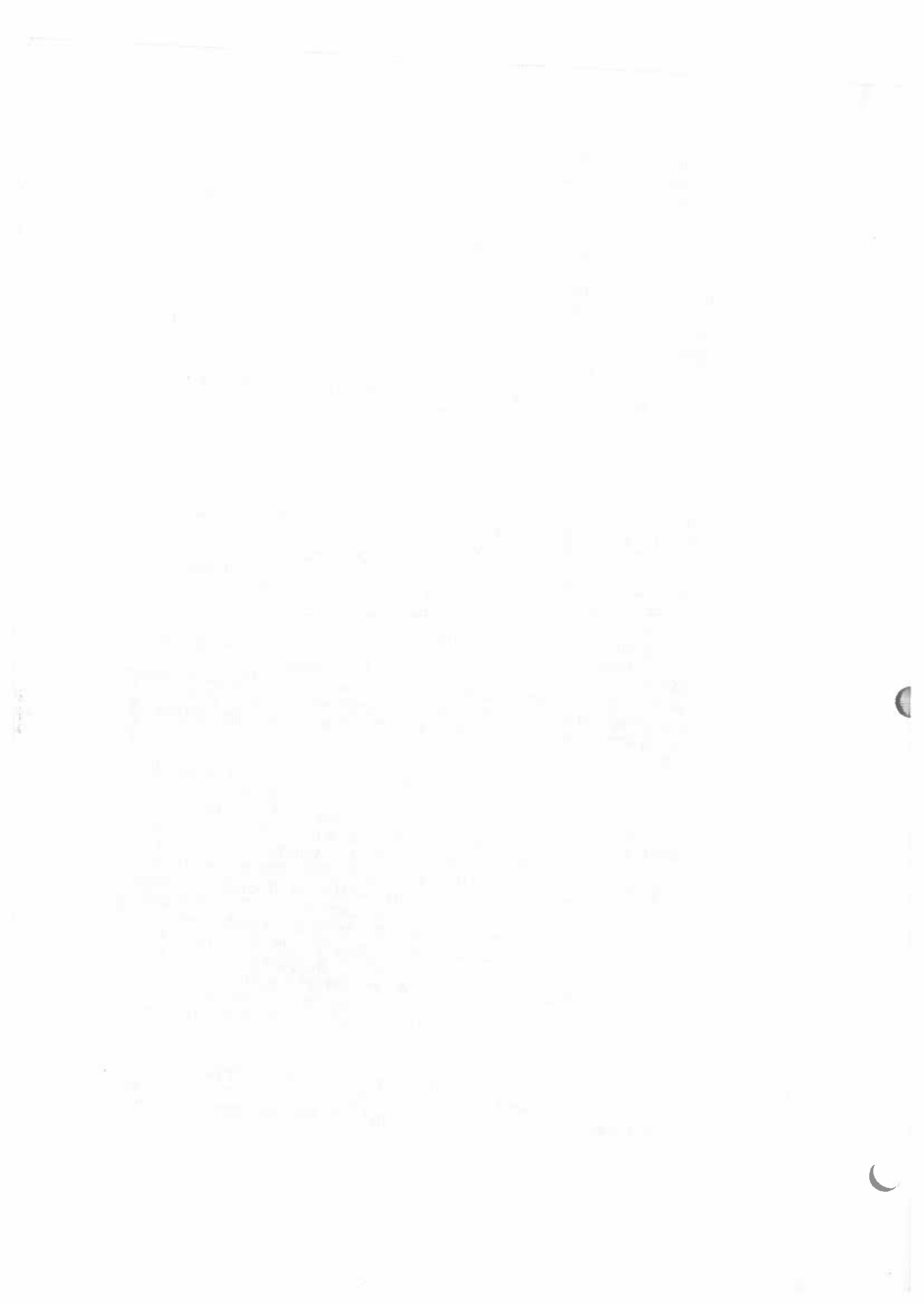
2. The promotion of cluster development, with appropriate controls, in contrast to allowing largely uncontrolled linear or strip commercial development to continue, is intended to reduce adverse effects. The City's limited experience in this is inadequate to predict impacts completely. Some comments to earlier proposals seeking to limit commercial access have been adverse; customers may feel handicapped as to drive-in access and parking, while owners may feel their business potential is reduced. This tends to ignore possible benefits to the community as a whole. It is assumed that cluster development will have both social and environmental benefits. The principal deficiency relates to the continuing existence of commercial strip development; there is no mechanism provided to eliminate such development and redirect it into clusters. Any City or private programs designed to do this would be very expensive and hard to justify because they represent assistance to the private sector.

Promoting the re-use of vacant structures is beneficial, but has the disadvantage of being difficult and expensive to accomplish because re-use involves a substantial economic development activity. Given the large number of vacant structures within the center City, it is also improbable that all can be reused even if assistance were available. This is largely based on the depopulation of the center of Flint, especially within renewal areas, which has removed the economic base for commercial viability.

aspects. National policy has assigned high priority to dealing with the energy crisis. The energy equation has two sides: supply and conservation. Use of solar energy directly enhances supply but indirectly assists conservation. As the Master Plan's Environment element points out both aspects must be addressed. Also, alternatives to existing supply (fossil fuels provided by a local public utility) scarcely exist, nor have no immediate prospect of large scale use with the possible exception of solar supplements. Only solar energy has immediate availability to residential consumers, at reasonable cost. For this reason, access to sunshine or "sun rights" must be assured to the greatest possible extent.

Because of its newness and very limited application nationwide, the impacts of solar rights regulation is largely unknown. Some speculation, mixed with very limited experience, is possible however. Shading from trees could adversely affect nearby solar collectors, which in turn has implications relative to the natural environment and man's landscaping. But shading created by large structures will be critical and controversial, especially where it would predictably impinge on existing or future collectors. This may be most critical where the bulk and height of structures is significant, as in the center City, especially when zoning brings together high and low structures. All this requires study.

Negative implications are difficult to assess, especially as to long-term consequences. While the use of solar energy appears to be an almost uniform blessing to man, some problems (such as the solar rights and shading issue cited above) are inevitable. Because of the height and bulk of downtown buildings, solar utilization there may be limited; conversely, low-rise extension of residences far beyond present development may be encouraged. Because of the present cost of solar heating systems, the urban poor may be further handicapped, being unable to add "free" solar heating while suffering increasingly from ever higher conventional energy bills. But regulation of sun rights would at least provide for access, a necessary first step in making solar energy available. It will be useful to think of solar regulation as an extension of existing zoning, a dimension that is not now considered. This may have some effect on property titles as for air rights provisions.



mechanism. Although the process is initially conceived to be focused on the physical environment, social impacts are also to be considered. The ERAS process seeks to quantify as much as possible impacts, so reduce arbitrary human involvement and improve the objective evaluation of developer proposals. The Master Plan proposal suggests that environmental conditions be defined to enable use of a matrix analysis. In this way, for example, development that affects a critical zone or area (such as a flood plain) would be immediately identified, as would siting that falls within an environmentally sensitive area measured by other criteria (such as marginal air quality). By use of this technique, proposals quickly become sorted out when affecting critical conditions. The ultimate objective of this system is to identify both beneficial and adverse impacts quickly, so that mitigating measures can be applied (and lacking this, alternatives including "no project" can be formulated and proposed).

It is assumed that the ERAS process is generally beneficial in impacts. Cost and staffing impacts are envisioned to be minor, since the system only requires the refinement of a data base and staff that largely exists. One speculative objection is that ERAS may act to reduce the development of the City because it may require more on the part of the developer or limit his options such as buildable sites. This is difficult to respond to, without experience with the system in operation. The proposal points out that the operative system should facilitate review as much as possible, reducing bureaucratic difficulties. The Land Use element recommends that such administrative procedures (building permits, site plan review and other steps) be reviewed for improvement, and that a development manual be published to regularize administrative steps.

It might also be speculated that the ERAS process would have no significant beneficial (or indeed, any) effect, since residential scope is specified, and very little new residential construction has taken place within the City. A corollary of this, is that, to have a substantial effect on improving the City environment, the ERAS process would have to be applied to all construction, including residential rehabilitation, commercial and industrial projects. This may be true, if we assume that residential construction starts remain at a low level, but a recent trend suggests some improvement. As to expansion of the process, ERAS is proposed to give local officials and developers some preliminary exposure to and experience with a comprehensive planning review process. If this is successful, it would probably be expanded in future years.

7. The adoption of solar energy or "sun rights" regulation is deemed to be beneficial. But many trade-offs are involved that make this a mixed issue and one having some negative

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is crucial for the company's financial health and for providing reliable information to stakeholders.

2. The second part of the document outlines the specific procedures for recording transactions. It details the steps from identifying a transaction to entering it into the accounting system, ensuring that all necessary details are captured.

3. The third part of the document addresses the role of the accounting department in monitoring and controlling the company's resources. It explains how accurate records enable the company to identify areas of inefficiency and to take corrective action.

4. The fourth part of the document discusses the importance of internal controls in preventing fraud and errors. It highlights the need for a strong internal control system to ensure the integrity of the financial data.

5. The fifth part of the document concludes by summarizing the key points and emphasizing the ongoing nature of the accounting process. It stresses that regular review and updates are necessary to keep the system effective.

6. The sixth part of the document provides a detailed overview of the accounting cycle, from identifying transactions to preparing financial statements. It explains how each step contributes to the overall accuracy and reliability of the financial data.

7. The seventh part of the document discusses the importance of the accounting department in providing timely and accurate information to management. It explains how this information is used for decision-making and for evaluating the company's performance.

8. The eighth part of the document addresses the role of the accounting department in ensuring compliance with applicable laws and regulations. It highlights the need for a strong understanding of the legal and regulatory environment.

9. The ninth part of the document discusses the importance of the accounting department in providing accurate information to external stakeholders, such as investors and creditors. It explains how this information is used to assess the company's financial health and to make investment decisions.

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17. The seventeenth part of the document discusses the importance of the accounting department in providing timely and accurate information to management. It explains how this information is used for decision-making and for evaluating the company's performance.

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24. The twenty-fourth part of the document discusses the importance of the accounting department in providing accurate information to external stakeholders, such as investors and creditors. It explains how this information is used to assess the company's financial health and to make investment decisions.

25. The twenty-fifth part of the document concludes by summarizing the key points and emphasizing the importance of the accounting department in the overall success of the company.

of City contained waterfront is completely ignored by residents, except for dumping and other infill, some has been developed. It may be necessary to reimburse fronting property owners for the economic loss of property rights under proposed legislative controls. For example, a small lake within the City is presently zoned to provide for business use (although it is now vacant land, no longer improved); it has been proposed that the City acquire this land and possibly develop it for passive recreation. In this way a negative prospect (economic cost of land acquisition) could become a public benefit.

Finally, watercourse regulation may have an incidental benefit that is not too apparent; attention will be focused on City waterways and flood plains, thus requiring residents to think about future land uses involving such lands. Up until now such attention has been inadequate. The Environment element has proposed that City soils be studied in detail to provide data for local decision-making. In prior years studies of our physical environment were only undertaken as part of construction phases, a procedure that has proved to be unwise, especially when marginal soils were involved.

6. Comprehensive development review may be the ultimate objective of local regulation, but only now has it been proposed. The Environment element only specifies new residential construction above the single-family (and duplex) level but also points out that there is no reason why such a process should not be applied to residential rehabilitation, commercial and industrial development as well. The Master Plan proposal also requires local development review in certain cases; as where "critical zones or areas" (given above, largely as flood plains) are involved, or where other environmentally-sensitive decisions must be made. This is designed to protect our natural and man-made resources from further encroachment and avoid the undermining of critical or nonrenewable resources. Citizens have repeatedly cited the ugliness and insensitivity of our existing built-up environment, although this deficiency has not been carried forward toward resolution. The Environmental Review and Assessment System (ERAS) is a first step to provide comprehensive review of developer proposals. This is intended to (1) provide a process affording a rational relationship of development to the carrying capacity of an environment, seen in several dimensions; (2) provide a means of sensitizing both developers and officials to existing and projected environments; and (3) provide a process that remains consistent with government environmental regulation so that the assessment is compatible with federal controls.

Given a history of largely uncontrolled development in the City, ERAS affords an opportunity to improve the quality of our built environment, and thus is envisioned as a beneficial

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and the City periphery will still be subject to flooding. For this reason, the City has obtained interim or "emergency" status under the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Any resident may now purchase federally-subsidized flood insurance at low cost. In order to take advantage of the federal program, the City must commit itself to a local program of flood plain management that conforms to federal regulations (24 CFR Part 1910). The City has taken all necessary steps thus far, to assure continuing protection. While the real hazard of flood is probably small, the economic loss connected with any such event can be high, which is why flood control measures and management (including protecting access to federal insurance) deserves high priority. This, and other aspects of flood plain regulation are detailed in the City Plan's Environment element.

Flood plain management is required to define "sensitive areas or zones" as given in the Environmental Review and Assessment System (ERAS) also proposed in the Environment element. The recommendation calls for formulation of an ordinance regulating flood plains and watercourses, with emphasis on their suitability for further development. This is somewhat related to the flood plain management required under federal insurance programs. Sensitive wetlands require identification under the proposed ERAS developer review process, along with other environmentally sensitive areas or zones. It is also proposed that biological study would be useful to help regulate such areas. The impacts of such management remain uncertain, but tentative are assumed to be beneficial. The ecological implications are broad. It is further assumed that watercourse regulation is connected to implementation of the Clean Air Act as amended and Section 208 waste management now being planned by the Regional Planning and Development Commission. While there has been no local study of this question, it is assumed that since suspended solids in surface waters are high and since suspended particulates in Flint air are also high (above standards in some parts of the City), tighter regulation of air quality will improve water quality. The high runoff figures assigned to the City further suggest that buffering and other treatment to stream banks is necessary to limit the continuing loss of topsoil. This deserves further study. .

The social or human impacts of watercourse regulation are difficult to assign, but citizens groups have assigned high priority to the development of the Flint riverfront as a downtown City park and also other recreational land uses. The Riverfront Park was cited as the City's Bicentennial Project, and is now under construction.

The negative implications of watercourse regulation basically involve implementation problems. Although a surprising amount

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factors may have been slight. Actually, other negative impacts intervened during the environmental impact analysis phase, and the start of the highway was actually delayed by several years. Unfortunately, this delay did not involve all negative impacts predicted, but primarily related to a proposed realignment, at the beginning, and finally hinged around the 4 (f) statement and controversial park lands. Planning and re-planning costs and delays remain the smallest part of project expense, with implementation costs representing a major part.

The social or human impacts of land use planning remain difficult to assess. A variety of basic assumptions are typically assigned. For example, given the case of I-475, planning reviewers generally assumed that residential land uses at interchanges would be severely undermined simply because of projected high traffic volumes. This probably involved a collateral projection of noise, air pollution and possibly reduced safety. Any commercial uses in such areas would introduce another factor, disruption of traffic patterns by turning movements in and out of businesses, which involved a further set of largely negative impacts. It has been suggested that the I-475 Environmental Impact Statement is deficient in its assessment in several areas: It cites certain critical uses to be noise sensitive (such as churches) as particular sites, but largely ignores large residential land bays facing the highway even though they would be subjected to the same noise and air pollution. Further, the EIS proposes continuing consideration of noise attenuation devices such as buffers or barriers but fails to detail the extent and nature of these construction features. Since the State of Michigan totally controls construction within its right-of-way, the City is left to deal with mitigating measures and any consequent need to change land uses. This deficiency actually is not one of authority and jurisdiction, so much as one of economic capability, since buffering could be accomplished outside of state-owned land by City acquisition of properties facing the highway. State officials generally argue that whatever mitigating measures are appropriate, construction budgets have previously been set and are in fact continuously eroded by inflation, and therefore nothing remains to fund additional highway-related work. This effectively forced the City to act alone to reduce adverse impacts of the highway. The only low-cost option locally available is to rezone contiguous land such as that at interchanges or facing service drives, as an attempt to reduce impacts.

5. Watercourse regulation is deemed to be both beneficial and necessary, for a variety of reasons. Since the City of Flint has known flood hazard, extensive flood control features have been developed and are now largely complete. The flood control project will be complete by 1980 although some tributaries

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both manual data entry and the use of specialized software tools. The goal is to ensure that the data is both accurate and easy to interpret.

The third section provides a detailed breakdown of the results. It shows that there is a significant correlation between the variables being studied. This finding is supported by statistical analysis and is consistent with previous research in the field.

Finally, the document concludes with a series of recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends. This will help to develop more effective strategies for addressing the issues at hand.

sensitive, since they are wholly oriented to engineering and construction. Inter-agency coordination can be improved if City Planning (within the Department of Community Development) continues regular contact with Traffic Engineering (within the Department of Public Works), the County and Regional Planning functions, plus the Michigan State Department of State Highways and Transportation.

The Master City Plan's transportation element has not been completed since the loss of 701 funds temporarily handicapped plan development in this area. The Master Plan should be revised to accommodate this element when it is completed. The element being developed will be a process model that enables and facilitates the formulation of a product rather than producing, formulating or proposing a transportation product. The element's development in itself requires extensive inter-agency cooperation embracing all levels.

One of the most serious deficiencies in land use planning involves the negative impacting of uses contiguous to major transportation. Proposed control of development around freeway access points and along service drives by use of zoning, site plan review and environmental regulation is therefore seen to be beneficial. This is similarly true for proposed freeway corridor studies aimed at determining appropriate land use and zoning for these areas. The adverse effects on unregulated development adjacent to freeways and other high traffic density corridors has been demonstrated locally and is documented (notably in the I-475 City freeway Environmental Impact Statement which details this deficiency). In the case of the City interstate, the intrusion of this highway has created numerous impacts which include predictions of several adverse effects at interchange areas presently zoned for and containing both residential and commercial uses. A large residential land bay is also impacted by the highway and is assumed to be unsuitable for continued occupancy once the highway is opened. The prior (1960) City Master Plan anticipated this problem and proposed that the area be rezoned as industrial, which was done but with no further action on the part of the City. The City recently requested \$7.2 million to acquire and clear the residential area impacted by the highway before its 1980 opening. The concurrent problem of dealing with interchanges and service drives remains to be resolved, along with certain other adverse highway impacts.

The negative impacts of dealing with proposed policy regarding the mitigation of adverse highway impacts fall into two areas: First, the added time and expense of integrated and comprehensive planning for such mitigation of impacts; second, the added time and expense of the implementation of mitigation measures. For the instance given above, had such planning been provided in early highway design steps the time and cost

in a park (and not all consumers necessarily want this, since there is some cost attached) is uncertain. Since there is more industrial land available than the market can absorb, some must remain unsold and some of this may be highly priced park land.

Parks have limited isolation and buffering value, and even screening has its limits. This is clearly apparent in considering air quality since pollution quickly spreads over a large area, affecting many persons. The large steam generator at the Buick facility had a very adverse effect on air quality in much of the City until the plant was improved. No amount of isolation and other treatment could have improved this deficiency. This is somewhat less true for noise pollution. Another point that has become critical, transportation (typically, employee cars and vendor trucks plus those of the industrial facility) creates its own air and noise pollution, and affects the surrounding area that is much larger than the facility generating this traffic. Therefore, siting industry onto park-like campuses may make it more attractive and less obnoxious, but the industrial park is not a cure-all and a park will not eliminate undesirable impacts. Improved land such as industrial parks, has been overproduced because of the economic desires of both private owners and local government, which is a waste of resources. Dependence on incentives that are available (such as tax abatement) will not guarantee the marketability of industrial land; at best, this can only be one of a variety of incentives and amenities that the developer can offer.

The impacts of industrial parks onto people, directly, is largely unknown. There is a variety of inferential evidence that suggests that a park-like setting for workers is better for their well-being, but this is uncertain. This is likewise an uncertainty that would apply to industrial neighbors. In spite of many legal suits, some seeking redress for impaired health, there is still no proof that industry, whether or not in a park, has a direct adverse effect on human health. However, the perception on the part of residents living near industrial facilities tends to be to the contrary and suggests that more separation and buffering is called for.

4. The integration or closer coordination of transportation and land use planning seeks to accomplish at least two objectives, both of which are beneficial: technical product or the plan will be better (a better design which is more useful, possibly at less cost or more quickly), and its immediate externalities (direct impacts which may be negative) may be reduced. The planning agencies for other units of government are often less sensitive to land uses than the City, in part because they have less control, as via zoning. Operating staffs or those responsible for public works, may be the least

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MEMORANDUM
TO: [Name]
FROM: [Name]
SUBJECT: [Subject]

[The following text is extremely faint and largely illegible. It appears to be a formal report or memorandum, possibly containing experimental data, a discussion of results, and a conclusion. The text is organized into paragraphs and may include sub-sections, but the specific content cannot be discerned due to the low contrast and resolution of the scan.]

park in modern form does not exist here. Two industrial parks are currently under development and well short of full occupancy. It is assumed that industrial parks are the best solution for heavy uses, for a variety of reasons. Separation is the key. Manufacturing and other process functions can be isolated and negative environmental effects be buffered, screened or otherwise separated from residential areas. Landscaping can be planned to serve in multiple roles of screening, beautification and buffering.

Separating industry also facilitates the creation of industrial development districts which can be locally relieved of some portion of the normal tax burden under Michigan State law. Such tax abatement and other economic incentives are more readily provided to separated industry. There are other amenities (streets, roads, parkways, parks and other capital improvements) that local government can also provide that are more appropriate to the industrial park than simply land zoned for industry. Finally, since there being more land zoned industrial than the market has been able to absorb (in Flint and elsewhere), a competitive condition exists which requires localities to provide exceptional incentives if the vital function of economic development is to be fulfilled. Industrial parks best serve this function since they are most attractive on the land market. This is closely related to the local assumption that "Class A" amenities, based on state specifications, are necessary to market such industrial lands.

Since Flint's experience with juxtaposed industry is now manifested in seriously deteriorated neighborhoods of marginal residential utility, the need for separation and treatment of industrial land is obvious. St. John, on one side of Flint's largest industrial facility, became so hopelessly deteriorated that it had to be totally cleared of housing. Oak Park, on the other side of that facility, is on the threshold of a major decision as to its fate. Whether buffering and other extensive treatment of this residential-industrial face will work is now being studied. However, had that industrial facility been developed originally as a park its residential impacts might have been much less adverse.

The negative impacts of promoting industrial parks are largely limited to the feasibility of such development, almost totally an economic problem. Industrial land is generally the most expensive to develop, which is related to its market value. Local resources are strained to provide adequate funding. In Flint's case, federal and state assistance was involved, primarily via Economic Development (EDA) grants. Had there not been a high redevelopment cost, St. John residents could have been relocated much more quickly. Such a drain has also handicapped other local projects. Even given a large investment, the marketability of industrial land, whether or not



development. Planning is enhanced via use of single large land mass and conflicts with residential land uses are reduced, if only because less area is exposed as a residential-commercial interface. Buffering and screening becomes more feasible, as does landscaping. There is less pressure for extensive signage which is a major negative factor in strip commercial development.

Promoting the re-use of vacant non-residential structures is essentially a response to vacant stores or other commercial uses, since industrial uses are generally fairly stable over time. Re-use is highly desirable, since vacant commercial structures are a major eyesore to the neighborhood and residents, they are a major loss of tax income and jobs, and generally become a blighting influence very quickly. Without intervention, vacant commercial structures deteriorate and become hazards, and eventually must be cleared at high costs and often at public expense. Commercial space also is necessary to have a viable residential community and one of the first signs of decline is a loss of retail services.

Promotion of cluster commercial has few if any intrinsic adverse effects, but the approach is really too new to allow full assessment. There are some deficiencies, mainly based on the feasibility of making any substantial change within a reasonable period of time. Given the age and highly developed nature of Flint, most development now takes place outside the City and mainly redevelopment occurs inside. The latter is very expensive, compared to simple development of vacant land, time-consuming and generally difficult. The major disadvantage to clustering is that the concept comes too late in the history of the City and may have but slight betterment opportunities. Apparently, most new clusters would have to involve relatively commercial development since open land parcels of any size would be scarce. Rezoning to convert existing strip commercial to cluster development also has the complex problem of what to do with existing commercially-zoned land strips (do they become residential?) and how to reimburse owners who are deprived of business use.

Promoting the re-use of vacant structures of any kind is desirable and useful and has many benefits to the community and the City. However, the City's involvement forces government to intrude into the private sector with existing market mechanisms, a role that officials are uncomfortable in and often poor at. Short of providing subsidies or assistance, what the City can do that the private sector cannot, is uncertain.

3. Promoting the development of industry within special-purpose parks is similar to the concept of setting aside commerce in clusters such as shopping malls, and represents the best contemporary planning practice. Its desirability, while established elsewhere, is unknown in Flint since the industrial

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incorrectly zoned and are actually light commercial. There may be excessive zoning of residential areas, since Flint is heavily single-family home-oriented, which is a disincentive to developing the multi-unit structures that have become important in recent years. The Plan also proposes a different approach to commercial land use, which if fully implemented would completely restructure commercial zones.

Revision of renewal plans for eight NDP renewal areas is vital to relate changes in federal, and local policy and priorities (which are largely brought together within the Master City Plan and are primarily expressed by the Housing element). This mainly speaks to the shift in emphasis from the traditional approach of relocation and clearance, to rehabilitation and preservation. Incorporation of this contemporary reality is seen to be beneficial to all plans, and the community and its residents. Like the City-wide situation, there is also justification to revise renewal plans even without the impact of the Master Plan.

Some existing ordinances are also intrinsically defective in detail, suggestive of a need to amend them in wording, which gives an opportunity to incorporate improvements. A history of requests for variances (which is proposed to be studied) is often indicative of a defective ordinance. The City Zoning Map also must be changed concurrently. Beyond spatial zoning changes, regulation of yard size, parking and signage, plus site plan review, requires improvement if only to provide for changing transportation patterns and needs. These changes will have some effect on details of life style and economic costs, but precise impacts would be difficult to assess since public hearings dealing with such regulation identify a variety of viewpoints as to probable impacts.

Adverse impacts, if any, are not apparent. Change is in itself, troublesome and a human burden as well as an economic cost. Extensive plans changes are costly and time-consuming. However, the citizens participation that formal change causes is seen as beneficial to the public. Some changes will cause negative impacts but these can only be assessed on an individual case basis.

2. Promoting cluster development and controlling linear commercial districts is seen to be beneficial. Cluster development assumes that commercial uses are concentrated in essentially one group on a shared site such as a shopping mall. This improves economic feasibility to businessmen, and may have a productive synergistic effect because of several firms being located in one place. Parking can be shared, along with utilities and other necessary services. Business clusters may also be safer since traffic movements are concentrated rather than random and sporadic as with linear or strip commercial

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II. ENVIRONMENTAL ASSESSMENT-LAND USE

Summary or abstract of the proposed plan or policy.

1. Land use plans, zoning map and ordinances, should be revised to be consistent with the Master City Plan, both City-wide and for renewal project areas.
2. Cluster development patterns for commercial uses should be promoted while linear or strip commercial should be controlled to provide buffering, parking, landscaping and signage. Re-use of vacant structures should be promoted.
3. Development of industry within industrial parks that facilitate control of traffic, noise and other impacts while featuring incentives and amenities, should be promoted.
4. Land use planning including zoning and transportation planning should be integrated, with special attention devoted to development controls for lands at freeway access points and service drives.
5. Watercourses should be regulated by ordinance that controls development within flood plains.
6. Comprehensive development review should be initiated to regulate new construction in critical areas and generally assess the impacts of development.*
7. Zoning should be formulated that establishes "sun rights" or protected access to solar energy.*

The environmental impact (beneficial as well as adverse) of the proposed plan or policy if carried out.

1. Revision of other land use plans to reflect the new City Master Plan is beneficial. This assumption is the basis of 701 comprehensive planning process, and its continuation by Congress. In Flint's case, the benefit is more than inter-plan consistency, although inconsistency is an increasing deficiency because the existing Master City Plan was adopted in 1960 and most urban renewal plans roughly ten years later. Existing land use regulation is generally very dated, with relatively little change having taken place in the recent decade. It is acknowledged that zoning is in need of revision for a variety of reasons, quite apart from the obsolescence created by Master Plan proposals. Some industrial zones are

* Development review and solar zoning are recommendations in the Environment element. All other policy here paraphrases recommendations from the Land Use element. The land use recommendations from the Housing element are assessed separately.

The final Transportation element is intended to be a process model to provide systematic analysis of needs, rather than a product oriented analysis that will propose specific projects.

5. Protection of Natural Areas -- No plans or policies are proposed for the protection of natural areas such as estuaries since such areas are not known to exist within the City of Flint. The Master Plan's Environment element proposes that "critical zones or areas" be defined relative to implementing a development review process, and that such critical zones include flood plains; also, that water courses be controlled as "sensitive areas" primarily to regulate development and prevent excessive soil erosion. The thrust of such regulation, however, is to protect the City's environment as a whole rather than natural areas or zones per se, the latter's improvement being incidental.
6. Historic Preservation -- The City Master Plan includes an element devoted to historic preservation and enhancement in the comprehensive planning process. Since the physical focus of current activities is a property listed in the National Register, an environmental assessment has been prepared which details the City's current program.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. The text also mentions the need for regular audits to ensure the integrity of the financial data. Furthermore, it highlights the role of the accounting department in providing timely and accurate information to management for decision-making purposes. The document concludes by stating that adherence to these principles is essential for the long-term success and stability of the organization.

In the second section, the focus is on the implementation of internal controls. This involves establishing a system of checks and balances to prevent errors and fraud. Key elements include the segregation of duties, where no single individual has control over all aspects of a transaction. Another important aspect is the use of standardized procedures and policies. The document also discusses the importance of training employees on these controls and ensuring they understand their responsibilities. Regular monitoring and evaluation of the internal control system are also mentioned as necessary for its effectiveness.

The final part of the document addresses the reporting requirements. It details the types of financial statements that must be prepared, such as the balance sheet, income statement, and cash flow statement. The text also discusses the timing and frequency of these reports. Additionally, it mentions the importance of providing clear and concise explanations for any significant changes or trends observed in the data. The document concludes by reiterating the commitment to transparency and accountability in all financial reporting.

necessary in the future to meet local housing needs. Policy is given to guide the achievement of goals necessary to meet needs. This is fully assessed, separately from the assessment covering land use. The Land Use and Housing elements were developed concurrently so that both are consistent with each other and function in a complementary way.

2. Major Community Facilities -- No major public facilities are proposed by the City Master Plan. Substantial redevelopment in and about the central business district is taking place, but it is not the result of Master Plan plans or policy. The only major proposed activities not under construction are Riverfront Center and Center City Plaza. An environmental assessment was prepared in 1976 for Riverfront Center and the project is currently being restudied and revised. Center City Plaza is a nine-acre project adjacent to the Center, in the Central Business District, physically related to river bank park and other development including the University's downtown campus. The plaza project is based on development of an enclosed shoppers' concourse that is expected to enhance CBD attractiveness year around and revitalize the area. Design work is continuing along with more specific cost estimation, both necessary before any assessment can be made.

The Public Facilities element does not propose any major facilities, rather, re-use of existing structures to the greatest extent possible. Along with this, the element emphasizes stabilization, preservation and recentralization of facilities within the City.

3. Major Utilities -- No major utilities are proposed. In general, the City Master Plan ignores any detailed discussion of utilities other than noting current capital improvement projects, mainly sewer construction now in progress.
4. Major Transportation Systems -- No major transportation systems are proposed. First year 701 activities were devoted to data gathering which resulted in a July, 1976, publication, Transportation Report. This report was essentially descriptive and a statement of existing conditions in the City and region. No recommendations, policy or plans were given beyond listing street construction priority rankings of proposed Urban Systems projects. Concurrently, citizens participation meetings suggested some minor deficiencies which are cataloged and also given by planning districts in Mini-Plans for the City's planning districts.

Second year funding via 701 was not available, and subsequent activities were funded by CDBG and Section 112 of the Federal Highway Act of 1962 via the 3C Process. Transportation system project or activity proposals now being formulated will be environmentally assessed by consultants separately. The Department of Community Development has limited responsibility in the area of transportation, plans being formulated by the City's Department of Public Works-Traffic Engineering Section and by the independent authority, the Flint Mass Transit Authority (MTA). Efforts to coordinate these activities are continuing.



I. ENVIRONMENTAL ASSESSMENT OVERVIEW

In general, no major actions are proposed by the City of Flint Master Plan. Those major projects described are either ongoing activities, which have been previously assessed, or are projected and will require preparation of an environmental assessment once funding has been authorized. For the latter, the assessment will be prepared concurrently with development of the Community Development Block Grant Application. For the former, ongoing major projects are described in the documents contained in the Environmental Review Record (ERR), which compendium is available for public inspection in the Division of Planning and Programming (planning office) of the City of Flint Department of Community Development.

Since no major actions are proposed, relative to the five categories listed below (and possibly the sixth), it might be adequate to state that there is no significant effect. (For the sixth category, historical preservation, the action proposed is not major but does affect a property on the National Register, and therefore requires assessment.) However, because of the importance of the Land Use and Housing elements, an environmental assessment was prepared. The plans and policies here will not have a significant adverse effect on the environment. However, they will affect the human or social sphere, which it is hoped, will be significantly improved. The central thrust of proposed actions is to improve the human community, or residential neighborhoods.

1. Land Use -- The Land Use element in the City Master Plan essentially summarizes and recapitulates recommendations given in other Plan elements that affect land use. No major actions are proposed. The plans and policies cited in the Land Use element largely refine, clarify, reiterate or extend upon prior plans and policies; with only limited shifting of emphasis. There is emphasis on the needs for conservative rezoning and variances, closer interaction between land use and transportation planning, land use coordination between major institutional users, the master plan and renewal plans, plus the need to strengthen, update and correct zoning deficiencies. The element also proposes small studies to examine the negative effects of rezoning and variances, how incompatible land uses may be mitigated, whether nonresidential growth needs further controls, and optimal land use controls including the zoning for transportation corridors.

"Mini-master plans" were formulated during the comprehensive planning process, for the 12 planning districts comprising the City. These are essentially descriptive and do not propose any major actions. The mini-plans provided the basis for analysis yielding land use goals covering residential, commercial, industrial, institutional, and recreational-open space uses.

The Master Plan's Housing element provides a substantial discussion of residential considerations -- existing conditions and those



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ABSTRACT

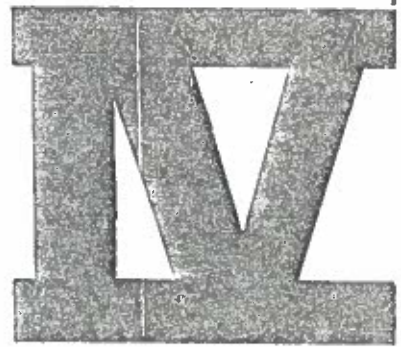
TITLE: ENVIRONMENTAL ASSESSMENT
PREPARED BY: CITY OF FLINT, DEPARTMENT OF COMMUNITY DEVELOPMENT,
DIVISION OF PLANNING AND PROGRAM DEVELOPMENT
SUBJECT: ENVIRONMENTAL ASSESSMENT OF COMPREHENSIVE MASTER PLAN
DATE: NOVEMBER, 1977
NUMBER OF PAGES: 47

ABSTRACT: FEDERAL GUIDELINES REQUIRE THAT ANY PROPOSED PLAN OR POLICY BE ASSESSED AS TO ITS ENVIRONMENTAL IMPLICATIONS, AND ARE EXPLICIT AS TO REQUIRING FOCUS ONTO TWO BROAD AREAS: HISTORICAL PRESERVATION; AND ACTIONS RELATING TO LAND USE, MAJOR COMMUNITY FACILITIES, MAJOR UTILITIES, MAJOR TRANSPORTATION SYSTEMS OR THE PROTECTION OF NATURAL AREAS, IF ANY. APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROLS MUST BE IDENTIFIED INCLUDING ANY DEVIATIONS FROM THESE.

SINCE THE MASTER PLAN INCLUDES PLANS AND POLICIES THAT WILL IMPACT NATIONAL REGISTER PROPERTY AN ASSESSMENT WAS PREPARED DETAILING ENVIRONMENTAL IMPACTS OF THE HISTORICAL PRESERVATION ELEMENT. BECAUSE NO MAJOR ACTIONS, OR PROJECTS, ARE PROPOSED IN OTHER AREAS OF THE MASTER PLAN, IT MIGHT BE SUFFICIENT TO STATE THAT THE PLAN WILL HAVE NO SIGNIFICANT EFFECT. HOWEVER, BECAUSE OF THE LOCAL IMPORTANCE OF LAND USE AND RESIDENTIAL (OR HOUSING) PLANS AND POLICIES PROPOSED, ASSESSMENTS WERE PREPARED COVERING THESE TWO PLAN ELEMENTS. NO SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS ARE PROJECTED.

THE PREPARATION OF THIS REPORT
WAS FINANCED IN PART THROUGH
A COMPREHENSIVE PLANNING GRANT
FROM THE
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT





ASSESSMENTS

PREPARED BY THE DEPARTMENT
OF COMMUNITY DEVELOPMENT,
CITY OF FLINT, MICHIGAN

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05-28-0386.



CITY OF FLINT MICHIGAN
PROPOSED PROJECTS FOR FUTURE EVALUATION
AS OF MARCH 1978

Priority Number	Rating %	Road & Location	Urban (1) System No.	Participating Agency (FAUS-Federal Aid)	Existing Condition ADT(2)-ROW(3)	Deficiencies LS(4)-AR(5)	Planned Improvements 1990 ADT(6)	Estimated Cost	Comments
55		Dupont St. (Ridgeway Ave. to Bundy Ave.)	76	1978	ADT-8,000 ROW-80'	LS-C AR-11.11	Widen from existing 26' to 44' + curb and gutter.		Residential
53		Davison Rd. @ C&O RR (500' E. and W. of tracks)	82	Public Works 1977 or Section 209	ADT-20,724 ROW-80'	LS-C AR-2.63	Build grade separation		
52		Chevrolet Ave. extension (Chev. Ave. bridge to Miller and Hammerberg)	83	1981	ADT-10,239	LS-C AR-5.52	Build two-way connector 44' + curb and gutter.		ROW needed. Reevaluate various alignments.
50		Pierson Rd. extension (Dort Hwy. to E. Blvd. drive)	87	Bonds 1982	Does not exist	LS-E AR-5.26	Build 24' connector + curb and gutter. Require new bridge over Flint River. Build grade separation @ C&O RR.		ROW needed
50		Atherton Rd. @ C&O RR (500' E. and W. of tracks)	88	County Public Works 1977	ADT-16,189 ROW-80	28 trains per day, avg. delay of 1.75 minutes.	Build grade separation		
25		Pershing St. (Miller Road to Court Street)					Widen from 26' to 44' + curb and gutter. Improve horizontal and vertical alignment.		
106		Dupont Street (3rd Ave. to Chevrolet Ave.)					Widen from 26' to 44' + curb and gutter.		Part of Dupont St. extension.