

Machine Room.

PLANNING UNIT STUDY

CITY PLAN COMMISSION

CITY OF ROYAL OAK , MICHIGAN

P L A N N I N G U N I T S T U D Y

A Statistical Analysis by Planning Unit

PLANNING DEPARTMENT
CITY OF ROYAL OAK, MICHIGAN
APRIL 1963

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I N T R O D U C T I O N

The purpose of planning is to provide a desirable physical environment for the people that live in the area. Therefore it is necessary to anticipate how many people will be living in that area, what needs and resources they will have, and how they will utilize the land to fulfill their private and public needs.

During the past 10 years, the City of Royal Oak, like many other suburban communities, has experienced a major population expansion. This expansion has resulted in the utilization of a major portion of the land available for residential construction and has completely changed the need for municipal services, recreation, and other facilities in many areas. It is essential, therefore, to analyze the distribution of the existing and potential populations as they relate to the various community facilities and services, and to guide the orderly change in use of residential areas, and to anticipate the need for change and the accommodation of new uses.

This report has been prepared in the form of a statistical manual which can be used as a daily reference and in supplementary land use studies by the City Plan Commission, as well as other City departments and local agencies.

P L A N N I N G U N I T C O N C E P T

To plan for the community in manageable form and on a human scale, the community should be divided into smaller units of measurement, frequently designated as "planning units". An individual problem or proposal involving a small area such as an intersection study or a rezoning request, is difficult to analyze when related entirely to the city as a whole. The analysis and resultant recommendations are more meaningful when considered in terms of the conditions of the area of direct influence.

A major problem in defining the planning unit lies in the purpose for which it is being defined. Consider the variety of sub-areas of a city that are in common usage: a police precinct, a school district, a voting precinct. Each of these sub-areas are defined for a relatively narrow purpose. The planning unit, on the other hand, is generally an attempt to group the total components--social, physical, economical and visual--which overlay an area into a single, identifiable unit for study and analysis. Whatever the theoretical desirability of this kind of grouping, it must be recognized that it is impossible to put it into practice so that each element fits precisely.

Recognizing the need for this localized type of planning procedure, the Planning Department has delineated sixteen planning units, exclusive of the Central Business District, which will act as the basis for concentrated analysis of housing, population characteristics, land use, school-park facilities and needs. In delineating each unit, consideration was given to man-made and natural barriers limiting communication between various portions of the City, census tract boundaries, and elementary school service boundaries. Figure I indicates the boundaries and the number designation of each planning unit.

LOCAL PLANNING UNITS
CITY OF ROYAL OAK, MICHIGAN
CITY PLAN COMMISSION — AUGUST, 1961

FIGURE 1



A S S U M P T I O N S

Various assumptions form a necessary foundation on which a study of this nature is based. Only those assumptions which can be substantiated to some extent were relied upon to form a foundation for expectations of the future.

The following basic assumptions were considered in this report:

Land Use and Zoning

The present zoning map and text, adopted in 1957, will not change appreciably in the future. Many non-conforming uses will continue to be utilized as such with very few conversions. In conjunction with the Basic Land Use Plan, the non-conforming uses within the southern industrial area will, in later years, be demolished and the area redeveloped into an industrial park.

Household Size

The average household size will continue to level off at approximately 3.5 persons per dwelling unit. Past trends have indicated slight increases and decreases in the Detroit area. However, during the past decennial period from 1950 to 1960, the average household size for Royal Oak has decreased one-one hundredth (from 3.53 to 3.52 persons) in persons per dwelling unit.

Population Expansion

The City of Royal Oak will continue to be a desirable place in which to live. In the past decennial period mentioned above; the Community's population almost doubled, indicating a desire for residential sites within the City Limits.

Freeway Development

An east-west freeway, the location of which is unknown at present, is assumed to follow the Ten Mile Road alignment for study purposes. If, by chance another route is chosen, alterations must be made in the housing market of the individual areas affected.

A N A L Y S I S P R O C E D U R E

All research information was recorded on quarter section maps of the City. Each map covers one-quarter of a square mile, showing right-of-way and property lines, schools, parks and by symbols the type of structure on each parcel (whether it be a non-residential use, single family or the number of dwelling units within a multiple family structure). The zoning classification on individual lots and parcels was denoted; using the quarter section maps as base material.

The use of quarter section maps required the close cooperation of the Inspection and Engineering Departments. Inspection Department records indicate when a structure has reached the completion stage, while the Engineering Department continually revises the maps. A continuance of this close cooperation and revision is necessary to keep this analysis current and useful.

Existing Housing Supply

The existing housing supply was enumerated by counting individual dwelling units indicated on the quarter section maps. The number of single and multiple family units were determined separately and totaled by planning unit and on a City-wide basis.

Vacant Land Analysis

DETERMINATION OF THE NUMBER OF VACANT SITES--Vacant lots zoned for single family use were enumerated as were the number of vacant sites zoned for multiple dwelling purposes. The multiple sites were theoretically developed fully with one-bedroom units to determine the total potential, while unplatted single family areas were platted and the number of possible lots determined.

All vacant single family lots of record were considered buildable, however, as previously pointed out, the structure indication on a quarter section map is merely symbolic and does not represent actual location. Therefore, when a vacant lot neighbored a lot utilized by a structure and was under common ownership; it was not considered vacant. It is unlikely that such lots will be utilized for the construction of a dwelling unit due to the possible utilization of both lots by the existing structure or some other accessory use. If unused for construction purposes at this time, it is assumed that it will continue to lie vacant in the future.

ADJUSTMENT OF AVAILABLE SITES--The total of existing and potential new dwelling units, offers an approximate determination of the ultimate number of dwellings. This ultimate, however, can only be achieved if every site is utilized to its maximum capacity. This complete utilization is considered unlikely, because the desirability of developing individual

lots will decrease as the secondary neighborhood ages. A study made of communities similar in terms of population, stage of development, and relationship to a metropolitan area has demonstrated that development rarely consumes all vacant parcels within a community.

Therefore, an analysis of past building trends over a five year period was used to determine a criterion to judge the likelihood of a vacant parcel's development. The tabulations of this inventory are portrayed in Figure II (Residential Building Trends 1957-1961).

Based on this information the following criteria for judging the likelihood of a vacant lot being developed were determined:

1. The general age and land use of the surrounding area.
2. The general size and shape of vacant lots in comparison with those presently considered to be desirable as building sites.
3. The relationship of vacant lots in an area with each other. For example, two or more vacant lots situated together are more desirable than a single lot.
4. Finally, consideration was given to recent trends in residential construction of each planning unit.

All of the vacant land available for residential development was analyzed, utilizing the above criteria as a basis for review. Following this analysis, those lots considered to be least likely or unlikely to develop in the foreseeable future were deducted from the potential housing stock.

Dwelling Unit Removals

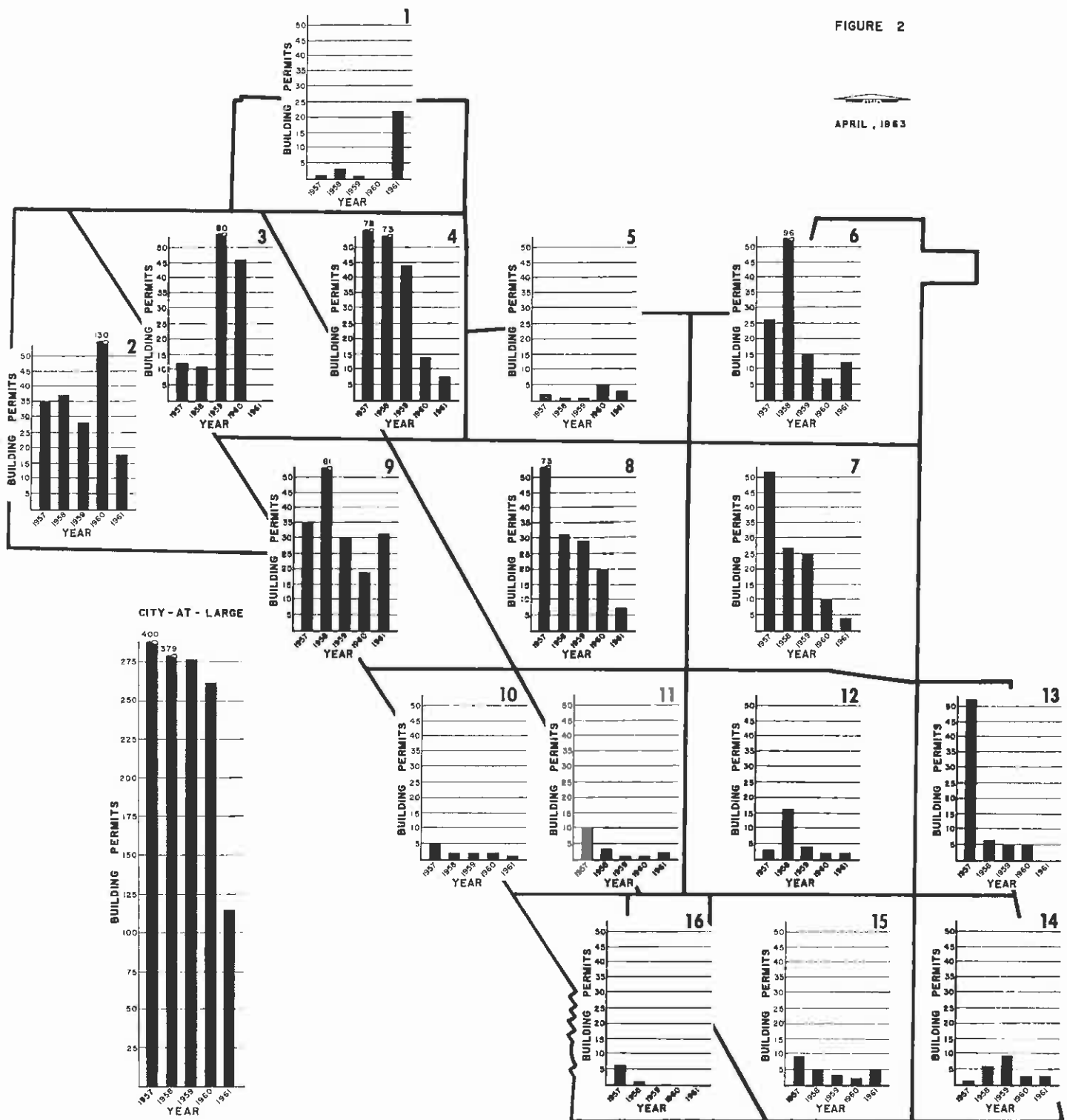
Following the completion of the aforementioned tabulations, consideration was given to the possibility of dwelling unit

RESIDENTIAL BUILDING TRENDS 1957 - 1961

PLANNING UNITS - CITY OF ROYAL OAK

FIGURE 2

APRIL, 1963



removals. Due to proposed freeway construction and possible redevelopment activity, assumed dwelling unit losses were deducted from the adjusted housing capacity. As pointed out, although the exact location of an east-west (I-696) freeway has not been determined, a Ten Mile Road alignment was assumed for study purposes.

Closely connected to I-696 development is the possible southern industrial redevelopment. A reduction caused by these two possibilities, amounting to 422 homes, was deducted from the affected planning units. If another freeway route is selected, a revision of various planning unit boundaries and the number of dwelling units therein will be necessitated. Thus, this was the process used to arrive at the total possible number of dwelling units. Each individual step in the housing stock analysis is summarized in Table I (Derivation of Total Possible Dwelling Units).

TABLE I

DERIVATION OF TOTAL POSSIBLE DWELLING UNITS	
SEQUENCE OF STEPS	NUMBER OF DWELLING UNITS
1. Existing Number.....	24,170
2. Approximate Potential.....	<u>3,538</u>
Unadjusted Capacity.....	27,708
3. Sites unlikely to be utilized.....	<u>210</u>
Adjusted Capacity.....	27,498
4. Dwelling Units Removed.....	<u>422</u>
Losses by Renewal Programs	150
Losses by (I-696) Construction	272
Potential Dwelling Units.....	27,076

Determination of Household Size

The average household size is the key used to determine existing, and estimating the potential populations. Household size is a term used to describe the number of persons per dwelling unit, and is applied to the adjusted potential housing stock.

As previously pointed out, it is assumed that in the foreseeable future an average of 3.5 persons per household will exist. However, the importance lies in the determination of household size by dwelling unit type, i.e., single and multiple family.

Existing average household sizes for single and multiple family dwelling units were determined by a statistical sample based on the 1960 Census of Housing. Two averages, 4.2 persons per single family unit and 2.6 persons per multiple household, were applied respectively to the adjusted new potential number of dwelling units; while the existing average (3.5 persons) was applied to the existing number of dwelling units. The sum of all three serves as an estimate of the potential population.

Potential Enrollment K-6

Elementary school requirements reflect trends in development, i.e., the location of future highways, industrial and commercial areas, redevelopment, and the density of development within the school district. Due to the present stage of

development, pattern of land use and density of population the potential residential growth in Royal Oak has been estimated.

On the basis of the current number of dwelling units and the public elementary school enrollment a ratio of 0.47 public elementary school children per dwelling unit was determined. This ratio was then applied to the total potential dwelling units in each planning unit to arrive at a figure for the future enrollment. In addition to enrollment figures, data was collected on current school plant and site capacities which are discussed in connection with the respective planning units. A standard of one acre per 100 pupils was utilized to determine school site needs.

It should be noted that there are on the average 0.6 elementary school children per dwelling unit. However, approximately 22% (a reduction of the average number of elementary school children per dwelling unit from 0.6 to 0.47 pupils) of the school children do not attend a public school. Many of which attend one of the four parochial schools located within the City. This average varies from one district to the next, increasing as high as 40% in those attendance areas which are within the immediate area of a parochial school. The overall average (0.47) was utilized to project the future public school enrollment due to the inconsistency of attendance area and planning unit boundaries. Therefore, the projected enrollments

The City of Royal Oak contains an area of 7,610.7 acres. Its population is estimated at 84,595 persons housed in 24,170 dwelling units. There is available space to accommodate an additional 2,906 dwellings. The total holding capacity was determined to be 27,076 dwelling units.

If this full capacity is reached, there will be an estimated 93,945 persons residing within the City. The public elementary school enrollment may bulge from 11,280 pupils to more than 12,726 pupils.

The way in which individual planning units receive the growth potential is discussed in the following sections and included in Table II (Estimated Development and Population by Planning Unit).

TABLE II

ESTIMATED DEVELOPMENT AND POPULATION BY PLANNING UNIT (A)

PLANNING UNIT	AREA IN ACRES	EXISTING NUMBER OF DWELLINGS	POTENTIAL NEW SINGLE FAMILY DWELLINGS	POTENTIAL NEW MULTI-FAMILY DWELLINGS	TOTAL POTENTIAL DWELLINGS	POTENTIAL POPULATION	POTENTIAL K-6 ENROLLMENT	EXISTING REC. LAND (ACRES)	REC. LAND NEEDS (ACRES)	NET REC. NEED (ACRES)	EXISTING K-6 SCHOOL SITES	K-6 SCHOOL SITE NEED	NET K-6 SCHOOL NEED
1	321.8	70	206	926	1202	3518	565	23.05	35.1	12.0	0	5.6	5.6
2	706.9	2182	138	17	2337	8261	1098	36.67	82.6	45.9	4.43	10.9	6.6
3	524.2	1350	34	108	1492	5149	701	100.52(f)	51.4	-49.1	11.28	7.0	0
4	396.7	1216	43	310	1569	5243	737	67.16	52.4	-14.8	19.76	7.3	0
5	349.3	595	14	0	609	2141	286	143.31	21.4	-121.9	7.18	2.8	0
6	548.8	1714	189	41	1944	6899	914	45.78	68.9	23.1	18.66	9.1	0
7	668.1	2030	91	55	2176	7630	1023	41.71	76.3	34.6	7.63	10.2	2.6
8	651.2	2231	152	33	2416	8533	1136	46.10	85.3	39.2	6.76	11.3	4.5
9	476.4	1566	143	219	1928	6651	906	11.76	66.5	54.7	11.76	9.0	0
10	387.2	1390	33	15	1438	5043	676	14.76	50.4	35.6	5.13	6.7	1.5
11	310.4	1199	42	9	1250	4396	588	15.40	43.9	28.5	0	5.8	5.8
12	653.9	2597	107	0	2704	9539	1271	35.56	95.3	59.7	17.81	12.7	0
13	250.1	639	36	112	787	2679	370	14.87	26.7	11.8	4.89	3.7	0
14	357.9	1664	-26(a)	16	1654	5775	777	6.77	57.7	50.9	6.77	7.7	0.9
15	536.8	2365	18(c)	19	2402	8403	1129	21.25	84.0	62.7	5.65	11.2	5.5
16	365.4	1228	-197(b)	3	1034	3616	486	3.73	36.1	32.4	2.45	4.8	2.3
CBD	105.6	134	0	0	134	469	63	0	4.6	4.6	0	0	0
TOTAL	7610.7	24,170	1,023	1,883	27,076	93,945	12,726	628.40	939.4	311.0	130.16	125.8	35.3

(A) An explanation of the table is included in the Analysis procedure section of the text.

(a) Figure represents a potential of 124 dwellings and a reduction of 150 dwelling units due to freeway construction.

(c) Figure represents a potential of 78 dwellings and a reduction of 60 dwelling units due to freeway construction.

(b) Figure represents a potential of 15 dwellings and a reduction of 212 dwelling units due to freeway construction and renewal.

(f) Figure does not include 6.13 acres devoted to a parking lot (site number 2-20 in City Land Data).

PLANNING UNIT

1

Dwelling Unit

Potential.....1,202

Population

Potential.....3,518

Elementary School

Potential.....565

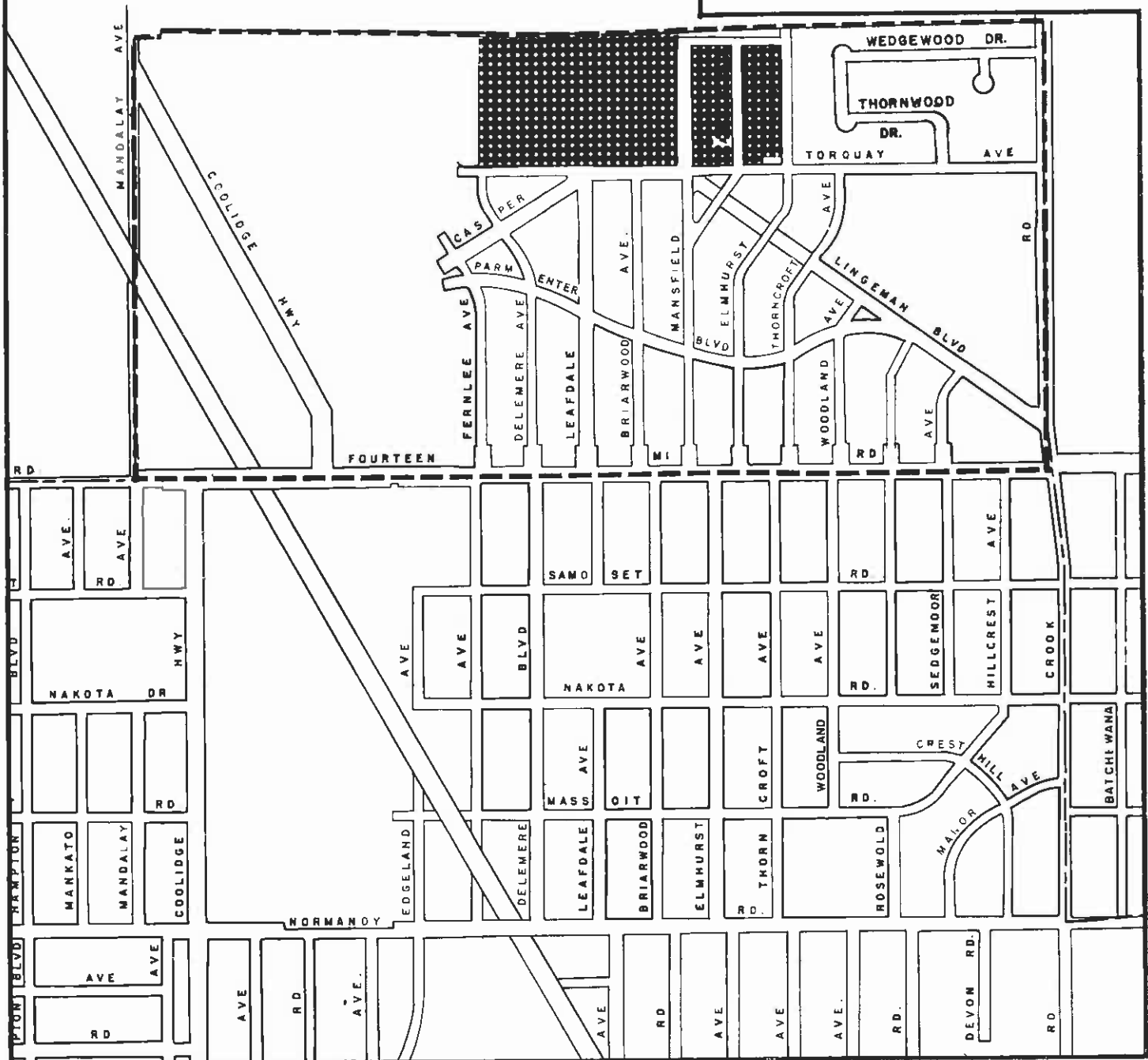
Recreational Land

(Acres).....23.05

School.....



Park.....



P L A N N I N G U N I T 1

DESCRIPTION: This unit, containing 321.8 acres, lies entirely north of Fourteen Mile Road.

DEVELOPMENT: Planning unit one, being 90% undeveloped, has the greatest potential for industrial and residential growth. Approximately one-half (122.9 acres) of the area is zoned for industrial purposes under the present zoning conditions. There are approximately 50 acres developed for industrial purposes, leaving more than 70 acres for future industrial growth.

The residential holding capacity is 1202 dwelling units with a population potential of approximately 3,518 persons, including 565 public elementary school pupils. If this potential is reached, there would be a 94% increase in residential development within the unit.

SCHOOL-PARK
FACILITIES: An elementary school would be required to accommodate the estimated K-6 enrollment. A school site of 6 or 7 acres would be adequate and also substantially eliminate the recreational needs of the unit.

PLANNING UNIT

2

Dwelling Unit

Potential.....2,337

Population

Potential.....8,261

Elementary School

Potential.....1,098

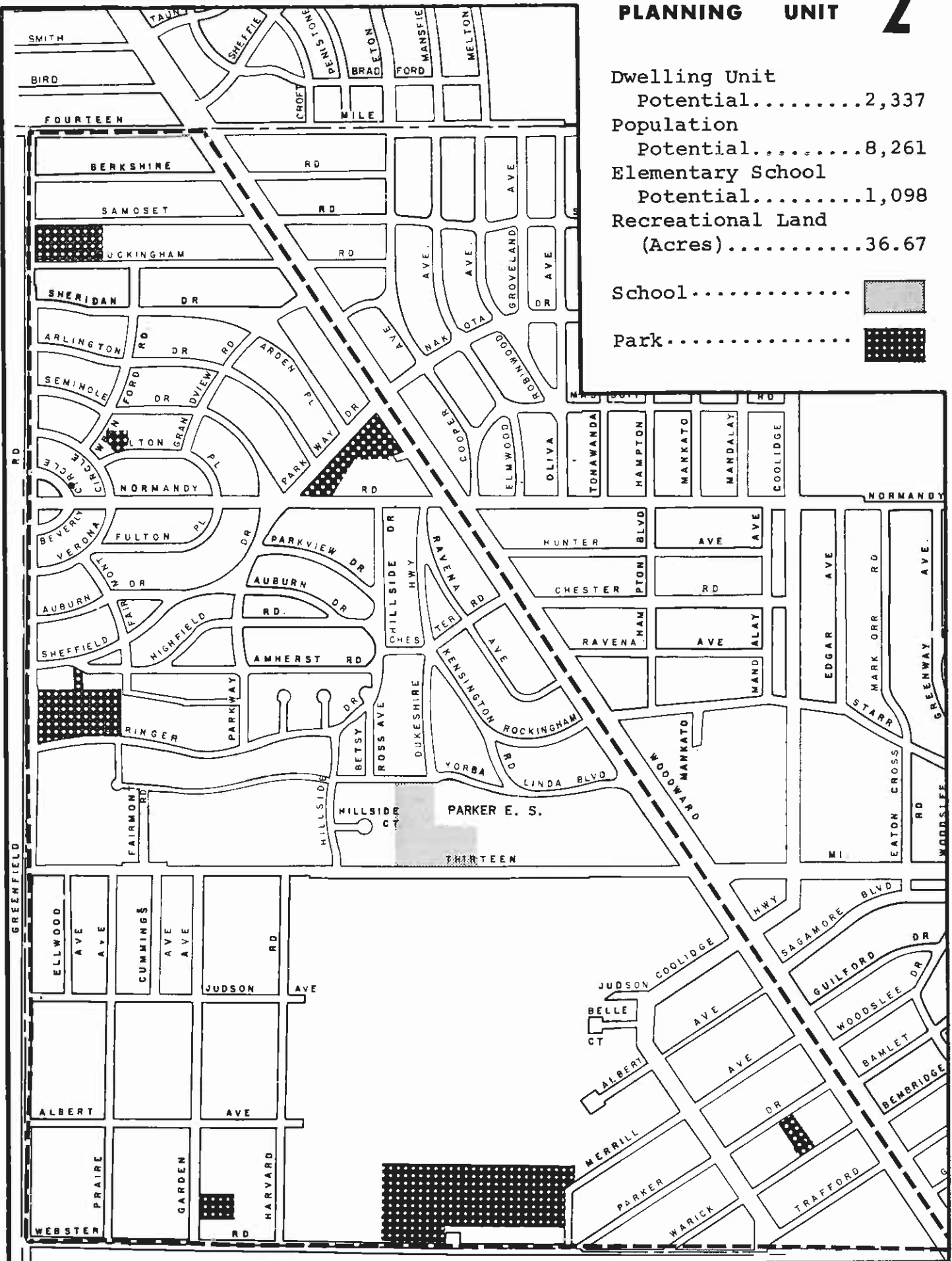
Recreational Land

(Acres).....36.67

School.....



Park.....



P L A N N I N G U N I T 2

DESCRIPTION: This is the only unit lying entirely west of Woodward Avenue; bounded by Webster Road, Greenfield Road, Fourteen Mile Road and Woodward Avenue. It is the largest unit containing 706.9 acres.

DEVELOPMENT: There are 2,182 homes within the unit and available space for an additional 155 dwelling units. If this capacity is reached, approximately 8,261 persons and 1,098 elementary school pupils may be expected to reside in the area.

The unit contains a large amount of land zoned for commercial use, which serves as a retail center for both this unit and the surrounding area. There are 39.7 acres commercially zoned which are generally located along Woodward Avenue and concentrated at the Northwood Shopping Center.

SCHOOL-PARK FACILITIES: The estimated increased population puts an additional burden on an already over-burdened school-park plant. The Parker Elementary School, serving the entire unit, is situated on an inadequate site and will be unable to handle the potential K-6 enrollment.

There is a net recreational need of 45 acres (45.9 in table) required to adequately serve the expanded population. It should be noted that 19.5 acres of the existing 36.67 acres of recreational land are leased and not owned by the City.

PLANNING UNIT 3

Dwelling Unit

Potential.....1,492

Population

Potential.....5,149

Elementary School

Potential.....701

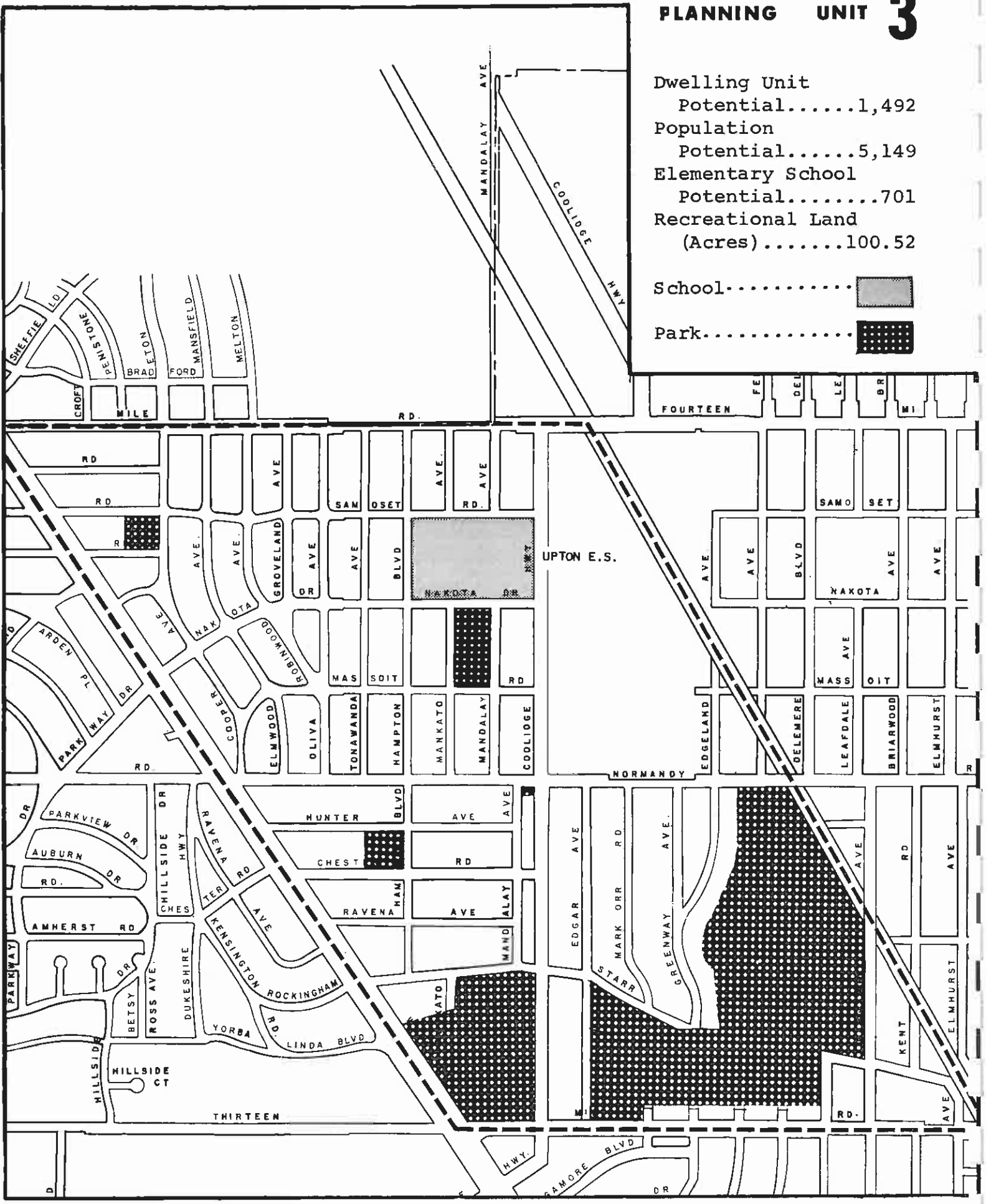
Recreational Land

(Acres).....100.52

School.....



Park.....



P L A N N I N G U N I T 3

DESCRIPTION: This unit containing 524.2 acres, is bounded on the north by the City of Birmingham and Fourteen Mile Road. Woodward Avenue on the west and Thirteen Mile Road on the south serve as street barriers. The Grand Trunk right-of-way is the boundary on the east.

DEVELOPMENT: The planning unit, containing both Woodward Avenue frontage and the second largest industrial area, has 73.6 acres zoned for non-residential purposes. An additional 100.5 acres are utilized for recreational purposes leaving approximately 350 acres for residential development. The residential holding capacity is 1,492 dwelling units with a population potential of approximately 5,149 persons, including 701 public elementary school pupils.

SCHOOL-PARK FACILITIES: There are presently adequate school and recreational facilities to serve the potential. It should be noted that a major portion of the recreational lands (Memorial Park and Royal Oak Golf Course--a total of 81.19 acres) serve the dual purpose of neighborhood and City-at-large recreation needs.

PLANNING UNIT

4

Dwelling Unit

Potential.....1,569

Population

Potential.....5,243

Elementary School

Potential.....737

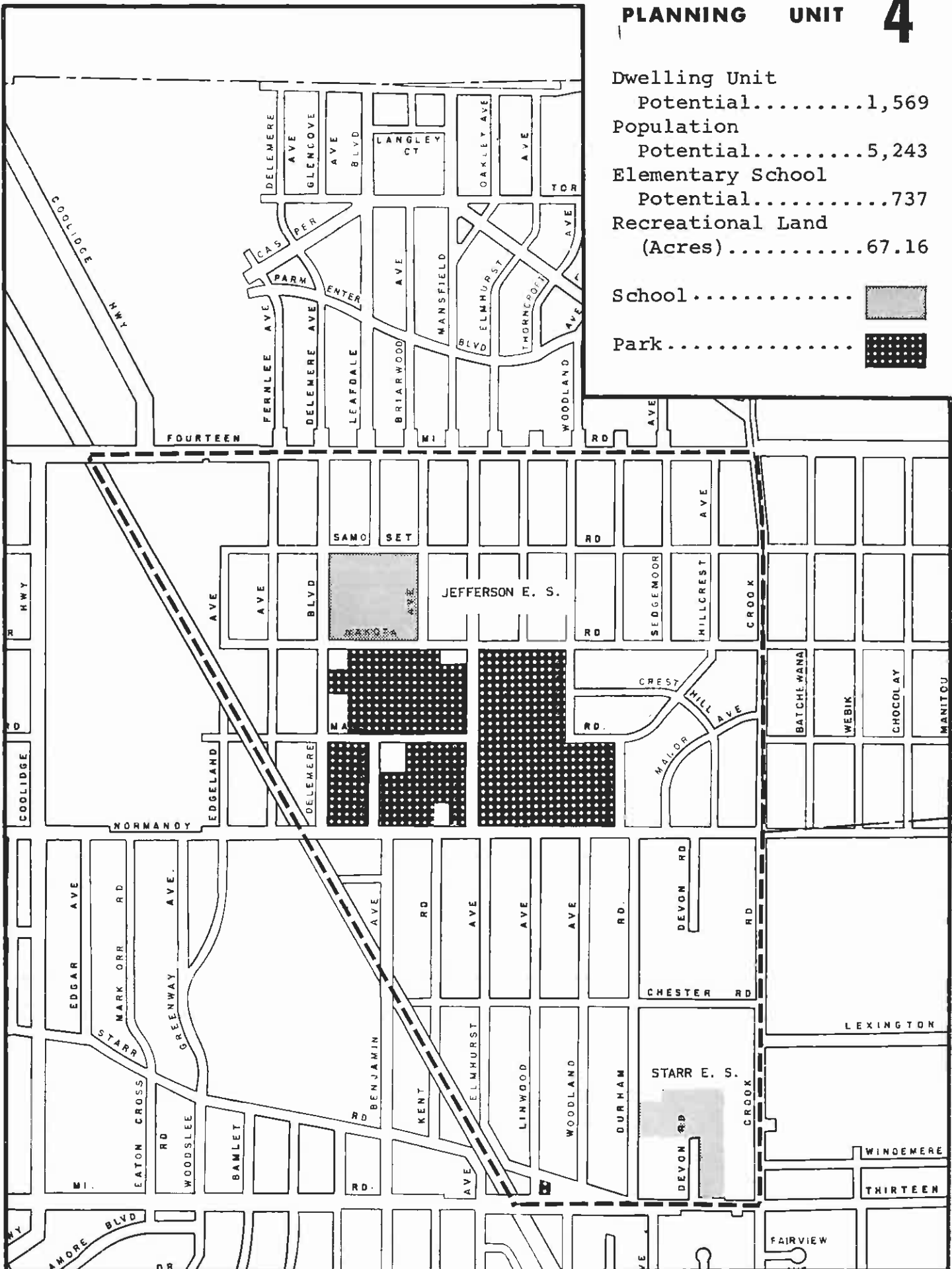
Recreational Land

(Acres).....67.16

School.....



Park.....



P L A N N I N G U N I T 4

DESCRIPTION: This unit, with an area of 396.7 acres is bounded by Fourteen Mile Road on the north, Crooks Road on the east, Thirteen Mile Road on the south and the Grand Trunk track on the west.

DEVELOPMENT: The holding capacity of this planning unit is 1,569 dwelling units. If this potential is reached, approximately 5,243 persons and 737 public elementary school children may be expected to reside within the unit.

Residential development is limited to some extent by the proportionally large amount of non-residential lands (i.e., industrial, 47.3 acres; commercial, 3.2 acres; and recreational, 66.6 acres) which comprise about 30% of the area.

SCHOOL-PARK FACILITIES: Existing recreational facilities compare favorably with the projected growth. However, Starr and Jefferson Elementary Schools, which together serve planning unit four as well as other units, will not be adequate in the future. The Jefferson attendance area encompasses all of planning unit one and that portion of unit four which lies north of Normandy Road. Planning unit one alone has a potential K-6 population which exceeds the enrollment capacity of Jefferson.

The Starr School attendance area contains the southern part of this unit and a portion of unit eight. Although the school attendance and planning unit boundaries do not coincide, it is possible to determine the adequacy of the Starr School plant utilizing the raw data collected and school census figures as a control factor. Based on this data, there are indications that the Starr School district will surpass its enrollment capacity in the near future.

PLANNING UNIT

5

Dwelling Unit

Potential.....609

Population

Potential.....2,141

Elementary School

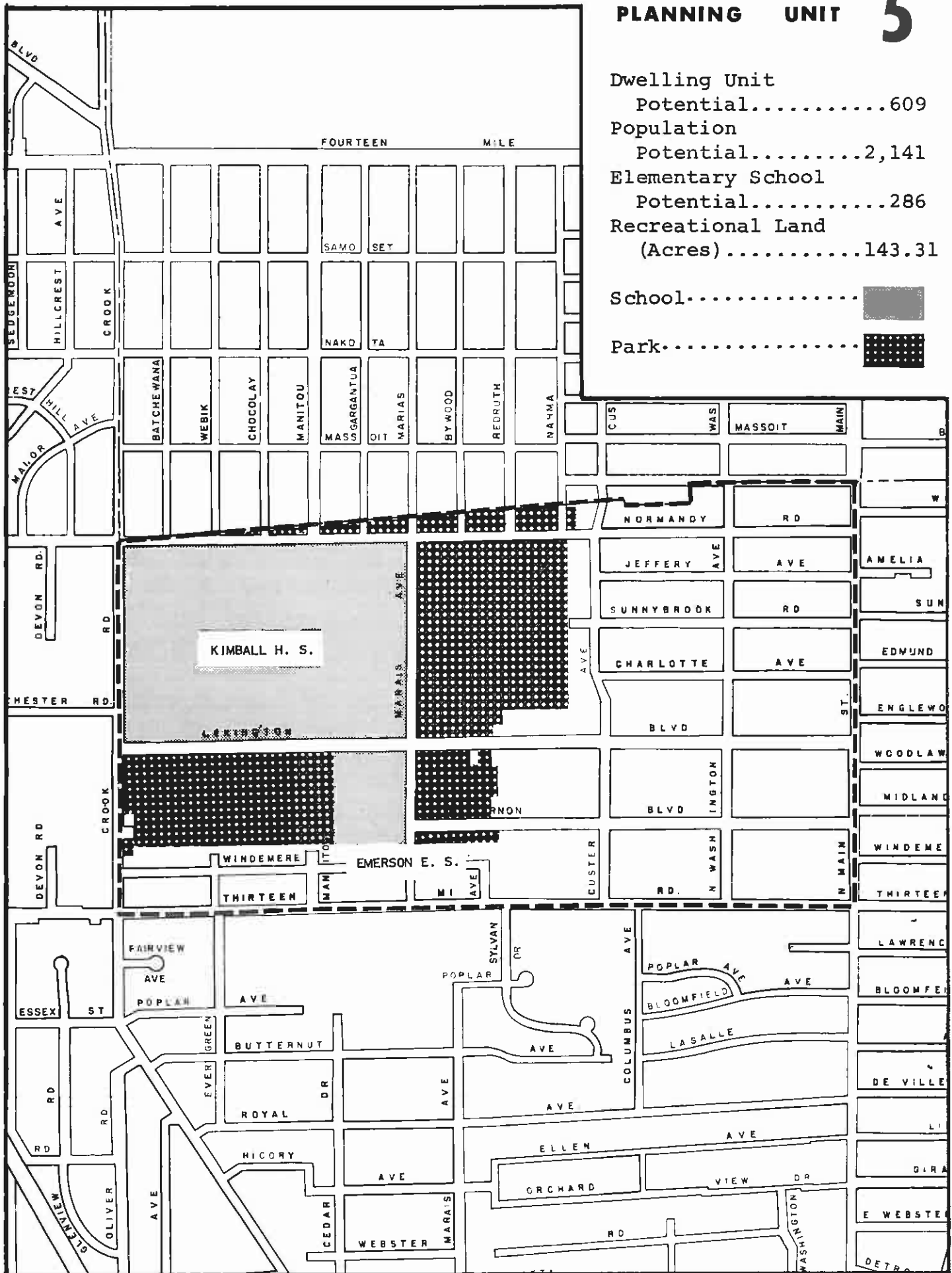
Potential.....286

Recreational Land

(Acres).....143.31

School.....

Park.....



P L A N N I N G U N I T 5

DESCRIPTION: This unit is bounded on the north by the City Limits which separates it from the City of Clawson. Main Street on the east, Thirteen Mile Road on the south and Crooks Road on the west serve as additional boundaries, encompassing an area of 349.3 acres.

DEVELOPMENT: A potential of 14 new homes may be expected in addition to the 595 existing dwellings providing a total holding capacity of 609 dwelling units. If full capacity is reached, an estimated 2,141 persons and 286 public elementary school children may be expected to reside in the area.

Residential growth is limited to some extent by large lot sizes and a large amount of land devoted to recreational purposes (143.31 Acres) in this relatively small planning unit.

SCHOOL-PARK FACILITIES: There are more than adequate recreational lands to serve the needs of the residents within the unit. Emerson Elementary School is capable of accommodating the potential K-6 enrollment requirements of the unit. However, the school's attendance district encompasses an optional enrollment area, making it impossible to determine the total enrollment potential on the basis of the information compiled. The term "optional enrollment area" describes a district in which residents may send their children to one or another elementary school.

PLANNING UNIT

6

Dwelling Unit

Potential.....1,944

Population

Potential.....6,899

Elementary School

Potential.....914

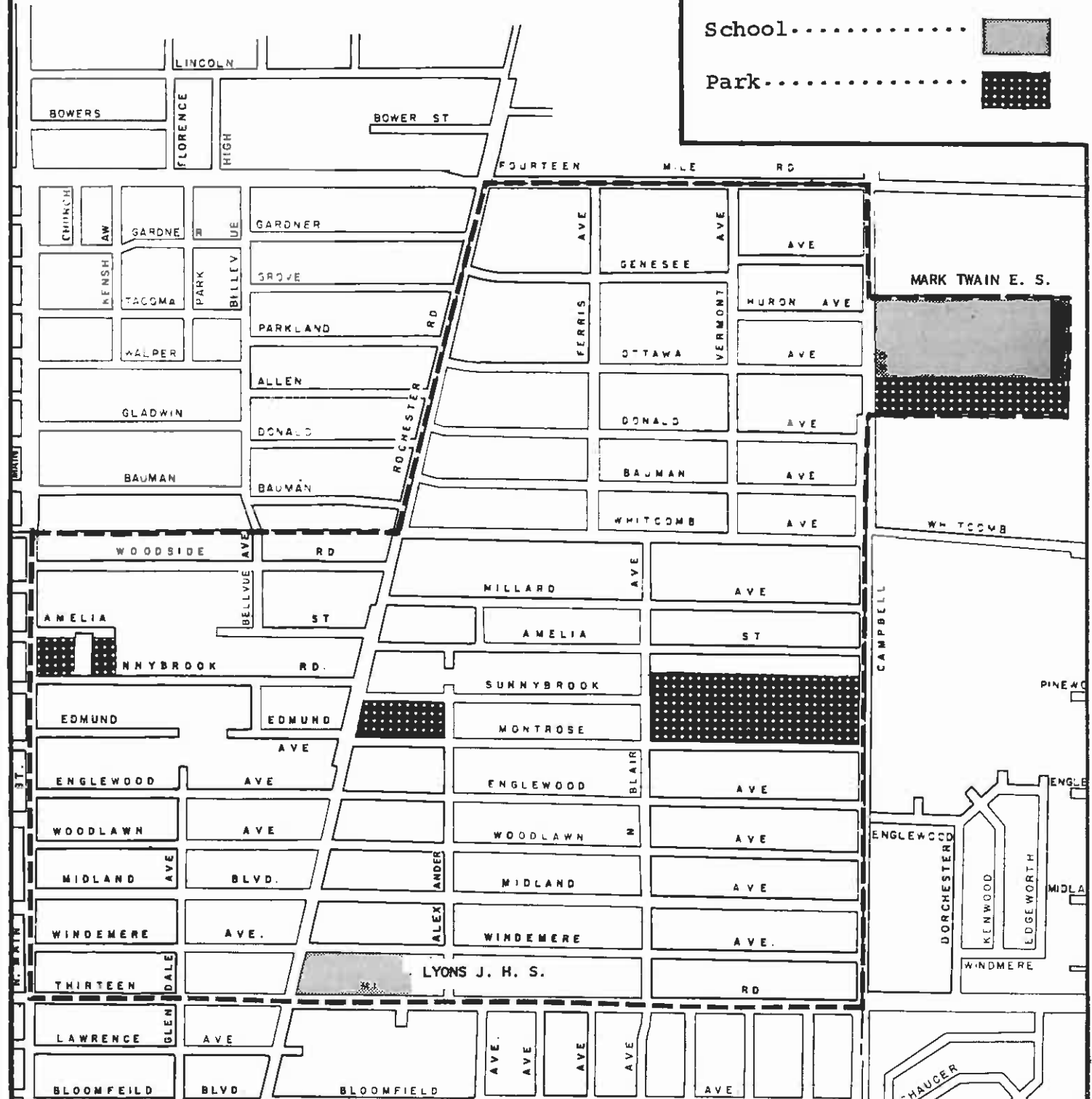
Recreational Land

(Acres).....45.78

School.....



Park.....



P L A N N I N G U N I T 6

- DESCRIPTION: Planning unit six, located in the northeast corner of the City, is bounded by the Cities of Clawson, Troy and Madison Heights. The boundary on the south and west is Thirteen Mile Road and Main Street respectively. This unit contains an area of 548.8 acres.
- DEVELOPMENT: There are 1,714 dwelling units and 230 additional vacant sites adequate for residential development. When available land is utilized, approximately 6,899 persons, including 914 elementary school pupils may be expected to reside within the unit.
- SCHOOL-PARK FACILITIES: The Mark Twain and Oak Ridge Elementary Schools serve the unit and outlying areas. Although the Mark Twain site is adequate in terms of acres per pupil to serve the entire unit, its attendance area includes only a portion of the unit and a part of the City of Troy; making it impossible to determine the potential enrollment.
- The Oak Ridge Elementary School, not located within the unit, is unable to cope with its present enrollment. The overflow of pupils is accommodated at the Mary Lyon Junior High School. Nine rooms of the Junior High School are utilized by fifth and sixth grade students which would otherwise attend Oak Ridge School.
- Recreational facilities are inadequate to meet the needs of the estimated population. Approximately 23 acres are required in addition to the existing school-park sites.

PLANNING UNIT

7

Dwelling Unit

Potential.....2,176

Population

Potential.....7,630

Elementary School

Potential.....1,023

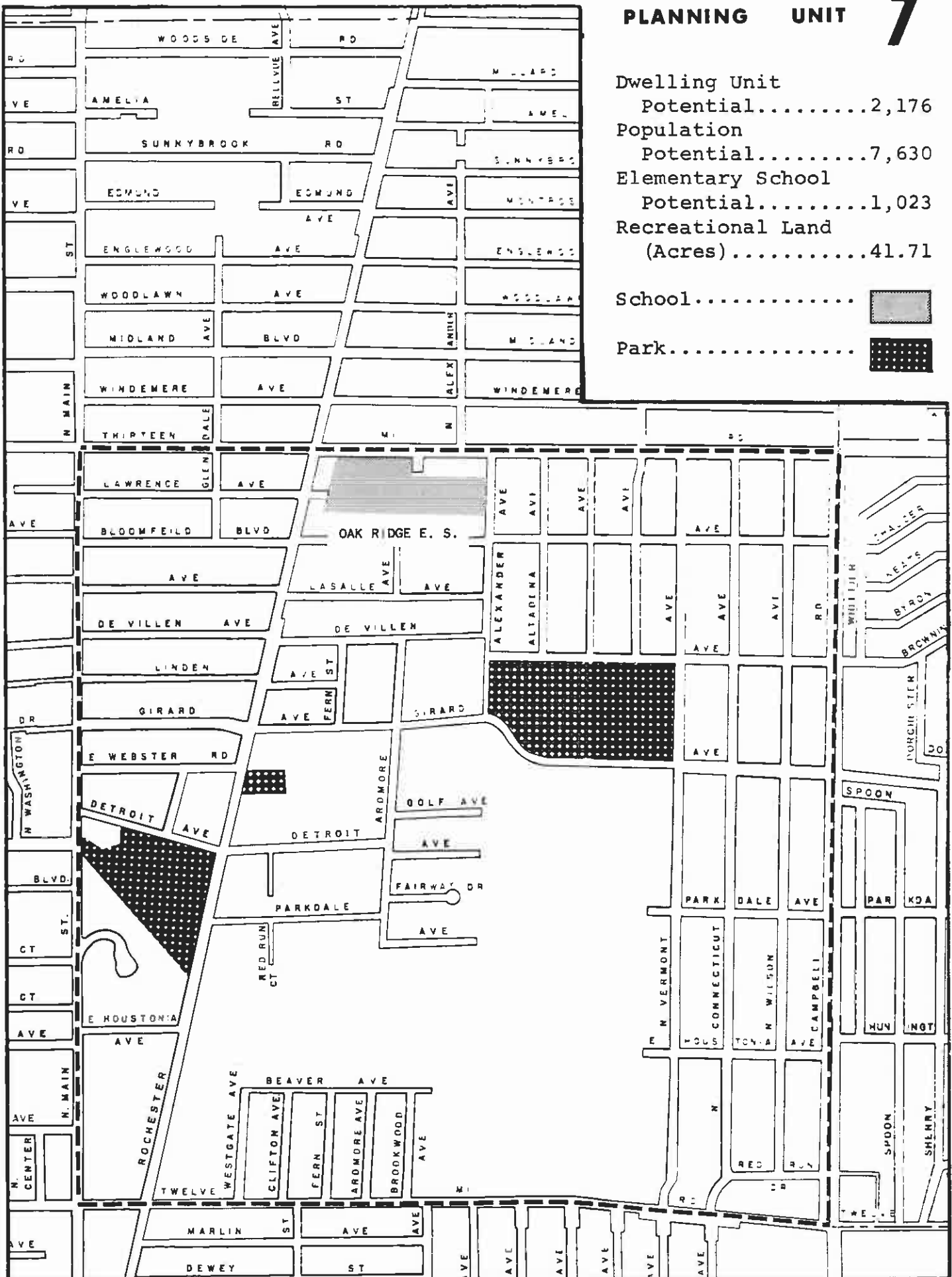
Recreational Land

(Acres).....41.71

School.....



Park.....



P L A N N I N G U N I T 7

DESCRIPTION: This unit is bounded on the east by Campbell Road, which separates it from the Royal Madison Shopping Center and the residential areas lying within Madison Heights. Twelve Mile Road on the south, Main Street on the west and Thirteen Mile Road on the north serve as additional barriers.

DEVELOPMENT: Planning unit seven, containing 668.1 acres, is the second largest in the City. Its holding capacity, limited by the large amount of acreage devoted to the Red Run Golf Club, is 2,176 dwelling units. If this capacity is reached, approximately 7,630 persons and 1,023 K-6 pupils may be expected to reside within the unit.

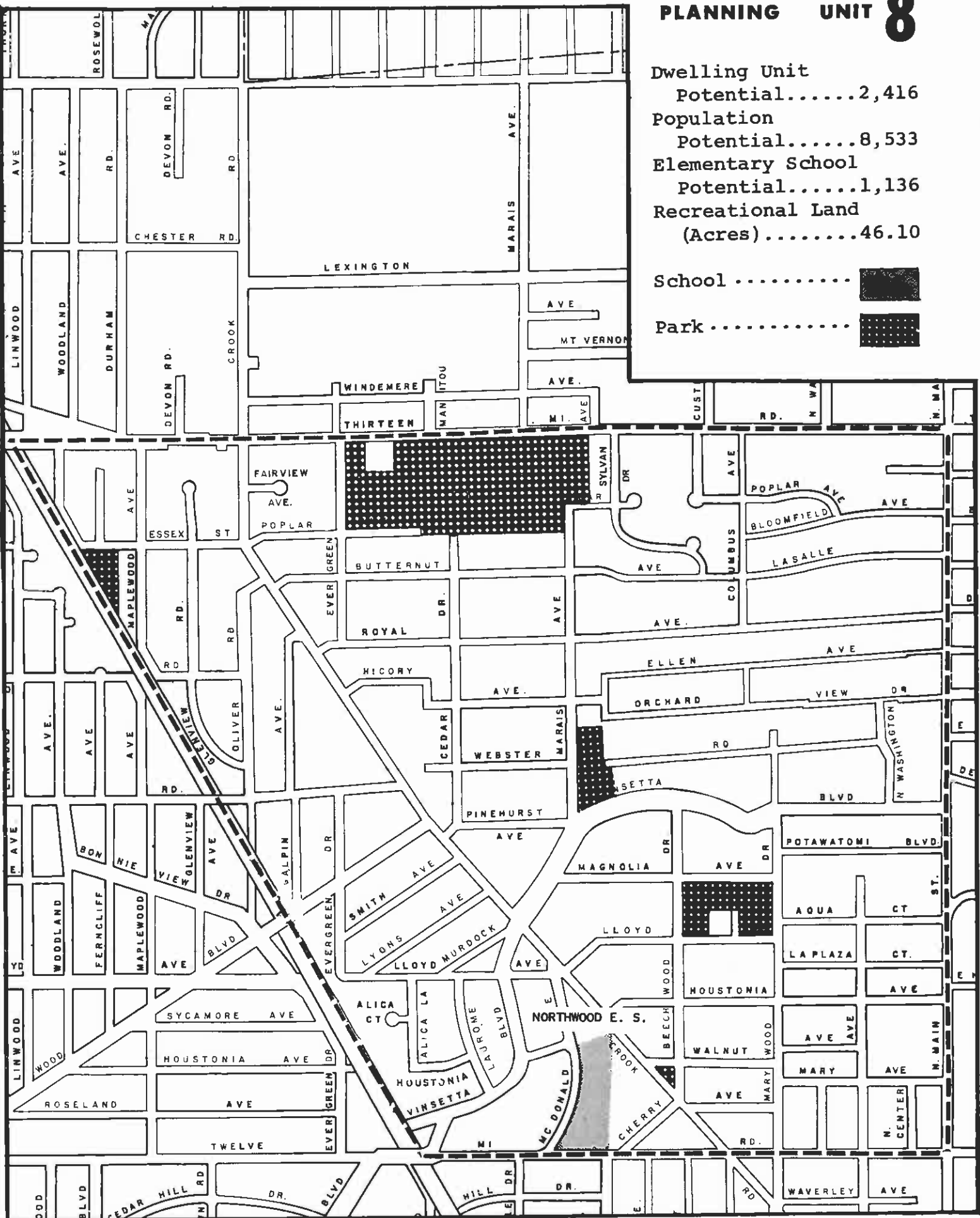
SCHOOL-PARK FACILITIES: Recreational facilities are inadequate to meet the requirements of the projected population. An additional 35 acres (34.6 in table) are required to bring the existing recreational facilities up to accepted standard.

The Oak Ridge Elementary School, located within this unit, serves only a portion of the area. As noted in the discussion of the previous planning unit, this school is unable to meet the current requirements of its attendance area.

PLANNING UNIT 8

Dwelling Unit
 Potential.....2,416
 Population
 Potential.....8,533
 Elementary School
 Potential.....1,136
 Recreational Land
 (Acres).....46.10

School 
 Park 



P L A N N I N G U N I T 8

DESCRIPTION: Planning unit eight, containing 651.2 acres, lies directly east of the Grand Trunk right-of-way. Thirteen Mile Road on the north, Main Street on the east and Twelve Mile Road on the south serve as street barriers.

DEVELOPMENT: This unit has the second largest holding capacity consisting of a possible 2,416 dwellings. If this potential is reached, an estimated 8,533 persons, including 1,136 elementary school pupils may be expected to reside in the unit.

SCHOOL-PARK
FACILITIES: The recreational facilities are inadequate to meet the needs of the unit's estimated population. An additional 40 acres (39.2 in table) will provide the necessary recreational lands.

The Northwood Elementary School, located within the unit, draws its enrollment from portions of units seven, eight, nine, ten and eleven. The enrollment potential could not be determined from the data collected because of the inconsistency between planning unit and attendance area boundaries. Similar situations exist between other attendance areas and units.

PLANNING UNIT 9

Dwelling Unit

Potential.....1,928

Population

Potential.....6,651

Elementary School

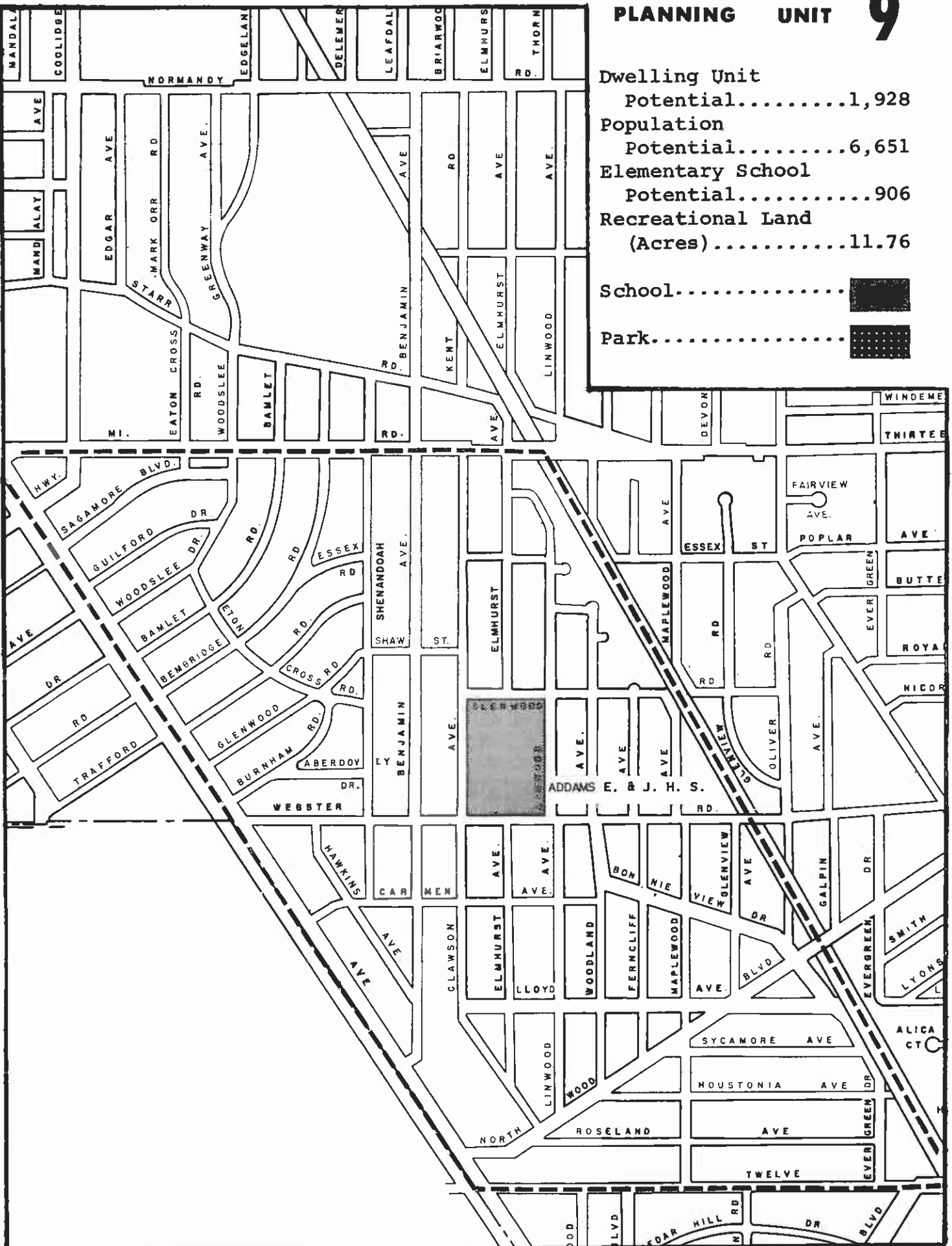
Potential.....906

Recreational Land

(Acres).....11.76

School.....

Park.....



P L A N N I N G U N I T 9

DESCRIPTION: This unit, containing 476.4 acres, is bounded on the west and east by Woodward Avenue and the Grand Trunk right-of-way respectively. Other barriers include Thirteen Mile Road on the north and Twelve Mile Road on the south.

DEVELOPMENT: The planning unit has a holding capacity of 1,928 dwelling units. If this full capacity is reached, approximately 6,651 persons, including 906 elementary school pupils may be expected to reside in the area.

SCHOOL-PARK
FACILITIES: There are no public parks in this planning unit. All of the recreational facilities are located at one school site, consisting of 11.76 acres, located within the unit. Jane Addams Elementary School is well located, serving in general the entire planning unit. Although unable to meet the projected enrollment, it should be noted that a greater than average portion of pupils in this area do not attend the public school. This is due to the proximity of the Shrine of the Little Flower School. Similar situations exist in all planning units surrounding the four parochial schools located within the City.

PLANNING UNIT

10

Dwelling Unit

Potential.....1,438

Population

Potential.....5,043

Elementary School

Potential.....676

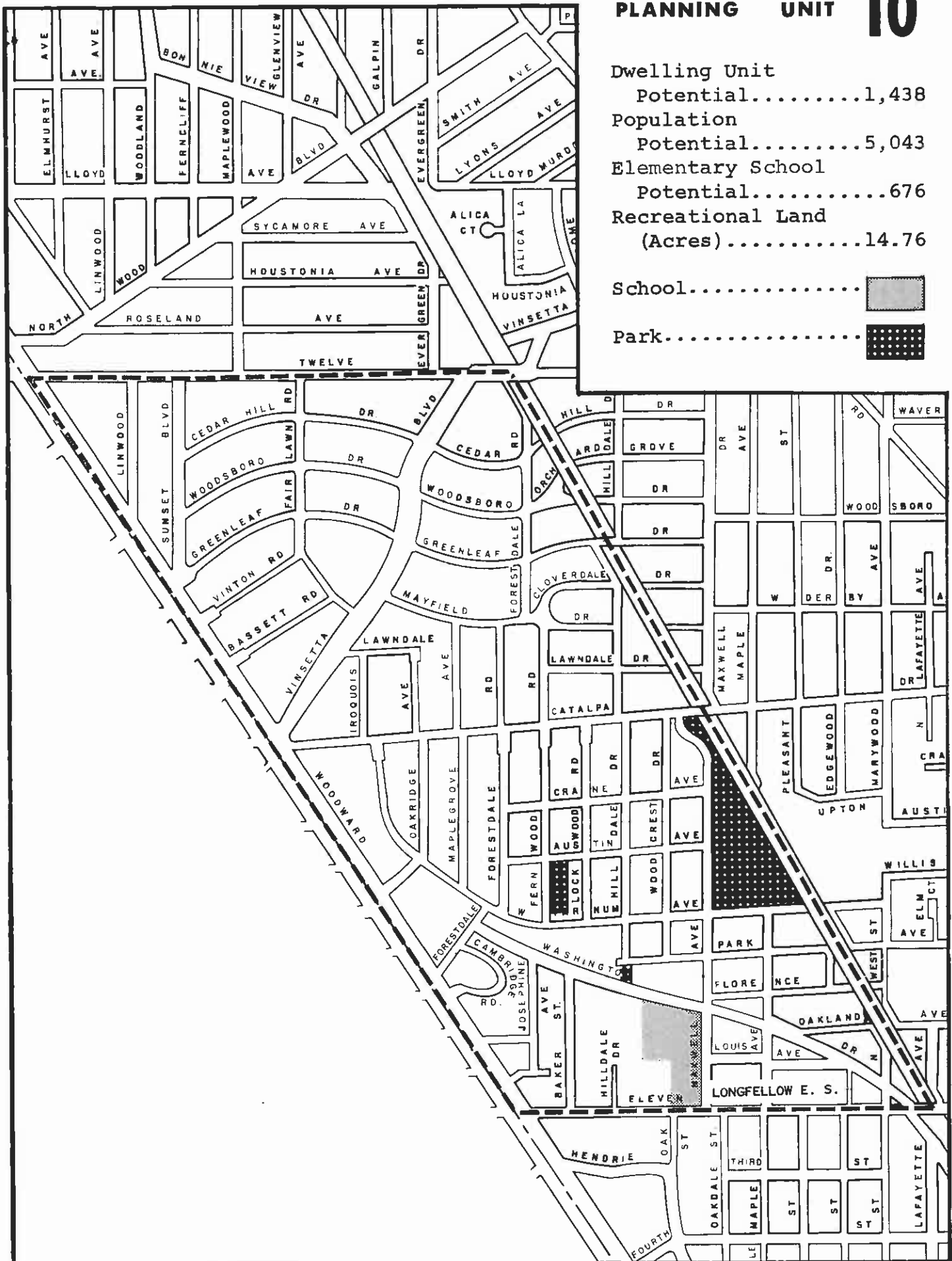
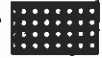
Recreational Land

(Acres).....14.76

School.....



Park.....



DESCRIPTION: Planning unit ten, containing 387.2 acres, is bounded by Twelve Mile Road on the north, the Grand Trunk right-of-way on the east, Eleven Mile Road on the south and Woodward Avenue on the west.

DEVELOPMENT: This unit has 28.9 acres zoned for commercial purposes, located generally along the Woodward Avenue and Eleven Mile Road frontage. It has a holding capacity of 1,438 dwelling units. If this capacity is reached, there will be approximately 5,043 persons, including 676 elementary school pupils residing within the planning unit.

SCHOOL-PARK FACILITIES: To satisfy the recreational requirements of the estimated population an additional 35.6 acres are needed. It should be noted that the playground facility at the Shrine School, as in other units containing a parochial school site, was not considered in the determination of the net recreational need.

The area is served by the Longfellow and Northwood Elementary Schools; neither of which have attendance areas that coincide with the planning unit. On the basis of the data collected the potential enrollment of each could not be determined.

PLANNING UNIT

11

Dwelling Unit

Potential.....1,250

Population

Potential.....4,396

Elementary School

Potential.....588

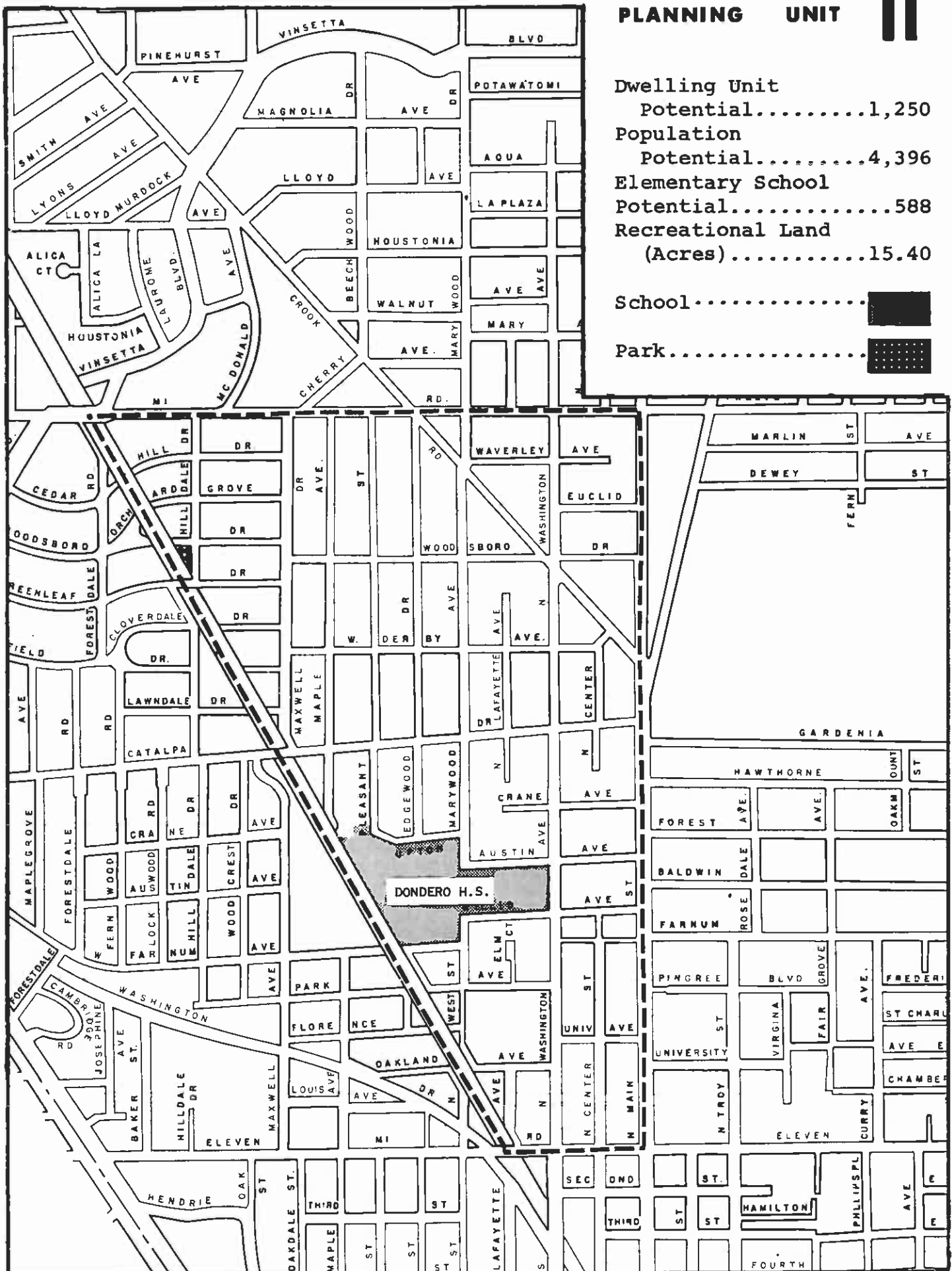
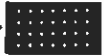
Recreational Land

(Acres).....15.40

School.....



Park.....



P L A N N I N G U N I T 11

DESCRIPTION: Planning unit eleven, one of the smaller units, contains 310.4 acres. It is bounded by Twelve Mile Road on the north, Main Street on the east, Eleven Mile Road on the south and the Grand Trunk right-of-way on the west.

DEVELOPMENT: A major portion of the frontage of the boundary streets is zoned for commercial purposes (a total of 29.1 acres within the planning unit).

There are 1,199 dwellings and available space for an additional 51 homes. If the full capacity is reached, approximately 4,396 persons, including 588 elementary school pupils may be expected to reside within the unit.

SCHOOL-PARK FACILITIES: The recreational facilities are not capable of serving the existing and estimated population. There is less than an acre of public park land within the planning unit. Dondero High School is the only public area serving the recreational requirements of the planning unit.

As noted previously the unit is served by Northwood and Longfellow Elementary Schools.

PLANNING UNIT 12

Dwelling Unit

Potential.....2,704

Population

Potential.....9,539

Elementary School

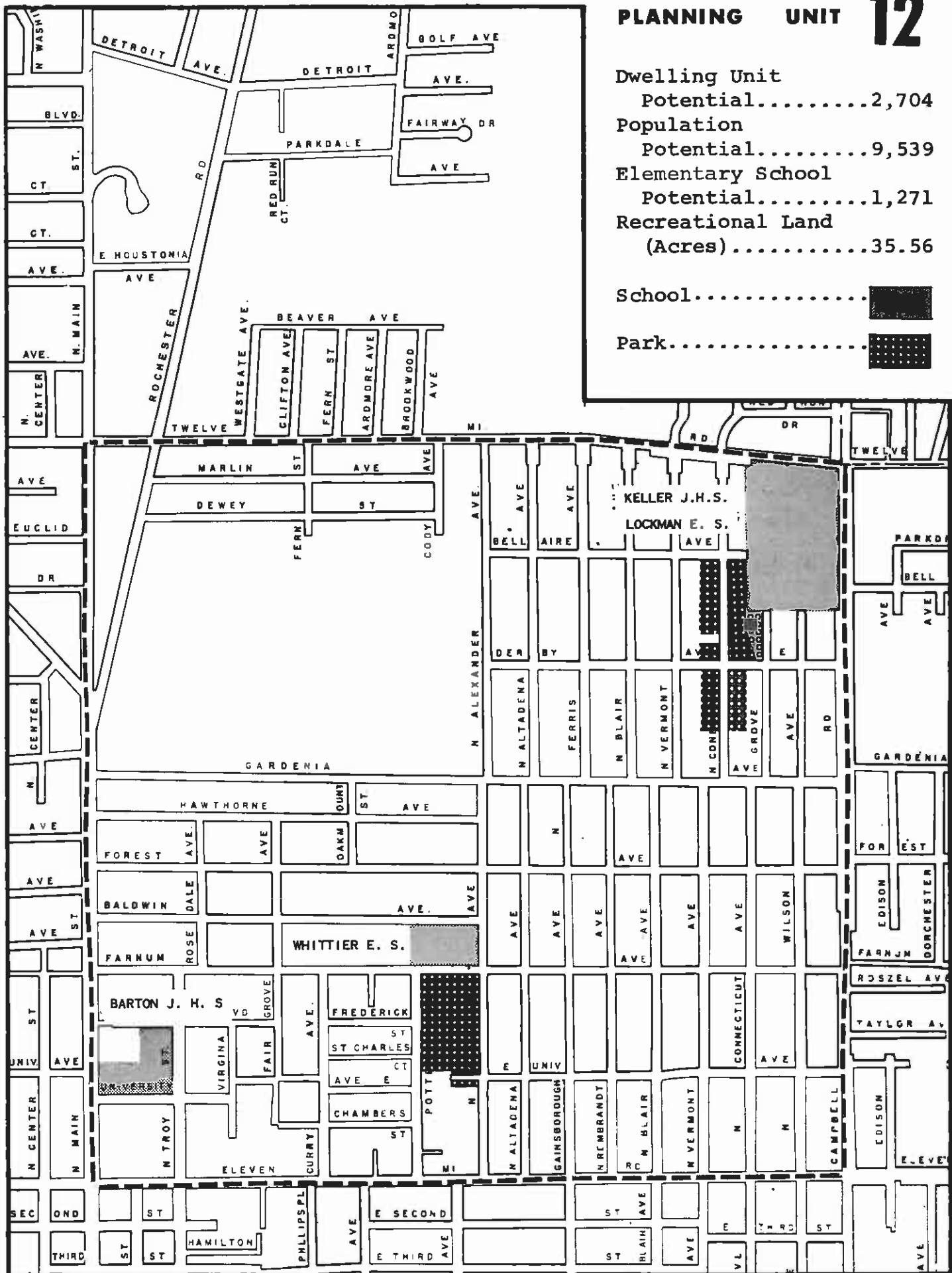
Potential.....1,271

Recreational Land

(Acres).....35.56

School.....

Park.....



P L A N N I N G U N I T 12

DESCRIPTION: Planning unit twelve, containing 653.9 acres, is bounded on the north by Twelve Mile Road, on the east by Campbell Road, on the south by Eleven Mile Road and on the west by Main Street.

DEVELOPMENT: Residential development in this unit is limited to some extent by the large amount of acreage devoted to non-residential uses. Approximately 35 acres are zoned for commercial purposes which are generally located on the Eleven Mile Road and Main Street frontage. The three cemeteries located within the City are all situated in this unit containing 101.87 acres.

The unit has the largest number of existing dwellings, as well as, the greatest holding capacity, consisting of 2,597 and 2,704 homes respectively. Its potential population is approximately 9,539 persons, including 1,271 K-6 pupils.

SCHOOL-PARK FACILITIES: Recreational needs are greater than normal in this unit due to the high density of residential development. The existing facilities do not compare favorably with population requirements, indicating a net need of 59.7 acres.

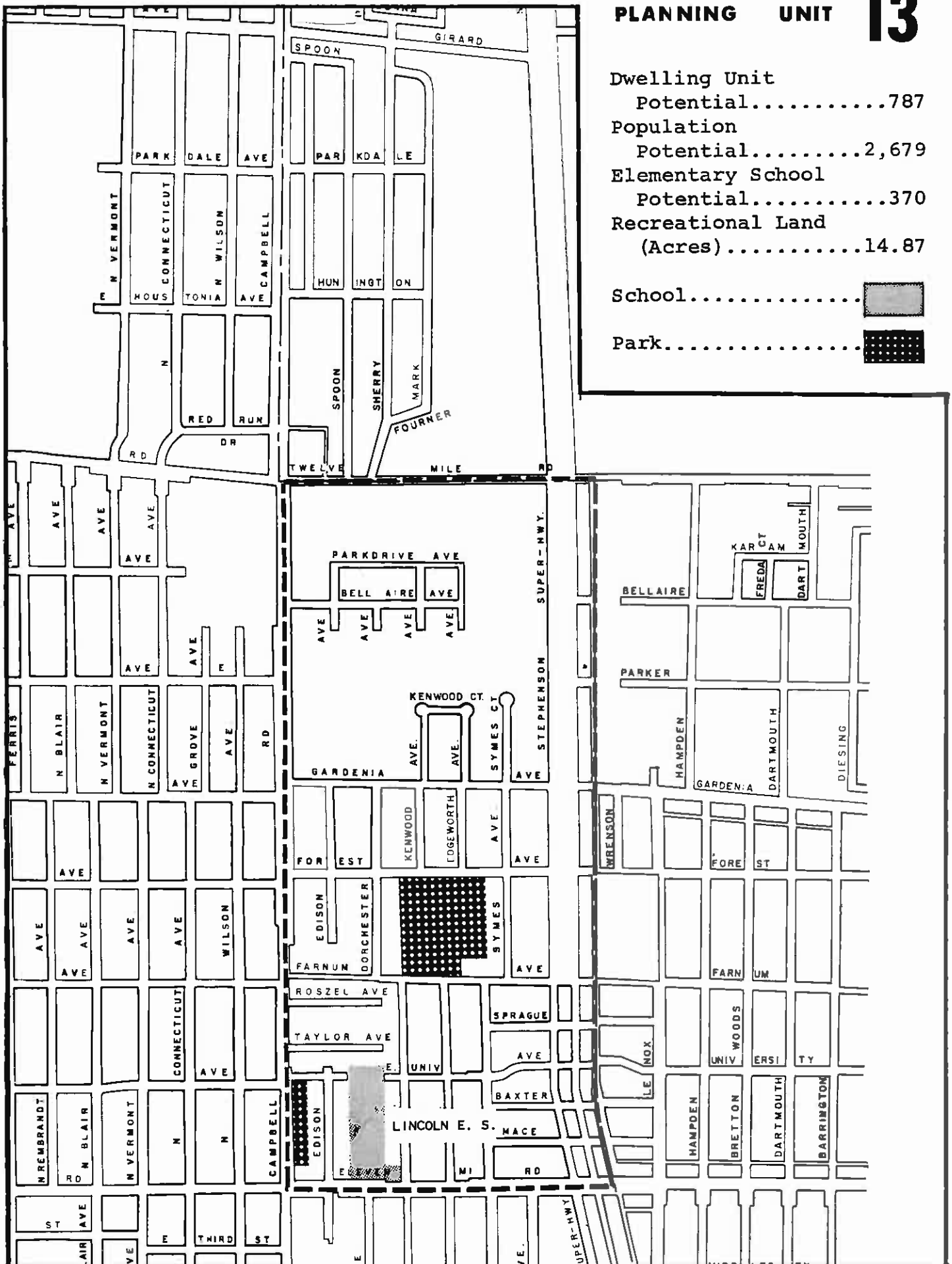
The unit is served by both the Lockman and Whittier Elementary Schools. The potential enrollment of Lockman cannot be calculated because it serves portions of Madison Heights which is outside the study area.

Based on the data collected, the Whittier School may expect approximately 850 pupils. This amounts to a small portion above the desired capacity.

Dwelling Unit
Potential.....787
Population
Potential.....2,679
Elementary School
Potential.....370
Recreational Land
(Acres).....14.87

School.....

Park.....



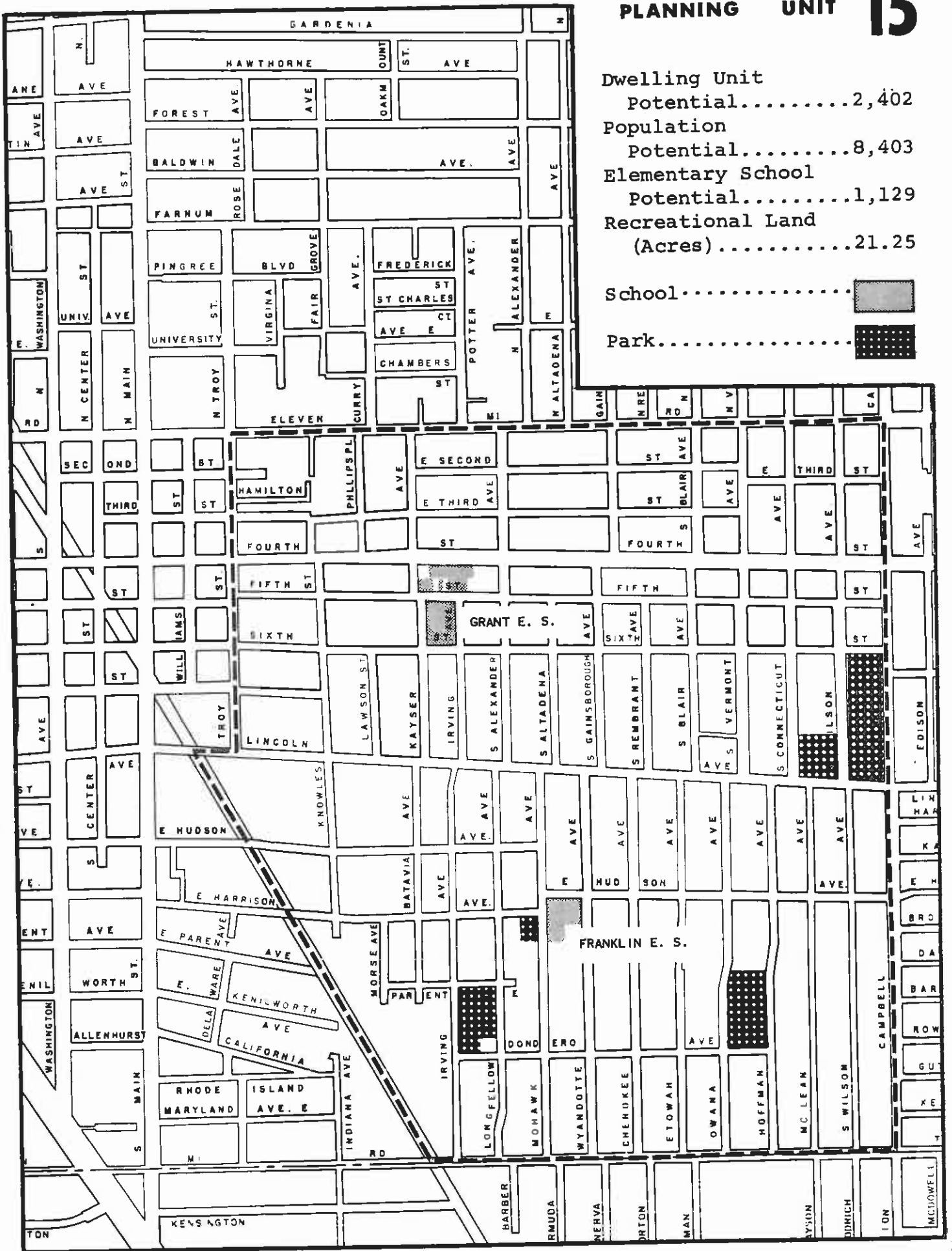
P L A N N I N G U N I T 13

DESCRIPTION: This unit lies east of Campbell Road and north of Eleven Mile Road. It is the smallest residential unit consisting of only 250.1 acres.

DEVELOPMENT: Development in this unit is limited to some extent by the proposed Chrysler Freeway and the 54.97 acres that are set aside for non-residential purposes (school-park 14.87 acres, Department of Public Works 13.80 acres, industrial 21.80 acres and commercial 4.50 acres). The holding capacity of the unit is 787 dwellings, housing approximately 2,679 persons and 370 elementary school children. It should be noted that those homes in the path of the proposed Chrysler Freeway were not included in the enumeration.

SCHOOL-PARK FACILITIES: Although there is an indicated recreational requirement of 11.8 acres, on the basis of size and holding capacity the existing facilities would appear to be adequate. In addition to the facilities in planning unit thirteen; the Lockman School site, located within planning unit twelve, is accessible to a major portion of the residents of the unit.

The Lincoln Elementary School serves a portion of this unit and planning unit fourteen; as well as, a small portion of Madison Heights located east of Stephenson Highway. Although the school building is adequate to meet the needs of the unit, the site is of inadequate size in terms of current standards.



Dwelling Unit

Potential.....2,402

Population

Potential.....8,403

Elementary School

Potential.....1,129

Recreational Land

(Acres).....21.25

School.....



Park.....



DESCRIPTION: This unit, containing 536.8 acres, is bounded by Eleven Mile Road on the north, Campbell Road on the east, and Ten Mile Road on the south. The Grand Trunk right-of-way and the Central Business District or Troy Street serves as the barrier to the west.

DEVELOPMENT: The planning unit contains a large amount of property zoned for commercial and industrial purposes (31.0 and 38.3 acres respectively). The holding capacity of this unit is 2,402 dwelling units. It should be pointed out that this capacity will be limited to some extent by a reduction of 60 homes due to the proposed east-west freeway. If the full capacity is reached, an estimated 8,403 persons and 1,129 K-6 pupils may be expected to reside in the planning unit.

SCHOOL-PARK FACILITIES: This unit has a net recreational need of 62.7 acres. This high recreational need reflects the high population density residing in the area and the lack of existing recreational facilities.

The expected K-6 enrollment is served by the grant and Franklin Elementary Schools. Although both school plants are capable of handling the potential enrollment, the school sites are small in terms of current site standards.

PLANNING UNIT

16

Dwelling Unit

Potential.....1,034

Population

Potential.....3,616

Elementary School

Potential.....486

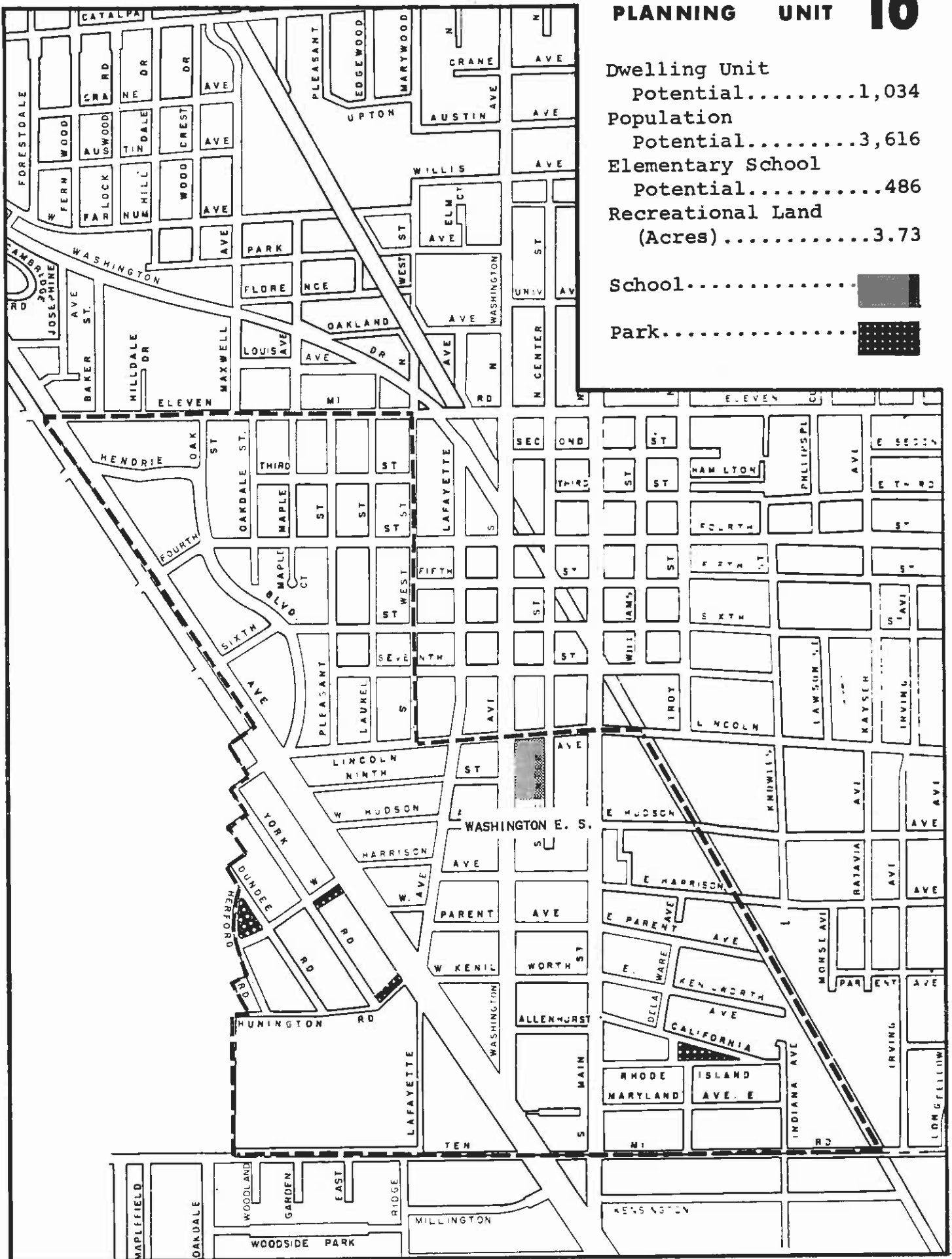
Recreational Land

(Acres).....3.73

School.....



Park.....



P L A N N I N G U N I T 16

DESCRIPTION: Planning unit sixteen, containing 365.4 acres, lies in the southwest corner of the City. It is bounded on the north by Eleven Mile Road, on the east by the Central Business District and the Grand Trunk right-of-way and on the south and west by the City Limits.

DEVELOPMENT: This unit contains 27.2 acres of industrial land and the largest amount of property (49.0 acres) zoned for commercial purposes. The unit will experience a net reduction of 197 dwellings in the future, due to the construction of the proposed Interstate Freeway (I-696) and the possible redevelopment of the industrial area bounded by the Grand Trunk, Ten Mile, Main, and Lincoln rights-of-way. If previous assumptions are correct, the holding capacity will be 1,034 dwelling units, housing an estimated 3,616 persons and 486 elementary school children.

SCHOOL-PARK FACILITIES: The recreation facilities, consisting of 3.73 acres, are totally inadequate. There are four park sites containing a total of 1.28 acres.

The Washington School attendance district does not coincide with the planning unit and, therefore, its enrollment could not be determined. It should be noted that the school site (2.45 acres) does not meet current standards.

[illegible]

Potential.....	134
Population	
Potential.....	469
Elementary School	
Potential.....	63
Recreational Land	
(Acres).....	0



C E N T R A L B U S I N E S S D I S T R I C T

DESCRIPTION: The Central Business District is bounded on the north by Eleven Mile Road, on the east by Troy Street, on the south by Lincoln Avenue and on the west by West Street.

DEVELOPMENT: This is a predominantly commercial area, containing 105.6 acres. There are 43.1 acres, not including areas set aside for public parking and municipal use, zoned for commercial purposes. There are 134 non-conforming dwelling units within the unit with a population of approximately 469 persons, including 63 elementary school pupils.

SCHOOL-PARK FACILITIES: There are no recreational or public school facilities within the business district.