FUTURE LAND USE PLAN CITY OF SAULT STE. MARIE, MICHIGAN

PREPARED FOR:

SAULT STE. MARIE PLANNING COMMISSION SAULT STE. MARIE, MICHIGAN

BY:

VILICAN-LEMAN & ASSOCIATES, INC., PLANNING CONSULTANTS 29621 NORTHWESTERN HIGHWAY SOUTHFIELD, MICHIGAN

JUNE, 1964

The preparation of this report was financially aided through a Federal grant from the Urban Renewal Administration of the Housing and Home Finance Agency, under the Urban Planning Assistance Program authorized by Section 701 of the Housing Act of 1954, as amended, administered by the Michigan Department of Economic Expansion.

MAYOR

ROBERT I. JACOBS

CITY COMMISSION

LEVI D. GODIN
JOHN O. HARRINGTON
THOMAS G. MOHER
FRANK PINGATORE
ROBERT STALEY
STEPHEN P. YOUNGS

PLANNING COMMISSION

JOHN F. McDONALD, Chairman KENNETH E. COOK JOHN O. HARRINGTON ROBERT I. JACOBS JERRY H. JEAN MILDRED McKINNEY CARLTON RICH EVERETT ROE DOUGLAS WOLCOTT

CITY MANANGER

W. M. COTTON

PLANNING CONSULTANTS

VILICAN-LEMAN & ASSOCIATES, INC.

FORWARD

The Future Land Use Plan for Sault Ste. Marie consists of the text and maps contained herein. It represents the results of two years study and appraisal by the City Planning Commission. During this period, six preliminary reports were covered by the Commission including the following:

- 1. Housing Condition Analysis
- 2. Land Use, Population and Neighborhoods
- 3. Recreation, Schools and Public Facilities
- 4. Thorofares and Transportation
- 5. Economic Base Analysis
- 6. Central Business District Plan

The Future Land Use Plan is also a summary of the above studies, including the changes which have been decided upon since the preliminary reports were completed. For those interested in the detail of these reports, copies are available at the City-County Building.

Implementation of the Plan will be dependent upon utilization of the Zoning Ordinance, Subdivision Regulations and Public Improvement Program now being studied.

TABLE OF CONTENTS	PAGE		PAGE
INTRODUCTION	1	INDUSTRIAL PLAN	28
POPULATION ANALYSIS	2	Specific Recommendations	28
TOTOLATION MALIBID	.	The Economy and the Plan	29
RESIDENTIAL PLAN	4	Standards and Concepts	29
RECREATION PLAN	9	COMMERCIAL PLAN	32
Specific Recommendations	9	Statistical Basis	32
Standards and Concepts	11	Specific Recommendations	34
SCHOOL PLAN	13	Standards and Concepts	37
Specific Recommendations	13	PLAN EFFECTUATION	40
Standards and Concepts	17	Zoning Ordinance	40
	18	Subdivision Regulations	40
COMMUNITY FACILITIES PLAN		Public Improvements Program	41
Essential Services	18	Urban Renewal	41
Other Services	20	Informal Implementation	41
CIRCULATION PLAN	23	FUTURE LAND USE PLAN	43
Specific Recommendations	23	Short Range Development Plan	43
Standards and Concepts	. 25	Long Range Development Plan	43

ТА	BLE	PAGE	ILLUSTRATIONS	PAGE
1.	SELECTED POPULATION PROJECTIONS	2	POPULATION COMPOSITION FOR SELECTED COMMUNITIES	3
2.	NEIGHBORHOOD UNIT CAPACITIES	8	THE RESIDENTIAL PLANNING UNIT	5
3.	MINIMUM NEIGHBORHOOD PARK, PLAY-	·	NEIGHBORHOOD UNIT PLAN	7
	GROUND AND SCHOOL NEEDS	10	MAJOR REGIONAL FEATURES	21
4.	BASIC RECREATIONAL FACILITIES AND		COMMUNITY FACILITIES PLAN	22
	STANDARDS	. 12	THOROFARE PLAN	24
. 5.	PROJECTED PUPIL SCHOOL ENROLL-		LOCAL STREET TYPES	27
	MENT	13	PROPOSED CADILLAC-SOO INDUSTRIAL PARK	31
6.	PUBLIC SCHOOL NEEDS AT CAPACITY		REGIONAL INFLUENCE AREA	33
	DEVELOPMENT	16	SCHEME A - CENTRAL BUSINESS DISTRICT PLAN	35
. 7.	SCHOOL DESIGN STANDARDS	17	FUTURE DOWNTOWN SAULT STE. MARIE	36
			SUGGESTED TOURIST CENTER PLAN	38
8.	THOROFARE CROSS SECTION STANDARDS	26	COMMERCIAL STRIP IMPROVEMENT	39
			PARK DEVELOPMENT - ISLAND "B"	42
9.	SELECTED COMMERCIAL BASE STATISTICS	32	SHORT RANGE DEVELOPMENT PLAN	44
			LONG RANGE DEVELOPMENT PLAN	4 5

Sault Ste. Marie's Comprehensive Planning Program, which is being financially assisted by an Urban Planning Grant under Section 701 of the Federal Housing Act, officially began on August 15, 1962. Since that date, six preliminary studies have been completed. This study is the seventh in a series and is titled the Future Land Use Plan, but may be referred to as the Final Land Use Plan in that it represents an updating and consolidation of the findings in each preceding report. Following is a list of the various studies upon which this report is based:

- 1. Housing Condition Analysis, September, 1962.
- 2. Land Use, Population and Neighborhoods, February, 1963.
- 3. Recreation, Schools and Public Facilities, April, 1963.
- 4. Thorofares and Transportation, July, 1963.
- 5. Economic Base Analysis, August, 1963.
- 6. Central Business District Analysis, December, 1963.

The foregoing studies presented details of inventory, analysis, concepts and proposed developments. As this report is in the nature of a summary, the original studies should be regarded as basically valid. The progression of studies, however, has resulted in some modifications which are reflected herein.

In developing the Future Land Use Plan, it became apparent that one view of possible future growth would not be entirely representative of the City's future potential. Therefore, two plan maps are included in this report, one illustrating Short Range Development and the second outlining Long Range Development. In effect, the two plans comprise a staged development.

opment guide. The Long Range Development Plan will be valid only if substantial changes in the City's industrial trends occur. Basically, the commercial and tourist potential of both plans are about the same, since they are not wholly related to local population or industrial growth.



A primary consideration in the preparation of any plan for land use is population. Not only is it necessary to know how many people reside in the community today, but also important is knowledge of growth trends and the City's holding capacity. In addition, planning for schools, medical facilities and various other public services requires a thorough knowledge of the population's age structure.

In the case of Sault Ste. Marie, population growth trends mean little unless viewed in terms of population trends in the Upper Peninsula Region and the City's influence area. Under normal conditions, the long term trends within a region begin to influence trends within the stronger constituent communities. This appears to be the case in Sault Ste. Marie. Even though the City has never lost population in periods up to 1960, the Upper Peninsula has been declining in population as a result of falling industrial employment. With the official closing of the Union Carbide Company, the City's manufacturing employment has declined some 84% since 1950. Therefore, it is a possibility that Sault Ste. Marie will record its first population loss in the 1970 Census of Population. Only new industry or employment increases in other categories can avert this impending loss. Prospects for industrial recovery, however, are not bright as the general picture of employment in the U.P. region is yet uncertain. The in-migration of personnel associated with Kincheloe and K.I. Sawyer Air Base installations during the 1950's were the only factors which prevented the Upper Peninsula from experiencing population loss between 1950 and 1960.

Several population projections for Sault Ste. Marie have been completed since 1960. Selected results of two studies are presented on the following table.

TABLE I
SELECTED POPULATION PROJECTIONS

	1960	1970	1980
Sault Ste. Marie-A	18,722	19,875	21,096
Sault Ste. Marie-B	600	17,800	-
Chippewa County	32,655	34 , 560	37,200
Influence Area	51,333	54 , 720	58,800

Projection A for the City was prepared in <u>Planning Report</u>
Number 2, as were the projections for Chippewa County and the City's influence area. These projections reflect a relatively low or moderate future population increase, as based upon past trends. The Land Use Plan for short range development was prepared in the scope of these moderate growth projections.

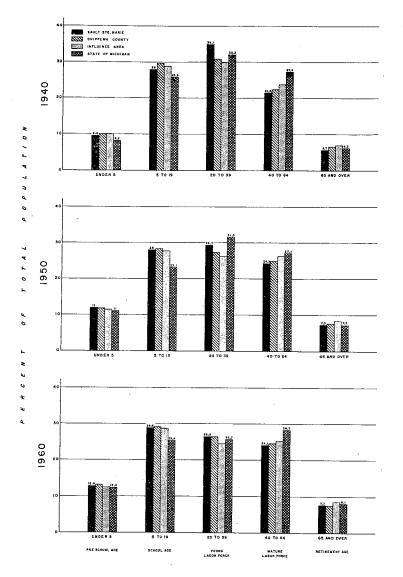
The Institute for Community Development and Services, Michigan State University, prepared a series of nine population projections to 1970. Projection B above represents the most pessimistic index of future growth and is presented herein to illustrate the magnitude of population losses which may occur. Based upon the series of preliminary planning studies completed, it appears quite possible that the City will either lose population or retain its present level by 1970. The final answer must await such unforeseeable events as the influx of a large new industry or several smaller, new employers. Some 400 additional jobs will be required just to maintain the present City population, which has a high incidence of unemployment.

The age group structure of the City approximates that of the State of Michigan in several respects. The most significant differences are that the City has a higher proportion of persons aged 5 to 19 (school age) and relatively fewer persons in the 40 to 64 years age group. It should be noted, however, that these differences are subject to change as are all current population trends in the City. The following is a summary of the City's age group structure as it compares with the state:

	Sault Ste.	Michigan	
	Number	Percent	Percent
Pre School Age			
Under 5	2,399	12.8%	12.4%
School Age 5 to 19	E 410	20.04	2 E 4 M
Young Labor Force	5, 419	28.9%	25.4%
20 to 39	4,963	26.5%	25.7%
Mature Labor Force	-		
40 to 64	4,507	24.1%	28.3%
Retirement			
65 and over	1,434	7.7%	8.1%

The capacity population which can be housed within the City's neighborhood areas will be reviewed in the next section. This figure represents the total number of persons which may be housed within the potential urban areas of the City. Although not likely in the foreseeable future, the City's neighborhoods could house some 43,393 persons. This figure is most important in guiding the acquisition of land for such facilities as school sites, parks and similar community facilities. In Sault Ste. Marie it is not a valid figure to use for short range planning purposes.

Population Analysis



POPULATION COMPOSITION FOR SELECTED COMMUNITIES

Land area which will be necessary to house future community residents is directly related to the number of persons who will be living within the community. As is indicated by the population projections for the City, there will probably be little need for developing new residential neighborhoods at least through 1970. Even so, there is usually a gradual movement of families from older homes to new homes even in communities which do not increase their total population.

Due to the uncertainty of future population growth in Sault Ste. Marie, three assumptions were formulated to account for possible future events. These include:

- 1. If the City retains its present population or loses population, virtually no increase in residential area is warranted.
- 2. Should population growth continue as it has up to 1960, moderate residential expansion would be a valid consideration.
- 3. With the addition of new industry, it is reasonable to prepare plans on the basis of capacity development within logical urban areas of the City.

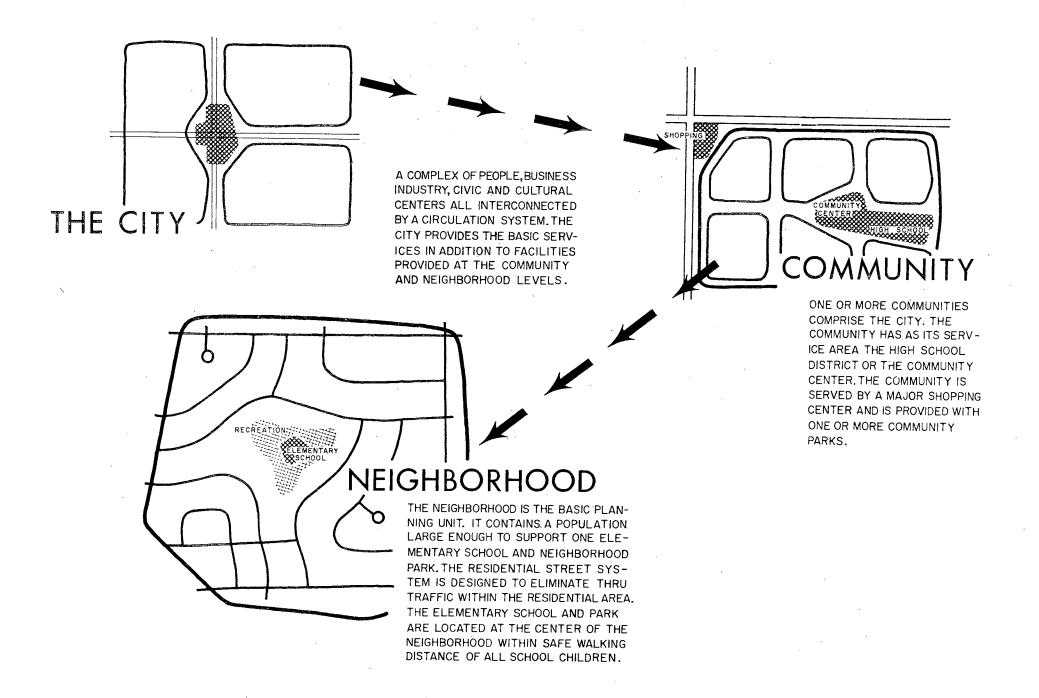
The Short Range Development Plan illustrates a desirable land use pattern that should guide the community through a period of moderate growth and also serve as a basis for possible redevelopment. Hence, both assumption 1 and assumption 2 are applicable to the Short Range Plan. The Long Range Development Plan provides the basis for guidance of future growth in terms of assumption 3.

Future development under the conditions of assumption 1 would involve a wholesale consolidation of residential ser-

vices, facing even the possibility of closing some elementary schools (use buses to bring children to central school buildings). Much development would, of necessity, involve redevelopment, rehabilitation, and code enforcement to assure adequate living conditions for the City residents. All extensions of public services and utilities would have to be curtailed, or geared to serve a lower community population.

The Master Plan shows a logical order of development as it would progress under growth conditions in the community. Essentially, higher density areas would be developed at the fringe area of the Central Business District. Apartment houses are good uses to achieve a transition between single family housing areas and business areas, or at points along heavily travelled thorofares. Single family housing or low density developments are proposed for those land areas more removed from the City's central core. By and large, prominent lands bordering the escarpment and lands along the St. Mary's River will tend to attract new homes before other community areas. The bulk of new growth, however, should be directed into areas which can be most efficiently serviced with water and sewerage utilities.

The gradual progression of new residential growth eventually demands a multiplicity of community services, utilities and facilities, each of which are provided at various stages in the development process. Streets and utilities are installed at the time of development. However, park and school sites can be acquired earlier or planned in advance. In the latter case, persons who subdivide land may reserve, contribute to, or dedicate lands for publicuse in the proper locations. Shopping areas, school buildings, and fire protection are usually developed after sufficient population is accumulated to warrant these investments.



THE RESIDENTIAL PLANNING UNIT

Perhaps the most reliable guide toward developing sound residential areas is the Neighborhood Unit Concept. The concept is that a city or community is composed of several neighborhood units, whose number will vary with the size of the community. The main objective of the Neighborhood Concept is to assure that minimum community facilities are provided in each neighborhood or residential area. Moreover, those areas planned for residential use should be protected by zoning from the intrusion of conflicting land uses, and through traffic should not be permitted on minor residential streets. Ultimately, each neighborhood should be developed for housing and only those land uses which serve the residential function should be permitted to locate in neighborhoods (elementary schools, churches, parks, and playgrounds).

Briefly, a well developed neighborhood will have the following features:

- 1. One K-6 elementary school, playground and neighborhood park within 1/2 mile of each dwelling unit.
- 2. Convenience shopping facilities at the edge or corner of the neighborhood. More than one neighborhood may be served by a shopping area of this type.
- 3. Heavy traffic will not be routed through the neighborhood but will follow boundary streets or thorofares to ensure safe walking conditions for school age children.
- 4. The size of the neighborhood should range from 3,000 to 5,000 persons or enough to support one efficiently sized elementary school.

Residential Plan

- 5. Land uses and activities permitted in the neighbor-hood should be limited to those serving the residential function.
- 6. Neighborhood boundaries are formed by thorofares, railroads, nonresidential uses, natural barriers and similar features.

Accompanying is a graphic illustration of the Neighborhood Unit Concept which served as a guide for the Land Use Plan.

Generally, the Neighborhood Concept should be applied in terms of guiding new development as well as replanning existing residential areas. Modification or compromises should only be considered where local conditions (economic or physical) are prohibitive.

It should also be emphasized that the standards for neighborhood facilities are minimum rather than optimum. While it sometimes appears extravagant or unnecessary, neighborhood parks, playgrounds and schools lend a desire value to residential areas, which is reflected in improved property maintenance, quicker property sales and higher property values. Thus, efforts to develop these neighborhood services should be pursued in each residential area as it develops or is redeveloped.

The following map illustrates the neighborhood units that resulted from an application of the concept to the City. Accompanying the map is TABLE 2 which summarizes the statistical elements of each neighborhood unit as determined in Planning Report Number 2.

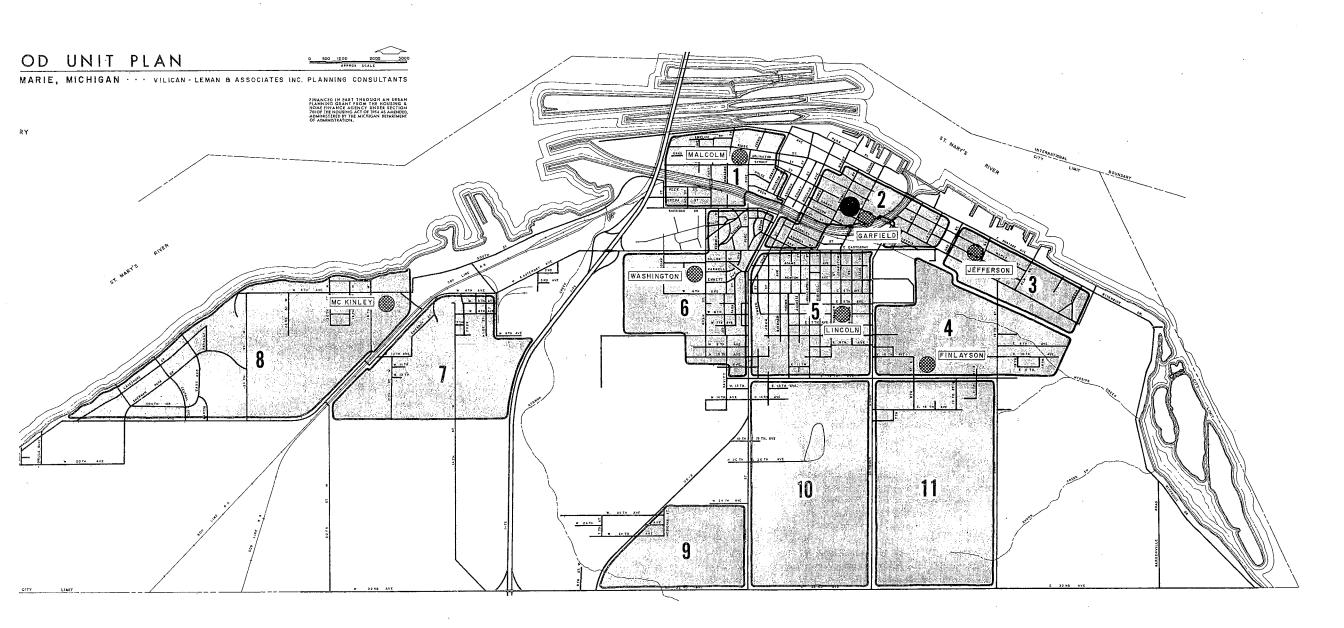


TABLE 2
NEIGHBORHOOD UNIT CAPACITIES

Neighborhood Units	1	2	3	4	5	6	7	8	9	10	11	TOTALS
1. Total Acreage	190.7	183.1	193.1	312.5	339.0	330.8	355.3	682.1	213.7	555.5	561.6	3,917.4
2. Nonresidential Acreage	53.3	38.2	51.8	27.3	18.5	61.9	8.5	82.6	1.2	4.6	0.0	347.9
3. Existing Street Area	78.6	39.0	21.2	17.5	115.3	51.0	20.7	51.0	2.8	6.2	9.0	412.3
4. Existing Residential Area	46.9	88.2	65.6	51.9	171.6	109.1	114.9	113.3	9.6	51.1	40.5	862.7
5. Net Vacant Land	11.9	17.7	54.5	161.9	33.6	81.6	158.4	347.8	150.1	370.2	384.1	1,771.8
6. Existing Dwellings	671	971	312	140	1,269	716	211	199	24	98	70	4,681
7. Potential Dwellings	65	96	294	884	183	446	866	1,011	819	2,023	2,100	8,787
8. Total Dwelling Units	736	1,067	606	1,024	1,452	1,162	1,077	1,210	843	2,121	2,170	13,468
9. Potential Population	2,576	3,735	2,121	3,584	5,082	4,067	3,770	4,235	2,951	7,424	7,595	47,140
10. Existing Schools and							·	•	, , -	.,	.,.,	11,110
Playgrounds	6.2	1.9	1.9	7.2	6.9	7.6	_	7.9	_	-	_	39.60
11. School Park Need	1.11	8.70	4.11	2.98	7.54	3, 95	10.70	2.00	8.38	21.09	21.56	92,12
12. Total Dwellings Remaining	730	1,019	584	1,008	1,411	1,139	1,019	1,204	797	2,006	2,052	12,969
13. Capacity Population	2,555	3,567	2,044	3,528	4,939	3,987	3,567	4,214	2,789	7,021	7,182	45,393

LINE EXPLANATIONS:

- 1. Total land area within each Neighborhood Unit.
- 2. Nonresidential land area within each unit, including the Edison Sault Power Canal as follows: Unit 1 15.5 acres and Unit 2 10.1 acres.
- 3. Land area devoted to streets and alleys, not including vacant platted streets.
- 4. Neighborhood area in developed residential property.
- 5. Vacant land potentially available for new development, minus a street allowance. No factor for streets was deducted from Units 1, 2, 3 and 5 since the vacant land is served by existing streets.
- 6. Total existing number of dwelling units within each neighborhood.
- 7. The number of dwelling units that could be constructed on the net vacant land given in line 5, as based upon an assumed density of 0.183 acres of land per dwelling in all units (lots 80' x 100') except 8. Density in Unit 8 was assumed to be 0.344 acres per dwelling (lots 100' x 150').
- 8. Existing dwelling units plus the potential dwelling units that could be constructed on the net vacant land (line 5).
- 9. Dwelling units in line 7 multipled by an assumed family size of 3.5 persons. This figure is used to compute park, school, and playground needs.

LINE EXPLANATIONS (CONTINUED):

- 10. Existing area in playgrounds and elementary schools. Although there are no neighborhood parks, two units are served by community parks.
- 11. The additional land area in acres required for neighborhood parks, playground and elementary schools in each unit at capacity development (derived from the Recreation Plan of this report and based upon the potential population given in line 9.)
- 12. Potential dwelling units remaining in each neighborhood after allowing for neighborhood park, school and playground land needs.
- 13. Dwelling units in line 12 multipled by 3.5 persons per family. This results in the estimated capacity population of each neighborhood unit.

A system of parks and recreational facilities in Sault Ste. Marie must reflect the needs of City residents as well as tourists. Generally it may be concluded that special facilities (public or private), and large City parks will serve the needs of both tourists and residents while the use of neighborhood parks will be limited to residents thereof. In view of current population and economic trends within the City, the Recreation Plan endeavors to outline those features of the community which are unique and offer the greatest potential for tourist appeal. Various special facilities should be provided to induce tourists to remain in the City for longer periods of time.

SPECIFIC RECOMMENDATIONS

The Recreation Plan for Sault Ste. Marie outlines the following resource areas as having the necessary attributes for City-wide park development:

- 1. The slightly rolling and moderately wooded lands which parallel the I-75 Expressway on the east side. Sufficient land is available to provide for natural park areas, convenient tourist trailer camp sites and a roadside park.
- 2. Islands 1, 2, and 3 in the St. Mary's River offer a unique potential park setting which undoubtedly would delight tourists and residents alike. Special camping facilities, nature trails and other recreational facilities with tourist appeal could be successfully promoted in this area.
- 3. Lands west of the International Bridge positioned at the head of the locks and the Edison Sault Power Canal may be developed into an interesting park or tourist recreation area.

4. Brady Park, currently fenced in, should be opened for general park use (remove the fence). It might be feasible to provide some outdoor skating areas during the winter months and perhaps dancing or roller skating during the tourist season. This park might be a good site for a community band shell as would other potential sites in the vicinity of the locks.

In accord with the thought of keeping tourists in the City for longer periods of time, there are several projects which merit consideration for eventual development. These include a swimming pool, a band shell, a community play-house, a rustic camping area, and various programs to entertain the tourist. Lectures of the area's history, guided tours, and unique displays are some programs that may prove feasible. Not all of these items would be the sole responsibility of the City, but may be developed in cooperation with private groups, the university and other governmental agencies. The identification of all buildings or sites with historic significance should also be undertaken to highlight the City's past relationships with the settlement of the Midwest.

Those recreational facilities which are not so important for regional or tourist uses include neighborhood playgrounds, neighborhood parks and City-wide playfields. From a design standpoint the neighborhood recreational facilities should be located near the center of each neighborhood unit and be adjacent to the elementary school. The sizes of neighborhood recreation areas and school sites are determined from the estimated capacity population within each neighborhood. The acreage needs for City-wide playfields are determined from the total City population at various stages of development. No additional playfield space will be required until sometime beyond 1980, unless there is a significant change in population growth.

TABLE 3

MINIMUM NEIGHBORHOOD PARK, PLAYGROUND AND SCHOOL NEEDS

	•	Playground and	Existing School	Net Neigh	borhood Need
eighborhood Unit	Park Need	School Site Need	And Playground	Parks	Schools & Playground
1	2.9 Acres	6.1 Acres	6.2 Acres	2.9 Acres	0.0 Acres
2	3.9	7.9	1.9	3.9	6.0
2	2.5	5.7	1.9	2.5	3.8
J	3.8	7.9	7.2	3.8	0.7
4	5.1	9.7	6.9	5.1	. 2.8
5	4.6	8.4	7.6	4.6	. 8
0	3.9	8.0	- ·	3.9	8.0
(3.7	8.6	7.9		. 7
8	2 2	6.7		3.3	6.7
9	3.3	12.2	_	<u>.</u>	12.2
10	7.0		_	7.1	12.5
11	7.1	12.5			
TOTALS	44.1 Acres	93.7 Acres	39.6 Acres	37.1 Acres	54.2 Acres

NOTES:

- Park, school and playground needs listed in this table were determined on a slightly different basis that in TABLE 2 of Planning Report Number 3. This method indicates a slightly lower park acreage, but slightly higher sites for schools and playgrounds (total need varied by only 0.4 acres). Needs are based upon recommended American Public Health Association Standards.
- 2. There is no neighborhood park need for Unit 8 as the planned density of population exceeds 1/4 of an acre per family.
- 3. Minneapolis Woods Park off-sets the need for any neighborhood parks in Unit 10.
- 4. Totals for all neighborhoods will not balance horizontally because surplus acreage in one neighborhood does not reduce the acreage need in another neighborhood.

Neighborhood parks and playgrounds should be developed in accordance with the pace of housing construction in each neighborhood. If possible, lands for these purposes should be acquired or reserved well in advance of home development. However, under the conditions of a losing or stable population level, neighborhood park expansion should be restricted to neighborhoods which are built up and do not have adequate recreational area. Urban Renewal projects may be the most feasible means for providing adequate facilities for recreation within the older housing areas.

TABLE 3 contains a summary of the neighborhood park, playground and school needs for each neighborhood developed to its full estimated capacity. The high school athletic field, the Camp Lucas Ball Diamonds, a future playfield at Sherman Park and proposed playfields with each junior high school would adequately meet all foreseeable demands for City-wide playfields. Those recreational facilities which are deemed necessary to meet minimum requirements at Long Range Development are presented on the Community Facilities Plan. The greater potential for recreational land development to serve both local residents and tourists is presented on the two final plan maps accompanying this report.

STANDARDS AND CONCEPTS

Recreational facilities in one community will vary appreciably from another due to population number, available natural resources, community foresight, tourist demands, land donations and park acquisition programs by larger governmental units. However, there are several basic recreational facilities that authorities agree should be available in all urban communities. These facilities include, but are not necessarily limited to the following:

Recreation Plan

- 1. Adequate home yard areas as secured through zoning.
- 2. Tot lots for preschool age children in high density residential areas or in designated areas of larger community parks.
- 3. Neighborhood playgrounds for the active play of elementary school age children.
- 4. Neighborhood parks for the passive play of elementary school age children and neighborhood family groups.
- 5. City-wide playfields to serve the high school age population and community athletic leagues.
- 6. City-wide parks for passive recreational use by family groups and seasonal vacationers.
- 7. Regional parks and land reserves to serve all persons within the region whether permanent or transient.

The following Table presents a detailed account of the basic standards which were used to determine the land area and location of various community recreational facilities.

BASIC RECREATIONAL FACILITIES AND STANDARDS

TABLE 4

Type of Facility	Principal Age Groups	Type of Use	Distance From Home	Location	Size Standard	Approx. Size of Unit	Minimum Size
Home Yard	Under 5 (Family)	Active			Determined by Zoning		Determined by Zoning
Tot: Lot	Under 5	Active	Near as Possible	Variable	Small, Varying with demand		
Neighborhood Playground	Elementary School	Active	Approximately 1/2 mile	Center of Neigh.	1 Acre per 70 - 80 pupils	6 to 10 Acres	2 Acres
Neighborhood Park	Family	Passive	Approximately 1/2 Mile	Center of Neigh.	1 Acre per 900 population	3.5 to 5 Acres	1 Acre
City-Wide Playfields	High School	Active	Variable	Variable	1 Acre per 900 population	16 to 36 Acres	10 Acres
City-Wide Parks	Family	Active and Passive	Variable	Near the best resources	1 Acre per 100 pop. less space required for other parks and playgrounds	Variable	Variable

NOTE:

Space standards are representative of those recommended by the National Recreation Association and the American Public Health Association.

Due to the large investment in physical plant and the cost of operation, school facilities become one of the most critical elements of Sault Ste. Marie's Land Use Plan. Moreover, with severe losses in manufacturing activities and prospects for a population loss, decisions regarding future school facilities become more difficult to make with any degree of certainty.

For the most part, school planning must be undertaken in view of the three alternative growth possibilities of the City (refer to section on "Population Analysis"). As was noted previously, it appears imminent that the City will actually lose population by 1970 or at best, retain its existing population level. However, to plan solely for this condition fails to account for even the slightest possibility that present trends may be reversed and that new employment might be secured some time in the next two or three decades. Therefore, the three growth possibilities actually comprise a sort of phased development plan, any one of which would be given priority once a definite population trend is ascertained.

As a result of the uncertain future of population growth, all projections of population are subject to question. However, it is still necessary to have some idea as to the school age population for various growth periods. Therefore, the estimated pupil age group breakdowns for Sault Ste. Marie are summarized as presented in Planning Report Number 3. A significant qualification that should be made is that the 1970 projections may not occur until 1980 or sometime beyond. If there is no population growth, the present (1960) age group structure may still be valid in 1970 with minor variations.

Based upon the total enrollment, the City would actually need only four to six K-6 elementary schools. However, be-

cause the City encompasses a large land area and development is widely scattered, seven elementary schools now serve the community. As indicated in TABLE 6, only three of the seven existing elementary schools approach the desirable minimum enrollment of 400 pupils (also see TABLE 7, School Design Standards).

TABLE 5
PROJECTED PUBLIC SCHOOL ENROLLMENT

	1960	1970	Capacity Development
Grades K-6 Elementary	2,242	2,659	5,188
Grades 7-9 Junior High	894	1,030	2,282
Grades 10-12 Senior High	685	911	1,724
Totals	3,821	4,600	9,194

SPECIFIC RECOMMENDATIONS

Following are three alternative approaches to providing adequate school services in the City, depending on which growth assumption actually confronts Sault Ste. Marie by 1970 or 1980. Based upon current findings and events, it appears likely that Alternative I will be most applicable in the foreseeable future.

Alternative I: Population Loss or Stability

If the City loses population by 1970, every effort should be made to reduce school operating costs. This may mean

School Plan

that some schools would be closed and bus service instituted to serve areas beyond 1/2 mile of any school.

The decision to close school buildings will depend upon the magnitude of any population loss and specific areas of the community wherein the loss may be greatest. It is not expected that a severe population loss will occur and therefore it is probable that no inordinate changes in existing school services will be necessary. Moreover, with the continued efforts of local and regional groups to revitalize the City's industrial economy, it may be possible to reverse current trends.

The most significant foreseeable change in the school system is the need for a new public high school, to overcome the increasing problems of age and obsolescence in the present structure. The best site for the high school will depend upon a final community decision regarding three approaches to the problem:

1. Urban Renewal Site - If the City employs Urban Renewal techniques, it would be feasible to develop a new high school site in one of the City's most central locations. Through Urban Renewal several blocks of deteriorating housing could be removed to provide an adequate site, in the vicinity of Ashmun Street and Sheridan Drive. This potential site is illustrated on the Community Facilities Plan as Alternative A. The removal of many of these structures would be a general community benefit by reducing the existing surplus of older housing in the City. It would not be necessary (or desirable) to develop an Athletic Field on this site, since the existing facility is of good design, is well located and is of adequate size.

Public-Parochial Site - Considering the general economic climate of Sault Ste. Marie and its Influence Area it may prove highly beneficial for the community to operate a joint public and parochial high school facility. Under this possibility the public and parochial high schools would be located together on a campus type building layout. If it is not feasible to share all classrooms and facilities, it would still be economical to jointly use and maintain such costly facilities as the cafeteria, heating plant, science laboratories, gymnasium and manual arts training facilities. As a result, the community could reduce over-all construction costs and additional savings may accrue in the form of teachers' salaries, bus transportation, utility extensions and related items. The larger student body would also permit a more diverse high school curriculum, necessary to properly equip all students to meet the vast technological changes in our modern society.

Although somewhat untried and new in practice, this form of cooperation in operating a new high school could be most beneficial to the entire community, and merits intensive exploration for feasibility. Any potential high school site would be suitable for this purpose (including Alternative A above). However, since a 40 acre site has been purchased for a proposed new parochial school, this site is feasible to use and is designated Alternative B on the Community Facilities Plan.

3. Open Site - If neither of the above two possibilities can be effectuated, a good public high school site could be acquired and developed adjacent to the existing Athletic Field on Seymour Road. Designated as Alternative C on the Community Facilities Plan, this site was formerly recommended

in a separate high school location study on the grounds that more central sites would be difficult to acquire and develop (without Urban Renewal, etc.). Although the geographic location is not the most desirable, this site is relatively open, is well drained, has good thorofare access and is adjacent to the existing Athletic Field. It could also be adapted to a joint public-parochial educational facility.

Alternative II: Moderate Growth

Should Sault Ste. Marie experience moderate population increases as indicated by the 1970 projection of pupils, and if the trend appears to be sound, the City would have no need to close existing schools or construct any new elementary schools (perhaps some reconstruction or additions). Under these conditions of growth, however, there would be no question that a new senior high school would be constructed. Again, the cooperative public-parochial idea should be explored as noted above. Junior high classes would then make use of the best facilities available among the existing junior - senior high and manual arts buildings. In time, however, it may be necessary to provide new junior high facilities as well. If so, a new site in the vicinity of the high school athletic field would be desirable. Another good site would be in the vicinity of the Washington Elementary School.

A growth trend would also indicate that other school sites should be planned and/or acquired in accordance with the Long Range Development Plan. The school needs for moderate growth are presented on the Plan for Short Range Development.

Alternative III: Capacity Development

Under the conditions of capacity growth in the City's urbanizing area, the City will probably require one senior high school, two junior high schools, and 11 elementary schools (K-6); the elementary schools being distributed so as to serve each neighborhood area. Capacity development school locations are illustrated on the Long Range Development Plan and the Community Facilities Plan in the next section of this report.

The most significant change from the plan suggested in Planning Report Number 3 is the desirability of having the two junior high schools located out of the downtown area. Under this plan a junior high in the Washington School area would serve those housing areas positioned on top of the escarpment and developments west of I-75. Another junior high positioned near the existing athletic field, would generally serve the urbanizing areas below the escarpment and lands to the east along Riverside Drive. The existing junior high school site would be combined with the Garfield Elementary School to provide the surrounding neighborhood area with enough space for an elementary school, a playground and a small park.

During the coming years, the Sault Ste. Marie School Board will have the important job of assessing school enrollment and population trends in the community. Only by a regular analysis of these trends can proper immediate decisions be made with respect to expansions or contractions in school services in the City.

Educational facilities in the City are not limited to primary and secondary schools. The Sault Ste. Marie branch of Michigan Technological University is a two year college which serves the City, areas in the eastern Upper Peninsula

Vilican-Leman & Associates, Inc., Sault Ste. Marie High School Site Study, June, 1963.

TABLE 6

PUBLIC SCHOOL NEEDS AT CAPACITY DEVELOPMENT

	Neigh-	Existing	Proposed		Pupil		nent
	borhood	Site Size	Minimum	Desirable	T-: -4:	Design	Proposed
Elementary Schools	Served	(Acres)	<u> Usable</u>	Minimum	Existing	Capacity	1 10 posec
Malcolm	1	6.2 Ac.	6.1 Ac.	8.0 Ac.	208	230	290
Garfield	2	1.9	7.9	8.0	274	240	410
Jefferson	. 3	1.9	5.7	8.0	239	270	240
Finlayson	4	7.2	7.9	8.0	185	210	400
Lincoln	.5	6.9	9.7	9.7	582	630	570
Washington	6	7. 6	8.4	8.4	463	450	460
Proposed	7	<u> </u>	8.0	8.0	-	-	410
McKinley	8	7.9	8.6	8.6	395	3 7 5	480
Proposed	9	<u>-</u>	6.7	8.0	· -	: -	320
Proposed	10	-	12.2	12.2		· 🛶	800
Proposed	11	-	12.5	12.5		-	820
Junior High Schools							
Existing	_	2.2	5.0	15.0	479	438	1,141
Proposed	-		10.0	15.0	-	-	1,141
Senior High Schools	<u> </u>					: .	
Existing	_	2.9	0.0	0.0	1,168	789	, 0
Proposed	A11		10.0	30.0 ¹	- -	· _	1,764

NOTES:

1. Alternative C - adjacent to the athletic field.

and even some northern areas of the Lower Peninsula. Efforts should be made to expand the curriculum to a four year educational system. One important area of education that would appear to have a great potential for growth would be an advanced vocational trade school curriculum. Since more skilled tradesmen will be needed in the forthcoming years, this might be a logical move for a college in Sault Ste. Marie even if it is not operated by M.T. U. (logically, Sault Tech should fill this role).

STANDARDS AND CONCEPTS

The following Table summarizes school design standards which are widely held by various authorities on public education as being desirable, and which were employed in the City's School Plan.

TABLE 7
SCHOOL DESIGN STANDARDS

	Walking Distance	Enroll- ment	Class- room Size	Desirable Site Size
Elementary	1/2 to	400 to	25 to	8.0 acres
(K-6)	3/4 mile	600	30	
Junior High	3/4 to	800 to	25 to	15 to
(7-9)	1 mile	1,500	30	25 acres
Senior High (10-12)	1 to 1-1/2 miles	1,000 to 2,500	variable	25 to 40 acres

NOTES:

- 1. Walking distance standards do not apply to central schools which serve large areas and/or have a bus transportation system.
- 2. Site sizes include space for the building, parking, necessary athletic fields or playgrounds and a factor for self-isolation.

In addition to various standards for designing school facilities, the following concepts are presented to illustrate how schools should relate to the total community:

- 1. In recent years it has been found quite satisfactory to design and classify schools according to the following system: Grades K through 6, elementary; Grades 7 through 9, junior high; and Grades 10 through 12, senior high.
- 2. Position the site centrally within its service area. For elementary schools the service area would be a neighborhood unit.
- 3. Locate elementary schools on minor residential streets, so that pupils do not have to cross major roads, rail-roads or similar barriers en route to school.
- 4. Plan neighborhood parks with each elementary school and playground facility.
- 5. Unless effectively provided in other areas of the community, locate playfields (or athletic fields) in conjunction with junior and/or senior high schools.
- Junior and senior high schools should be located on collector streets or thorofares which serve a large portion of the community.
- 7. The environment for all schools should be free of commercial, industrial or other distractive land use activities.
- 8. Extra curricular social, cultural, educational and recreational activities should be conducted primarily at junior and senior high school facilities.

With an uncertain future growth potential, community facilities might best be discussed under the general categories of essential services and other services. The essential services include government offices, fire and police protection, public works garage, medical facilities and utility services. Other services include auditoriums, community buildings, museums, libraries and related facilities. Following are specific recommendations for Community Facilities as derived from various studies completed to date.

ESSENTIAL SERVICES

Whether or not a community is gaining or losing population there is a basic need for certain facilities. The principal variable will be in the number of facilities, the distribution of facilities, and the number of employees required to maintain service. Normally, the quality of the physical plant as well as the level of service offered will reflect general economic conditions in the community.

1. Governmental Offices

From a planning standpoint there is little foreseeable need to expand existing governmental office facilities. The joint-ly operated City-County Building is well located in the community and is in excellent physical condition. In the event that the Chippewa County Courthouse is rebuilt, it should be retained on its present site next to the City-County Building. Police and jail facilities are housed within the City-County Building and have adequate space to meet foreseeable needs.

The Post Office and several other federal offices were housed in the Federal Building on Portage Avenue. Since the new Post Office has been constructed on Osborn Boulevard, the following federal agencies remain at the Portage Avenue location:

Agricultural Stabilization
Farmers Home Administration
Forest Service
Soil Conservation Service
Border Patrol
Customs Service
Social Security Administration
General Services Administration
Internal Revenue Service
Military Service Recruiting.

The construction of a new Post Office raised comments that the Federal Building may be turned over to the community. This building is in an excellent location to serve numerous civic functions (library, museum, auditorium, community building), and the site is large enough to accommodate the development of a minor civic center. Existing federal agencies could be retained on the site, depending on the number of civic functions that ultimately would be provided.

2. Fire Protection Facilities

Due to the vast land area of Sault Ste. Marie it is difficult to recommend a Fire Station Plan which can be relied upon to meet all possible future requirements. The intensity and relative value of future land development may alter what is now considered adequate to meet foreseeable needs. This is particularly true for those lands near the I-75 interchange and Three Mile Road (Larke Road), which may develop to a point where high value protection is necessary. Generally, the following three stations will satisfy foreseeable protection requirements and their locations are illustrated on the Community Facilities Plan.

Fire Station Number 1 - Currently located in a municipal parking lot in the Central Business District, this fire station should be located adjacent to, or out of the CBD so as to avoid any possibly delays from traffic congestion or proposed one-way streets (see CBD Plan). A good location would be on an enlarged site at the corner of Spruce and Bingham Streets. If possible, this new site should be about 1/2 acre in area.

Fire Station Number 2- The present Algonquin site will be adequate to meet future needs for a declining or stable population. However, if the I-75 interchange area and Michigan Tech ever require high value protection, this station should be located farther to the east, approximately at 10th Street West and West Easterday Avenue. This alternate site should be large enough so that it may also be used as a fire training area (about five acres).

Fire Station Number 3 - To round out the City's fire protection needs under the assumptions of Long Range Development, a third fire station will be required in the vicinity of Seymour Road and Marquette Avenue. This fire station should be sited on Marquette Avenue, about one quarter of a mile west of Seymour, thereby extending fire protection service in the central and southern portions of the City. In all probability, this facility would not be required until the City's growth potential approaches capacity development.

A more complete analysis of the City's fire protection needs, concepts of location and desirable minimum standards are presented in <u>Planning Report Number 3</u>, and illustrated on the Community Facilities Plan. Essentially no changes in this earlier plan are deemed necessary, unless significant changes in high value development occur. The following is a brief summary of the basic elements of good fire protection

Community Facilities Plan

governing the distribution of fire stations:

DISTRICTS	Street Service Area			
High Value Areas	- · · · · ·			
Commercial,	•			
Industrial and				
Institutional	l mile			
Residential Areas	2 miles			
Scattered Development	3 miles			

Generally, those areas which are beyond three miles of a fire station are considered not to be adequately protected.

3. Medical Facilities

The need for medical facilities in Sault Ste. Marie is related to both the City population and the regional population, particularly Chippewa County. The War Memorial Hospital's recent expansion project should be adequate to serve the City and region through 1970. Additional land area for hospital use will be required mainly for needed off-street parking and possible care for the aged facilities.

Although location within the community is not ideal, plans for circulation and the City's CBD recognize the hospital's access requirements. Fire and ambulance routes to the hospital are planned to be as efficient as possible in the CBD Plan.

4. Public Works Storage

The City's storage garage space is adequate to meet present and foreseeable needs. Additional space for expansion is available should demand warrant it. In a more idealistic view of the community, however, all industrial uses located along East Easterday and East Spruce Avenues should be

relocated to industrial areas which are farther removed from homesites. Therefore, it may ultimately be desirable to position DPW facilities, whether City or County, in locations near the airport or west of the I-75 Expressway. Choice potential manufacturing sites should not be used for DPW garages (refer to the Capacity Development Plan for planned industrial areas),

5. Water and Sewerage Utilities

The provision of central water and sewerage facilities is necessary to sustain urban land development in a safe and sanitary condition. Regardless of the magnitude of future population increases or losses, these services will be essential. Basically, those lands which are outlined for urban development on the Land Use Plan will require these services. The extent of service provided will depend upon the density of residential development and the character of future industrial and commercial uses.

The determination of specific utility needs is the responsibility of engineering personnel. Current engineering findings show that the City needs at least 1.0 million gallons of water in storage capacity (present reservoir capacity is 400,000 gallons). This additional storage, plus improved service mains, are required to maintain adequate pressure during periods of peak use and for such emergencies as fire fighting.

OTHER SERVICES

In addition to the basic essential services there are a number of others which are normally supported in each community. These services involve such facilities as libraries, museums, gynasiums, auditoriums and community buildings. The quality and number of these facilities vary with the citizens' interest, available public finances, private donations and population numbers.

Following is a brief discussion of various civic functions. As implied previously, the Federal Building is ideally located and the site is probably large enough to house any foreseeable need for expanded civic facilities. Therefore, this property should be given priority consideration as a site to house additional or displaced civic facilities.

1. Auditorium & Gymnasium

For a community the size of Sault Ste. Marie there are several good facilities available for community use. The new National Guard Armory, Pullar Community Building, High School Auditorium, Youth Center and University facilities should be able to meet all foreseeable gymnasium and auditorium demands. In fact, these facilities may provide for other community functions with careful scheduling.

2. Community Center

Whether or not there is critical demand for a community center, this can best be determined by local community organizations and officials. Such a building would provide facilities for local group meetings and indoor recreation. Bazaars, rummage sales, bake sales, art displays and science exhibits are common uses of a community building. Meeting facilities for senior citizens are also important. By using schoolroom space, existing auditorium facilities and church group facilities there may be no need for a community center as such. At the time of Capacity Development, however, some additional space would be warranted. If a community building is constructed, it should be located in an accessible and central area of the community, as in the vicinity of the Federal Building or City-County Building.

3. Library

In Planning Report Number 3, it was determined that the most deficient community facility is the library. Although

the building is in good structural condition it is not large enough for current library demands. Furthermore, there are no provisions for off-street parking and it is undesirably positioned on a minor residential street. Should a new library site be considered, the Federal Building property or a site near the City-County Building would be highly desirable. If the library expands on its existing site, expansion should take place toward the west rather than east.

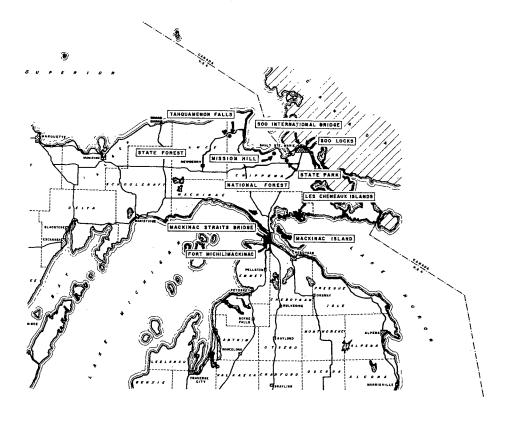
4. Museum

A museum in the City is now operated on a seasonal basis by the Chippewa County Historical Society. In any plan for expanding or moving library facilities some consideration should be given toward providing space for an expanded museum. Museums have appeal to both residents and tourists alike, and may be effectively located in conjunction with library facilities.

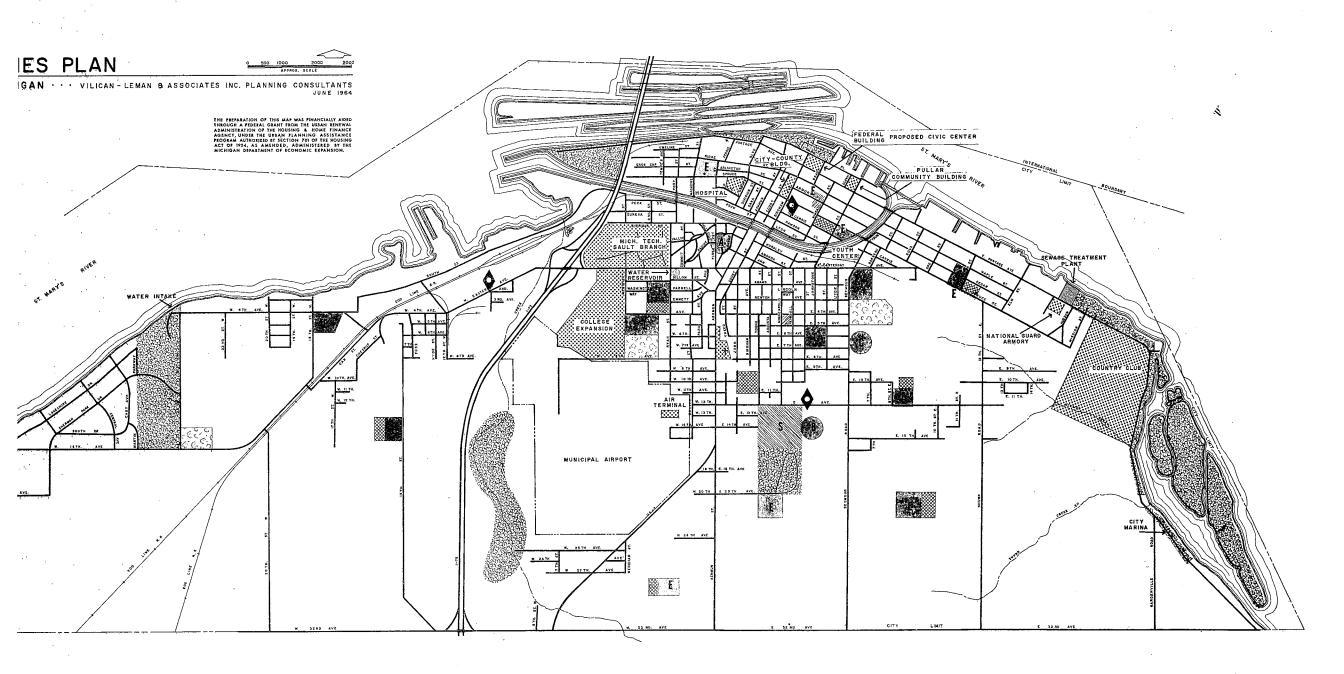
Being related to tourist appeal and economic growth, efforts should be made by the community to inventory and map all structures, sites and facilities which have historical significance. Once inventoried, programs for renovation and identification may be initiated to advance the historical importance of the City.

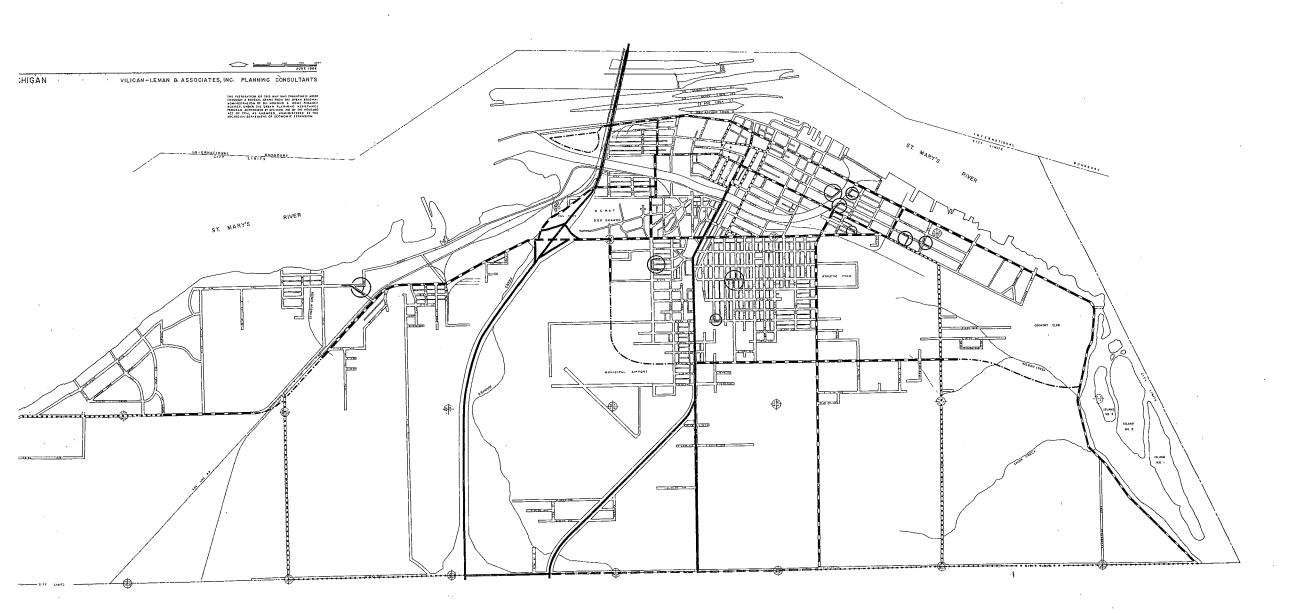
Following is the Community Facilities Plan Map, which indicates the capacity development proposals for meeting minimum recreational educational and community facility needs.

Community Facilities Plan









.

The Circulation Plan for Sault Ste. Marie is based upon the traffic needs of the residential population, regional visitors and tourists. The most dominant traffic facility serving the City is the I-75 Expressway. This highway not only enables the regional population to reach the City in less time than was possible before, but also extends the influence of tourist facilities to more people in the metropolitan areas. The City's Thorofare Plan, presented in Planning Report Number 4 anticipated traffic needs through a series of alternative thorofare proposals. Basically these alternative proposals will continue to be valid until traffic movement and volume studies can be completed once the expressway becomes fully operative.

SPECIFIC RECOMMENDATIONS

The Thorofare Plan for Sault Ste. Marie illustrates those routes within the City which should be considered as major streets or thorofares. Also included are suggested closures for certain streets. If there is no significant expansion of the City's urban area most thorofare development will be in the nature of maintaining pavement, installing signal devices, marking lanes, and aligning jogged streets. Since new plats probably would not be prepared, local street plans should concentrate on eliminating unnecessary rights-of-way and discouraging through traffic from using residential streets. In view of the growth situation, the thorofare routes would have to be made more efficient by widening rights-of-way, widening pavement, improving bridges over the Power Canal, and carrying out the usual functions associated with maintenance. Regardless of the City's population growth, however, circulation improvement in the Central Business District and locks area will be necessary to serve regional shoppers and tourists.

Some likely thorofare improvements that would ultimately prove desirable for the City are listed below:

1. Establish a good thorofare link between the CBD and Easterday-I-75 interchange. The most satisfactory solution involves two routes, one using Eureka Street to Fort Street, and the other using Easterday, Ryan and Fort Street.

The Eureka Street route would serve southbound I-75 traffic (coming off the International Bridge) destined for the CBD. Also, the Eureka Street route avoids major conflicts with topography, thereby becoming an excellent winter route for CBD traffic originating from I-75 or from City areas west of I-75. The Easterday, Ryan, Fort Street route would function primarily to carry northbound I-75 traffic to the CBD and the locks. Therefore, the improvement of the Fort Street Bridge should be fairly high on the City's priority list.

2. Effective east-west circulation could be achieved by extending Meridian Street southward (through the Camp Lucas property) and gradually turning eastward to align with Marquette Avenue. This route would give excellent access to the proposed new Airport Terminal, and the area proposed for the expansion of University facilities. It also avoids bringing heavy traffic past the Washington Elementary School.

To facilitate tourist traffic flow and to serve the capacity population, Marquette Avenue should be extended westward from Shunk Road to connect with Riverside Drive.

3. Riverside Drive and Portage Avenue may eventually become an official scenic route in Michigan. While wider rights-of-way would be required on Riverside Drive, it is doubtful that much more right-of-way can be acquired along heavily developed Portage Avenue west of Greenough Street. West Portage Avenue will require the greatest amount of study in terms of meeting the standards of a scenic route.

Because the locks already generate a large volume of slow moving traffic on West Portage Avenue, two route improvements are desirable. The first is a proposed link between West Portage and I-75 to carry northbound traffic to the locks. The two routes suggested to meet this requirement were discussed above. The second improvement is to extend Portage Avenue westward beyond the International Bridge, with a suitable turn-around facility as illustrated on the Thorofare Plan.

4. A major improvement to the Central Business District's circulation pattern was presented in the C.B.D. Plan. Briefly, Ashmun Street could be converted into a shoppers' mall between Dawson and Ridge Streets. With or without the mall, a one-way traffic loop would then be constructed to follow the routes of: Dawson east to Court, Court north to Maple, Maple west on to Ridge to the east post office property line, Ridge Street south across the parking lot to align with Division, Division south approximately 550 feet and then eastward through two blocks to Ashmun Street. This will provide better circulation and direct access to off-street parking lots. Spruce Street, and Portage Avenue would continue to

provide two way cross-town circulation. Peck Street would provide access to the hospital for all emergency vehciles.

Other routes designated as thorofares for the community, include Larke (also 3 Mile Road), Seymour, Bingham, Shunk, Ord, West 16th, 20th Street West, US-2 and M-129.

Each of these are illustrated on the accompanying map and would be improved as local or tourist demand indicates.

STANDARDS AND CONCEPTS

In formulating the Circulation Plan several classifications of traffic routes were recognized, each of which has a special function in the community. The accompanying Table briefly states those general functions and standards which relate to the various thorofares.

A basic concept in traffic routing is that residential streets should be non-through, carrying only that traffic which has a destination within the neighborhood. Thorofares or major streets function most effectively by providing direct access to such major community functions as the C.B.D., industrial areas, tourist attractions and neighborhoods (ideally a neighborhood boundary). In Sault Ste. Marie, regional access is necessary to support its shopping center function and is provided by I-75, US-2, M-129 and Riverside Drive. These same routes will serve the needs of tourists.

Following the Table of thorofare standards is an illustration of various local street types which may be utilized in designing minor residential streets that discourage through traffic.

TABLE 8
THOROFARE CROSS SECTION STANDARDS

	Туре	Purpose	Access	No. of Moving Lanes (a)	Center Strip	Service Drive	Right-of- Way
1.	Expressway	High speed, long distance movements where traffic is heavy.	Limited, no intersections at grade.	6 or 8 (b)	14" - 24 "	Usually	300† - 350†;
2.	Major Thoro- fares	Long distance movements where expected traffic is less than expressway, or where traffic demand is heavy for short distances.	Unlimited, but residen-tial lots should abut at the rear.	8, 6 or 4	16' (c) 16' (c)	No No	150 ^t 120 ^t
3.	Secondary Thorofares	Through movements where traffic is relatively light.	Unlimited	2 or 4	0	No	86' (d)
4.	Minor Street	Access or service.	Unlimited	2	0	No	60' (d)

NOTES:

- (a) Figures in this column do not include service drives nor parking lanes. Parking lanes will never be on expressways (except service drives), though facilities for emergency stops are sometimes provided. If there are enough off-street parking facilities, parking lanes can also be eliminated from other through streets. This is desirable, if possible.
- (b) In rural areas 4 lanes are generally sufficient. In congested areas 8 lanes will prove desirable, but this will be unlikely in Sault Ste. Marie.
- (c) This should be considered as absolute minimum. If at all possible the center strip should be wider so that a reservoir for cars making left turns may be readily provided. Expressway center strips permit no turning movements; however, their permitted high speed and distance of travel render a wide median highly desirable for safety reasons.
- (d) This is probably a maximum. Minor roads and collectors can be narrower depending on the number of moving and parking lanes necessary.

Due to the relatively high annual snowfall it is suggested that loop streets be used instead of cul-de-sacs where feasible because maintenance is easier. Street diverters are used primarily to limit through movement within a developed neighborhood where a grid street pattern predominates.

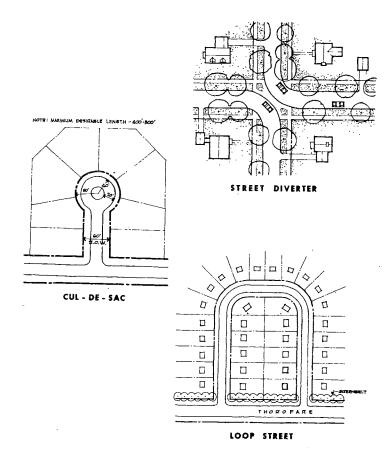
Another important standard which enters into thorofare planning is traffic volume. Traffic volume to be most useful, must be related to the traffic capacity of a given street. When capacity is determined and actual volume exceeds that capacity, certain corrective measures must be taken or the street will be congested, inefficient and unsafe. Increasing capacity may be achieved by adding moving lanes or removing on-street parking, widening lanes, increasing green light time, synchronizing traffic signals, marking lanes, providing special turning lanes, utilizing traffic officers, and the like.

From a planning viewpoint, the most reasonable long range solution for growing traffic needs is to anticipate, in advance, which routes are likely to become thorofares. Efforts should then be made to gradually acquire a right-ofway which can accommodate periodic lane widenings without infringing upon adjacent property, especially after development occurs. Following are some general guides which may be employed to determine thorofare capacity requirements:

Pavement Width	Lanes	Peak Hour Capacity	Average Daily Capacity
20' Undivided	2	840	8,400
22' Undivided	2	924	9,240
44' Undivided	4	1,848	18,480
44' Divided	4	2,288	22,880

Circulation Plan

The preceding capacities for each street type assume a green light time of 50% (expressways are 100%). Also, peak hour capacity is computed at 10% of average daily capacity. Generally, it may be concluded that once a street has traffic approaching 9,000 vehicles per day, it may be necessary to increase the number of moving traffic lanes to 4 or increase capacity in some other way.





The Industrial Plan for Sault Ste. Marie underscores what might be termed an economic paradox. Perhaps no other Upper Peninsula City has more industrial potential in terms of land, railroad service, water transportation facilities, first rate highways, and proximity to large, populated areas (including Canada). Yet, the City's manufacturing employment has almost disappeared since 1950, dropping from 1,545 employees to 566 at the time of the 1960 Census of Population. Since the Union Carbide Plant officially closed December 1, 1963, some 250 more employees were removed from manufacturing jobs, which means the City's manufacturing employment now has dropped 80% since 1950

In view of these losses, it is theoretically possible for Sault Ste. Marie to increase its manufacturing employment by 1,200 without adding even one square foot of new industrial land.

SPECIFIC RECOMMENDATIONS

While past trends in Sault Ste. Marie indicate a dubious future for manufacturing in the City, there are several community factors that may stimulate at least a minor reversal of current industrial trends. These include:

- 1. Potential industrial lands adjacent to both interchanges of the I-75 Expressway.
- 2. Excellent railroad links with Canada, Milwaukee and Chicago.
- 3. Seaway access to major midwest and world ports (seasonal).
- 4. The International and Mackinac Bridges.

- 5. A large block of industrial land owned by the Algoma Steel Corporation, now operating a major installation in Sault Ste. Marie, Canada.
- 6. Possible location of North Central Airlines on the expanded Municipal Airport.
- 7. The excellent fresh water resources of Lake Superior.
- 8. Availability of essential municipal services and utilities.

In addition to these available factors and services, there are numerous regional and local agencies now working to improve the general industrial climate of the Upper Peninsula Region. Together these forces may reverse present economic trends. However, as long as existing industries are moving out, it will be more difficult to encourage new industry.

Applying the various criteria for selecting prime industrial areas, the Industrial Plan illustrates two areas which appear to have the most immediate potential for development. These include the lands in the vicinity of the old tannery and those lands which parallel W. Easterday Avenue between 12th Street West, and the I-75 Expressway. On a longer range basis some industrial land may be claimed by filling in part of the St. Mary's Riverfront lands which lie between the Edison Sault Power Canal and the Northwestern Hanna Fuel Company Dock. Another site which has long range potential lies along Larke Road between the Soo Line Railroad and I-75. Two other sites could be developed along US-2, one near the airport and the other just south of the City Limits. All together, the areas shown would provide the City with a more than adequate amount of industrial land.

Industries which might be attracted to the City may be found in the following major categories:

- 1. Furniture, Lumber, and Wood Products
- 2. Other Durable Goods
- 3. Chemicals and Allied Products
- 4. Printing, Publishing and Allied Products
- 5. Food and Kindred Products
- 6. Metal Products

In view of the available transportation facilities and industrial lands, the City could accommodate heavy industry. Considering the distance from metropolitan consumer markets, however, the most successful industries will probably be those producing high value and/or light weight products.

Because of the uncertain potential for developing manufacturing operations, it will be difficult to reserve choice industrial lands through zoning. Therefore, it would be logical for an industrial corporation or a municipality to purchase or otherwise acquire at least 50 acres of choice industrial land, in order to protect it from scattered and extraneous non-manufacturing uses. Private individuals normally are not financially able to reserve sizeable amounts of land for indefinite periods of time.

THE ECONOMY AND THE PLAN

The Land Use Plan has been presented on two maps, one illustrating development with moderate growth and the other showing how lands should generally be used at capacity development. The primary reason for developing these two plans rests on the decline of industries and manufacturing. Without the presence of new industry, the City's growth potential will be lower, and therefore, the amount of change or expansion in housing areas, public facilities and thorofares will be limited. While tourist facilities may be substantial economic factors in terms of tax dollars, they normally do

Industrial Plan

not provide direct full time employment opportunities as do industrial plants. Therefore, a tourist oriented economy is more valuable in terms of increasing the economic worth of the community, rather than stimulating demands for new housing areas and related uses.

A significant element of the Long Range Development Plan is the proposed ultimate removal of industrial uses along the Edison Sault Power Canal, East Easterday and East Spruce Avenues. Although it may not be feasible in the immediate future, some industrial uses could be easily relocated while others are quite substantial and cannot. At any rate, the whole pattern of land use in the east central portion of the City would be enhanced by gradually moving these industrial type uses to appropriate industrial areas or at least establishing adequate buffers between the existing industries and adjacent housing areas. A must is the removal of the acculated Union Carbide waste material which parallels East Spruce Avenue. Other unsightly storage should be removed or screened from the view of adjacent housing areas.

STANDARDS AND CONCEPTS

Industrial land use planning is generally concerned with the determination of potential industrial sites and the avoidance of conflicts with other land uses in the community. Generally, good industrial sites have the following characteristics:

- 1. Access to major thorofares and/or expressways.
- 2. Access to railroads and any other transportation media that may be available.
- 3. Nearly level land, preferably not exceeding a 5% slope
- 4. Sufficient size to allow for original construction and possible expansion.

Industrial Plan

tial which would be detrimental to industrial operations.

- The formal platting of such an area is an additional inducement to industries. Such action, along with adequate zoning controls and possibly deed restrictions, will assure any prospective industry that its plant will be protected from encroachment of other uses, such as commercial or residen-
 - ALGOMA STEEL CO. LTD SOO ONTARIO. 2 MILES SOO. LOCKS ---SAULT STE. MARIE C.B.D. CADILLAC - SOO INDUSTRIAL DISTRICT LOCATION SKETCH DETROIT, 6 HOURS (NO STOP-LIGHTS)

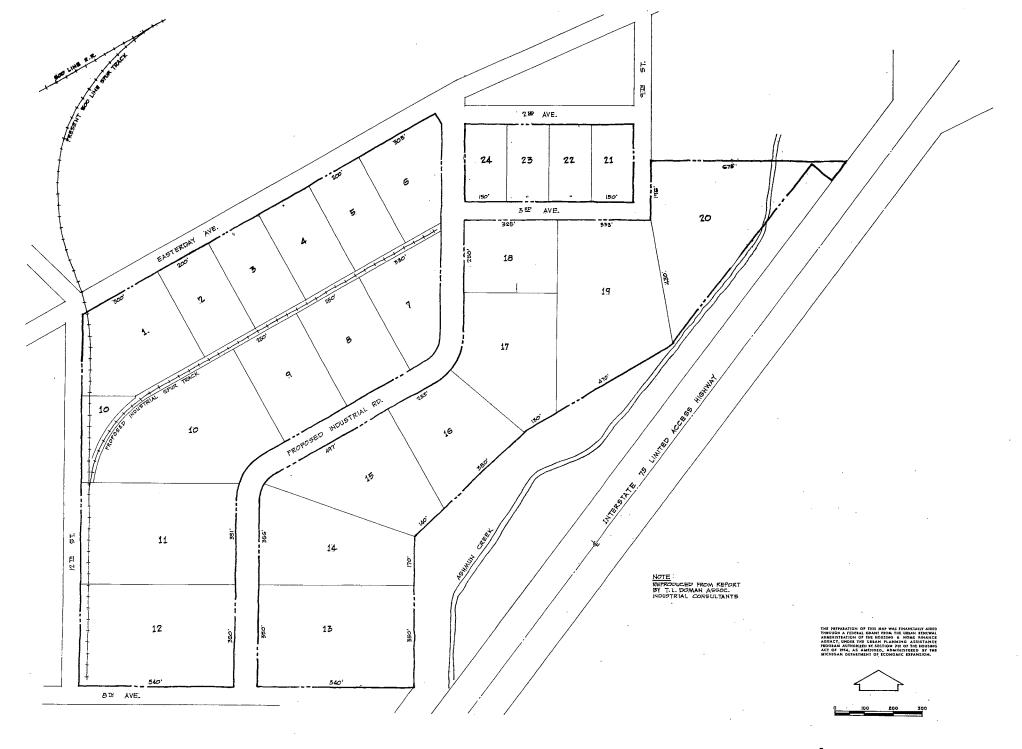
- Soils which have good load bearing capacity.
- Available utilities for water supply, sewage disposal, power and fuel.
- 7. Free of conflict with residential and commercial type uses.

Depending on the specific industry there may be other physical requirements such as the availability of raw water, air free of dust, moderate climate or certain mineral resources. Also, some potential industrial sites may be reclaimed and brought up to desirable standards through Urban Renewal.

Once a suitable industrial area has been identified, it is necessary to plan its layout so that any conflict with the community is minimized or eliminated. This often is accomplished by establishing an industrial park or district, which should be zoned for the exclusive use of industries. Basically, employees and service trucks should not have to travel through a neighborhood to gain access to the industrial area. Various buffering techniques should be used to screen the industrial district from adjacent residential areas. They may include greenbelts, obscuring walls, non-nuisance industry, expressways, building setbacks, and related devoices. Ideally, residences should not face or front on to an industrial use area.

The site plan on the following page indicates such a layout. The site is located near the interchange of I-75 and Easterday Avenue as indicated on the Location Sketch. Twelve lots would have access to rail transportation while the other twelve would be for off-rail type industries. Most of the lots have their own service road thus precluding interference from through traffic.

A truck service terminal including lodging facilities, has recently been developed nearby. Such a facility is a valuable asset to a planned industrial district.



The commercial economic base of Sault Ste. Marie appears to hold the highest foreseeable potential for growth and expansion. While the retail trade function of the community is strong and prospects are that it will remain strong, it is the annual tourist patronage that brightens future business prospects most. The attraction powers of the Sault Locks, overnight accommodations, restaurants, recreational facilities and various community facilities all enhance the City's opportunity to enjoy even more tourist business.

Since the commercial growth prospects for the City are deemed to be most likely, the Commercial Plan is roughly unchanged in both the Short Range Development and Long-Range Development Plans. It is not expected that new commercial establishments, particularly those serving tourists, would generate significant residential development or related services. However, City-wide recreational lands and special recreational facilities will have a bearing on the tourist potential of the City.

STATISTICAL BASIS

Prior to designing the Commercial Plan it is first necessary to undertake a market analysis which indicates the likely level of retail spending which can be expected in the City. Once determined, probable floor area needs and parking requirements can be computed. The first step in any market analysis is to outline the shopping center's trade area and project family income. The Sault trade area was found to encompass nearly all of Chippewa, Luce and Mackinac Counties.

The following table summarizes the principal statistical elements of the City's commercial base analysis as stated in Planning Report Number 5.

TABLE 9

SELECTED COMMERCIAL BASE STATISTICS

	Current (1960)	Projected (1980)
City Population	18,722	21,096
Trade Area Population	15,335	58,800
Average Family Income in the Trade Area	\$5,7 85	\$6,364
Retail & Service Expendi- ture Potential	\$57,062,800	\$71,903,100
City Retail Volume	\$32,659,000	\$39,514,800

Through a detailed analysis procedure (see <u>Planning Report Number 5</u>) based upon the foregoing, it may be stated that the City as a whole will require about 17.5 acres of commercial floor area by 1980. It is highly probable that the actual floor area need will be greater due to tourist business increases and the office space demands of a City which serves a large regional area 1. Compared to this the City already has 29.8 acres of commercial floor space of which some 12.5 acres are in the Central Business District alone.

¹ It should be noted that the U.S. Census data does not adequately distinguish tourist and office uses to permit a more precise analysis of trade volume and floorarea requirements.

Reasons why the City appears to have an excess of existing commercial floor area (29.8 acres) as compared to the projected 1980 need (17.5 acres) are related to the following:

- 1. Limitations in measuring floor areas from maps.
- 2. Many businesses may operate in larger buildings than are necessary.
- 3. Combined business and residential uses distort floor area computations.
- 4. Varying amounts of floor space required to meet seasonal business demands.
- 5. The presence of businesses that function only during summer months.

Although the statistical projections of commercial land area need tend to be conservative, the Commercial Plan is actually more liberal in illustrating future business areas. This is a natural result from the process of rounding out existing commercial areas for general business useage. Also, the rather unpredictable nature of tourist businesses reflects a near maximum "potential" for commercial land use in the plan. By and large, the specific floor area and land area needs serve more as guides than definite factors to be designed into the over-all plan.

SPECIFIC RECOMMENDATIONS

The most critical element of the Commercial Plan relates to the revitalization of the Central Business District. Without a strong and attractive central core, the full retail and tourist potential of the City will be difficult to realize. In fact, the City could even lose some of its present retail dominance within the trade area. On the other hand, a bold and imaginative approach toward enhancing the C.B.D. will result in a convenient, safe, attractive and appealing retail shopping center.

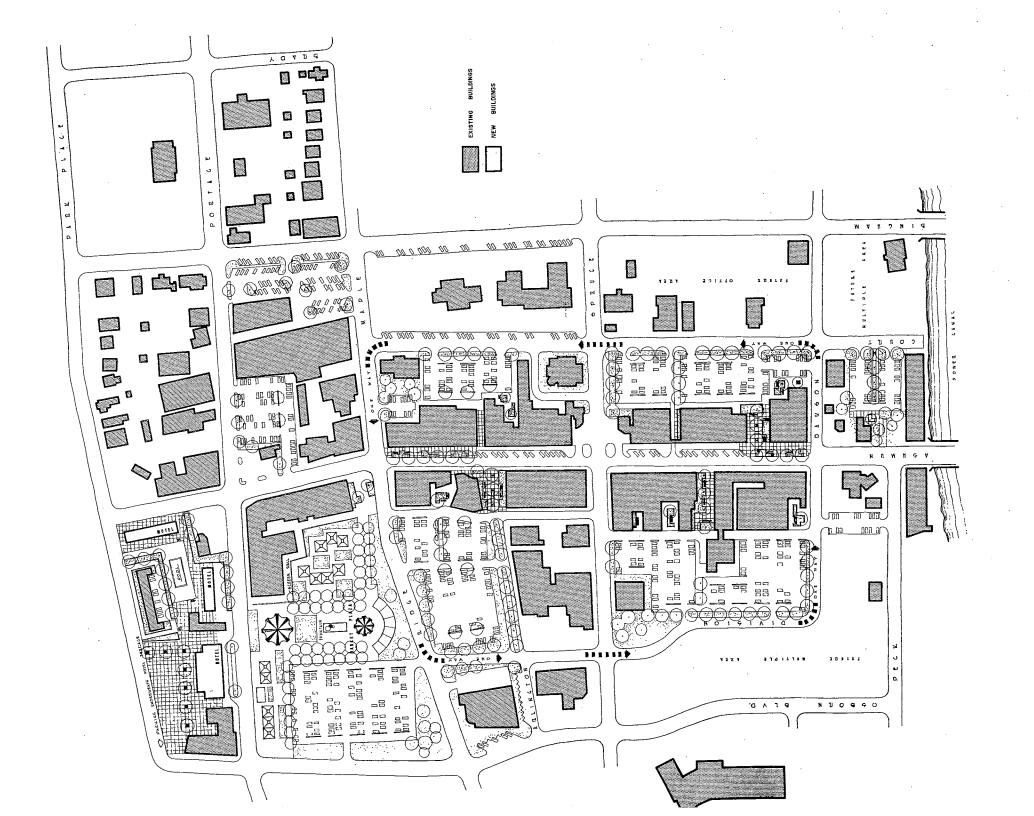
Central Business District Plan

The focal point of the Commercial Plan is the concentration of shopping center type land uses along Ashmun Street between Dawson and Ridge Streets. The retail stores fronting on this street should have their parking areas positioned immediately in back, with vehicular access from the one-way traffic loop proposed for Court, Ridge-Maple and Division Streets. Rear store remodeling will be necessary to provide new entrances and enhance appearance. Some existing alleyways between stores could also be designed to facilitate pedestrian movement from the parking lots to Ashmun Street. This complex of traffic routes, parking lots, retail stores and pedestrian facilities comprise the "retail shopping core."

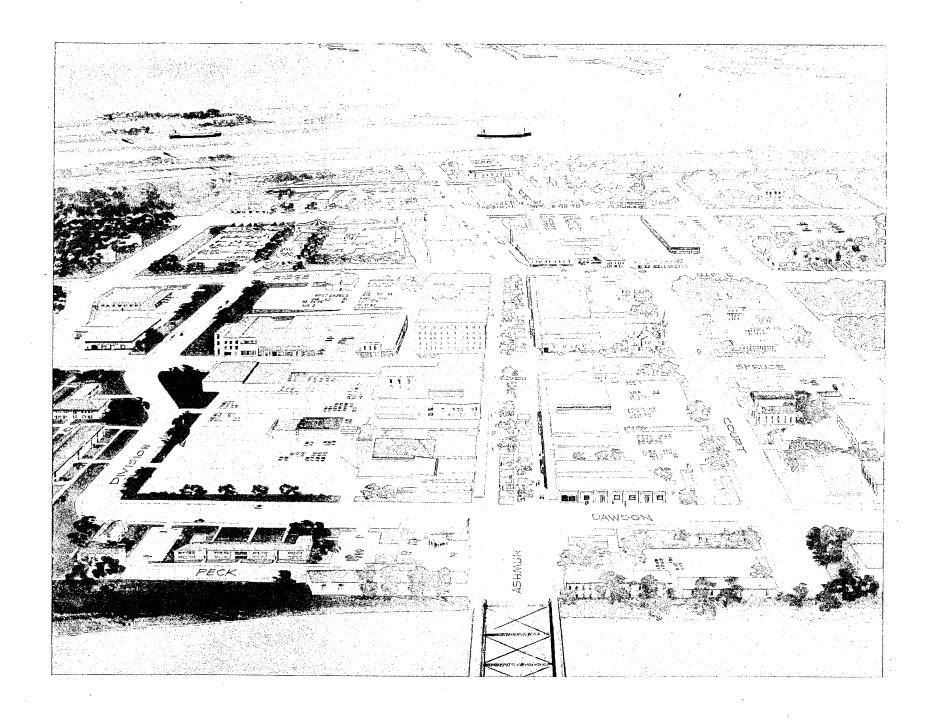
In time, it may prove desirable to complete the shopping center concept by closing Ashmun Street between Dawson and Maple Streets for use as a pedestrianway. Such a facility is mainly for the convenience and safety of shoppers, but for Sault Ste. Marie it would serve as an additional tourist attraction.

The accompanying C.B.D. Plan map illustrates how down-town Sault Ste. Marie could be revitalized without a pedestrianway. A perspective which follows illustrates how the Central Business District could be enhanced with the pedestrianway.

The principal businesses which surround the shopping core include offices, general commercial and tourist commercial uses. General commercial includes such items as automotive sales, gas stations, repair services and other uses not considered as shopping center types. Tourist uses represent those businesses which are open only during the summer months or which depend largely upon visitors to the community for support. Most C.B.D. touristuses are concentrated



DISTRICT USINESS CEN OF SA



FUTURE DOWNTOWN SAULT STE. MARIE

along Portage Avenue, and include restaurants, gift shops, other specialty shops and commercial lodging facilities. A tourist center plan which follows, outlines possible new developments for the tourist areas along Portage Avenue between Magazine Street and Osborn Boulevard. Tourist use areas are also indicated on the C.B.D. Plan.

The design of all proposed parking areas should be such that all-day parking spaces are near the C.B.D. boundary and the shoppers parking is as near to the commercial core as possible. Ideally, no retail customers should be required to walk farther than 400 feet to the retail core area. According to parking standards, there is an over-all existing need for 1,071 additional parking spaces in the C.B.D. 1

Other Commercial Areas

In addition to the C.B.D. Plan, convenience shopping areas, tourist services, and general commercial areas are illustrated on the two Land Use Plans in this report. A convenience center functions to serve the residential areas of the City by bringing personal services, drugs, hardware and grocery items close to housing areas. One such center is proposed near the intersection of Seymour Road and Marquette Avenue. A second center is proposed on the north side of 4th Avenue approximately between 13th and 14th Streets West (Algonquin Area).

Uses which serve seasonal vacationers are proposed in those areas of the community where it is logical to expect a large amount of tourist traffic and in areas adjacent to facilities which attract tourists. Portage Avenue near the Locks and C.B.D. is a prime tourist desire area. East Portage Avenue and Riverside Drive are elements of a possible scenic route, as views of the St. Mary's River and passing lake freighters generate much interest. Therefore, tourist services and accommodations should be sited on the in-town side of Riverside Drive so as not to obstruct views of the river. Due to the large volume of tourist traffic, the two I-75 interchange areas and Ashmun Street show potential tourist service areas.

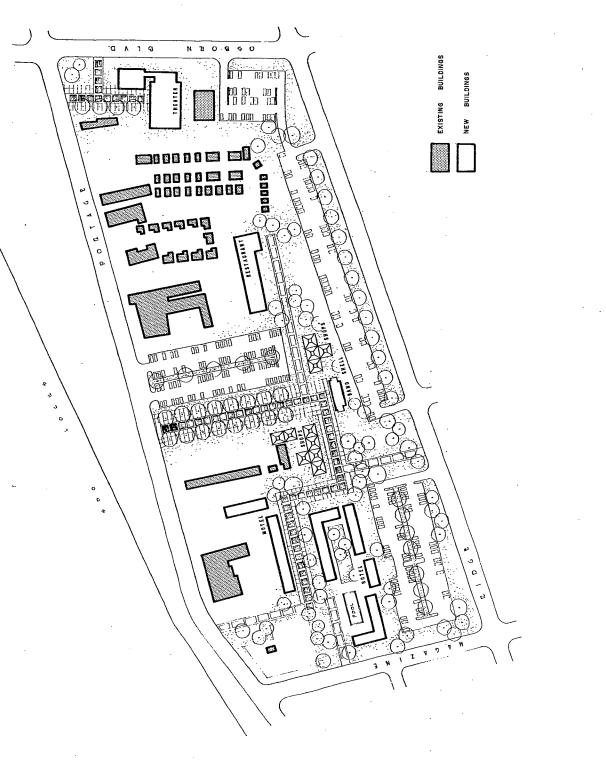
General commercial uses are proposed for areas that are partly commercial, or heavily influenced by commercial activity, and therefore, should ultimately be directed into commercial use. Following is an example illustration of how strip commercial areas may be treated to enhance traffic flow, pedestrian safety and appearance.

STANDARDS AND CONCEPTS

Commercial land uses encompass a wide variety of business activity. Retail stores, offices, personal services, repair services, automotive service, commercial recreation and commercial lodging are some of the major business uses existing in Sault Ste. Marie. A critical concept in commercial land use planning is grouping business activities in such a manner that they do not conflict with one another, but rather, complement each other to attain the highest potential dollar volume of business.

A good example of the conflicting nature of some commercial uses would be a gasoline station positioned between two clothing stores. Shoppers are attracted to the business

^{1.} Parking needs for the City and its Central Business District were computed by applying a general standard of 2 square feet of parking for each square foot of commercial floor area. Although a ratio of 2:1 is conservative for shopping centers, it is deemed to be a reasonable goal for built-up community shopping areas.



URIST CENTER PL

DECEMBER 1863

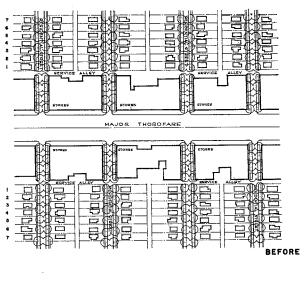
district because of a desire to purchase clothing and related items; not gasoline. In the process of comparing the price and quality of clothing items in both stores, the shopper must walk past the gasoline station with its wide driveways and numerous turning vehicles. The probable result is that the shopper visits only one store, dislikes the inconvenience of the business district, and will make fewer purchases, and visit downtown stores less often.

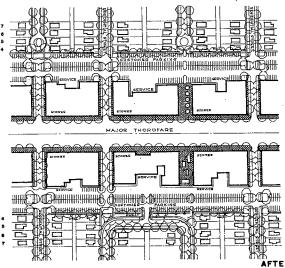
A basic distinction between various commercial land uses are shopping center activities and nonshopping center activities. Shopping center activities may be divided into three groups: comparison, convenience, and service. Comparison goods include such items as furniture, clothing, and appliances which are purchased less frequently than convenience goods. Although Sault Ste. Marie is a relatively small community with a large trade area, it can support only one comparison center - the Central Business District.

Convenience and service outlets serve everyday shopping needs. Ideally, these centers should be positioned so as to serve two or more residential neighborhoods. The most effective convenience center is located on a major thorofare which borders a residential area, and is so situated that persons enroute to work, recreation, etc., may conveniently stop for grocery, drug, and service items.

Problems are nearly always generated when residential areas face or are otherwise adjacent to commercial areas. Commercial traffic, outdoor storage, noise, night operations and property lighting are elements of commercial uses which require buffering from housing areas. Such techniques as compatible architecture, deeper lots, obscuring walls, planted greenbelts, shielded lighting and increased building setbacks may be effective buffers.

Commercial Plan





COMMERCIAL STRIP DEVELOPMENT

vilican - leman a assoc. Inc.

With the completion of the Future Land Use Plan, more effort may now be directed to promoting the plan and converting basic ideas into development projects. There are numerous methods, both formal and informal, for realizing elements of the comprehensive plan. The first four items listed below are considered to be the strongest implementation measures available to a community.

- 1. Zoning Ordinance
- 2. Subdivision Regulations
- 3. Public Improvements Program
- 4. Urban Renewal
- 5. Informal Implementation

ZONING ORDINANCE

Zoning Ordinance regulations are perhaps the most familiar means for carrying out predetermined ideas on the over-all pattern of community development. They are also the most effective way of controlling the development of private property on a broad basis. A major limitation of zoning as a tool for plan implementation is its relative impotency in developed land areas, where the role of zoning is largely that of holding the existing pattern. Although desirable in many respects, holding an existing pattern may not always be desirable in terms of carrying out the plan.

Although Sault Ste. Marie already has a Zoning Ordinance it is out-dated and was never based upon an over-all plan of how the community should develop. Therefore, a major study to be completed under the 701 planning program will be the development of a Zoning Ordinance and the preparation of a zoning map. The map will not be identical to the Land Use Plan map, but rather will picture the City's development at some point between existing development and the Short Range Development Plan.

SUBDIVISION REGULATIONS

Where zoning is primarily an ordinance to regulate the use of land, subdivision regulations are the official means for enforcing development standards governing the subdivision of land into building sites. The general layout of nearly all communities is the direct result of all recorded plants. Hence, if streets are too narrow, if streets are poorly aligned, if no improvements are provided, or if there are other shortcomings in the existing street pattern, it can usually be related to past shortcomings in the process of subdivision approval (which includes official regulations).

With the exception of major thorofares, the community itself rarely lays out its own streets and even thorofares are often conversions of streets originally intended to serve only single family homes. This has been the case with several streets in Sault Ste. Marie. Moreover, when the platted residential lots are zoned and developed for commercial use, serious traffic problems result. Thus, it is evident that zoning and subdivision regulations are different in content but both are related and both must be in accord with the Future Land Use Plan.

Because of the total impact of all subdivisions upon the community's development pattern, it is necessary that all plats be reviewed by an official agency directly responsible for planning and development in the City. The City Planning Commission is most prepared in this regard and must weigh the merits of all proposed subdivisions in view of both the Thorofare Plan and the Land Use Plan. Without this pronounced element of coordination between the over-all City plan and individual subdivision developments, many goals and objectives embodied in the Master Plan will never be attainable.

PUBLIC IMPROVEMENTS PROGRAM

The principal means for implementing public uses in the Land Use Plan is through the Public Improvements Program. Parks, thorofares, public buildings and similar facilities are logical elements to include in a program of capital expenditures. Normally, various required public improvements are listed, given priorities based on the urgency of need, and preliminary cost estimates applied. The projects scheduled for effectuation are usually set up on a six year program, with projects under the first year being incorporated in the City's annual budget. Each year the six year improvement program is reviewed, revised if necessary and extended one year so as to always cover about a six year time period.

The speed at which public improvements can be effectuated will be directly related to the City's tax base which results in finances for the General Fund. Also of importance are revenues from municipal utilities and other self-sustaining services. Population growth, the availability of federal monies (urban renewal, advanced public works, etc.) state aid and debt policies will determine how many public improvements can be accomplished within a given six year program. Plan implementation under public improvements programs may prove quite substantial over a long period of years.

URBAN RENEWAL

Renewal consists of either total clearance of blighted areas or conservation of areas that have scattered substandard uses where total clearance is not necessary. Perhaps the most dramatic means for accomplishing major elements of the Land Use Plan is through those Urban Renewal Projects which involve the total clearance and redevelopment of blight-

ed community areas. Few other means are as effective in changing the face of the community or in promoting the reuse of lands in accord with their most logical function. The reason why redevelopment is so effective (as an Urban Renewal Project) is that obsolete areas are removed and new uses can be established with all the vital controls of use types, design, layout and architecture. Moreover, such facilities as schools, parks, utilities and parking are included where necessary, in redevelopment projects. More often than not, the lack of these facilities are a cause of obsolescence and blight.

Other aspects of formal Urban Renewal Projects involve the conservation of stable developed areas and the rehabilitation of areas with minor signs of physical neglect. In projects like these, the role of local code enforcement (housing, building, plumbing, etc.) is of major importance.

INFORMAL IMPLEMENTATION

While it is possible for the City to adopt broad zoning controls and minimum building regulations, the general character of the community remains the direct responsibility of each citizen. The placement of buildings on the lot, architecture, landscaping, preservation of scenic resources and general property maintenance are all critical elements in the development of private property. Therefore, it is necessary that the citizen understand the broad objectives of the comprehensive plan. Businessmen, industrialists, home owners, and public agencies must cooperate and respect each other's needs for the over-all benefit of the community.

Another aspect of plan implementation which is applicable to Sault Ste. Marie is through the process of effecting land

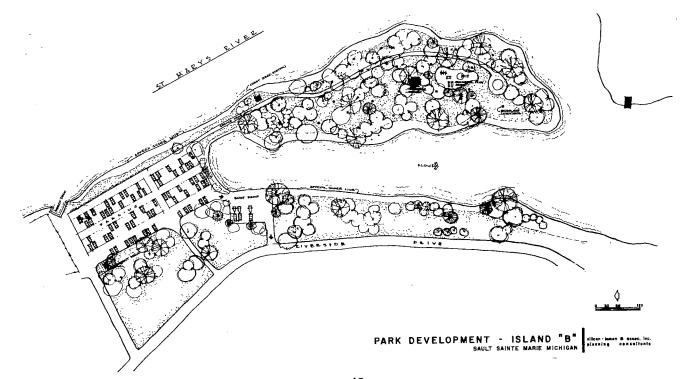
Plan Effectuation

trades. Since the City owns a relatively large amount of land, it may be entirely feasible to implement portions of the plan by trading land with private individuals. With this possible means of implementation, the City should be cautious in efforts to dispose of any lands now under its ownership. In this regard the possibility of the City's acquiring the former Camp Lucas property would be highly beneficial.

A Land Use Study prepared in 1960 by the Institute for Community Development and Services, Michigan State University, indicated that the City owned some 1,315 acres of land. Of this, about 560 acres were being used in 1962 for such purposes as the airport, parks, the cemetery and various public

buildings. Hence, if all of this land is marketable and the ownership picture has remained about the same as it was in 1960, there currently are some 735 acres available for trade or use in accordance with the Future Land Use Plan. If this 735 acres of land were located along the river, at the head of the power canal, east of I-75 and at other strategic points, the City would have an excellent park system and with no additional lands.

The more park land the City can provide, the better will be its appeal as a place for tourists to stop. Additional development of islands in the St. Mary's River similar to the Rotary Park would be extremely desirable.



Accompanying are two Land Use Plan maps for Sault Ste. Marie, Michigan. These plans have been prepared to provide a development guide from foreseeable growth to capacity development, depending on future population and economic trends.

SHORT RANGE DEVELOPMENT PLAN

This view of future development represents a moderate progression from existing development, incorporating the concepts of a well planned community. New growth consists of filling-in existing residential areas, expansion of tourist businesses, Central Business District revitalization, college expansion, and preserving desirable recreation areas and open spaces. It should be noted that the recreation areas on this plan are more liberal than the "minimum" land areas shown on the Community Facilities Plan. The application of only minimum park standards would not account for the many greenbelts, buffers and open spaces necessary to retain community character and enhance the physical environment.

Industrial growth outlined on this plan implies little new development, but a significant amount of industrial relocation from planned residential areas to industrial areas. Thus, only the more permanent industrial uses are retained in the east central areas of the City, which are largely residential. Even these should ultimately be relocated.

LONG RANGE DEVELOPMENT PLAN

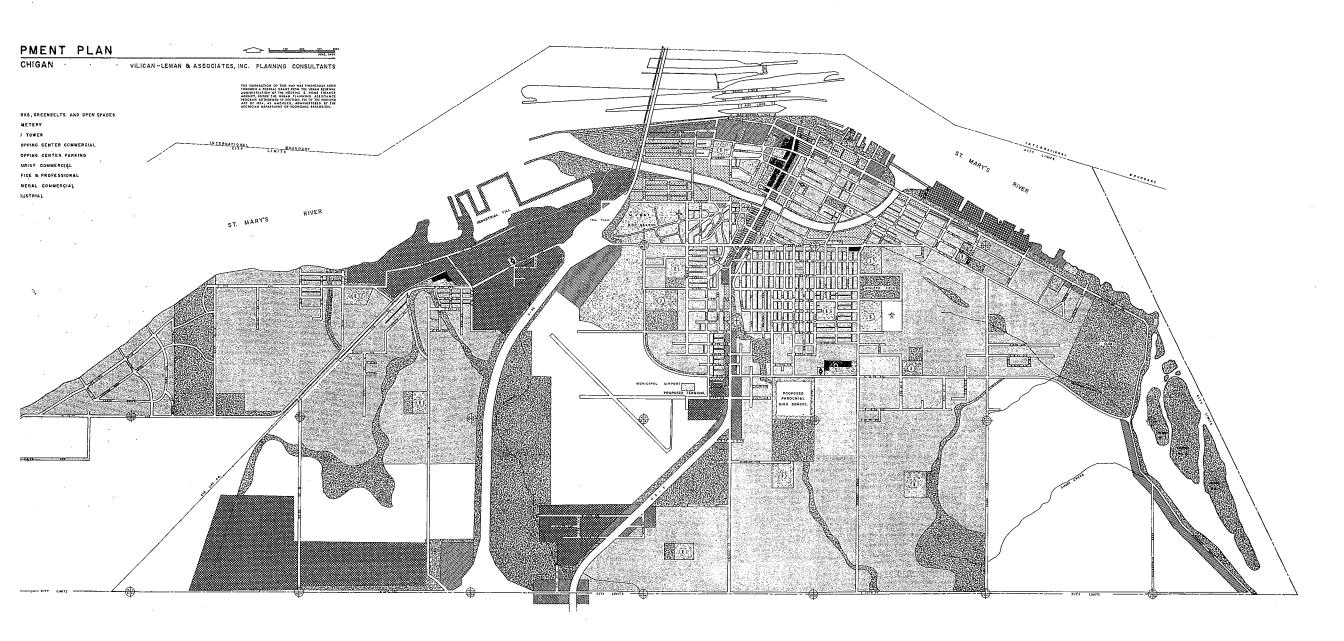
The plan illustrating Sault Ste. Marie's capacity development is similar to the foreseeable growth plan in terms of tourist commercial, C.B.D. revitalization, and college expansion. However, the proposals for park and open space areas are considerably broader in scope, extending well beyond minimum requirements. Escarpment lands, desirable groves of tree cover and logical open spaces are outlined

for preservation in their natural state. These open spaces will preserve the character of the City's environment and will add interest and value to the neighborhoods as they develop. By illustrating these potentials it is hoped that private land developers will recognize and appreciate their value and tastefully incorporate them into future developments.

Lands which border the St. Mary's River are ultimately proposed for park development from the southeast City Limits to the sewage disposal plant. This recognizes the scenic value of the river and its many use activities. Ideally, then, tourist accommodations should be located or relocated on the in-town side of Riverside Drive and Portage Avenue. Thus, both the scenic value and tourist potential of the river lands may be realized to their fullest. The greenbelt lands proposed along East Portage Avenue can be achieved by private land owners through extra deep building setbacks and well landscaped yard areas. Some properties along Portage Avenue already have these attributes.

Industrial lands are nearly all confined to areas west of the I-75 Expressway and in three other locations which are not within proposed neighborhoods. Although current trends indicate otherwise, substantial industrial development will generate demands for residential expansion, community facilities and more complete neighborhood shopping centers. All the necessary facilities to accommodate this level of additional growth are illustrated on the Long Range Development Plan.

The Short Range Plan to guide future development is in many respects a practical working plan. Proposals in the Long Range Development Plan will prove to be more practical as elements of foreseeable growth are realized. Both plans contain rather extensive areas of land in an open or "reserve" status, wherein growth ought to be discouraged so that the costly extension of utilities and streets can be avoided.



•		