Burton Township

Geauga County, Ohio

Land Use Plan

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CHAPTER I

INTRODUCTION

Purpose

The purpose of this plan is to provide a firm foundation for the zoning regulations of Burton Township. The plan represents a framework within which township officials may guide the future growth of the community in a balanced and orderly fashion.

Information contained in the plan was drawn from a variety of sources. For example, demographic material was obtained from the 1980 and 1990 Census reports. Opinions regarding land use and related matters were determined from the results of a township land use and zoning survey. Environmental data were gathered from The Soil Survey of Geauga County, Ohio (Ohio Department of Natural Resources and the United States Department of Agriculture, Soil Conservation Service, 1982).

A New Approach To Planning

Land use planning in many communities primarily consists of providing the necessary service infrastructure for the appropriate development of real property. Short- and long-range planning analyses are sometimes directed toward determining the level of services and capital improvements required in order to accommodate present and expected future growth. However, existing environmental restrictions on development activity are often given a low priority or are entirely disregarded.

In urbanized areas, the concept of planning for the most cost-effective delivery of services and capital improvements may be valid. However, in more semi-rural communities, such as Burton Township, the existing and potential impact of development on the environment is a significant planning issue. More specifically, the protection of environmental quality is particularly warranted where on-site septic systems and water wells are utilized. The possible adverse impacts of development on the environment may be minimized if the ability of the land to support it is carefully considered.

A recognized method for determining the possible impact of development on the environment is through a land capability analysis. A land capability analysis is the detailed assessment of the environment in terms of its ability to support various types and intensities of land use. Certain segments of a planning area may be more compatible with specific types of land uses than others. A basic element of this approach is to guide new growth into the areas where it can be most reasonably supported. The Burton Land Use Plan includes a land capability analysis of the township. A thorough examination of such items as soil types, slope, ground water availability, and environmentally sensitive areas has been made. Various types of land uses have been rated with respect to their potential impact.

Plan Content

Chapter II represents an overview of the background characteristics of the township. Chapter III contains a thorough examination of key environmental variables and a land capability analysis. Finally, Chapter IV includes the recommendations for the creation of various land use districts, which will ultimately form the basis for the township's zoning regulations and map.

CHAPTER II

BACKGROUND

Location

Burton Township is comprised of about 14,940 acres covering 23.3 square miles. It is located in the eastern tier of townships in Geauga County. Newbury Township borders it on the west, Middlefield Township to the east, Troy Township to the south and Claridon Township to the north.

Despite its semi-rural setting, Burton is relatively close to some large urban centers in northeast Ohio. Cleveland is approximately 40 miles to the northwest, Akron is about 45 miles to the southwest and the Warren-Youngstown area is located roughly 45 miles to the southeast.

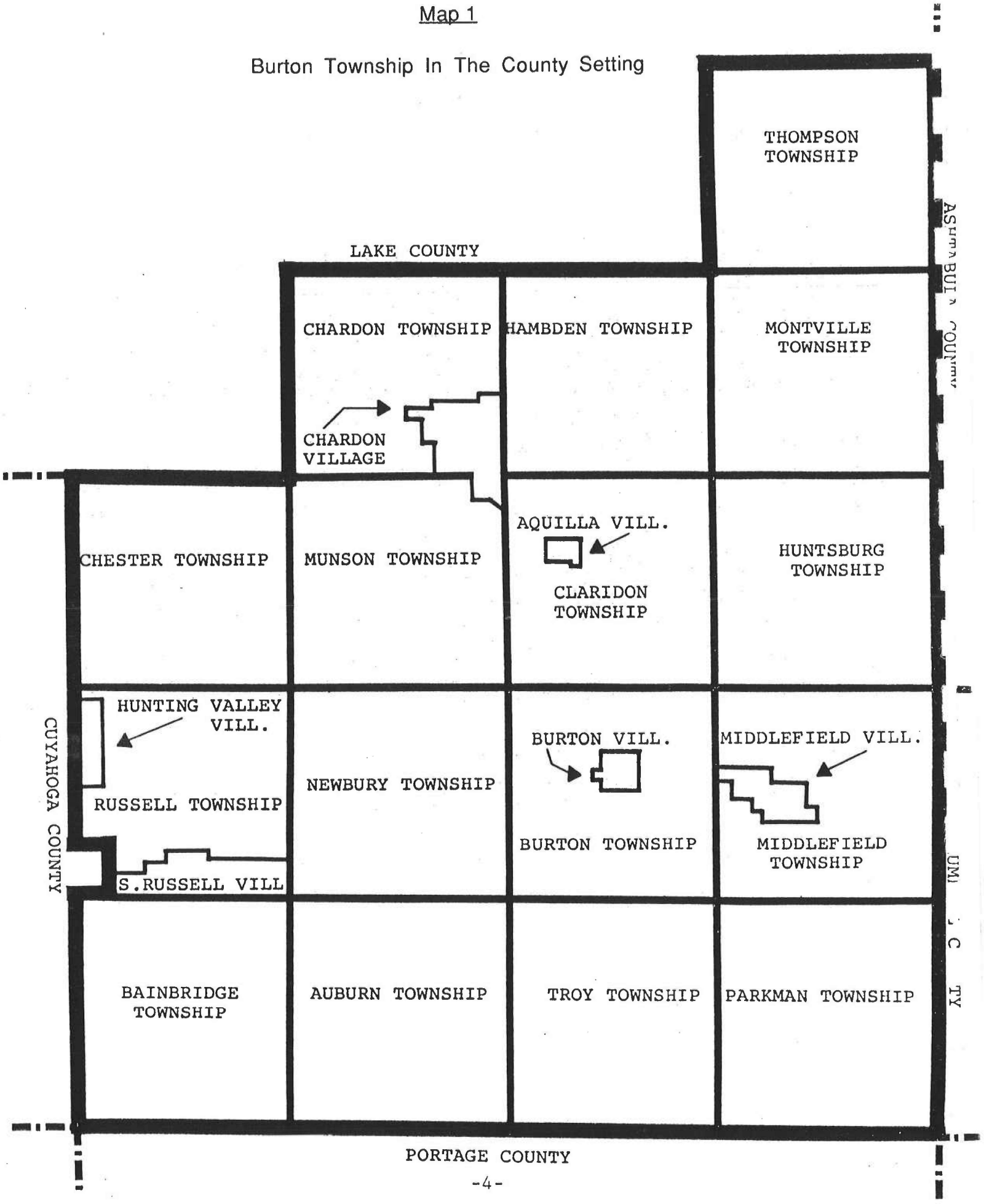
Climate

The climatic system which influences the weather in Burton is known as humid continental. Typically, this system is characterized by warm, humid summers and cold winters. Higher than average levels of precipitation, especially snowfall, are due to Burton's close proximity to Lake Erie. Air masses moving over the lake become saturated and often develop into snow squalls upon reaching the higher elevations. The Burton area receives about 42-48 inches of precipitation yearly.

The average annual temperature is 49.5 degrees fahrenheit. Temperatures range from an average yearly low of 35.5 degrees to an average high of 58.6 degrees. During the growing season the mean temperature is around 65 degrees fahrenheit. The beginning of the growing season is signaled by the last frost, which typically occurs at the end of April. The first frost, about the middle of October, marks the end of the growing season, which averages approximately 167 days.

Map 1

Burton Township In The County Setting



History

Burton Township was originally a part of the area known as the "Connecticut Western Reserve." The Colony of Connecticut, between the period of 1630 to 1662, claimed title to the land. On September 2, 1795, Connecticut sold 3,000,000 acres off of the easterly end of the Western Reserve to Joseph Howland, Oliver Phelps, Moses Cleveland and 45 other members of the Connecticut Land Company for $1,200,000. Joseph Howland and associates joined in a deed of trust on September 5, 1795, to John Caldwell, John Morgan, Jonathan Brace, and their heirs and assigns as trustees conveying to them the 3,000,000 acres with the power to survey, plat and sell the land. The officers of the land company decided on a method of subdividing their property in April, 1796. The adopted plan was to divide the region east of the Cuyahoga River into townships five miles square. Many of these townships were subsequently cut up into sections one mile square, while others were divided into tracts and each tract carved up into lots.

The roots of the history of Burton Township evolve from the present day square. For many years, there was no activity in the township other than agriculture. The first town hall was built in 1871 at the northeast corner of the square. In 1856, Colonel Henry A. Ford sold the southern part of his farm to the Geauga Agricultural Society for the fair grounds. The Baltimore and Ohio station was built in 1874 at Burton Station. The Burton and Mantua Hack Line ran daily passing through South Newbury, Auburn Corners, Mantua Corners, and to Mantua Station. In 1901, the Cleveland and Eastern Railroad was started and made regular trips to Cleveland. It was discontinued in 1925.

Transportation

Burton Township has a fairly extensive road system, which includes township, county, and state routes. According to the county engineer's office there are approximately 43.29 miles of roadway in the township. More specifically, there are 20.21 miles of township roads, 13.78 miles of county roads, and 9.3 miles of state highways (see table 1 and map 2).

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Table 1

State, County and Local Roads

Burton Township

Road Name	Classification	Type of Surface
S.R. 87 (Kinsman Road)	State	Hard
S.R. 168 (Tavern Road)	State	Hard
S.R. 700 (Claridon-Troy Road)	State	Hard
Aquilla Road	County	Hard
Berkshire Industrial Parkway	Township	Hard
Bigelow Road	Township	Gravel
Broadwood Drive	Township	Hard
Burton Heights Boulevard	Township	Hard
Burton-Windsor Road	County	Hard
Butternut Road	County	Hard
Chipmunk Lane	Township	Gravel
Colony Lane	Township	Gravel
Durkee Road	Township	Gravel
Enterprise Way	Township	Hard
Equestrian Drive	Township	Hard
Erwin Drive	Township	Hard
Fisher Road	Township	Hard
Forest Road	Township	Hard
Georgette Drive	Township	Hard
Georgia Road	Township	Hard
Gingerich Road	County	Hard
Hale Road	County	Hard
Hotchkiss Road	Township	Hard
Hubbard Road	Township	Hard
Jackson Road	Township	Hard
Jug Street	County	Hard
Lake Road	Township	Hard
Lakeview Drive	Township	Hard

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Table 1 Continued

Road Name	Classification	Type of Surface
Longwood Avenue	Township	Hard
Memorial Lane	Township	Gravel
Osmond Road	Township	Hard/Gravel
Paulette Drive	Township	Hard
Peckham Road	Township	Hard
Pond Road	Township	Gravel
Rapids Road	County	Hard
Rider Road	Township	Hard/Gravel
Roselawn Drive	Township	Hard
Shedd Road	Township	Gravel
Snow Road	Township	Hard
Stanley Drive	Township	Hard
Station Road	Township	Gravel
Taylor Wells Road	County	Hard
White Road	Township	Hard

Source: Geauga County Highway Map: 1990
County Plat Records

Note: Includes Dedicated Roads Only

The only available public transportation system in the township is offered by the Geauga County Transit Program. Service is provided on a demand-responsive basis.

The nearest airport open to the public is the Geauga County Airport located in Middlefield Township. There are no active railroad lines in the township. Consequently, all freight must be handled by truck.

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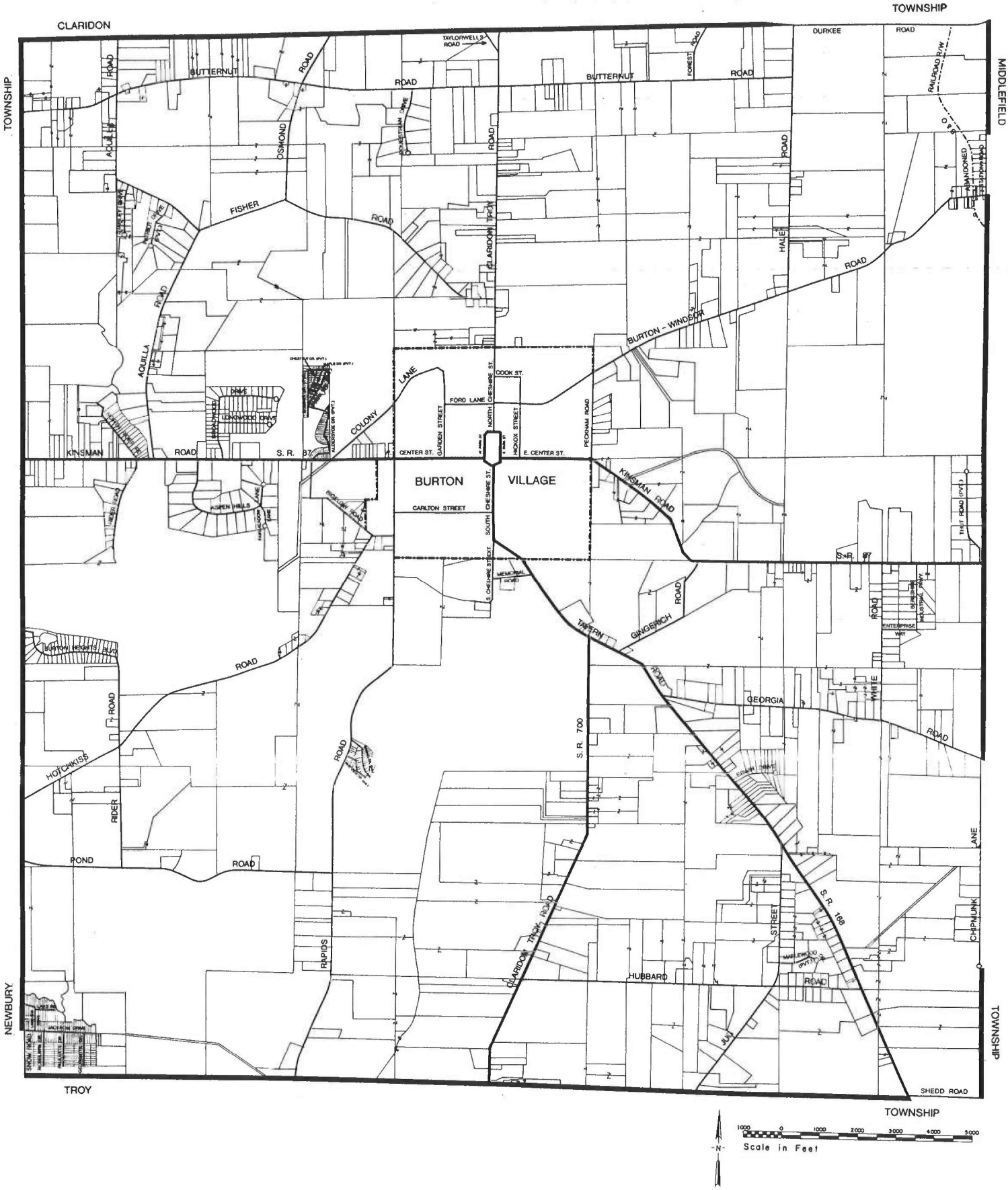
Map 2

Road Network And Property Lines



Traffic Volume

In selected years, traffic counts were taken by the county engineer's office and the Ohio Department of Transportation at various points throughout the township (see maps 3, 4, and 5). The figures shown on the maps represent the number of vehicles which passed the counting points within a 24 hour period.

A review of the counts, where comparisons can be made, reveals that in most cases overall traffic volume has increased during the past several years. This trend is expected to continue in the future (see map 6).

Public Services

Fire protection for the township is provided by the Burton Volunteer Fire Department. The department's membership as of 1991 numbered 40 fire persons, 15 of whom are Registered Emergency Medical Technicians (EMT's). There are two rescue squads. The fire equipment is located in the firehouse on Spring Street in Burton Village. The equipment includes four pumpers, one tanker, and one grass fire unit. The department's Ohio inspection rating is eight.

Police protection is the joint responsibility of the Ohio State Highway Patrol and the Geauga County Sheriff's Department. The Highway Patrol is primarily concerned with traffic safety on the state routes. The Sheriff's Department is responsible for law enforcement throughout the township.

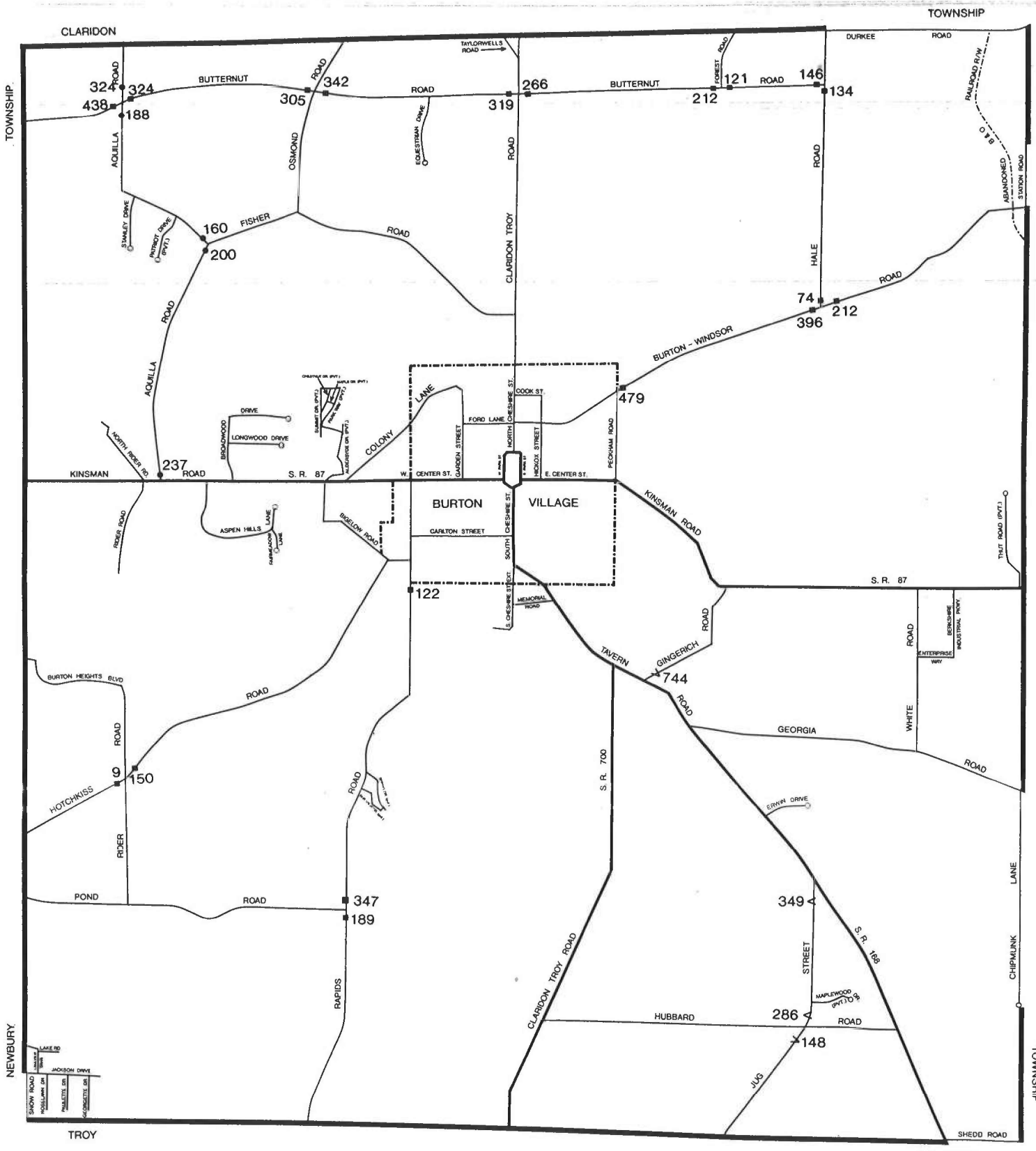
The township's roads and properties are taken care of by two part-time employees. Snow removal and other road maintenance projects are handled by a private firm which has a contract with the township trustees.

Garbage disposal service is offered by privately owned and operated firms.

There are physicians' and dentists' offices located in Burton and Middlefield Villages. Hospital care is provided by the Geauga Hospital in Claridon Township.

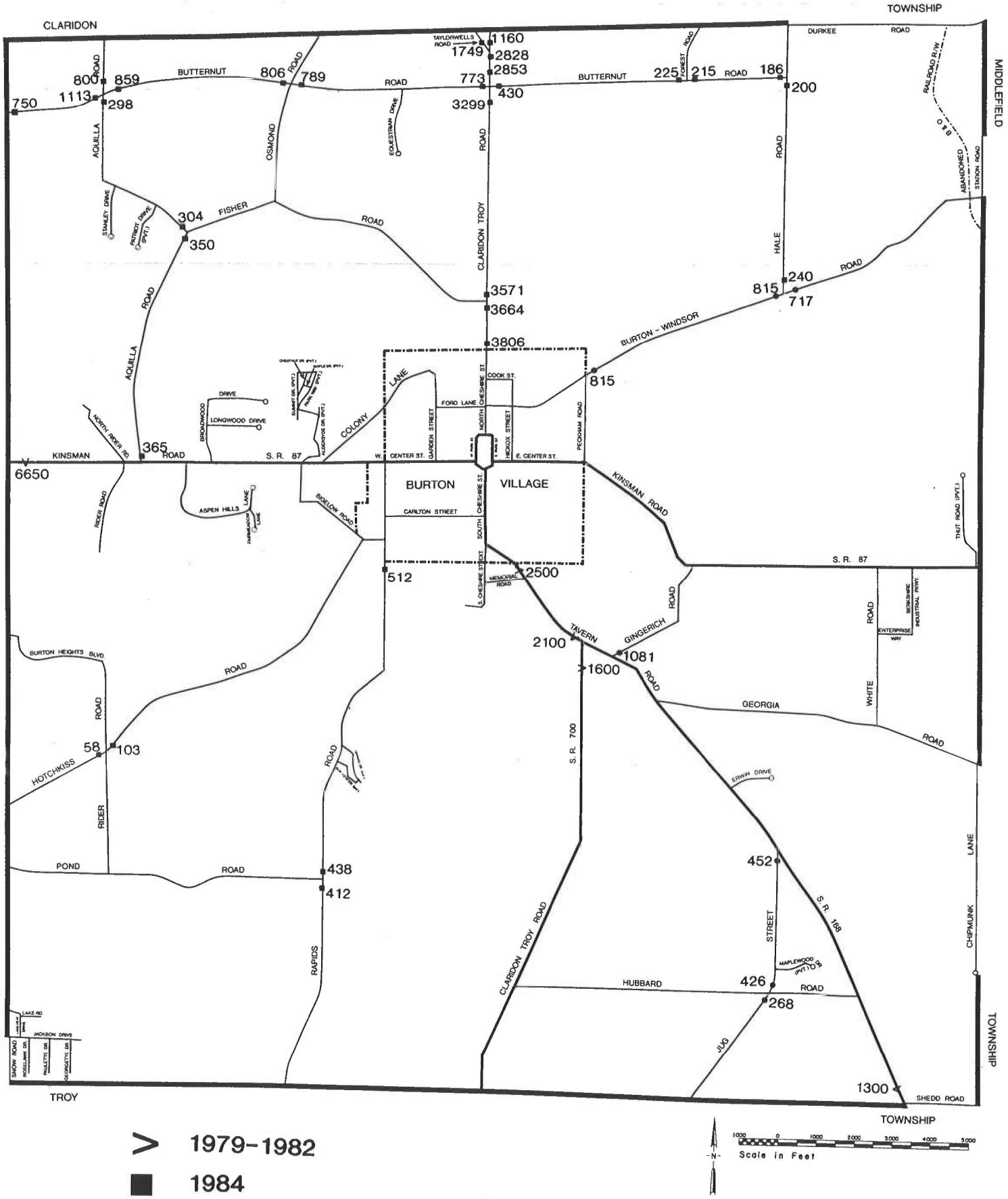
Map 3

Traffic Counts: 1973-1975 And 1977



Map 4

Traffic Counts: 1979-1982, 1984 And 1985



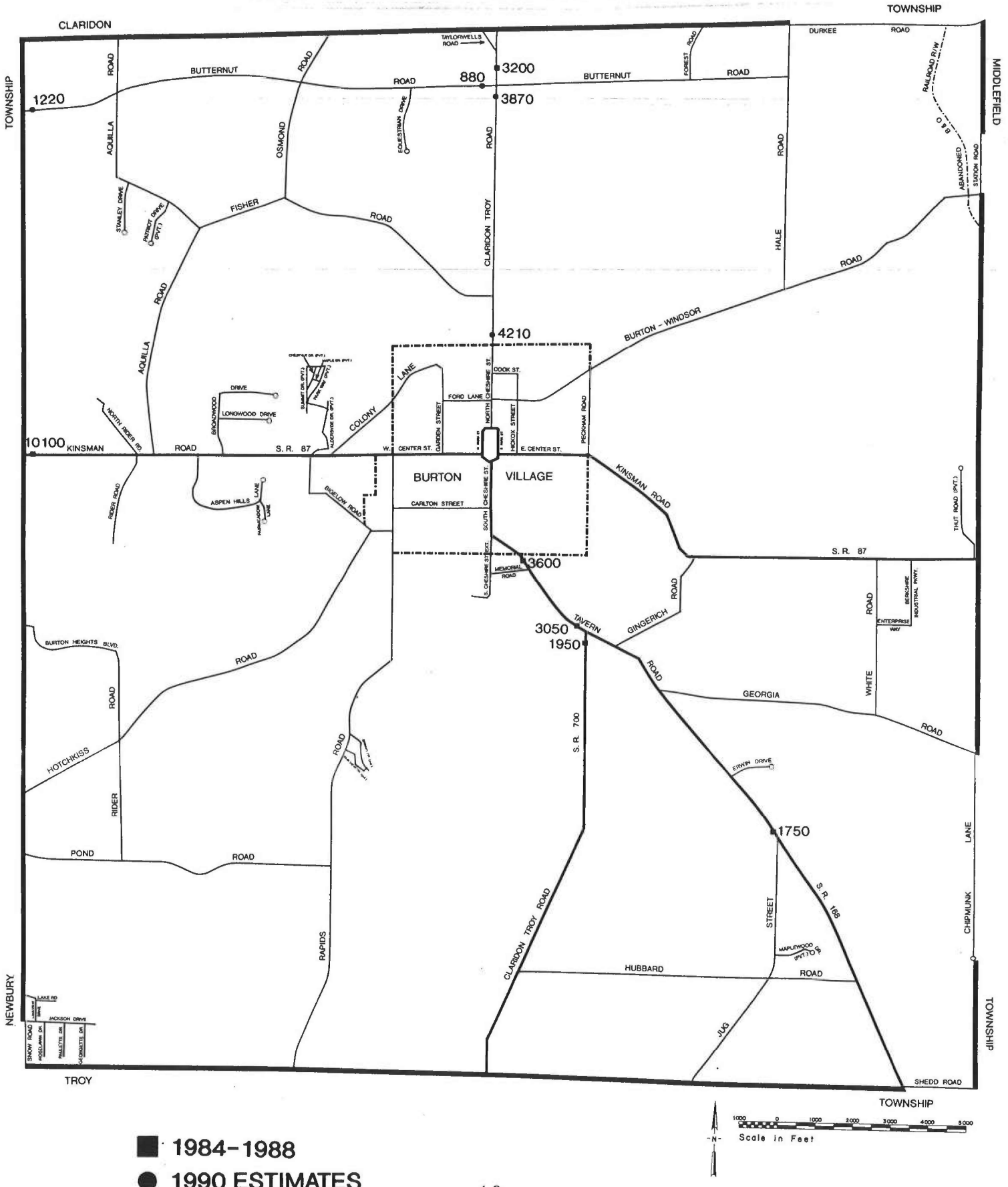
> 1979-1982

■ 1984

● 1985

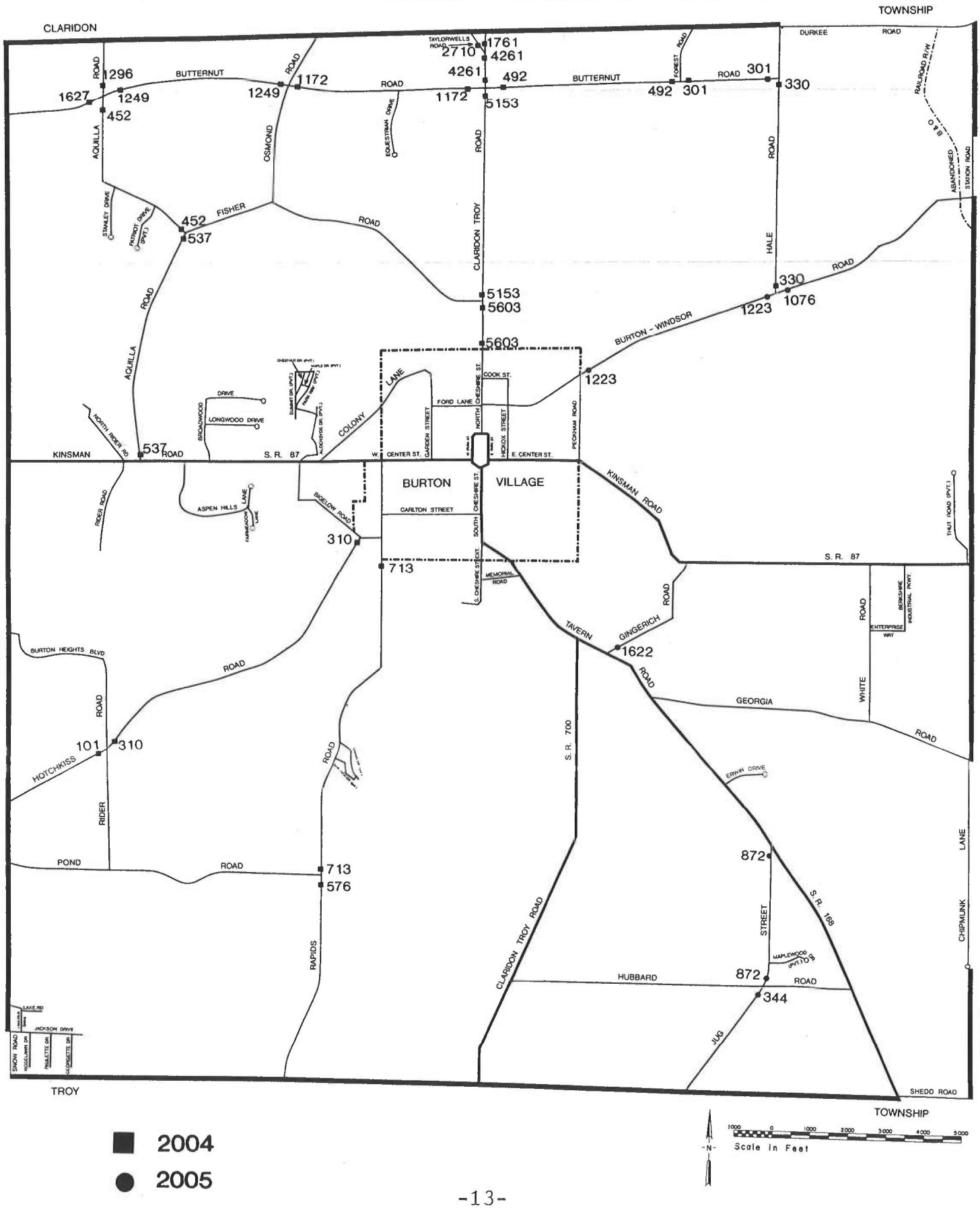
Map 5

Traffic Counts: 1984-1988 And 1990 Estimates



Map 6

Traffic Counts: Projections To Years 2004 And 2005



Utilities

Burton residents and businesses receive electrical power from the Illuminating Company. Telephone service is provided by Ohio Bell, with the exception of a very small area in the south central portion of the township which is served by the Alltel Telephone Company. There is an eight inch, 200 psi East Ohio Gas line which runs along the north side of State Route 87. There are some smaller transmission lines which service the community as well.

The large portion of the sewage treatment needs are handled by individual on-site septic systems. These systems are privately maintained. Burton Village owns and operates a sewage treatment plant which serves the Village residents and a few establishments outside of the Village--including the fairgrounds and the branch of Kent State University. Separate sewage treatment facilities exist for the Burton Lakes development, Deer Lake Mobile Home Park, Broadwood Hill Subdivision, and Berkshire Industrial Park.

Solid waste (garbage) disposal is offered by privately owned and operated firms. Water is generally obtained through private on-site wells.

Education

Burton Township belongs to the Berkshire Local School District. The Berkshire School District consists of Troy Township, Burton Township, Burton Village, and a portion of Claridon Township. The majority of the elementary students (grades K-6) from the township attend Burton Elementary School located in Burton Village off Carlton Street. The 1991-92 enrollment figures indicate that 349 students attend Burton Elementary. The elementary school staff includes one principal and twenty-one teachers. Other specialized personnel have been retained by the Berkshire School District in the fields of special education, learning disability, library, speech, hearing therapy, and guidance counseling.

Berkshire High School, located in Burton Village, serves the entire district. The 1991-92 school enrollment for grades 7-12 totals 615 students. The high school staff includes one principal, one assistant principal, 38 teachers, and the other specialized personnel as previously mentioned.

Other schools in the community include Geauga Christian School (which is private). It is located on White Road just south of S.R. 87 and has classes for grades K-8. The Amish also own and operate a private school in the township. The school building is situated on the north side of Burton Windsor Road midway between Hale and Peckham Roads.

A branch of Kent State University is located in the township on the east side of Claridon-Troy Road just north of the Fairgrounds. Hiram College, a four year liberal arts school, is located nearby in Portage County.

The nearest public library is on the square in Burton Village. Branches of the Geauga County Public Library system are located in Bainbridge Township on East Washington Street (U.S. 422) and in Middlefield Village on East High Street.

Recreation

Outdoor recreational facilities in the township include Burton Wetlands which is located at the intersection of Pond and Rapids Roads. The park area is owned and operated by the Geauga County Park District and contains approximately 145 acres. At this time the land is not open to the public, however, nature walks are conducted by the Park District personnel.

The board of township trustees is considering the establishment of a park on land behind the township administration building located on Rapids Road.

Other outdoor recreation is generally limited to several privately held lakes which may offer fishing, camping, and picnicking. There are three separate golf courses in the community as well.

Existing Land Use

An existing land use map of the township was prepared using aerial photography and verified through a windshield survey conducted in 1991 (see table 2 and map 7). Table 2 provides a detailed breakdown of the various types of existing land uses found in the community and the percentage of land area that such uses occupy.

The highest percentage of land area in the township is vacant (52.14%), followed by land held by the City of Akron (18.96%), agricultural (15.6%), and residential (6.74%).

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Table 2

Existing Land Use

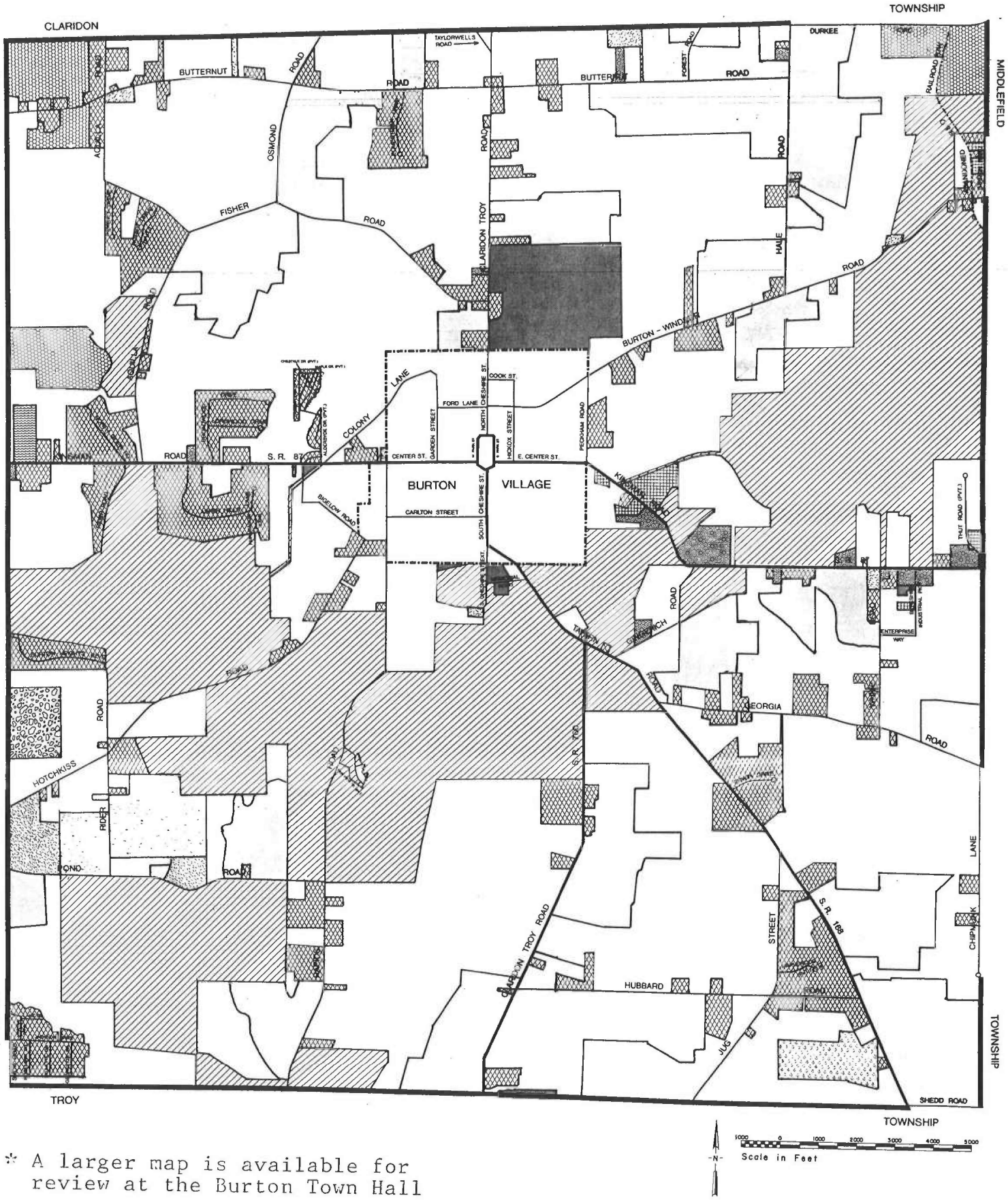
Burton Township

Land Use	Map Symbol	Acreage	Percent of Twp. Area
Residential		1,006.44	6.74
Commercial		67.00	0.45
Industrial		57.80	0.39
Agricultural		2,329.85	15.60
Akron Land		2,832.63	18.96
Public		202.28	1.34
Quasi-Public		87.44	0.59
Public Recreation		195.95	1.31
Private Recreation		59.68	0.40
Golf Courses		235.88	1.58
Mobile Home Park		19.40	0.13
Sand and Gravel Mining Operations		55.21	0.37
Vacant		7,790.44	52.14
Total		14,940.00	100.00

Source: Aerial Photograph, Windshield Survey (1991)

Map 7

Generalized Existing Land Use *



* A larger map is available for review at the Burton Town Hall

Existing Zoning

As of 1991, the majority (70.9%) of the township was zoned for single family residential use. The R-3 district provides for single family and two family residential use (4.80%). The flood plain district occupies 16.9% of the township, land zoned industrial (I-1 and I-2) occupies 5.8%, and the R-4 district occupies 1.6% of the township's land. These are the only zoning classifications shown on the township zoning map.

Table 3

Existing Zoning

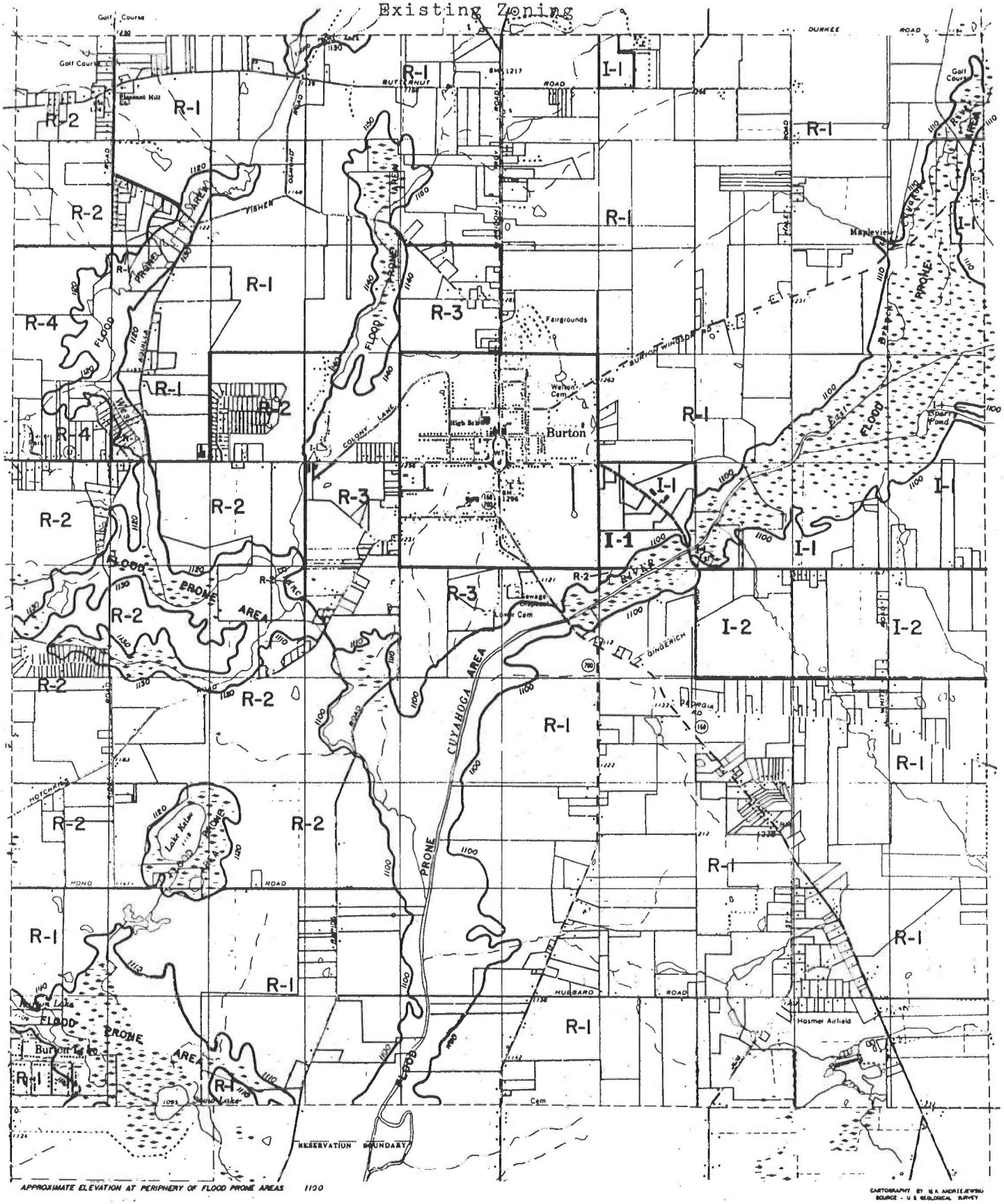
Burton Township

Zoning Classification	Land Area (acres)	Percent
R-1	8,157.50	54.60
R-2	2,431.40	16.30
R-3	724.40	4.80
R-4	235.50	1.60
I-1	417.80	2.80
I-2	455.30	3.00
Flood Prone	2,518.10	16.90
Total	14,940.00	100.00

Source: Burton Township Zoning Map (1991), County Tax Maps (1990)

Map 8

Existing Zoning



BURTON TOWNSHIP

There are four residential zoning districts in the community: R-1, R-2, R-3, and R-4. In the R-1 zone the minimum lot size is 5 acres, in the R-2 zone the minimum lot size is 3 acres, and in the R-3 zone the minimum lot size is 1 1/2 acres. The R-4 zone permits mobile homes on small lots within trailer parks.

The industrial zoned areas within the township are broken out into I-1 and I-2 districts. These areas are situated in the eastern half of the township both north and south along S.R. 87. Other areas zoned industrial are located at the township's eastern border along Station Road and extending south of Burton-Windsor Road, on the north side of Butternut Road east of Claridon-Troy Road, and on the south side of S.R. 87 just west of Colony Lane. In addition to manufacturing, commercial or business uses are permitted in the industrial zone.

In the Flood Prone District, no residential dwellings are permitted.

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CHAPTER III

THE PLANNING PROCESS

Introduction

The primary emphasis of this chapter will be on developing the basic components of the land use plan. These include a demographic profile of the township, a review of the questionnaire results, an overview of key environmental variables, and the development of a land capability analysis.

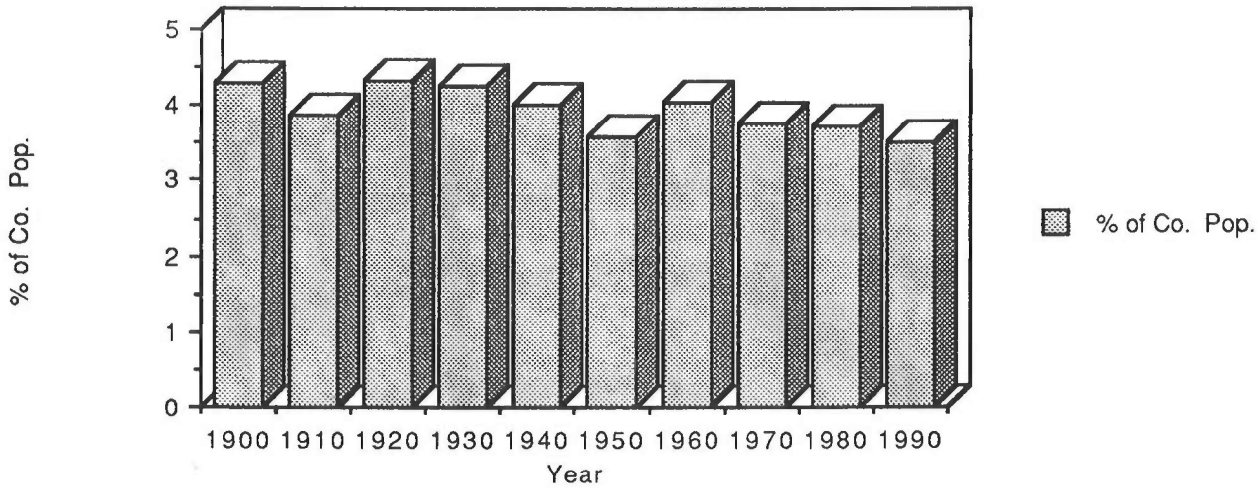
Demographic Profile

Demographic information can provide essential insights into the composition of a community. As a result, it is a basic element of land use planning and decision-making. The following is an analysis of relevant 1980 and 1990 Census data.

Over the years, population growth in Burton Township was not dramatic until around 1960. As reflected in the following table, it has increased from 634 persons in 1900 to 2,838 in 1990. However, the percentage share of the township's population in relationship to the entire county has decreased, as evidenced by figure 1 below.

Figure 1

Burton Township's Share of County Population: 1900-1990



Source: U. S. Bureau of the Census

Table 4

Population Growth: 1900 - 1990
Burton Township and Geauga County

Year	County Pop.	% of County Pop.	Burton Twp. Pop.
1900	14,744	4.30	634
1910	14,670	3.86	566
1920	15,036	4.34	652
1930	15,414	4.26	656
1940	19,430	4.02	782
1950	26,646	3.58	954
1960	47,573	4.04	1,920
1970	62,977	3.76	2,366
1980	74,474	3.73	2,779
1990	81,129	3.50	2,838

Source: U.S. Bureau of Census

It should be noted that all population projections, to some degree, are based upon past trends and expected future events. There are certain risks involved with projections for small geographic areas or political subdivisions due to the possibility of the variables analyzed being more susceptible to greater fluctuation. In addition, as the time span for the projections increases from the base year, accuracy often decreases. As a result, although projections are a useful element in the plan, precautions must be taken when assessing their validity.

Table 5

Population Projections: 1980-2005
Burton Township and Geauga County

Year	Burton Township	Geauga County
1980	2,779	74,474
1990	2,838	81,129
1995	3,215	89,976
2000	3,317	94,100
2005	3,380	97,235

Source: Northeast Ohio Areawide Coordinating Agency (Township) and Ohio Data Users Center (County)

Note: 1980 and 1990 reflect Census counts. 1995-2005 are projections.

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The following tables (6 and 7) and figures (2 and 3) reflect the age distribution of residents in Burton Township and Geauga County in 1980 and 1990.

Table 6

Age Distribution: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
Ages	Persons	%	Persons	%
Under 5	245	8.8	5,701	7.7
5-14	557	20.1	14,041	18.9
15-24	448	16.1	12,410	16.7
25-34	441	15.9	11,091	14.9
35-44	402	14.5	10,583	14.2
45-54	268	9.6	8,298	11.1
55-64	231	8.3	6,768	9.0
65 & over	187	6.7	5,582	7.5
Total	2,779	100.0	74,474	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 7

Age Distribution: 1990
Burton Township and Geauga County

	Burton Township		Geauga County	
Ages	Persons	%	Persons	%
Under 5	252	8.9	6,373	7.9
5-14	489	17.2	13,081	16.1
15-24	393	13.9	10,472	12.9
25-34	440	15.5	11,304	13.9
35-44	446	15.7	13,746	16.9
45-54	344	12.1	10,304	12.7
55-64	215	7.6	7,220	9.0
65 & over	259	9.1	8,629	10.6
Total	2,838	100.0	81,129	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

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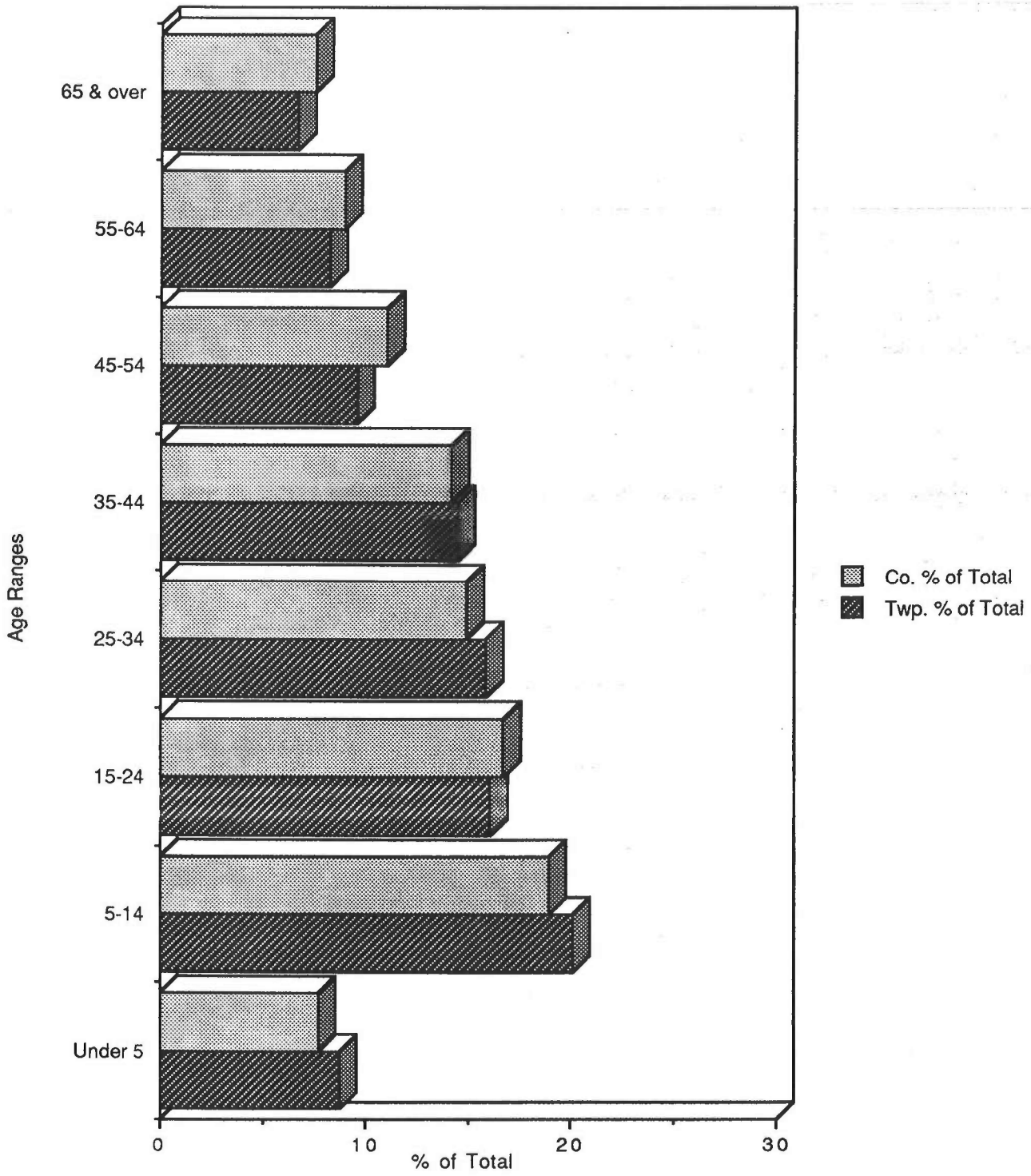
Figure 2

Burton Township and Geauga County

Age Distribution: 1980

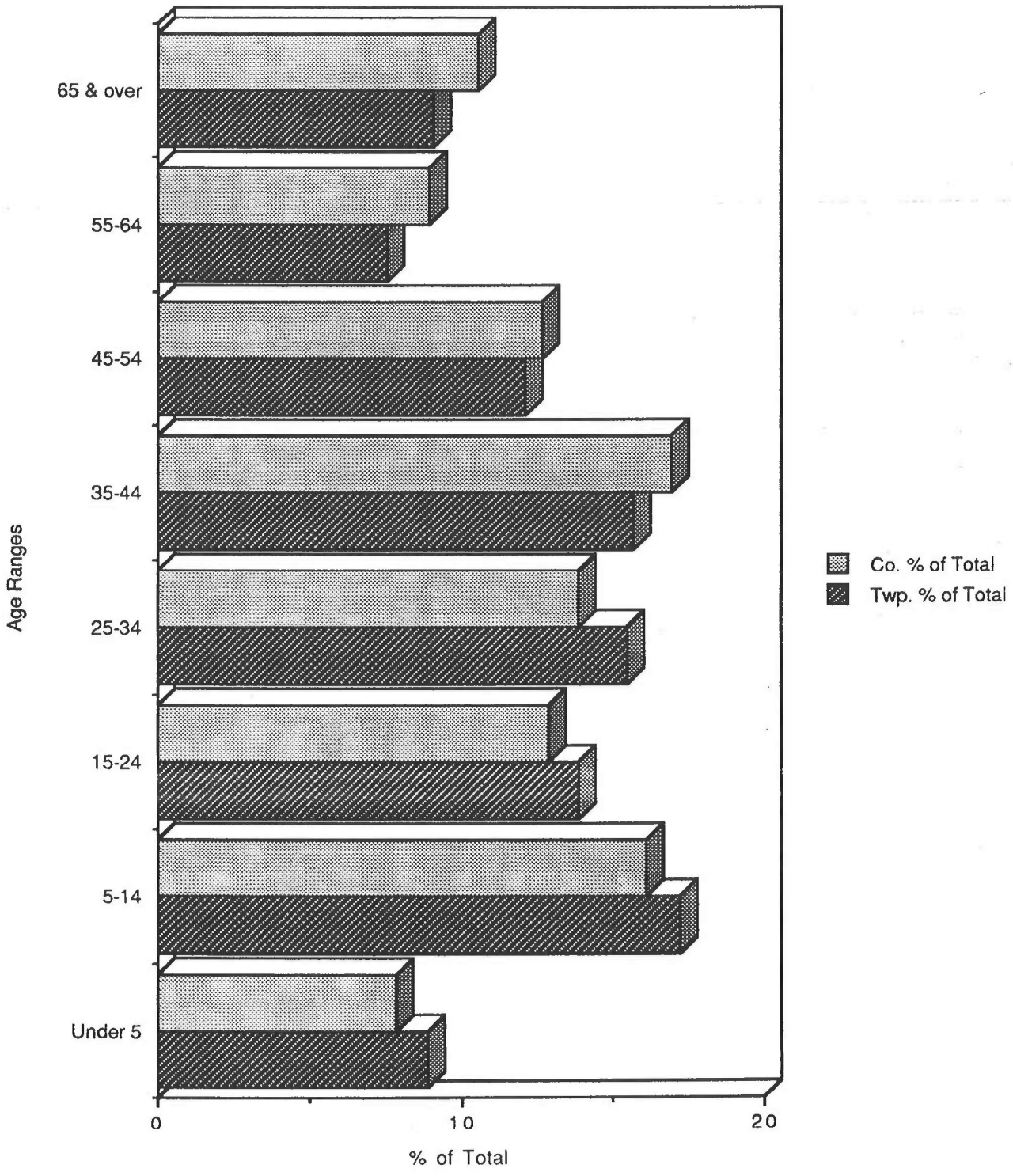


Source: 1980 Census of Population & Housing, (Summary Tape File STF3A)
U. S. Bureau of Census

Figure 3

Burton Township and Geauga County

Age Distribution: 1990



Source: 1990 Census of Population & Housing, Profile Report, (Summary Tape File 1A), U. S. Bureau of Census

The following tables (8-11) reflect the gender by age distribution of the residents in Burton Township and Geauga County in 1980 and 1990.

Table 8

Gender By Age: 1980
Burton Township

Ages	Males	%	Females	%
Under 5	130	9.2	115	8.4
5-14	277	19.6	280	20.5
15-24	248	17.5	200	14.7
25-34	217	15.3	224	16.4
35-44	205	14.5	197	14.5
45-54	138	9.8	130	9.5
55-64	113	7.9	118	8.7
65 & over	88	6.2	99	7.3
Total	1,416	100.0	1,363	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 9

Gender By Age: 1980
Geauga County

Ages	Males	%	Females	%
Under 5	2,913	7.9	2,788	7.5
5-14	7,224	19.5	6,817	18.2
15-24	6,380	17.2	6,030	16.1
25-34	5,399	14.6	5,692	15.2
35-44	5,252	14.1	5,331	14.3
45-54	4,137	11.2	4,161	11.1
55-64	3,384	9.1	3,384	9.0
65 & over	2,375	6.4	3,207	8.6
Total	37,064	100.0	37,410	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

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Table 10

Gender By Age: 1990
Burton Township

Ages	Males	%	Females	%
Under 5	124	8.5	128	9.3
5-14	273	18.7	216	15.7
15-24	215	14.7	178	12.9
25-34	223	15.3	217	15.8
35-44	230	15.8	216	15.7
45-54	170	11.6	174	12.6
55-64	116	7.9	99	7.2
65 & over	110	7.5	149	10.8
Total	1,461	100.0	1,377	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 11

Gender By Age: 1990
Geauga County

Ages	Males	%	Females	%
Under 5	3,245	8.1	3,128	7.6
5-14	6,713	16.7	6,368	15.5
15-24	5,493	13.7	4,979	12.2
25-34	5,432	13.5	5,872	14.3
35-44	6,808	17.0	6,938	16.9
45-54	5,159	12.9	5,145	12.6
55-64	3,604	8.9	3,616	8.8
65 & over	3,677	9.2	4,952	12.1
Total	40,131	100.0	40,998	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

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The results of the 1980 Census revealed that the majority of Burton Township residents had moderate incomes. Over half of the households in the township earned less than $25,000 annually. The remaining households had an annual income of greater than $25,000. The information pertaining to household income is shown in more detail in table 12.

Table 12

Income Distribution: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
Income	Households	%	Households	%
Under $5,000	46	5.5	1,270	5.6
$5,000-7,499	29	3.5	883	3.9
$7,500-9,999	55	6.6	1,058	4.6
$10,000-14,999	62	7.5	2,328	10.2
$15,000-19,999	148	17.8	3,036	13.3
$20,000-24,999	103	12.4	3,247	14.2
$25,000-34,999	233	28.1	5,313	23.2
$35,000-49,999	117	14.1	3,647	15.9
Over $50,000	37	4.5	2,090	9.1
Total	830	100.0	22,872	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

The highest percentage (25.3%) of wage earners in the township, according to the 1980 Census, were classified as managerial and professional (see table 13). This was followed by precision, production, craft and repair (23.6%) and operators, fabricators, and laborers (15.9%). Table 14 reflects the breakdown of occupations on the county level from the 1980 Census. Sales and managerial/professional occupations were the most common for the county as a whole. Table 15 reflects employment projections by industry for the county. Such projections are unavailable on the township level.

Table 13

Occupations of Burton Township Residents: 1980

Occupation	Number	% of Township Residents
Managerial & professional	338	25.3
Executive, administrative	213	
Professional speciality	125	
Technical, sales, & support	201	15.0
Technicians and related support	30	
Sales Occupations	41	
Administrative support, clerical	130	
Service	170	12.7
Private household	6	
Protective service	19	
Service,ex. protective & household	145	
Farming, forestry, fishing	100	7.5
Precision, production,craft and repair	315	23.6

Table 13 continued.....

Table 13 Continued

Occupation	Number	% of Twp. Residents
Operators, fabricators, laborers	213	15.9
Machine operators, inspectors	90	
Transpor. and material moving	54	
Handlers, equipment cleaners, Helpers and laborers	69	
Total	1,337	100.0
Manufacturing	437	61.0
Wholesale and retail trade	187	26.1
Professional & related services	92	12.9
Total	716	100.0

Source: 1980 Census of Population and Housing, Census Tracts, Cleveland, Ohio SMSA, (Summary Tape File STF3A). Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 14

Occupations of Geauga County Residents: 1980

Occupation	Number	% of Co. Residents
Managerial & professional	8,848	26.3
Executive, administrative	4,441	
Professional specialty	4,407	
Technical, sales, & support	9,095	27.1
Technicians & related support	944	
Sales occupations	3,463	
Administrative support, clerical	4,688	
Service	3,332	9.9
Private household	202	
Protective service	393	
Service, except protective & household	2,737	
Farming, forestry, and fishing	878	2.6
Precision, production , craft, & repair	5,634	16.8
Operators, fabricators, and laborers	5,812	17.3
Machine operators, assemblers, & inspectors	3,159	
Transportation & material moving	1,436	
Handlers, equipment cleaners, helpers, & laborers	1,217	
Total	33,599	100.0

Table 14 continued.....

Table 14 Continued

Occupation	Number	% of Co. Residents
Manufacturing	11,191	47.0
Wholesale and retail trade	6,293	26.5
Professional & related services	6,305	26.5
Total	23,789	100.0

Source: 1980 Census of Population and Housing, Census Tracts, Cleveland, Ohio SMSA, (Summary Tape File STF3A). Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 15

Employment Projections: 1988 - 2020
(In Thousands)
Geauga County

	1988	1990	1995	2000	2005	2010	2015	2020
Mining	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Construction	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6
Manufacturing	7.9	8.0	8.8	9.6	10.2	10.8	11.1	11.4
Trans. & Pub. Utilities	0.9	1.0	1.1	1.3	1.4	1.6	1.7	1.7
Wholesale Trade	1.0	1.2	1.5	1.8	2.1	2.4	2.7	2.9
Retail Trade	3.6	4.0	4.7	5.4	6.0	6.6	7.1	7.7
Finance, Ins., Real Estate	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0
Services	4.6	5.3	6.4	7.5	8.6	9.6	10.4	11.2
Government	3.0	3.6	4.1	4.7	5.2	5.7	6.1	6.5
Total	22.6	24.8	28.5	32.3	35.7	39.1	41.7	44.1

Source: Northeast Ohio Areawide Coordinating Agency, 1991.

Census data indicate that home ownership is a strong element in the community. According to both the 1980 and 1990 Census, over 84 percent of the housing units in Burton were owner occupied (see tables 16 and 17 and figures 4 and 5), which is slightly higher than the figure for the county. The number of rental units in the township increased by almost 2 percent between 1980 and 1990. Vacancy rates are extremely low on the both the county and township level.

Table 16

Housing Units By Occupancy: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
	Units	%	Units	%
Owner Occupied	723	84.8	18,315	80.1
Renter Occupied	101	11.8	3,438	15.0
Vacant	29	3.4	1,127	4.9
Total	853	100.0	22,880	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 17

Housing Units By Occupancy: 1990
Burton Township and Geauga County

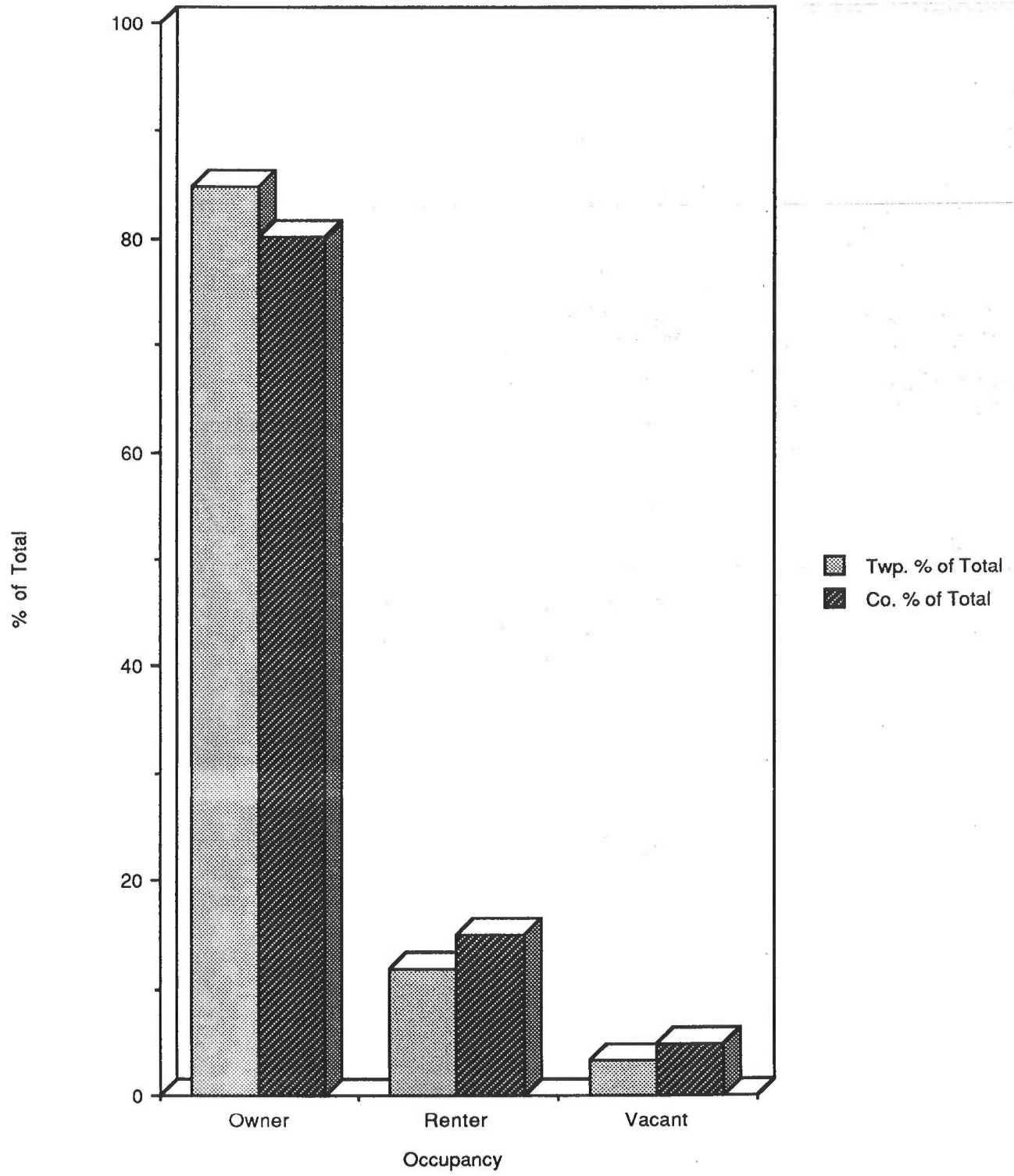
	Burton Township		Geauga County	
	Units	%	Units	%
Owner Occupied	784	84.3	23,066	82.6
Renter Occupied	125	13.4	3,840	13.8
Vacant	21	2.3	1,016	3.6
Total	930	100.0	27,922	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Figure 4

Burton Township and Geauga County

Housing Units By Occupancy: 1980

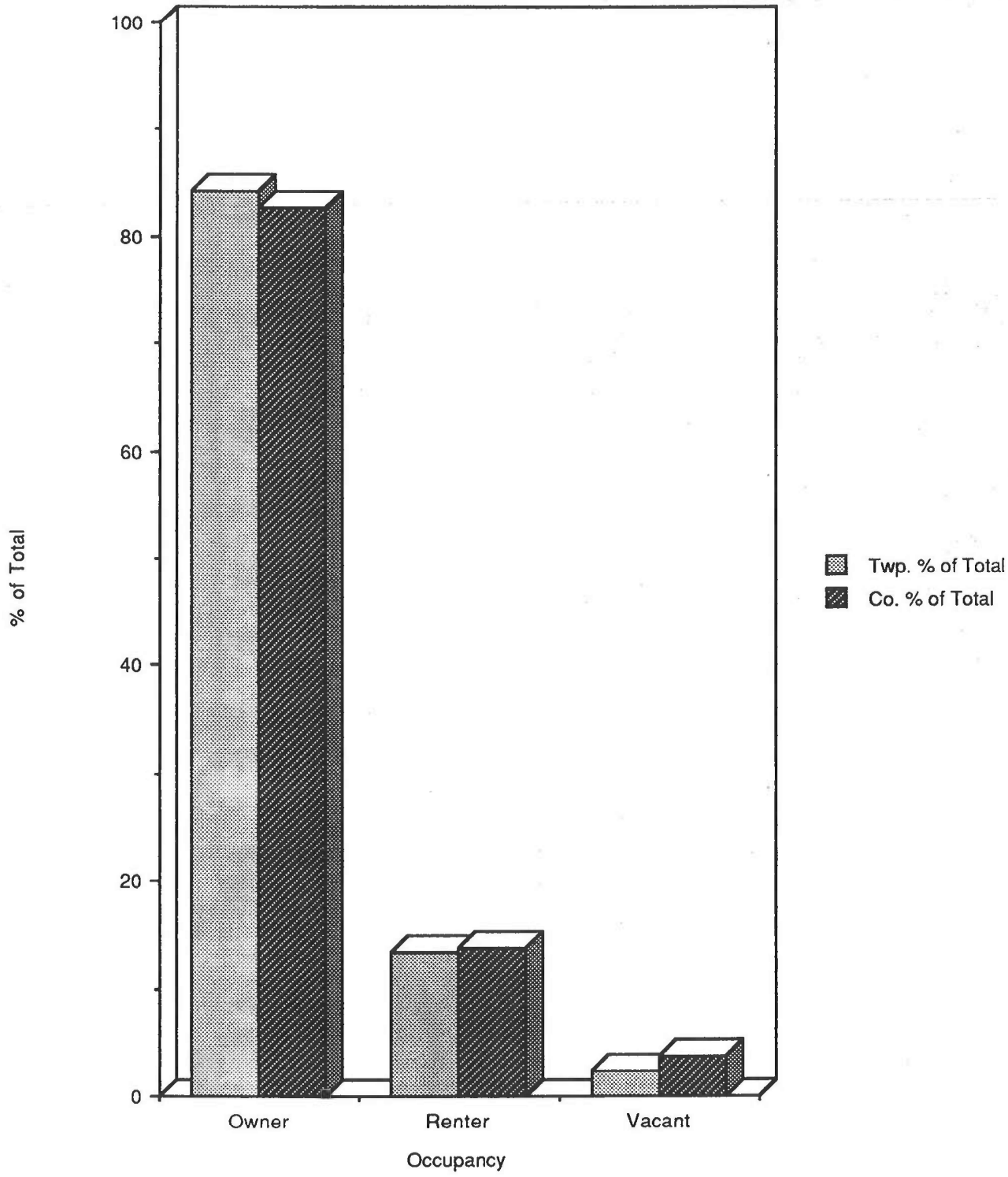


Source: 1980 Census Information, (Summary Tape File STF3A)
U. S. Bureau of Census

Figure 5

Burton Township and Geauga County

Housing Units By Occupancy: 1990



Source: 1990 Census of Population & Housing, Profile Report, (Summary Tape File 1A), U. S. Bureau of Census

Based upon permits issued by the county building department, 256 new homes were erected between 1970 and 1991. The majority of the permits were for single family homes. During 1979-1986, the number of permits issued dropped dramatically from other years.

Table 18

New Housing Starts in Burton Township: 1970 - 1991

Year	No. of Homes
1970	12
1971	24
1972	26
1973	32
1974	23
1975	9
1976	23
1977	14
1978	16
1979	7
1980	1
1981	3
1982	3
1983	5
1984	3
1985	6
1986	8
1987	13
1988	13
1989	5
1990	7
1991	3
Total	256

Source: Geauga County Building Department.
Note: Based on building permits issued.

Although the number of housing units in the township and the county has increased between 1980 and 1990, the number of persons per household has decreased. As shown in the following tables (19 and 20) and figures (6 and 7) the township as well as the county appear to be following the national trend toward a smaller number of persons per household.

Table 19

Persons Per Occupied Dwelling Unit: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
Persons	Units	%	Units	%
1-2	314	38.1	9,336	41.0
3	152	18.4	4,217	18.4
4	174	21.1	4,721	20.6
5	93	11.3	2,641	11.5
6 or more	91	11.1	1,932	8.5
Total	824	100.0	22,877	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 20

Persons Per Occupied Dwelling Unit: 1990
Burton Township and Geauga County

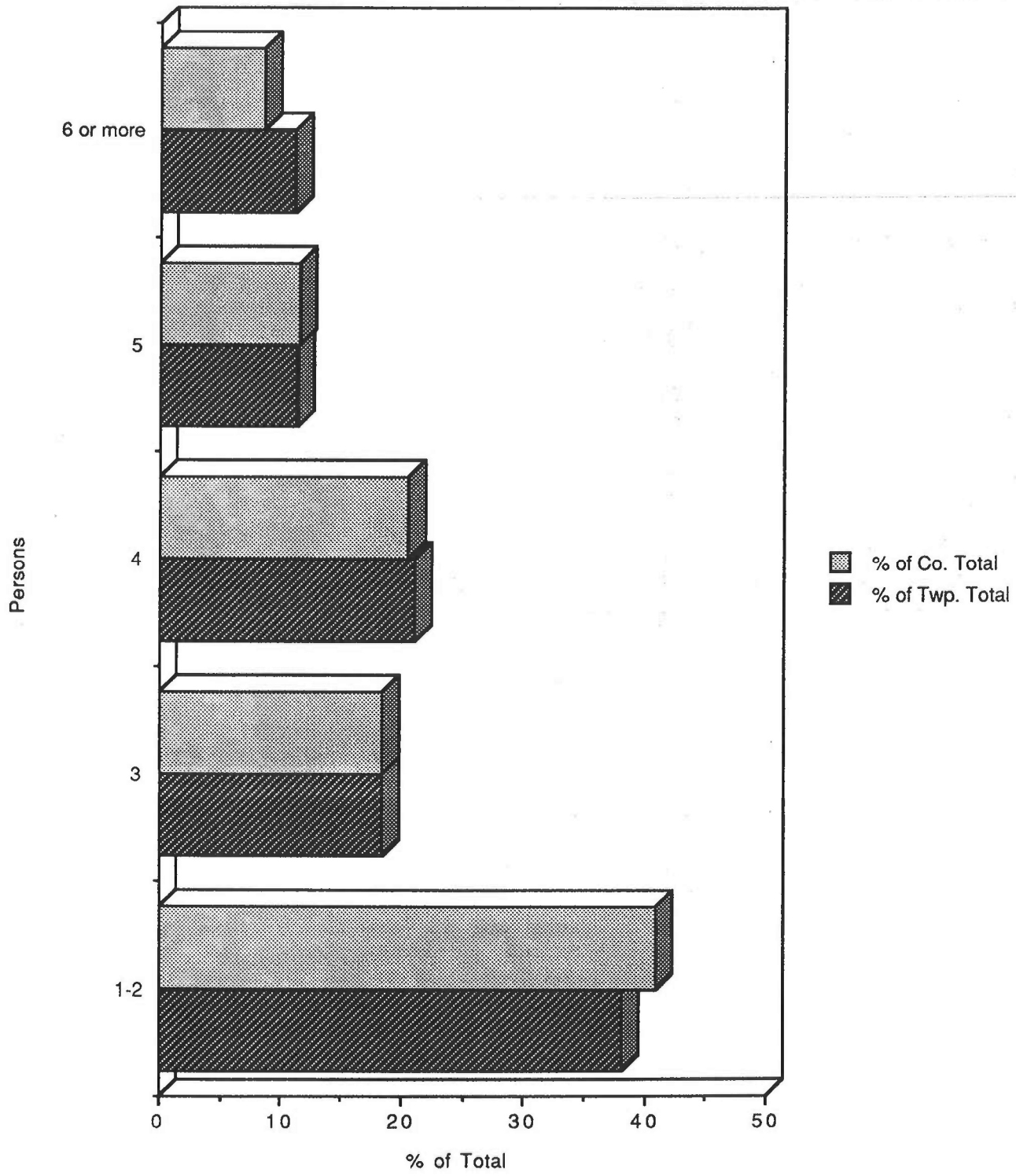
	Burton Township		Geauga County	
Persons	Units	%	Units	%
1-2	418	46.0	12,663	47.1
3	156	17.2	5,054	18.8
4	171	18.8	5,211	19.4
5	83	9.1	2,419	8.9
6 or more	81	8.9	1,559	5.8
Total	909	100.0	26,906	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Figure 6

Burton Township and Geauga County

Persons Per Occupied Dwelling Unit: 1980

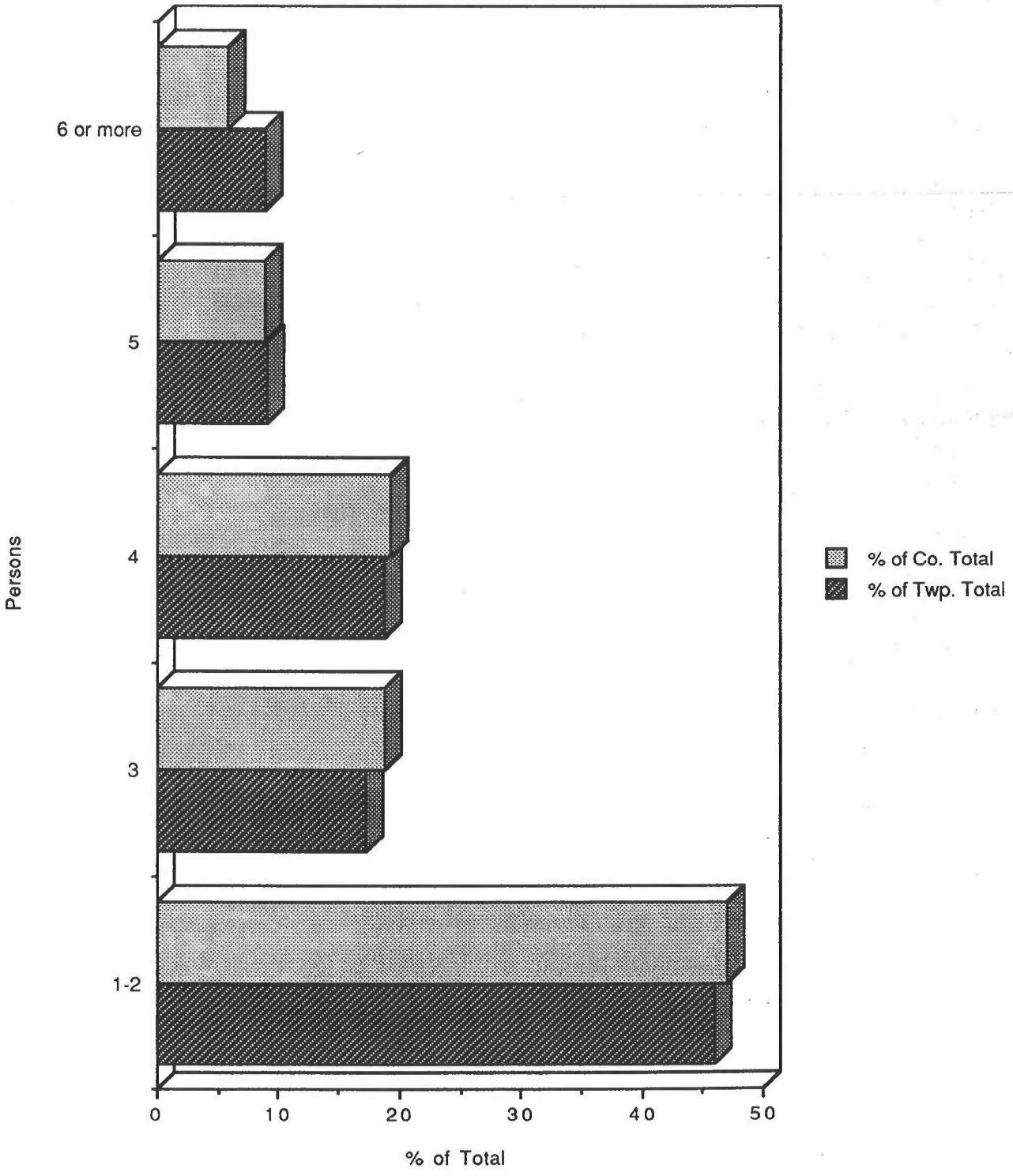


Source: 1980 Census Information, (Summary Tape File STF3A)
U. S. Bureau of Census

Figure 7

Burton Township and Geauga County

Persons Per Occupied Dwelling Unit: 1990



Source: 1990 Census of Population & Housing, Profile Report, (Summary Tape File 1A), U. S. Bureau of Census

As might be anticipated, the 1990 Census documented an increase in the value of owner occupied dwelling units since 1980. In 1980 (see table 21 and figure 8), the highest percentage of units were in the $40,000 to $99,999 range. By 1990 (see table 22 and figure 9), however, most units were in the $50,000 to $99,999 category.

Table 21

Value of Owner Occupied Units: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
Dollars	Units	%	Units	%
Under $14,999	4	0.7	100	0.7
$15,000-24,999	19	3.6	299	2.0
$25,000-29,999	22	4.1	224	1.5
$30,000-34,999	31	5.8	332	2.2
$35,000-39,999	33	6.2	405	2.7
$40,000-49,999	57	10.7	1,346	9.0
$50,000-79,999	240	44.9	5,663	37.8
$80,000-99,999	80	15.0	2,743	18.3
$100,000-149,999	39	7.3	2,851	19.1
$150,000 & over	9	1.7	1,005	6.7
Total	534	100.0	14,968	100.0

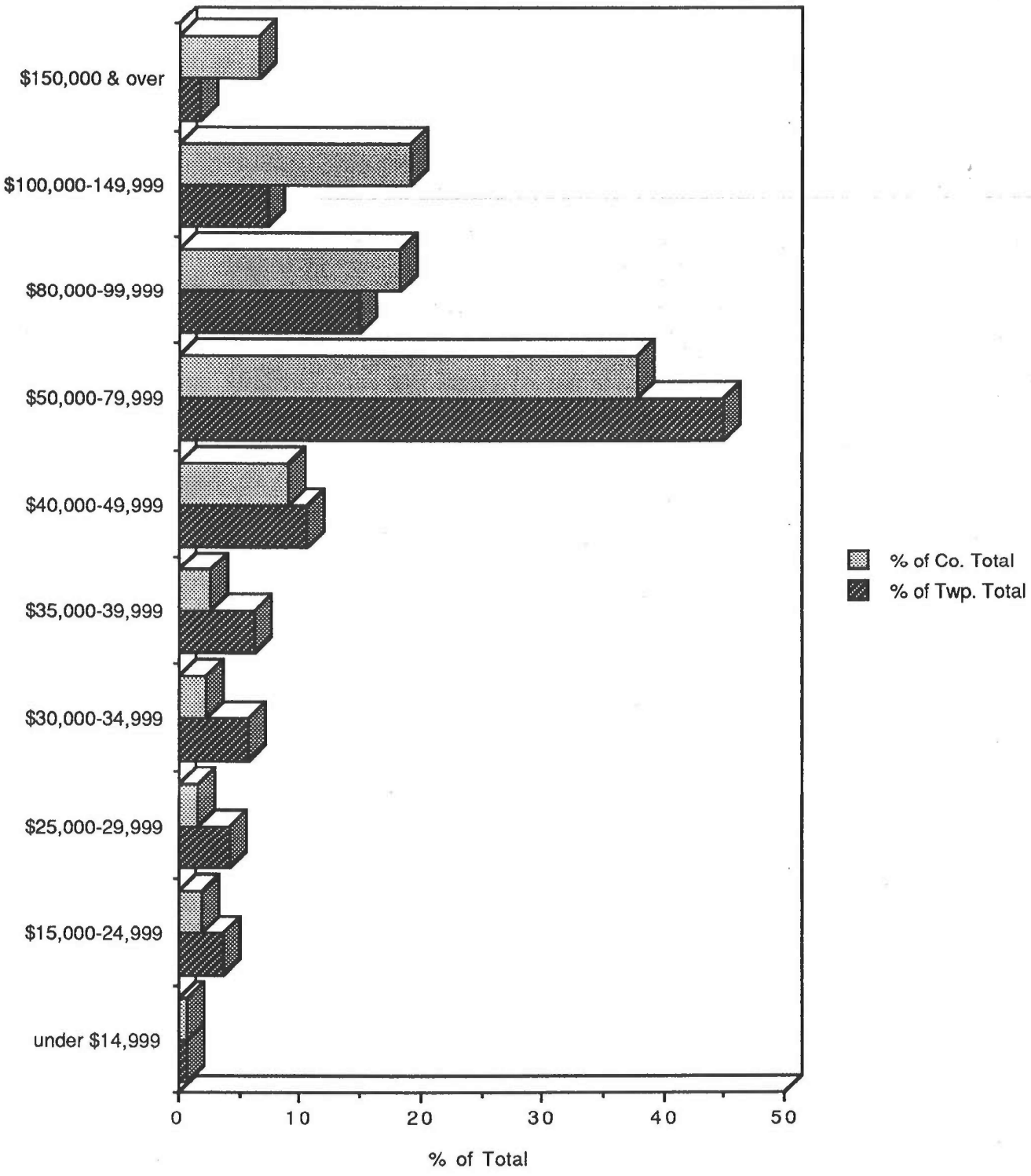
Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census.

Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Figure 8

Burton Township and Geauga County

Value of Owner Occupied Units: 1980



Source: 1980 Census of Population & Housing, (Summary Tape File STF3A)
U. S. Bureau of Census

Table 22

Value of Owner Occupied Units: 1990
Burton Township and Geauga County

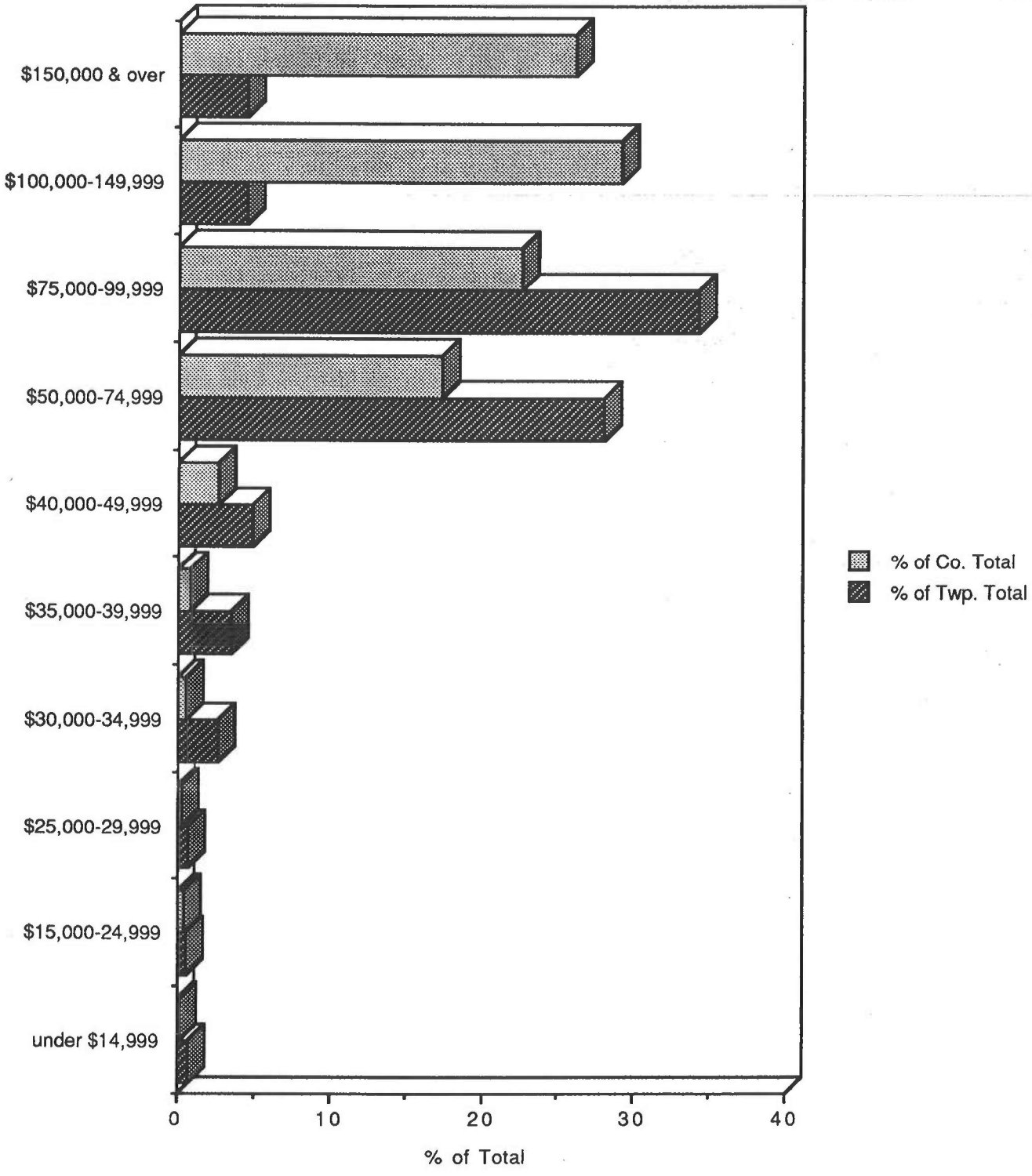
	Burton Township		Geauga County	
Dollars	Units	%	Units	%
Under $14,999	4	0.7	47	0.2
$15,000-24,999	3	0.5	77	0.4
$25,000-29,999	4	0.7	66	0.3
$30,000-34,999	16	2.7	108	0.6
$35,000-39,999	21	3.5	140	0.8
$40,000-49,999	29	4.9	455	2.6
$50,000-74,999	168	28.0	3,121	17.4
$75,000-99,999	205	34.3	4,068	22.6
$100,000-149,999	121	4.5	5,240	29.1
$150,000 & over	27	4.5	4,689	26.0
Total	598	100.0	18,011	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Figure 9

Burton Township and Geauga County

Value of Owner Occupied Units: 1990



Source: 1990 Census of Population & Housing, Profile Report, (Summary Tape File 1A), U. S. Bureau of Census

Monthly rent has increased between 1980 and 1990. In 1980, according to the Census, the highest percentage of renters paid $170.00 to $249.00 per month. By 1990, the largest percentage of renters were paying between $300.00 to $449.00 monthly (see tables 23 and 24).

Table 23

Monthly Contract Rent: 1980
Burton Township

Dollars	No.	%
Under 50	4	5.4
50-99	3	4.1
100-119	3	4.1
120-139	4	5.4
140-149	3	4.1
150-159	5	6.7
160-169	3	4.1
170-199	12	16.2
200-249	11	14.8
250-299	4	5.4
300-399	7	9.5
400-499	0	0.0
500 or more	0	0.0
no cash rent	15	20.2
Total	74	100.0

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census.

Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 24

Monthly Contract Rent: 1990
Burton Township

Dollars	No.	%
Under 100	1	1.2
100-149	0	0.0
150-199	4	4.6
200-249	6	6.9
250-299	9	10.3
300-349	14	16.1
350-399	13	14.9
400-449	17	19.5
450-499	4	4.6
500-549	3	3.4
550-599	1	1.2
600-649	2	2.3
650 or more	1	1.2
no cash rent	12	13.8
Total	87	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

The following information from the 1980 Census (table 25) and the 1990 Census (table 26) provides some insight into the size of dwellings in the community. The information reveals that the majority of homes had six or more rooms in Burton, which was similar to the county's figures.

Table 25

Rooms Per Dwelling Unit: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
Rooms	Units	%	Units	%
2 or less	8	0.9	267	1.1
3	34	4.0	819	3.4
4	90	10.6	2,342	9.8
5	178	20.9	4,050	16.9
6 or more	543	63.6	16,526	68.8
Total	853	100.0	24,004	100.0

Source: 1980 Census of Population and Housing, Census Tracts, Cleveland, Ohio SMSA, (Summary Tape File STF3A). Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 26

Rooms Per Dwelling Unit: 1990
Burton Township and Geauga County

	Burton Township		Geauga County	
Rooms	Units	%	Units	%
2 or less	10	1.1	306	1.1
3	35	3.7	891	3.2
4	89	9.6	2,439	8.7
5	148	15.9	3,951	14.2
6 or more	648	69.7	20,335	72.8
Total	930	100.0	27,922	100.0

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

The following tables (27 and 28) reveal the breakdown of the population by race in 1980 and 1990 on both the township and county level. Relatively few changes in the figures have occurred during the ten year period.

Table 27

Population By Race: 1980
Burton Township and Geauga County

	Burton Township		Geauga County	
	No.	%	No.	%
White	2,768	99.60	73,133	98.20
Black	5	0.18	990	1.33
Other	6	0.22	351	0.47
Total	2,779	100.00	74,474	100.00

Source: 1980 Census of Population and Housing Census Tracts, Cleveland, Ohio SMSA, (Summary Tape File STF3A). Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 28

Population By Race: 1990
Burton Township and Geauga County

	Burton Township		Geauga County	
	No.	%	No.	%
White	2,821	99.40	79,629	98.15
Black	10	0.35	1,056	1.30
Other	7	0.25	444	0.55
Total	2,838	100.00	81,129	100.00

Source: 1990 Census of Population and Housing, Profile Report, (Summary Tape File 1A), U.S. Bureau of Census. Note: Grand total may not agree with area total due to suppression by the Bureau of Census.

Table 29 reveals information pertaining to the educational level of both Burton and county residents from the 1980 Census. Over two-thirds of the township's residents have a high school diploma.

Table 29

Years of School Completed: 1980
(Persons > 25 Years Old)
Burton Township and Geauga County

	Burton Township	Geauga County
Elementary		
0-8 years	253	4,782
High School		
1-3 years	257	5,084
4 years	559	16,793
College		
1-3 years	248	6,969
4 or more years	212	8,696
Percentage of High School Graduates	66.6%	76.7%

Source: 1980 Census Information, (Summary Tape File STF3A), Census of Population and Housing, U.S. Bureau of Census.

Note: Grand total may not agree with area total due to suppression by Bureau of Census.

Township Questionnaire Results

A basic element of the land use planning process is the consideration and evaluation of the opinions and attitudes expressed by the residents of the affected community. Toward that end, the planning commission staff, in conjunction with Burton Township officials, devised a questionnaire which documented the concerns of the residents with respect to various planning related issues. The survey contained 15 questions. A complete copy of the survey is in the appendix.

The questionnaires were mailed by the township zoning commission in September of 1991. Approximately eight weeks were given for residents to respond. A computerized mailing list was utilized, taken from the county tax records of real property. Notices were placed in the local newspaper announcing the distribution of the survey and its purpose.

A total of 972 survey forms were distributed and 442 were returned. This represented a response rate of 45 percent, which is very acceptable for a mail survey. The completed questionnaires were tabulated by the township.

The following is a summary of the total results of the Burton Township survey.

1. The township was divided into quadrants, with quadrant "A" representing the northwest portion of the community, "B" the northeast, "C" the southwest, and "D" the southeast. Of those responding 33.3% were in quadrant "A," 15.0% in "B," 26.1% in "C," and 25.6% in "D."

2. In response to which county the number one wage earner worked in, Geauga County received 42.0%, Cuyahoga County 27.8%, and Lake County 6.2%. About 17.7% were retired. In response to the same question for the number two wage earner, 51.0% cited Geauga County, 26.5% Cuyahoga County, and 2.4% Portage County. The retirees represented 14.6%.

3. The respondents indicated that the best minimum lot size for residential development, without central sewer and water services, was as follows: 5 acres 27.6%, 3 acres 26.8%, 2 acres 20.5%, and 1.5 acres 10.6%.

4. The best minimum lot frontage for residential development was: 200 feet 38.4%, 250 feet 25.0%, and 300 feet 22.9%.

5. According to the those responding, the minimum lot size for light industrial development should be: 5 acres 52.1%, 3 acres 13.3%, and 2 acres 12.0%.

6. The respondents indicated that the minimum lot size for general commercial development should be: 5 acres 44.9%, 2 acres 16.9%, and 3 acres 12.5%.

7. The majority of those responding (67.7%) felt that zoning regulations should not permit an area for a mobile home park, 60.0% answered that two-family homes should be allowed, 68.8% were against multi-family housing, 51.1% agreed with manufactured housing, and 84.9% were opposed to permitting mobile homes outside of a mobile home park.

8. Most of the respondents (61.3%) determined that preserving farmland was very important and 20.4% indicated that it was important.

9. In response to what those responding to the survey liked about living in Burton Township, the majority indicated: rural atmosphere 99.1%, rate of development 64.0%, housing opportunities 59.4%, public schools 82.2%, zoning regulations in effect 73.3%, quality of the environment 94.0%, availability of shopping/services 56.9%, availability of parks/recreation 67.6%, good farmland 89.4%, road maintenance 64.1%, and public services 62.0%. A majority of the respondents did not like commercial/industrial development 60.2% or employment opportunities 56.3%.

10. The majority of the respondents revealed that they would like to see more of the following in the township: light industrial development 51.1%, parks/recreation facilities 73.9%, preservation of farmland 88.2%, road maintenance 79.5%, recycling program 88.4%, 911 Emergency Service 89.2%, and preservation of wetlands 82.7%. The majority of those responding did not wish to encourage: residential development 54.1%, commercial development 59.1%, and shopping facilities 55.4%.

11. The question regarding converting the land behind the township administration building on Rapids Road to a public park (if funds were available) received the following responses: development of park facilities on a small portion of the land 77.1% and volunteer assistance for park projects 47.6%. The following park equipment or activities were all supported by the respondents: pavilion 76.4%, horseshoe pits 62.7%, tennis courts 58.7%, basketball courts 70.9%, and playground 77.3%.

12. Public services were rated "excellent," "good," "fair," or "poor." Such services were: fire protection (good : 52.8%), police protection-sheriff (good : 49.0%), ambulance service (good : 53.1%), health services/facilities-county (good : 54.7%), schools (good : 57.5%), recreational facilities (fair : 40.3%), road maintenance (good : 42.6%), environmental controls-county (good : 43.2%), and zoning enforcement (good : 49.9%).

13. The objectives of land use and zoning were rated by the respondents with respect to a number of variables. All of the following were rated "very important" by those responding: to protect property values 80.1%, to protect the character of the community 76.7%, to protect farmland 65.5%, to protect property from flood damage 61.0%, to protect the environment 81.1%, to protect open space and recreation areas 65.9%, to protect the economy of the community 65.9%, to control the pace of development 68.8%, to separate incompatible land uses 63.1%, to direct development into areas best suited for it 67.7%, and to control the type of development which takes place in the community 78.7%.

14. Various issues concerning the respondents were rated. The following received the highest rate of response and all obtained a "very concerned" rating: increased population 46.6%, residential development 44.2%, commercial development 49.5%, industrial development 56.4%, quality of drinking water 85.2%, surface water quality in relation to livestock 68.7%, surface water quality in relation to recreation 64.6%, and surface water quality in relation to wildlife 69.9%.

15. The majority of the respondents determined that shopping facilities 81.8%, recreation and leisure time facilities for adults 65.5%, recreation and leisure time facilities for children 57.6%, educational facilities 93.3%, and employment opportunities 58.7% were all within a reasonable distance.

Table 30

Preferred Residential Lot Sizes Without Central Sewer and Water Services Burton Township

Lot Sizes	% of Responses
less than 1.5 acres	3.8
1.5 acres	10.6
2 acres	20.5
3 acres	26.8
4 acres	5.7
5 acres	27.6
other	5.0
Total	100.0

Source: Burton Township Questionnaire: 1991

Table 31

Preferred Residential Lot Frontages Burton Township

Lot Frontage	% of Responses
less than 200 feet	11.3
200 feet	38.4
250 feet	25.0
300 feet	22.9
other	2.4
Total	100.0

Source: Burton Township Questionnaire: 1991

Table 32

Preferred Light Industrial Lot Sizes
Burton Township

Lot Sizes	% of Responses
2 acres	12.0
3 acres	13.3
4 acres	10.8
5 acres	52.1
other	11.8
Total	100.0

Source: Burton Township Questionnaire: 1991

Table 33

Preferred Commercial Lot Sizes
Burton Township

Lot Sizes	% of Responses
2 acres	16.9
3 acres	12.5
4 acres	5.4
5 acres	44.9
other	20.3
Total	100.0

Source: Burton Township Questionnaire: 1991

Environmental Analysis

A significant aspect of this plan entails the collection and analysis of key environmental data. The maps in this section provide a visual display of the existing environmental features in the township. It should be noted that the maps are not meant to replace an on-site investigation by a qualified professional.

The following environmental variables were collected, mapped, and analyzed:

Detailed Soils

Prime Agricultural Land

Depth To Bedrock

Slope

Shrink-Swell Potential

Potential Frost Action

Depth to Seasonal Watertable

Permeability

Watersheds

Flood Plains

Wetlands

Drainage

Groundwater

Unified Soil Classification System

Corrosion Potential-Concrete

Corrosion Potential-Steel

Detailed Soils

A detailed soils analysis provides basic insights into the limitations the physical environment on development. Each soil type reflects distii characteristics which can be rated according to the degree of limitati that they represent for a specified land use.

The Ohio Department of Natural Resources (ODNR), Division of Lands anc Soils, conducted a soil survey of Burton Township. Soil scientists examined the soil to a depth of three to five feet by means of an auger. The soil samples were laboratory tested to determine such properties as texture, permeability, and type of parent material. Wetlands, streams and drainageways were also noted. Aerial base maps were utilized, following the field observations, to delineate the boundaries of the various soil types identified. A total of 36 different soil classifications were identified in Burton Township.

The inventory and evaluation of the soils is a key element in the land use planning process. The land use plan is meant to be in harmony with the characteristics of the soil and the capability of it to support development.

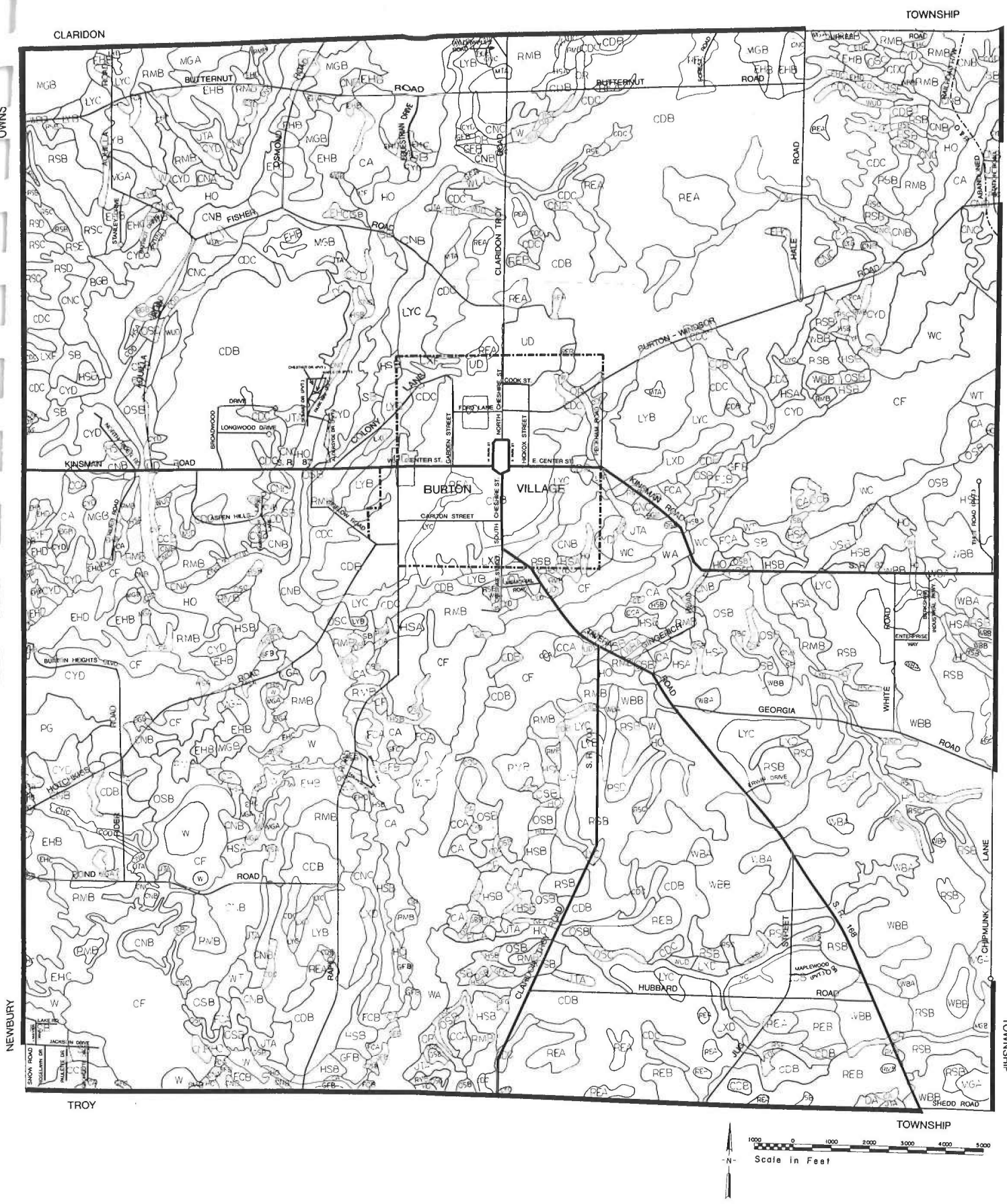
Table 34

Soils Map Legend

Mapping Symbol	Soil Type	Acres	% of Twp.
Bg	Bogart Loam	34.80	0.23
Ca	Canadice Silt Loam	402.40	2.70
Cc	Caneadea Silt Loam	86.40	0.58
Cd	Canfield Silt Loam	2,984.40	19.98
Cf	Carlisle Muck	951.40	6.37
Cn	Chili Loam	928.60	6.22
Co	Chili Gravelly Loam	21.05	0.14
Cy	Chili-Oshtemo Complex	560.15	3.75
Da	Damascus Silt Loam	13.60	0.09
Eh	Ellsworth Silt Loam	892.60	5.97
Fc	Fitchville Silt Loam	107.30	0.72
Gb	Geeburg Silt Loam	2.00	0.01
Gf	Glenford Silt Loam	62.70	0.42
Hs	Haskins Loam	536.00	3.59
Ho	Holly Silt Loam	870.95	5.83
Jt	Jimtown Silt Loam	180.00	1.20
Lx	Lordstown-Rock Outcrop Complex	215.15	1.44
Ly	Loudonville Silt Loam	651.00	4.36
Mg	Mahoning Silt Loam	400.10	2.68
Ms	Mahoning Silt Loam Shale Substratum	4.80	0.03
Mt	Mitiwanga Silt Loam	6.70	0.04
Or	Orrville Silt Loam	55.10	0.37
Os	Oshtemo Sandy Loam	512.10	3.43
Pg	Pits, Gravel	48.00	0.32
Re	Ravenna Silt Loam	374.25	2.50
Rm	Rawson Loam	770.60	5.17
Rs	Rittman Silt Loam	1,225.15	8.21
Sb	Sebring Silt Loam	181.60	1.22
Ud	Udorthents	66.35	0.44
Ur	Urban Land	8.10	0.05
Wa	Wabasha	265.00	1.77
Wb	Wadsworth Silt Loam	980.90	6.56
Wc	Wallkill	151.50	1.01
Wt	Willette Muck	53.00	0.35
Wu	Wooster Silt Loam	37.05	0.25
W	Water	299.20	2.00

Map 9

Detailed Soils



Prime Agricultural Land

As defined by the United States Department of Agriculture, Soil Conservation Service (SCS), prime agricultural land has the appropriate soil quality, moisture supply, and attendant growing season to produce a high crop yield when treated and managed in accordance with modern farm methods. Generally, prime agricultural soils will be more productive under intense cultivation than other soils, using the same management practices. As shown on the following map, the majority of the soils in the township are considered prime agricultural land.

Table 35 reflects the prime agricultural land classification system utilized by SCS. The numbers represent progressively greater limitations, a narrower choice of crops, and the way crops respond to management. The letters given are subclasses, which indicate the problems associated with a particular soil type. The letter "E" means that the primary limitation is the risk of erosion (unless close-growing plant cover is maintained) and the letter "W" indicates that water in or on the surface of the soil interferes with plant growth or cultivation.

Prime agricultural land is finite, however, its conversion to other uses is continuing. As noted previously, the majority of the respondents to the township survey felt that preserving farmland was very important.

Map 10

Prime Agricultural Land

PRIME AGRICULTURAL LAND

Table 35

Agricultural Ratings

Mapping Units	Soils	Agricultural Classification	Prime Land
Bg B	Bogart	2E	X
Ca	Canadice	3W	
Cc A,B	Caneadea	3E	X
Cd B	Canfield	2E	X
Cd C	Canfield	3E	
Cf	Carlisle	5W	
Cn A,B	Chili	2E	X
Cn C	Chili	3E	
Co D	Chili	4E	
Cy D,F	Chili-Oshtemo	4E	
Da	Damascus	3W	
Eh B	Ellsworth	3E	X
Eh C	Ellsworth	4E	
Eh D,E,F	Ellsworth	5E	
Fc A,B	Fitchville	3W	X
Gb B	Geeburg	3E	
Gf B	Glenford	2E	X
Hs A,B	Haskins	2E	X
Ho	Holly	3W	
Jt A	Jimtown	2W	X
Lx D	Lordstown	5E	
Ly B	Loudonville	2E	X
Ly C	Loudonville	5E	
Mg A,B	Mahoning	3E	X
Ms	Mahoning (Shale)	3E	X
Mt	Mitiwanga	3E	X
Or	Orrville	2W	
Os B	Oshtemo	2E	X
Os C	Oshtemo	3E	
Re A,B	Ravenna	3E	X
Rm B	Rawson	2E	X
Rs B	Rittman	2E	X
Rs C	Rittman	4E	
Rs D,F	Rittman	5E	
Sb	Sebring	3W	
Wa	Wabasha	5W	
Wb A,B	Wadsworth	3E	X
Wc	Wallkill	5W	
Wt	Willette	5W	
Wu D	Wooster	5E	

Depth to Bedrock

About five percent of the township is underlain by bedrock at a depth of less than five feet. As shown on the following map, these areas of shallow bedrock are predominantly located around the center of the township. The specific soil types which identify shallow bedrock include: Lordstown Rock Outcrop Complex, Loudonville Silt Loam, Mahoning Silt Loam Shale Substratum, and Mitiwanga Silt Loam.

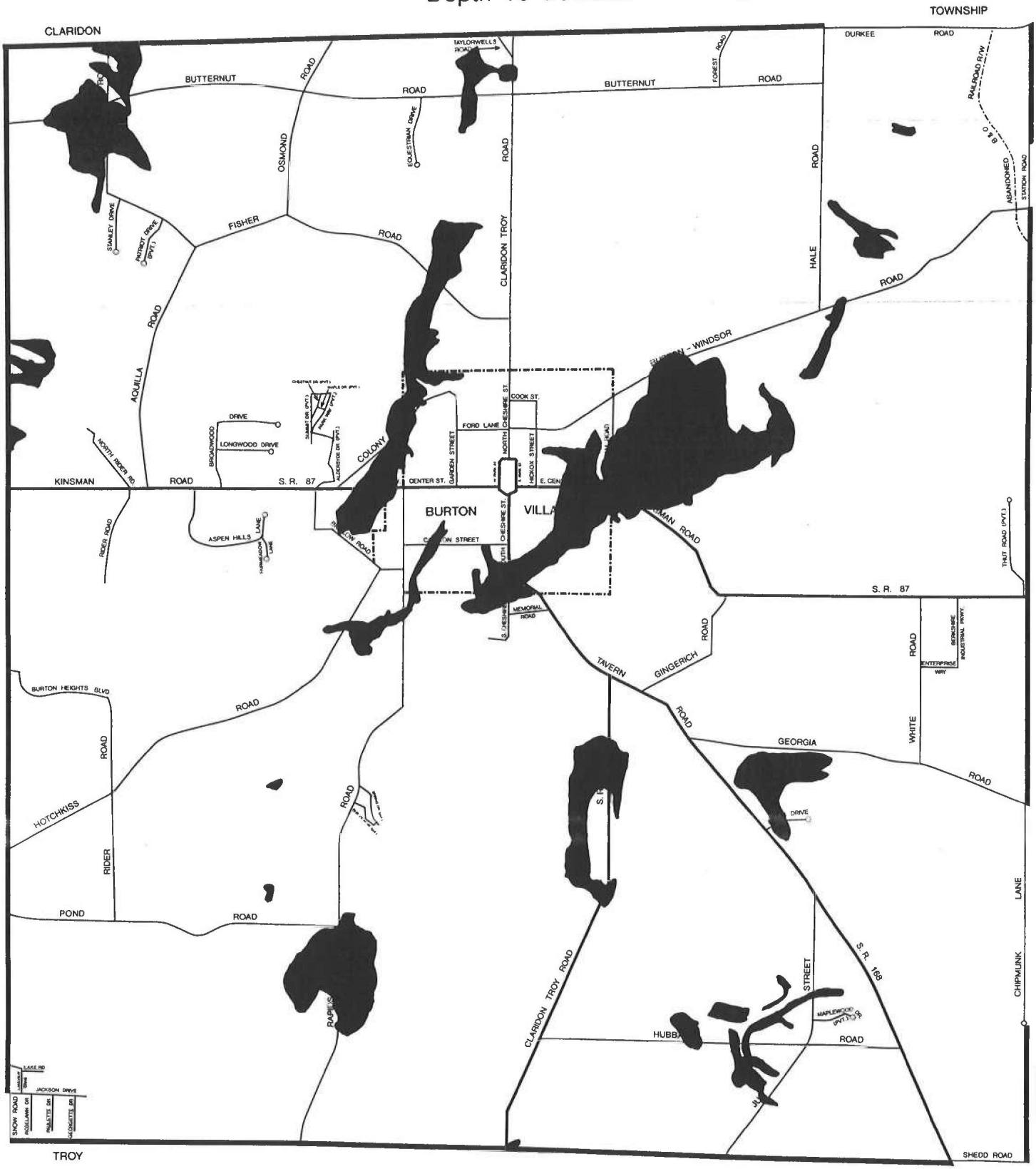
Environmental concerns involving development over shallow bedrock include potential pollution hazards from on-site septic systems--particularly those systems which are not functioning properly. In addition, shallow depth to bedrock may present limitations for the installation of basements and underground utilities.

Depth To Bedrock Map Legend

Depth to Bedrock	Acres	% of Twp. Area
Depth to Bedrock < 5 Ft.	810.25	5.42
Depth to Bedrock > 5 Ft.	13,708.00	91.76
Not Rated	421.75	2.82

Map 11

Depth To Bedrock



BEDROCK MAY BE LESS THAN 5 FEET FROM SURFACE

Slope

Slope is the inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by the horizontal distance, then multiplied by 100. Consequently, a 10 percent slope is a rise of 10 feet in 100 feet of horizontal distance.

Over 78 percent of the terrain in Burton Township is classified as level to gently rolling (0-6%). Slope of 6 to 12 percent covers over 14 percent of the community's land area. The highest point in the township is at an elevation of approximately 1,330 feet, which occurs in two places, near the intersection of Hale and Butternut Roads and just east of Burton Village and south of Burton Windsor Road. The lowest point is at an elevation of 1,100 feet along the Cuyahoga River.

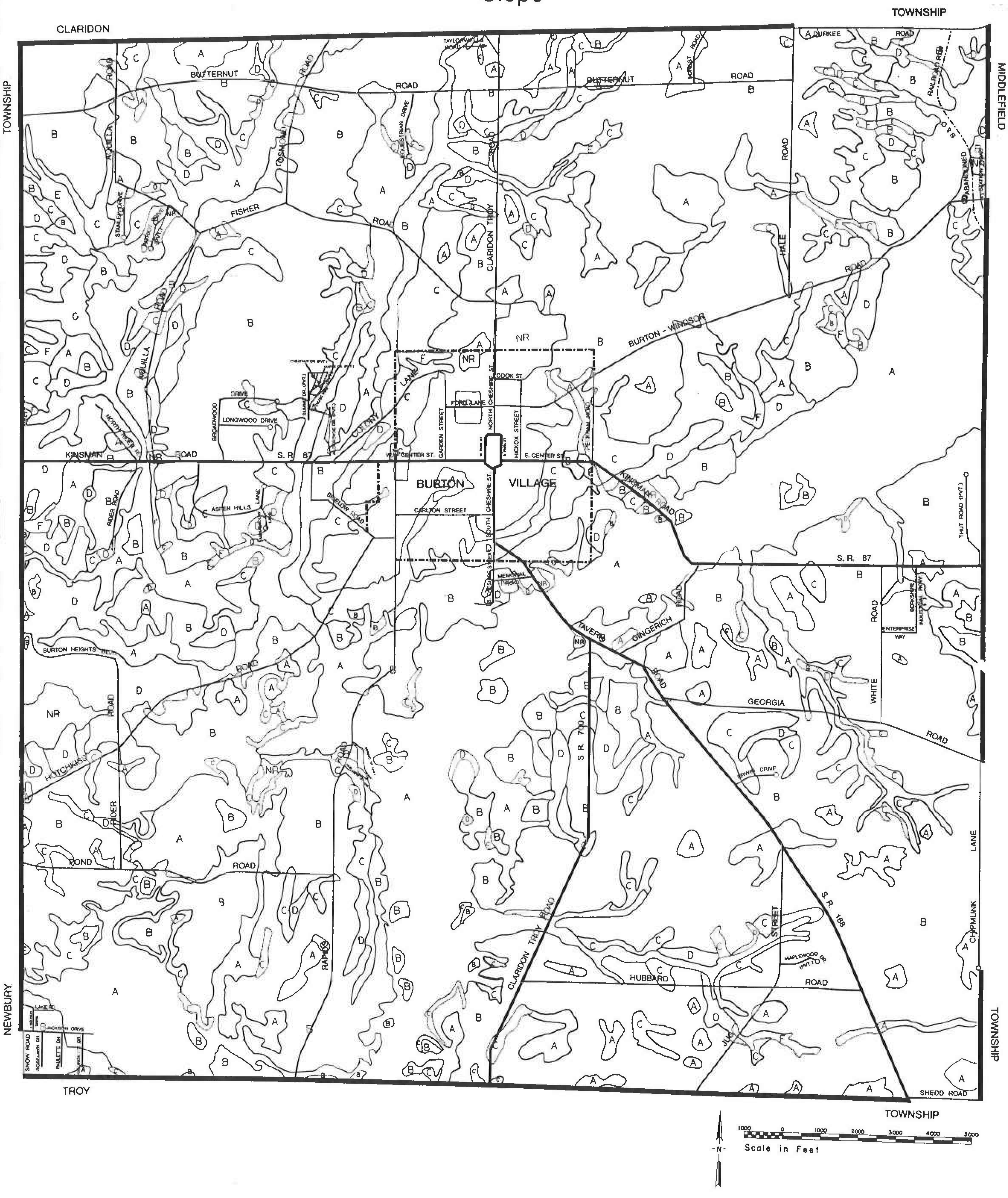
The degree of slope has an impact on the feasibility of placing improvements on a site. Steeply sloped areas may be unsuitable for development. Erosion and runoff of soil sediment during construction is a significant concern. On-site septic systems frequently do not function properly on severe slopes.

Slope Map Legend

Map Symbol	% Slope	Acres	% of Twp.
A	0-2%	4,565.55	30.56
B	2-6%	7,246.15	48.50
C	6-12%	2,163.20	14.48
D	12-18%	390.25	2.61
E	18-25%	49.15	0.33
F	Greater than 25%	106.15	0.71
NR	Not Rated	419.55	2.81

Map 12

Slope


CLARIDON
TOWNSHIP
MIDDLEFIELD
TOWNSHIP
NEWBURY
TOWNSHIP
TROY
TOWNSHIP
BUTTERNUT ROAD
FISHER ROAD
KINSMAN ROAD
S.R. 87
BURTON - WINDSOR ROAD
BURTON VILLAGE
CLARIDON TROY ROAD
GEORGIA ROAD
HUBBARD ROAD
S.R. 700
S.R. 168
CHIPMUNK LANE
SHEDD ROAD
WHITE ROAD
HALE ROAD
RAPIDS ROAD
POND ROAD
HOTCHKISS ROAD
BURTON HEIGHTS
GINGERICH ROAD
AQUILLA ROAD
COLONY LANE
LONGWOOD DRIVE
BROADWOOD
GARDEN STREET
NORTH CHESHIRE ST.
SOUTH CHESHIRE ST.
HICKOX STREET
COOK ST
CARLTON STREET
E. CENTER ST.
WEST CENTER ST.
ASPEN HILLS
BIGELOW ROAD
RIDER ROAD
THUT ROAD (PVT.)
ENTERPRISE WAY
MAPLEWOOD (PVT.) DR.
JACKSON DRIVE
SNOW ROAD
TAVERN
STREET
Scale in Feet
1000 0 1000 2000 3000 4000 5000
-N-

Shrink-Swell Potential

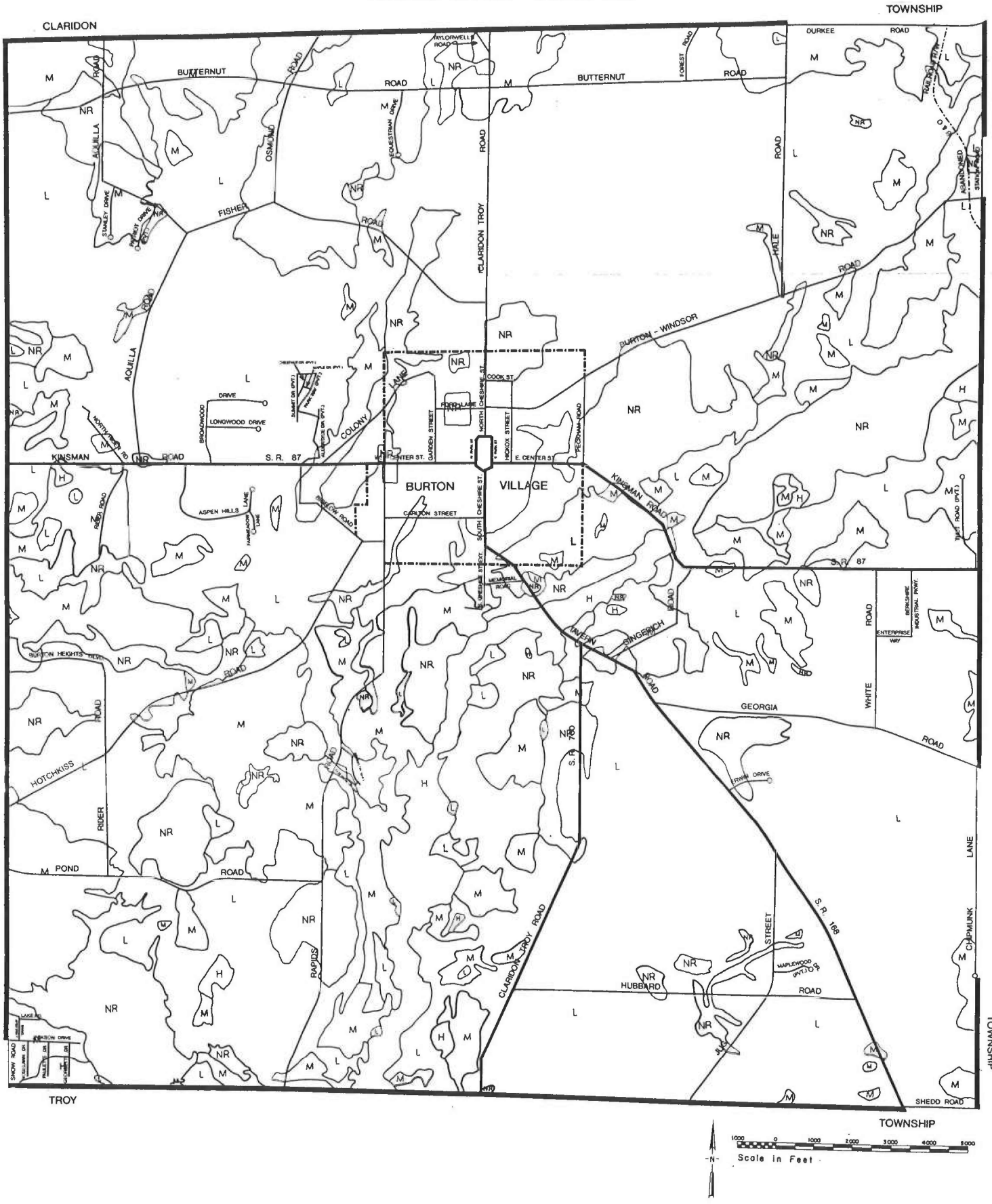
Shrink-swell potential is a measurement of the relative change in volume of soil material, based on changes in its moisture content. The degree of swelling and shrinking of soil is also influenced by the amount of clay ingredient. Soils rated with a high shrink-swell potential may cause roads to deteriorate and foundations to crack and move.

Shrink-Swell Potential Map Legend

Map Symbol	Rating
L	Low
M	Moderate
H	High
NR	Not Rated

Map 13

Shrink-Swell Potential



Potential Frost Action

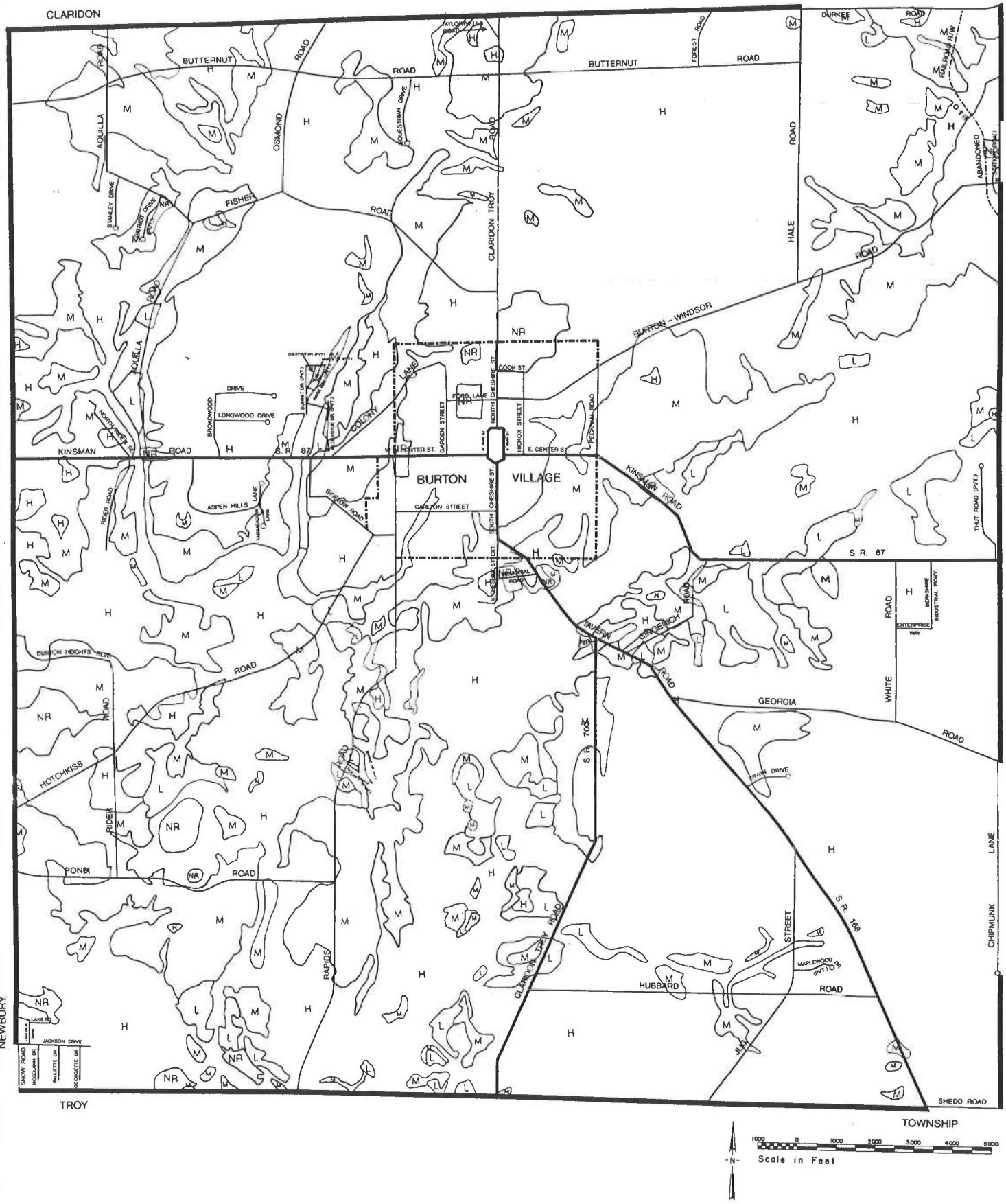
Potential frost action rates the possibility for damage resulting from heaving, excessive wetting, and loss of soil strength in areas where substantial ground freezing is common. Low soil strength coupled with frost heave may cause damage to roads and foundations.

Potential Frost Action Map Legend

Map Symbol	Rating
L	Low
M	Moderate
H	High
NR	Not Rated

Map 14

Potential Frost Action



Depth to Seasonal High Water Table

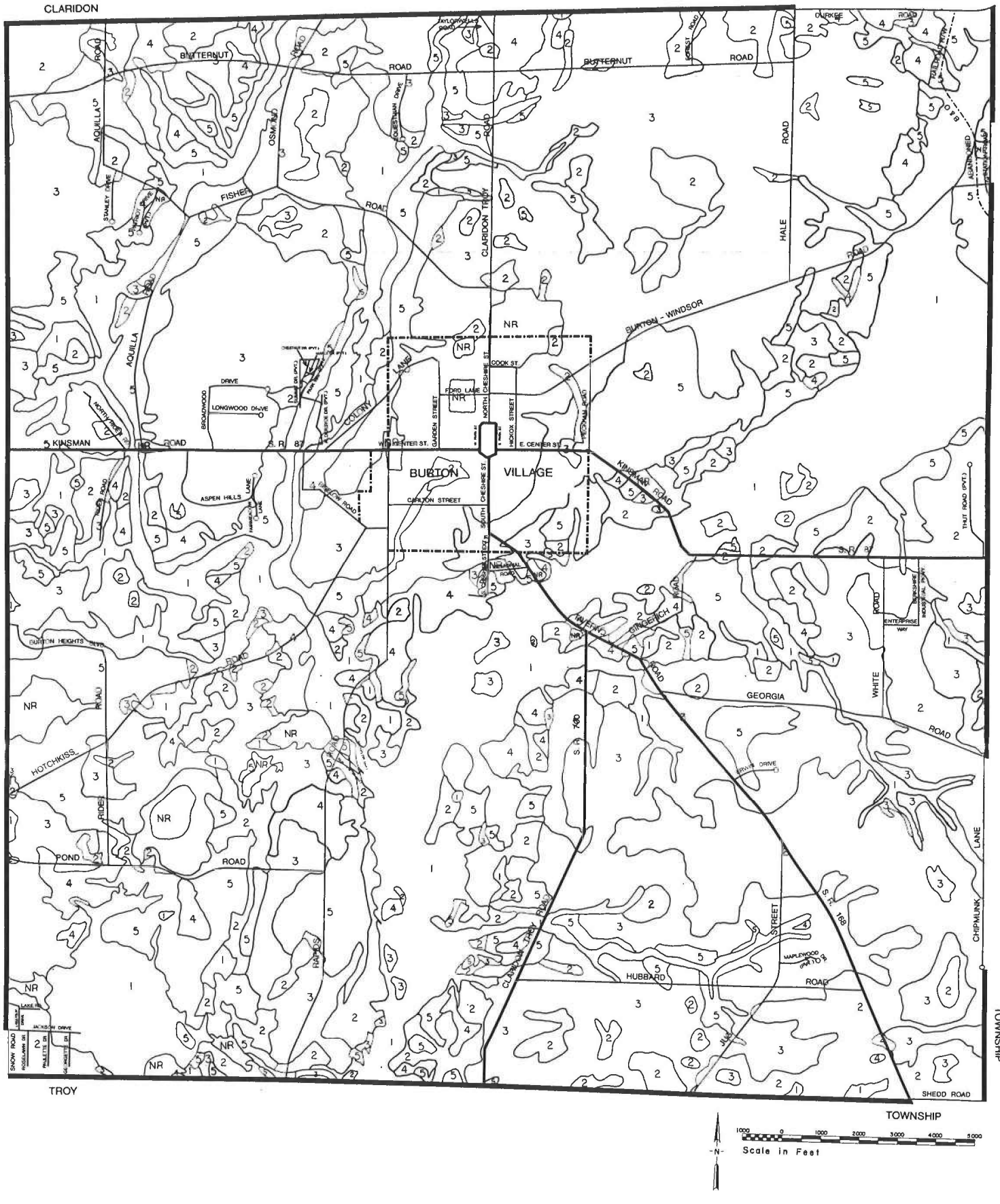
Depth to seasonal high water table indicates the shallowest depth at which the soil is saturated in a zone more than six inches thick for a continuous period of more than two weeks. A high seasonal water table may cause the improper operation of on-site sewage disposal systems, wet or flooded basements, and cracked or damaged foundations. Specially designed drainage systems and foundations may be required.

Depth To Seasonal High Water Table Map Legend

Map Symbol	Rating
1	0 - 12 inches
2	12 - 24 inches
3	24 - 36 inches
4	36 - 48 inches
5	Greater than 48 inches
NR	Not Rated

Map 15

Depth To Seasonal Water Table



Permeability

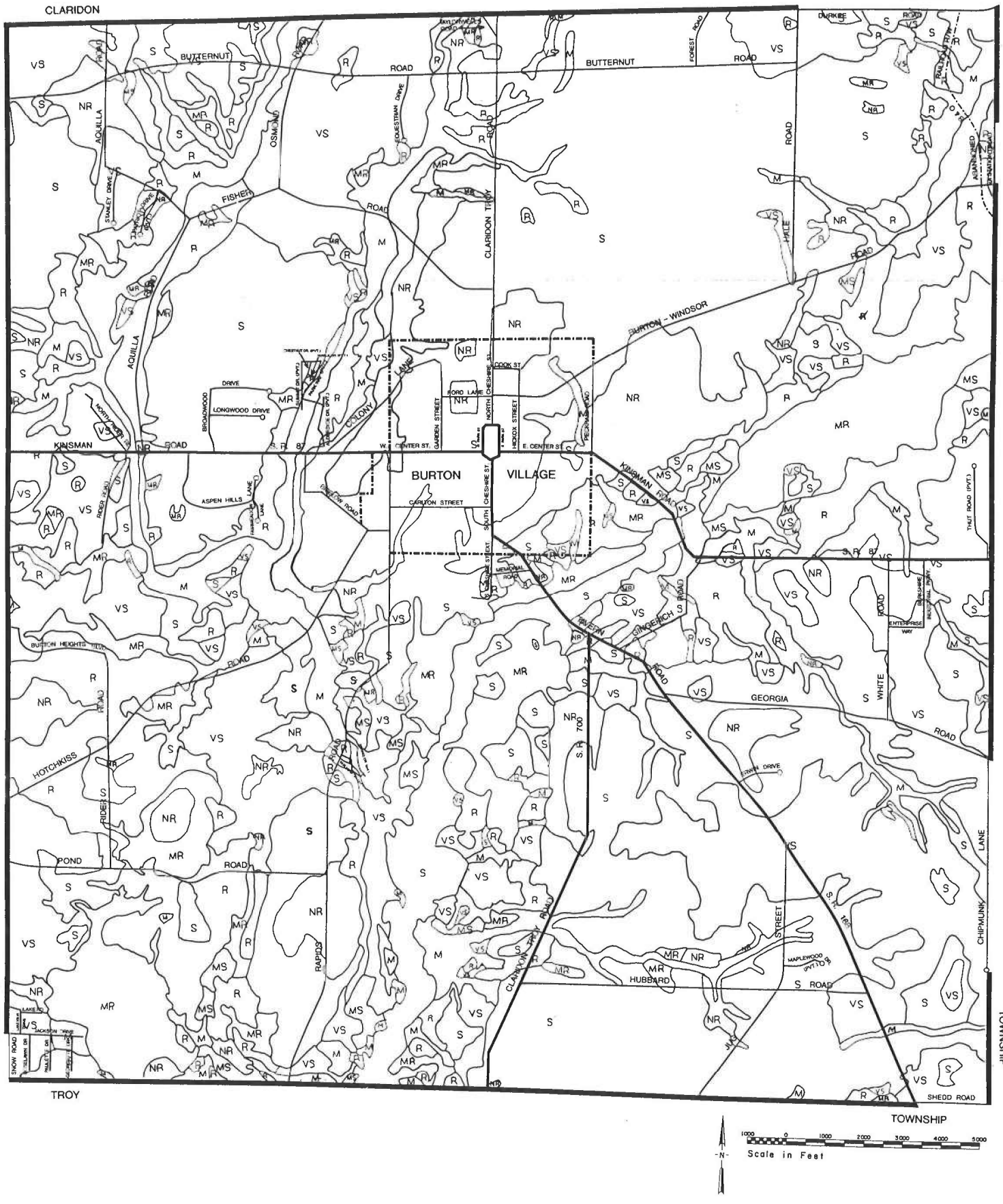
Permeability is an estimate of the rate of downward water movement in a soil horizon when it is saturated but allowed to drain freely. It is typically expressed in inches per hour (iph). The rate of permeability is primarily determined by the soil texture, structure, porosity, and infiltration tests. It is an important variable in the successful operation of septic tank leach fields.

Permeability Map Legend

Map Symbol	Rating
VS	Very Slow: Less than 0.06 iph
S	Slow: 0.06 to 0.20 iph
MS	Moderately Slow: 0.2 to 0.6 iph
M	Moderate: 0.6 to 2.0 iph
MR	Moderately Rapid: 2.0 to 6.0 iph
R	Rapid: 6.0 to 20.0 iph
NR	Not Rated

Map 16

Permeability



Watersheds and Water Basins

Burton Township belongs to one major water basin (the Cuyahoga River) and five watersheds (see table 36 and following map).

During periods of precipitation, all of the excess water that is not absorbed into the ground is called runoff. Eventually, the runoff travels through a watershed and into a stream, which in turn flows through downstream watersheds.

Runoff often produces soil erosion. Soil sediment can be regarded as a pollutant. It degrades water quality and can disrupt sensitive ecological conditions.

In recognition of the problems associated with soil erosion and water pollution, the Geauga County Board of Commissioners adopted soil sediment pollution regulations in 1979.

Table 36

Watersheds and Water Basins

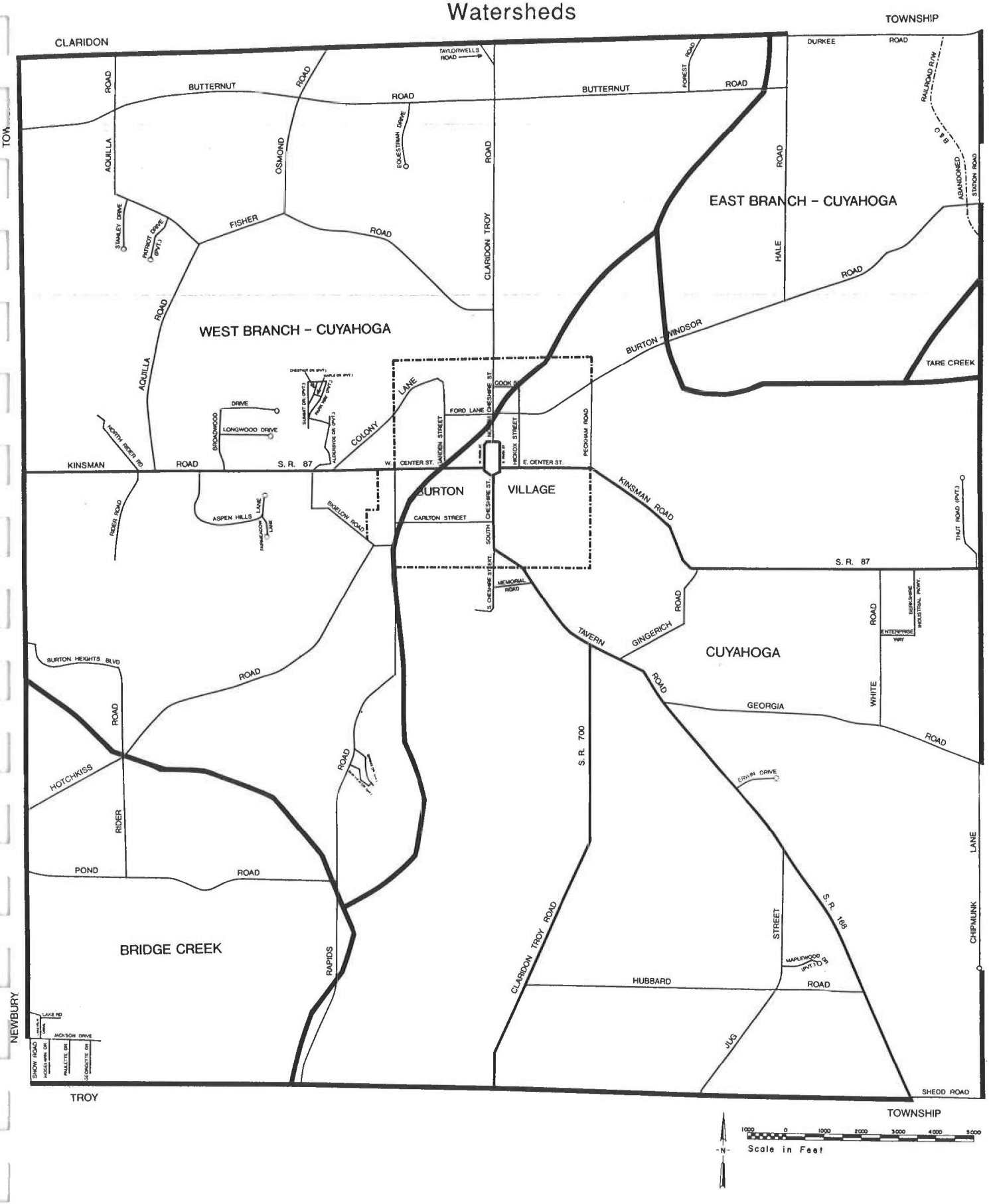
Burton Township

Water Basin	Watershed	Area (acres)	% of Twp.
Cuyahoga	West Branch-Cuyahoga	5,785.9	38.72
Cuyahoga	East Branch-Cuyahoga	1,461.2	9.78
Cuyahoga	Tare Creek	77.0	0.52
Cuyahoga	Cuyahoga	6,047.5	40.48
Cuyahoga	Bridge Creek	1,568.4	10.50
Total		14,940.0	100.00

Source: Ohio Capability Analysis Program, Ohio Department of Natural Resources,1979

Map 17

Watersheds



Flood Plains

Within Burton Township, the East and the West Branches of the Cuyahoga River, Tare Creek, and associated tributaries are designated as "100 year" flood hazard areas (such areas have a one percent chance of being flooded annually). This river system falls within the flood plain regulations adopted by the county pursuant to the National Flood Insurance Program. According to the regulations, proposed buildings within the flood plain must either be flood proofed or the first floor of such buildings, including the basement, must be raised a minimum of one foot above the 100 year base flood elevation.

Some other smaller areas shown on the flood plain map are also subject to flooding. Such locations have been delineated by the use of detailed soils data and are not considered "100 year" flood hazard areas.

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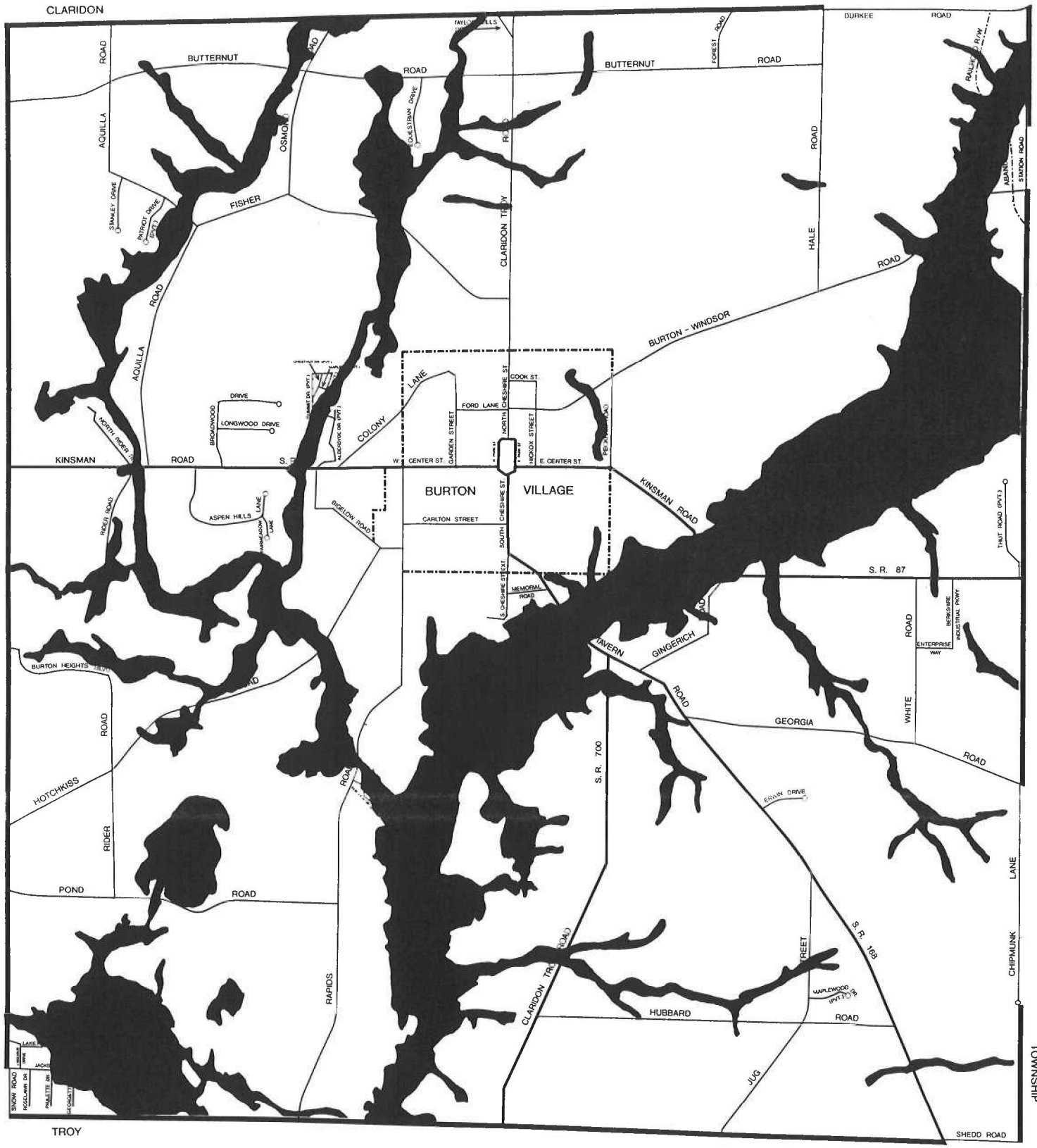
Map 18

Flood Plain Areas



FLOOD PLAIN AREAS

Wetlands

The U. S. Department of the Interior--Fish and Wildlife Service (FWS)--in cooperation with other federal agencies, state agencies and private organizations and individuals conducted an inventory of the nation's wetlands. The generalized map on the following page is meant to represent the areas identified as wetlands by the FWS in Burton Township.

These areas were delineated by the FWS through the use of stereoscopic analysis of high altitude aerial photographs. Under the FWS classification system, wetlands must have one or more of the following three attributes:

1. Hydrophytic vegetation: Hydrophytic vegetation is plant life which grows in water, soil or a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

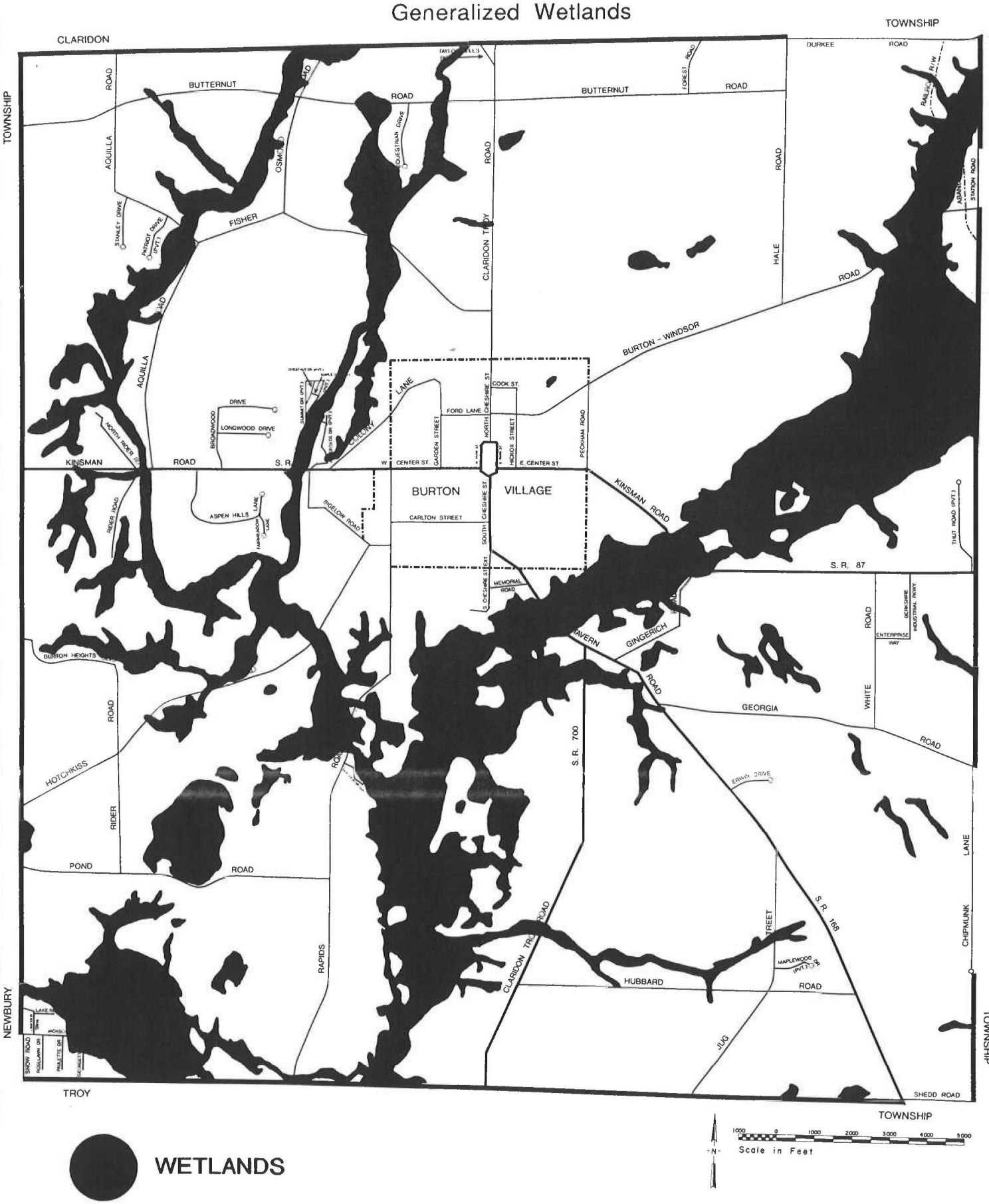
2. Hydric soils: Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions (absence of free oxygen) in the upper part.

3. Wetland hydrology: Permanent or periodic inundation, or soil saturation to the surface, at least seasonally.

Wetlands merit protection due to the array of useful functions they perform. They improve water quality by serving as a natural filtration system. The vegetation traps sediment and other pollutants from the water. Wetlands retain large quantities of water, thereby providing downstream protection during periods of heavy rainfall and, conversely, supplementing streams during periods of dry weather and low flow. Finally, wetlands serve as havens for some rare plant species as well as breeding, nesting and feeding grounds for a variety of wildlife. The U. S. Army Corps of Engineers is involved with regulation of wetlands under Section 404 of the Clean Water Act.

Map 19

Generalized Wetlands



Drainage

Drainage describes the rapidity and the extent of the removal of water from the soil. The definitions below relative to drainage have been set forth by the Ohio Department of Natural Resources, Division of Lands and Soil:

Very Poorly Drained - Water is removed so slowly that the soil is saturated for an extended length of time.

Poorly Drained - Water is removed from the soil so slowly that it remains wet for long periods of time. The water table is commonly at or near the surface during a considerable part of the year.

Somewhat Poorly Drained - Water is removed from the soil so slowly that it remains wet for significant periods, but not all of the time. Somewhat poorly drained soils commonly have a slow permeable layer within the profile, a high water table, additions through seepage, or a combination of these conditions.

Moderately Well Drained - Water is removed from the soil somewhat slowly so that the profile is wet for a small but significant part of the time. Moderately well drained soils commonly have a slow permeable layer within or immediately beneath the surface soil and subsoil layers, a relatively high water table, additions of water through seepage, or some combination of these conditions.

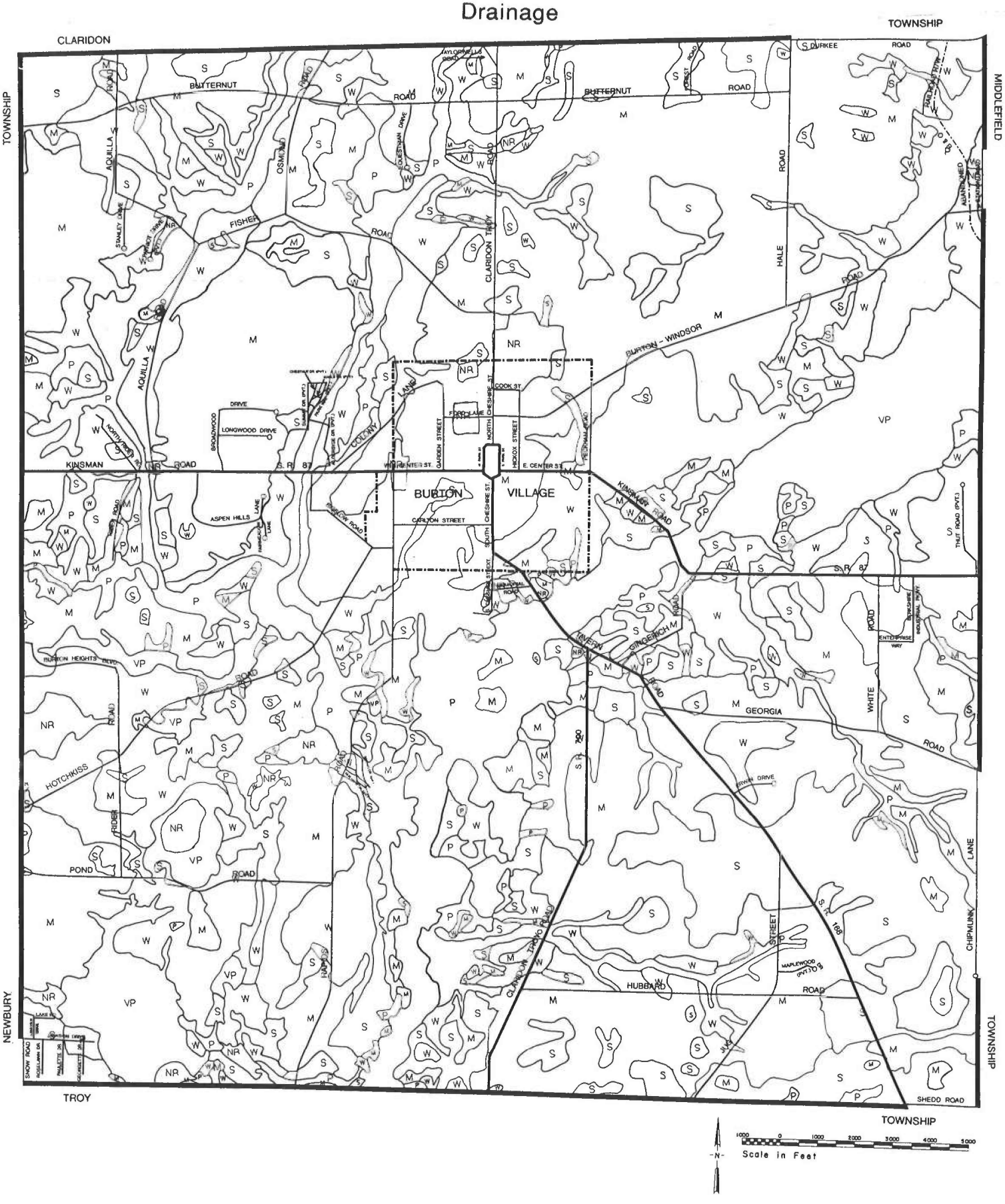
Well Drained - Water is removed from the soil readily, but not rapidly. Well drained soils are commonly loamy textured, although soils of other texture may also be well drained.

Drainage Map Legend

Map Symbol	Rating	Acres	% of Twp.
VP	Very Poorly Drained	1,420.90	9.51
P	Poorly Drained	1,468.55	9.83
S	Somewhat Poorly Drained	2,731.55	18.28
M	Moderately Well Drained	5,972.25	39.97
W	Well Drained	2,925.10	19.58
NR	Not Rated	421.65	2.83

Map 20

Drainage



Ground Water Availability

According to the Division of Water, Ohio Department of Natural Resources, over 56 percent of the township has a ground water potential between 25-100 gallons per minute. The ground water in this area is drawn from sandstones of the Pottsville Group, the principal aquifer being the Sharon Conglomerate.

Almost 20 percent of the township is underlain by an area in which expected ground water yields are greater than 100 gpm. The ground water is obtained from sand and gravel deposits in a buried valley.

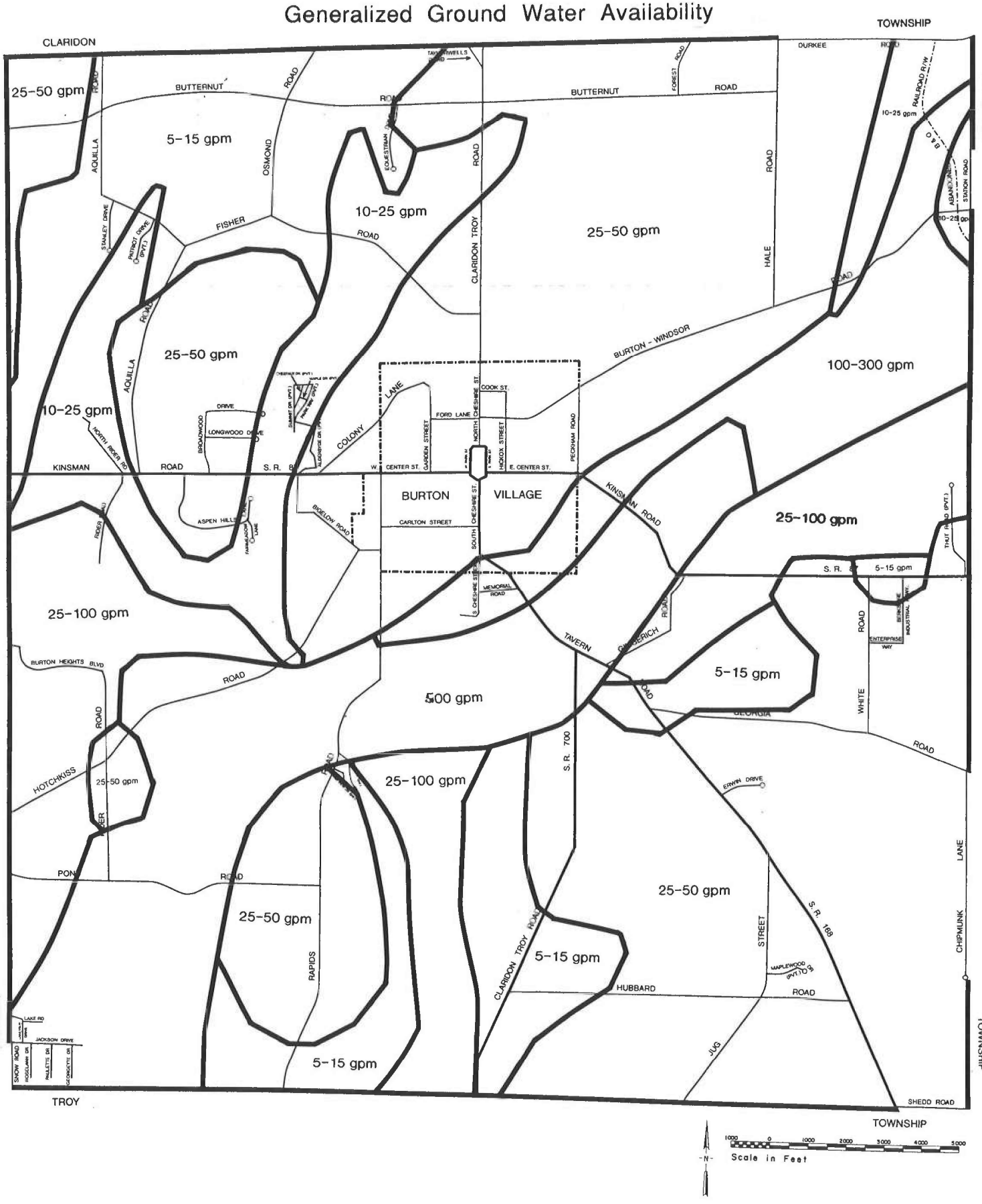
There are no central water supply systems in Burton Township. Therefore, all of the water is generated through on-site wells. As a result, the management of ground water resources is a paramount concern in order to maintain quality and quantity. Potential pollution hazards should be minimized. Such hazards may include malfunctioning septic systems, improper brine disposal from oil and gas wells, as well as runoff from inappropriately applied fertilizers, herbicides, pesticides, and animal wastes.

Ground Water Yields

Expected Gallons Per Minute (GPM)	Acres	% of Township
> 500 GPM	2,205.25	14.76
100-300 GPM	735.20	4.92
25-50 GPM	6,682.95	44.73
25-100 GPM	1,766.00	11.82
10-25 GPM	1,420.30	9.51
5-15 GPM	2,130.30	14.26

Map 21

Generalized Ground Water Availability



Unified Soil Classification System

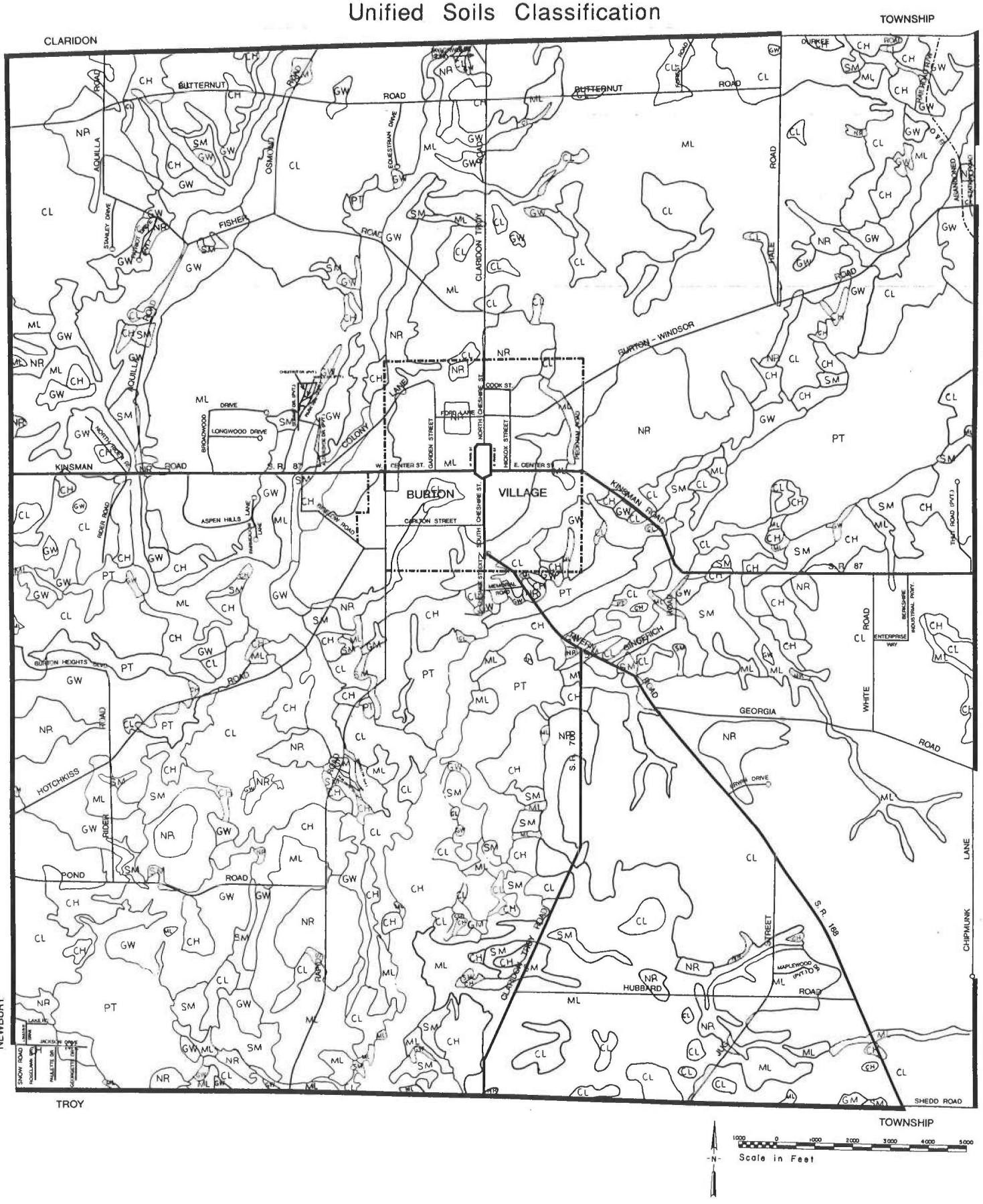
The unified system classifies soils according to properties that affect their use for construction purposes. Soil properties such as texture, plasticity index, liquid limit, and organic matter are identified which affect the bearing strength and the capability of the soil to support roads or building foundations.

Unified Soil Classification Map Legend

Map Symbol	Description
SC	Clayey sands, sand - clay mixtures
GW	Silty gravels, gravel-sand-silt mixtures
SM	Silty sands, sand silt mixtures
ML	Inorganic silts and very fine sands, silty or clayey silts with slight plasticity
CL	Inorganic clays of low to medium plasticity, gravelly clay, sandy clays, silty clays, lean clays
CH	Inorganic clays of high plasticity, fat clays
PT	Peat and other highly organic soils
NR	Not Rated

Map 22

Unified Soils Classification



Corrosion Potential - Concrete

Corrosion potential is a measure of soil induced chemical action that dissolves or weakens unprotected concrete. The rate of corrosion is based mainly upon the texture, acidity, and sulfate content of the soil.

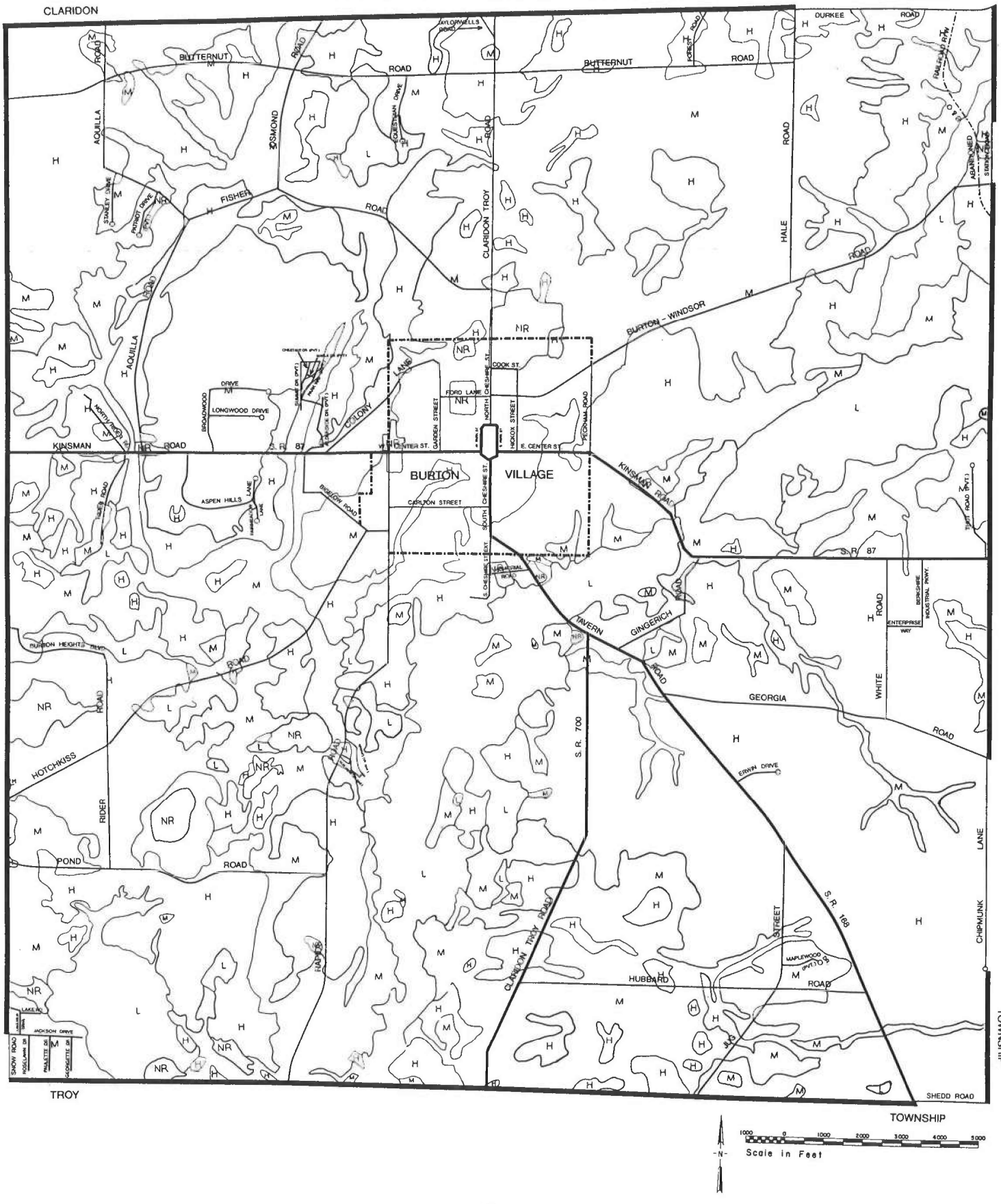
Properly treated concrete will minimize problems associated with underground installations such as footers, foundations, and utilities. A "high" rating represents an increased susceptibility to corrosion and a "low" rating reflects decreased potential for damage. Nearly three-fourths of the township is rated "high" for corrosion potential of uncoated concrete.

Corrosion Potential - Concrete Map Legend

Map Symbol	Rating
L	Low
M	Moderate
H	High
NR	Not Rated

Map 23

Corrosion Potential: Concrete



Corrosion Potential - Steel

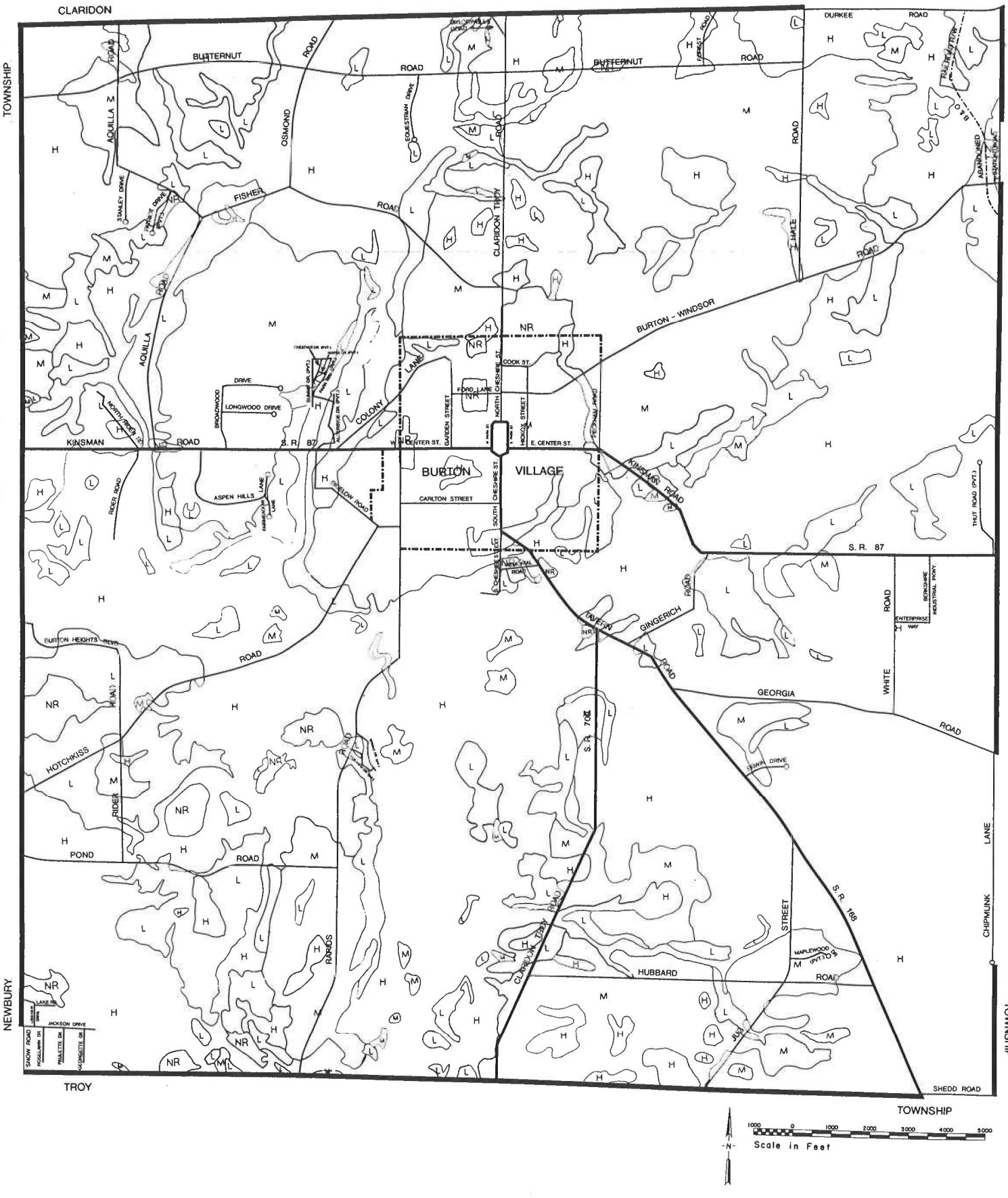
The risk of corrosion is a measure of soil-induced chemical action that dissolves or weakens uncoated steel. The rate of corrosion is related to soil moisture, particle size and distribution, total acidity, and electrical conductivity of the soil. Steel which intersects various soil boundaries is more prone to deterioration than otherwise. The use of appropriate construction techniques will help to alleviate many problems with foundations or utility lines associated with steel corrosion.

Corrosion Potential - Steel Map Legend

Map Symbol	Rating
L	Low
M	Moderate
H	High
NR	Not Rated

Map 24

Corrosion Potential: Steel



Land Capability Analysis

The physical data previously identified and mapped can be expressed in relationship to various land uses. This process is known as a land capability analysis. Land capability may also be defined as the ability of the land to support various uses without creating a significant negative impact upon the environment in the planning area.

The following types of land uses were selected for a capability analysis because they represent historical and current development trends in the township. It must be stressed that the capability maps are not site specific and, therefore, are not meant to replace an on-site investigation.

Dwellings Without Basements: Represents single family homes of three stories or less without basements. The foundation is assumed to be spread footings of reinforced concrete built on undisturbed soil at a depth of two feet or to a maximum frost penetration depth. The ratings include the soil characteristics affecting strength, settlement, excavation and construction. Soil settlement and strength are influenced by drainage, seasonal water table, flooding, shrink-swell, and potential frost action. Soil properties relative to the ease of excavation and construction are depth to bedrock, flooding, slope, and seasonal water table.

Dwellings With Basements: Represents single family homes of three stories or less with basements. The ratings considered the soil characteristics affecting strength, settlement, excavation and construction. Soil strength and settlement are influenced by drainage, seasonal water table, flooding, shrink-swell, and potential frost action. Soil properties relative to the ease of excavation and construction are depth to bedrock, flooding, slope, and seasonal water table.

Commercial and/or Light Industrial: Represents buildings of less than three stories without basements, built upon undisturbed soil. The foundation is assumed to be spread footings of reinforced concrete at a depth of at least two feet or to the maximum frost penetration depth. The

ratings include soil attributes affecting soil strength, settlement, excavation, and construction. The variables affecting the amount and ease of excavation are slope, depth to bedrock, and seasonal water table.

In addition, the following items were chosen to be a part of the capability analysis because they are closely related to the above uses.

Septic Tank Absorption Fields: Represents areas in which effluent from a septic tank is distributed into the soil through subsurface tiles, perforated plastic tubing or perforated pipe. The soil is evaluated between the depths of 24 to 72 inches. Soil adequacy for on-site sewage disposal is based upon permeability, flooding, seasonal water table, and depth to bedrock--all of which influence the absorption of the effluent. Other variables such as slope and depth to bedrock affect the installation of an on-site septic system as well.

Local Roads: Represents the use of soils for the construction of improved local roads that have all-weather surfacing (commonly asphalt or concrete) and are expected to carry vehicular traffic year round. Such roads are assumed to have a subgrade of cut and fill soil material; a base of gravel, crushed rock or stabilized soil material; and a flexible or rigid surface. The variables rated which affect grading and excavation include slope, depth to bedrock, flooding, and a high seasonal water table. Other soil attributes that affect the construction of local roads include: drainage, shrink-swell, frost action, and seasonal water table.

Underground Utilities: Represents the installation of below-grade utilities such as sewer and water pipelines, telephone lines, and electrical lines. The ratings measure the soil attributes affecting corrosion, compactness, and ease of excavation. Compactness and the rate of corrosion are influenced by drainage, shrink - swell, seasonal water table, and corrosion of both steel and concrete. The ease of excavation is influenced by slope, depth to bedrock, and seasonal water table.

The following soil matrix (table 37) outlines all of the variables and their specified properties in the capability analysis. Each subsequent land capability map was produced based upon the ratings which accompany it. The ratings list the variables used, the parameters, and how each of the characteristics were categorized with regard to the specified land use. The following is a description of each rating category.

SLIGHT (SL): The rating provided when conditions for the given use are suitable. The degree of limitation is insignificant and can be easily overcome.

MODERATE (M): The rating provided when conditions for the given use are suitable, yet a degree of limitation exists which may be surmounted with proper engineering, design, and maintenance.

SEVERE (S): The rating provided when conditions exist which are unfavorable for the specified use. However, such conditions do not preclude the given use. Generally, appropriate engineering, design and maintenance are required.

VERY SEVERE (VS): The rating provided when conditions are very environmentally sensitive or unsuitable for the given use due to highly restrictive characteristics. In most instances, it is very difficult and possibly not cost-effective to attempt to overcome these limitations.

NOT RATED (NR): This designation includes disturbed areas that were not categorized such as quarries and cut and fill.

Table 37

Soil Matrix

Soils	Seasonal Water Table(inches)	Drain	Frost Action	Flooding	Bedrock (ft.)	Shrink/ Swell	Permeability (iph)*	Corrosion Concrete*	Corrosion Steel*	Unified*
Bogart (Bg)	24-42	mod.	high	no	5+	low	.6-6.0	high	mod.	SC
Canadice (Ca)	0-12	poor	mod.	no	5+	mod.	-.06	low	high	CL
Caneadea (Cc)	12-30	somewhat	high	no	5+	high	.06-.2	mod.	high	CH
Canfield (Cd)	18-36	mod.	high	no	5+	low	.06-.2	mod.	mod.	ML
Carlisle (Cf)	0-12	very poor	high	yes	5+	-	2.0-6.0	low	high	PT
Chili (Cn)	48+	well	mod.	no	5+	low	2.0-6.0	high	low	GW
Chili (Co)	48+	well	mod.	no	5+	low	2.0-6.0	high	low	GW
Chili-Oshtemo (Cy)	72+	well	mod.	no	5+	low	6-20	high	low	GW
Damascus (Da)	0-12	poor	high	no	5+	low	6.0+	high	high	SM
Ellsworth (Eh)	12-36	mod.	high	no	5+	mod.	-.02	mod.	high	CL
Fitchville (Fc)	12-30	somewhat	high	no	5+	mod.	.2-.6	mod.	high	CL
Geeburg (Gb)	24-42	mod.	mod.	no	5+	high	-.06	high	high	CH
Glenford (Gf)	24-42	mod.	high	no	5+	low	.2-2	mod.	mod.	CL
Haskins (Hs)	30-48	somewhat	high	no	5+	mod.	-.2	mod.	high	CH
Holly (Ho)	0-12	poor	high	yes	5+	low	.6-6	mod.	high	ML
Jimtown (Jt)	12-30	somewhat	high	no	5+	low	2.0-6.0	high	high	SC
Lordstown (Lx)	60+	well	mod.	no	0-40"	low	-	high	low	-
Loudonville (Ly)	60+	well	mod.	no	20-40"	low	-	high	mod.	-
Mahoning (Mg)	12-30	somewhat	high	no	5+	mod.	-.2	high	high	CL
Mahoning (Ms)	12-30	somewhat	high	no	20-40"	mod.	-	high	high	CL
Mitiwanga (Mt)	12-30	somewhat	high	no	20-40"	low	-	mod.	high	CL
Orrville (Or)	12-24	somewhat	high	yes	5+	low	.6-6.0	mod.	high	CL
Oshtemo (Os)	60+	well	low	no	5+	low	>20	high	low	SM
Ravenna (Re)	6-24	somewhat	high	no	5+	low	-.2	high	high	CL
Rawson (Rm)	30-48	mod.	mod.	no	5+	mod.	.06-.2	high	high	CH
Rittman (Rs)	24-36	mod.	high	no	5+	low	.06-.2	high	high	CL
Sebring (Sb)	0-12	poor	high	no	5+	mod.	.2-.6	mod.	high	ML
Wabasha (Wa)	0-12	very poor	high	yes	5+	high	.06-.2	low	high	CH
Wadsworth (Wb)	12-24	somewhat	high	no	5+	low	-.2	high	high	CL
Wallkill (Wc)	0-12	very poor	high	yes	5+	-	2.0-20	mod.	mod.	PT
Willette (Wt)	0-12	very poor	high	yes	5+	high	.06-.2	low	high	CL
Wooster (Wu)	48+	well	mod.	no	5+	low	.2-2.0	high	low	CL

*Horizon dependent variables: A horizon is defined as a layer of soil approximately parallel to the surface that has distinct characteristics produced by soil forming processes.

Table 38

Limitations For Dwellings Without Basements

Variables	Slight	Moderate	Severe	Very Severe*
Drainage	WD, MWD	SPD	PD, VPD	- - - -
Unified Classification	GW, SM, SC	ML, CL	CH	PT
Seasonal Water Table	60"	24-60"	24"	0-6"
Shrink-Swell	Low	Moderate	High	- - - -
Potential Frost Action	Low	Moderate	High	- - - -
Bedrock	60"	0-40"	- - - -	- - - -
Slope	0-6%	6-12%	12-18%	18%
Flooding	None	- - - -	- - - -	Frequent

* Results in an automatic "unsuitable" rating

Map 25

Capability For Dwellings Without Basements

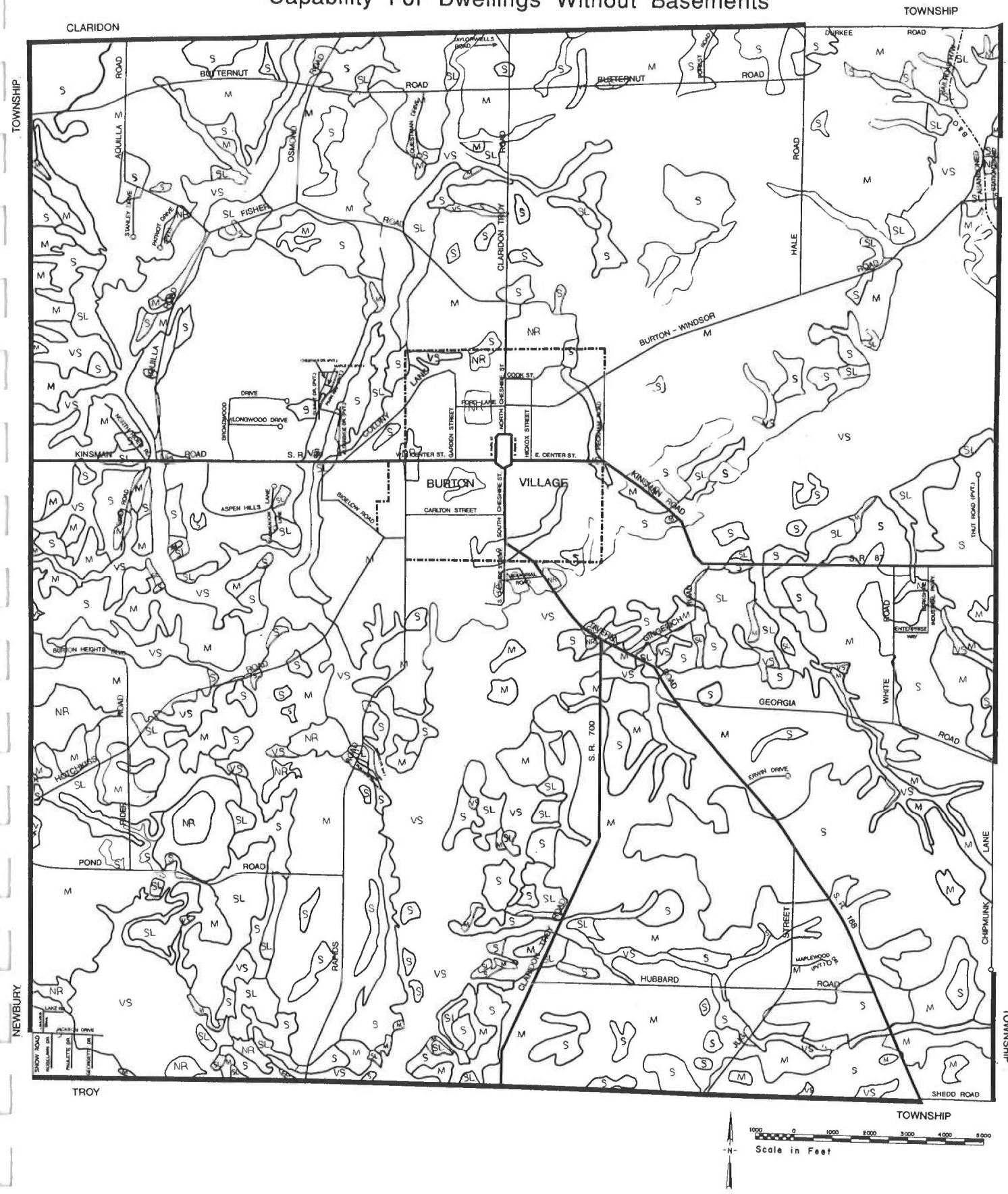


Table 39

Limitations For Dwellings With Basements

	Slight	Moderate	Severe	Very Severe*
Variables				
Drainage	WD	MWD	SPD, PD	VPD
Unified Classification	GW, SM, SC	ML, CL	CH	PT
Seasonal Water Table	60"	36-60"	12-36"	0-12"
Shrink-Swell	Low	Moderate	High	- - - -
Potential Frost Action	Low	Moderate	High	- - - -
Bedrock	60"	- - - -	0-40"	- - - -
Slope	0-6%	6-12%	12-18%	18%
Flooding	None	- - - -	- - - -	Frequent

* Results in an automatic "unsuitable" rating

Map 26

Capability For Dwellings With Basements

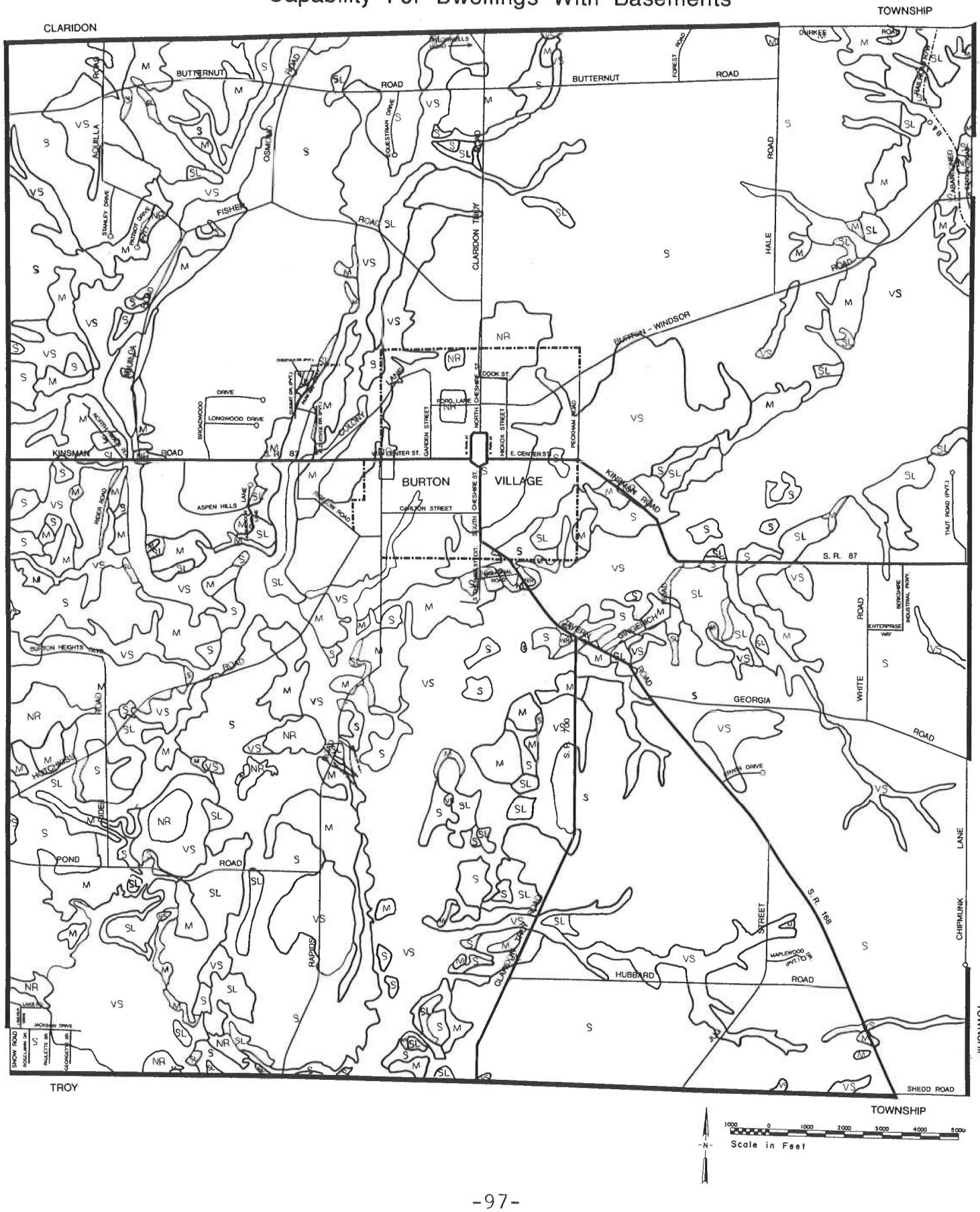


Table 40

Limitations For Commercial And/Or Light Industrial Structures

	Slight	Moderate	Severe	Very Severe*
Variables				
Drainage	WD, MWD	SPD	PD, VPD	- - - -
Unified Classification	GW	SM, SC, ML, CL	CH	PT
Depth to Seasonal Water Table	60"	36-60"	6-36"	0-6"
Shrink-Swell	Low	Moderate	High	- - - -
Bedrock	60"	20-40"	- - - -	- - - -
Slope	0-6%	- - - -	6-12%	12%

* Results in an automatic "unsuitable" rating

Map 27

Capability For Commercial/Light Industrial Structures

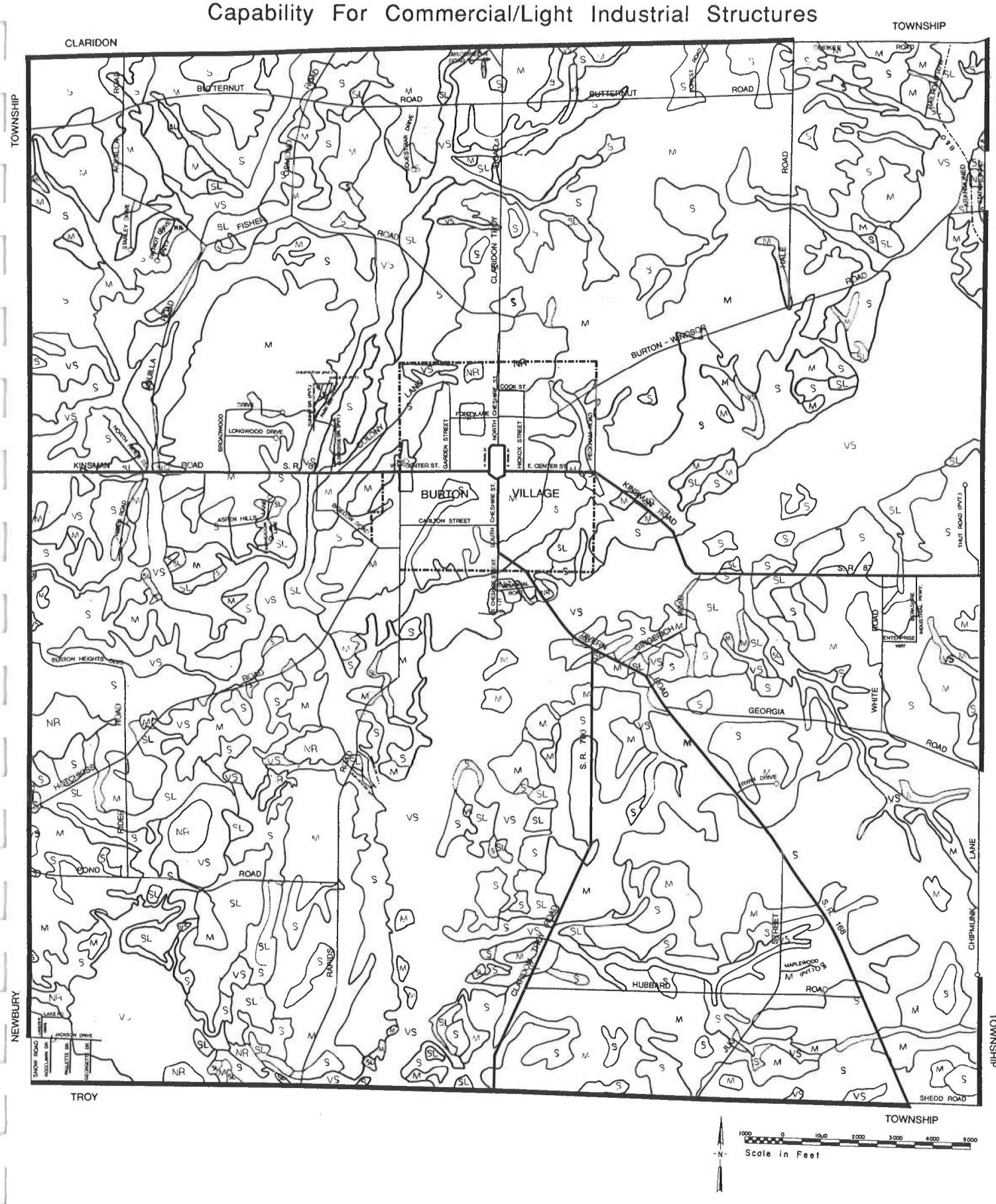


Table 41

Limitations For Septic Tank Absorption Fields

	Slight	Moderate	Severe	Very Severe*
Variables				
Permeability	MR, R	M	MS, S, VS	- - - -
Flooding	None	- - - -	- - - -	Frequent
Slope	0-6%	6-15%	- - - -	15%
Bedrock	+60"	- - - -	- - - -	0-40"
Seasonal Water Table	+60"	30-60"	12-36"	0-12"

* Results in an automatic "unsuitable" rating

Map 28

Capability For On-Site Septic Tank Absorption Fields

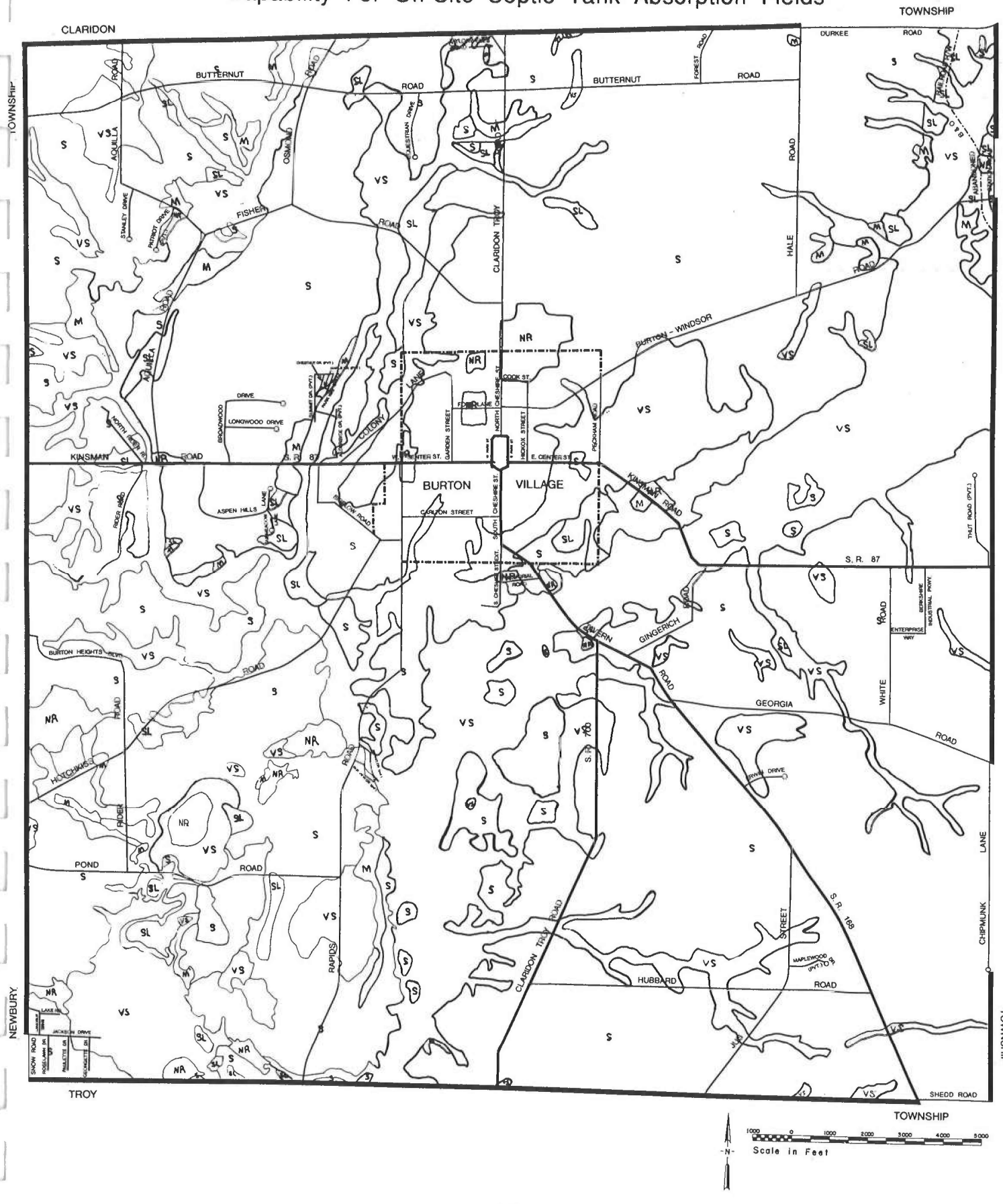


Table 42

Limitations For Local Roads

	Slight	Moderate	Severe	Very Severe*
Variables				
Drainage	WD, MWD	SPD	PD	VPD
Flooding	None	- - - -	Frequent	- - - -
Slope	0-6%	6-12%	12-18%	18%
Bedrock	40"	0-40"	- - - -	- - - -
Unified Soil Classification	GW, SM, SC	Ml, Cl	CH	PT
Shrink-Swell	Low	Moderate	High	- - - -
Frost Action	Low	Moderate	High	- - - -
Depth To Seasonal Water Table	60"	36-60"	12-36"	12"

* Results in an automatic "unsuitable" rating

Map 29

Capability For Local Roads

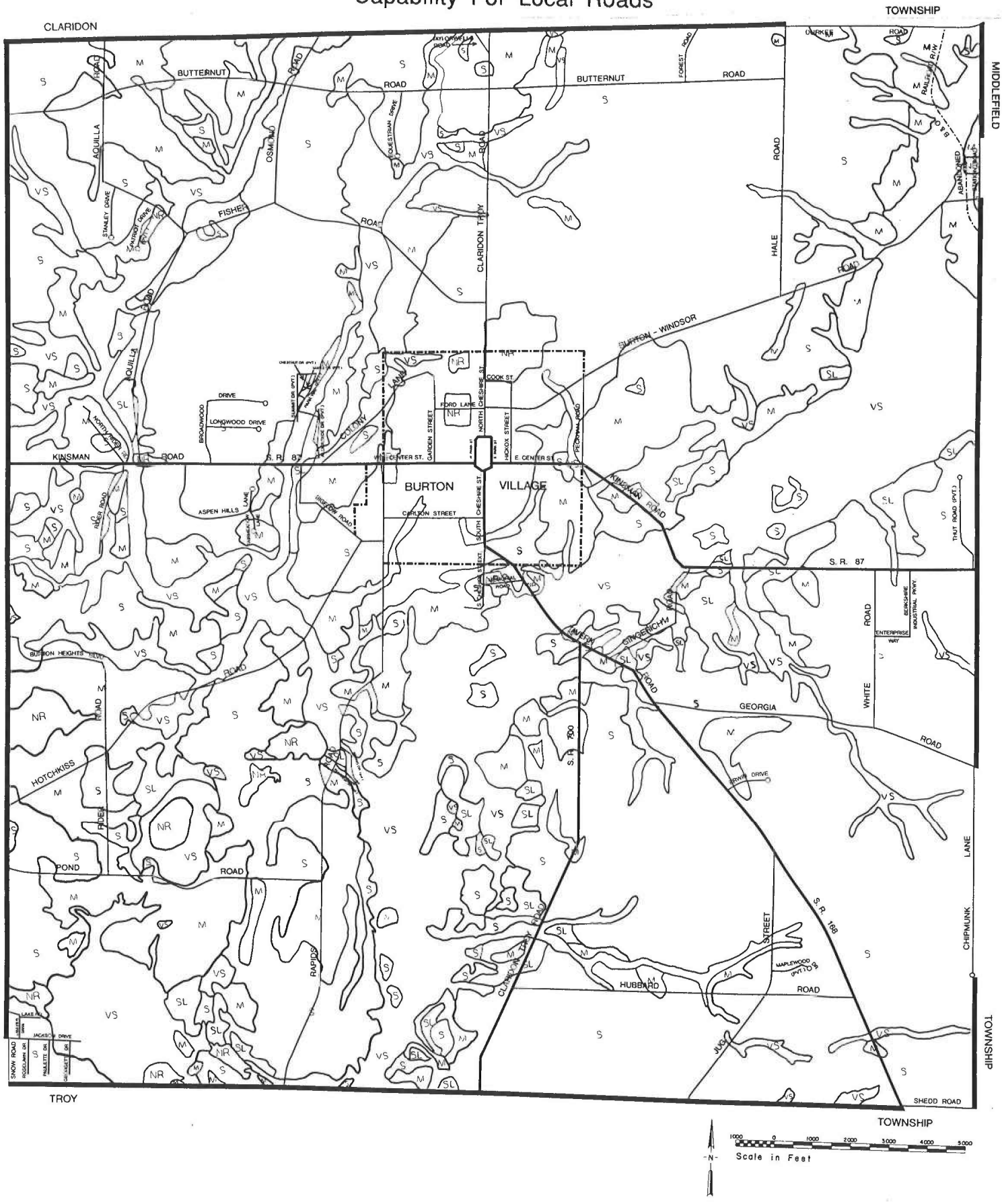


Table 43

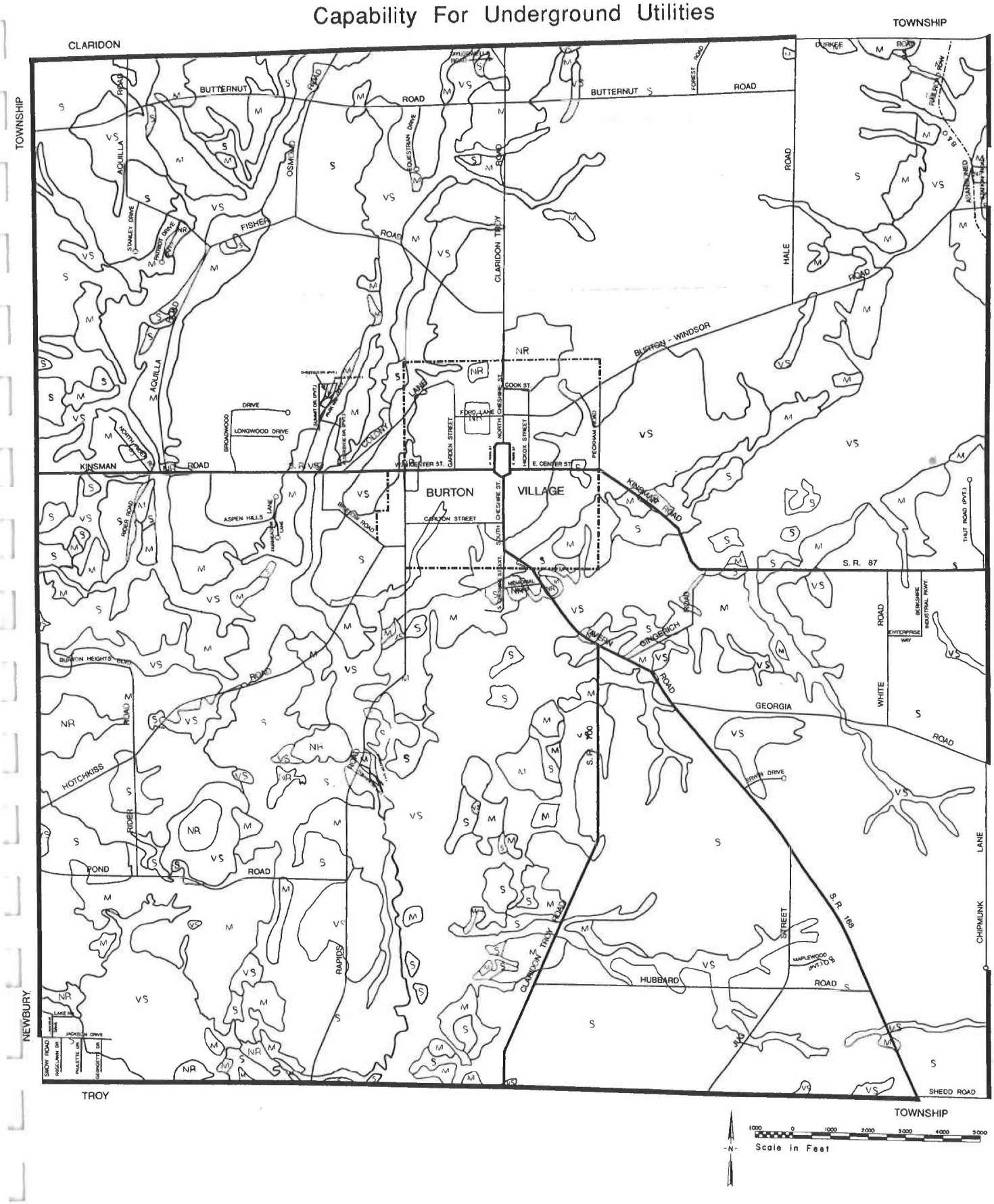
Limitations For Underground Utilities

	Slight	Moderate	Severe	Very Severe*
Variables				
Drainage	WD	MWD	SPD, PD	VPD
Seasonal Water Table	60"	36-60"	12-36"	0-12"
Shrink-Swell	Low	Moderate	High	- - - -
Bedrock	60"	- - - -	- - - -	0-40"
Corrosion Steel	Low	Moderate	High	- - - -
Corrosion Concrete	Low	Moderate	High	- - - -
Slope	0-6%	6-12%	12-18%	18%

* Results in an automatic "unsuitable" rating

Map 30

Capability For Underground Utilities



Composite Capability

The following composite capability map provides a total overview of the township. The map reflects all of the physical features that were discussed earlier in this portion of the plan.

A rating system (see table 44) has also been devised. Generally, the areas rated "slight" have the best potential to support development; and, cover a very small percentage of the township (see composite capability map). The next category is "moderate." Areas rated "moderate" have a fair potential to support development and are limited and scattered throughout the township. The dominant rating found in the township is "severe." Although there are more limitations relative to this category, it does not preclude development--provided appropriate engineering, design and maintenance mechanisms are employed. The final rating, "very severe," is reserved for those areas which should be left undisturbed due to extreme environmentally sensitive conditions. The "not rated" category applies to disturbed areas, such as gravel pits or locations where cut and fill activities have occurred.

Composite Capability Map Legend

Symbol	Rating
SL	Slight
M	Moderate
S	Severe
VS	Very Severe
NR	Not Rated

Map 31

Composite Capability

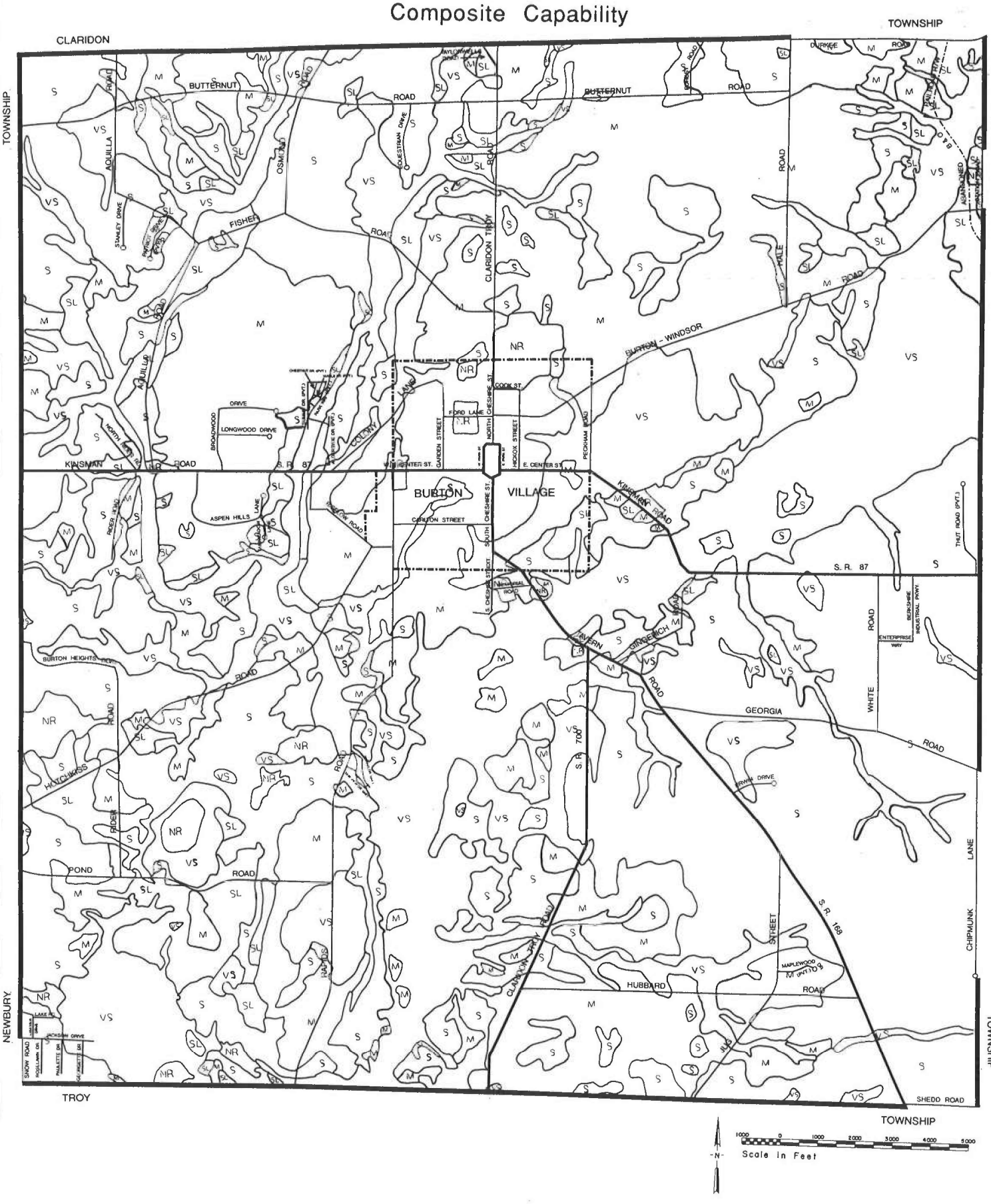


Table 44

Summary of Soil Capability Ratings

Soils	Septic Tanks	Dwell. With Basements	Dwell. Without Basements	Commercial/ Light Industry	Local Roads	Under-Ground Utilities
Bogart (Bg)	sev.	sev.	mod.	mod.	mod.	sev.
Canadice (Ca)	v. sev.	v. sev.	v. sev.	v. sev.	sev.	sev.
Caneadea (Cc)	sev.	sev.	sev.	sev.	sev.	sev.
Canfield (Cd)	sev.	sev.	mod.	mod.	sev.	sev.
Carlisle (Cf)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Chili (Cn)	slight	slight	slight	slight	mod.	mod.
Chili (Co)	slight	slight	slight	slight	mod.	mod.
Chili-Oshtemo (Cy)	slight	slight	slight	slight	mod.	mod.
Damascus (Da)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Ellsworth (Eh)	sev.	sev.	mod.	mod.	sev.	sev.
Fitchville (Fc)	sev.	sev.	sev.	sev.	sev.	sev.
Geeburg (Gb)	sev.	sev.	mod.	mod.	sev.	sev.
Glenford (Gf)	sev.	sev.	mod.	mod.	sev.	sev.
Haskins (Hs)	sev.	sev.	sev.	sev.	sev.	sev.
Holly (Ho)	v.sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Jimtown (Jt)	sev.	sev.	sev.	sev.	sev.	sev.
Lordstown (Lx)	v. sev.	v.sev.	mod.	mod.	sev.	v. sev.
Loudonville (Ly)	v. sev.	v.sev.	mod.	mod.	sev.	v.sev.
Mahoning (Mg)	sev.	sev.	sev.	sev.	sev.	sev.
Mahoning (Ms)	v. sev.	v. sev.	sev.	sev.	sev.	v. sev.
Mitiwanga (Mt)	v. sev.	v. sev.	sev.	sev.	sev.	v. sev.
Orrville (Or)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Oshtemo (Os)	sev.	slight	slight	slight	slight	slight
Ravenna (Re)	sev.	sev.	sev.	sev.	sev.	sev.
Rawson (Rm)	sev.	mod.	mod.	mod.	mod.	mod.
Rittman (Rs)	sev.	sev.	mod.	mod.	sev.	sev.
Sebring (Sb)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Wabasha (Wa)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Wadsworth (Wb)	sev.	sev.	sev.	sev.	sev.	sev.
Wallkill (Wc)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Willette (Wt)	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.	v. sev.
Wooster (Wu)	sev.	sev.	sev.	sev.	sev.	sev.

CHAPTER IV

RECOMMENDATIONS

The following recommendations are offered as a general guide for examination by township decision-makers.

Zoning Map

- Devise and adopt legal descriptions for each zoning district shown on the official zoning map to assist the zoning inspector with enforcement issues.
- Formulate an Industrial-Commercial Zone in place of the existing I-1 and I-2 Zones along S.R. 87.
- Eliminate the Floodplain Zone and absorb it into the contiguous zoning districts.
- Examine the existing R-3 Zone relative to the land capability factors outlined in the land use plan.
- Install the revised zoning map on the township's computer system, as a part of the GIS program, to assist the zoning inspector and the general public.

Zoning Resolution

- Continue to update the zoning resolution using the "Model Township Zoning Resolution" as a guide.
- Examine the permitted and conditional uses allowed in each zoning district in light of the land capability analysis set forth in the land use plan.
- Study the feasibility of installing a permit tracking system tied to the township's GIS program for zoning enforcement purposes and record keeping.

Environment

- Work closely with the Geauga Soil and Water Conservation District on erosion control and stormwater management in new developments.
- Educate developers and the public with respect to "best management practices" to protect riparian corridors.
- Encourage developers to create conservation easements over sensitive lands, such as jurisdictional wetlands, to preserve and protect them.

- Ground water quality and quantity should continue to be monitored through the U.S. Geological Survey.

- Prepare a service area plan in conjunction with the County Water Resources Department and the Board of County Commissioners to clearly identify the boundaries within which future infrastructure (central sanitary sewers) may be installed.

Roads

- Monitor ODOT and NOACA relative to future highway planning and funding programs.

- Maintenance of existing roads should remain a top priority.

- Explore opportunities for road interconnections within new subdivisions to enhance local traffic movement and vehicle safety.

- Continue to bring existing roads up to current design and construction standards, when feasible, for safety purposes.

Agriculture

- Utilize the GIS program to map and identify parcels under the Current Agricultural Use Value (CAUV) program, the agricultural district program, and the forestry program.

- Apprise landowners of the CAUV, agricultural district, and forestry programs available through the County Auditor's office.

Historic Resources

- Identify and map historic sites using the GIS program.

- Encourage property owners to apply for buildings, structures, and uses to be placed on the National Register of Historic Places.

Land Use Plan

- Utilize the land use plan as a general guide for decision-making and periodically update it as conditions may warrant.

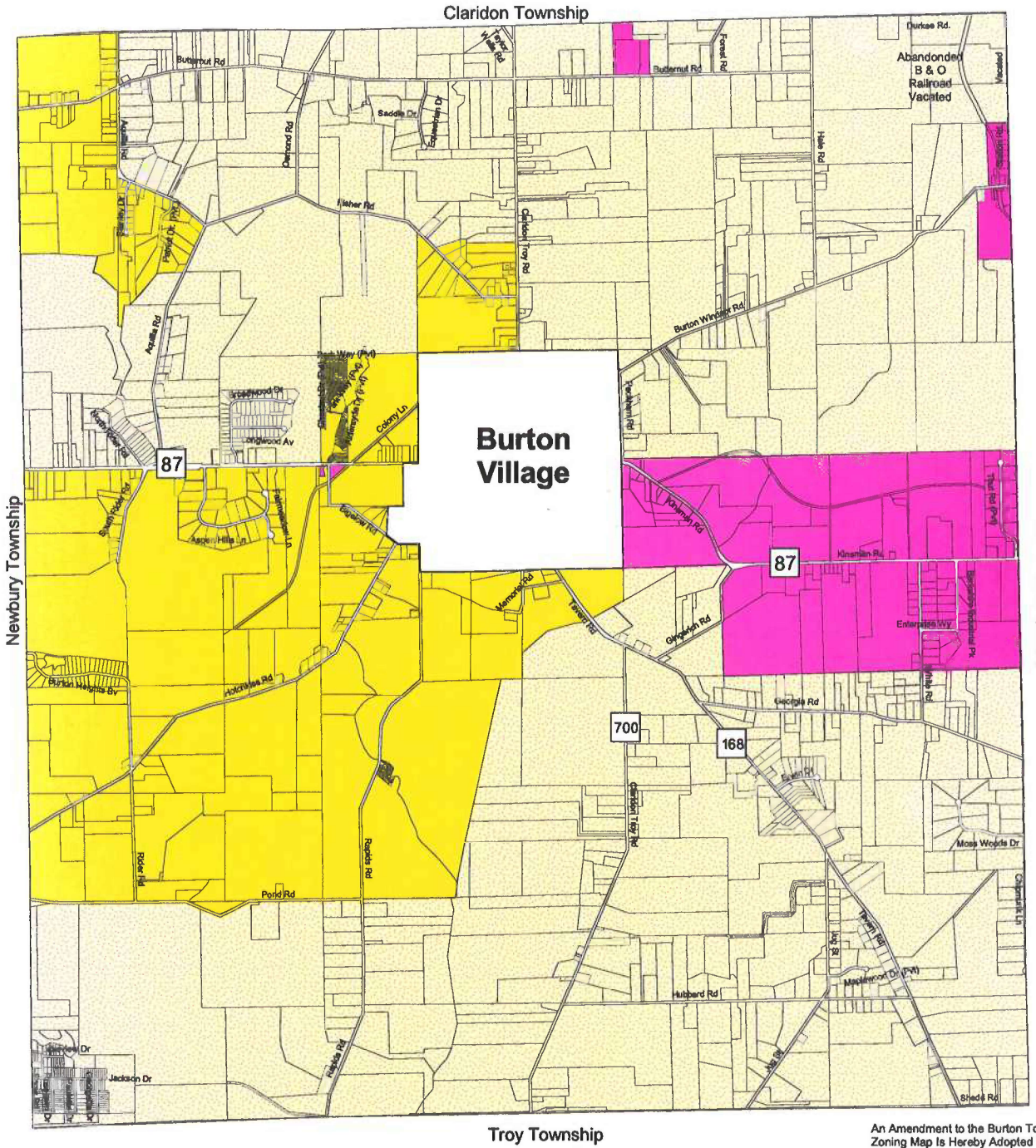
- Load the land use plan on the township's computer and refer to the environmental maps contained in it when advising property owners regarding zoning and related development issues.

Summary

In the introductory segment of this document, it was stressed that zoning should be based upon a land use plan. In order to implement that goal, it is recommended that the Burton Township Zoning Commission and Board of Township Trustees utilize this plan as a guide upon which reasonable and defendable zoning regulations may be built.

It must be emphasized, however, that township land use planning and zoning (if it is to be effective) should be viewed as an ongoing process. Therefore, following the adoption of appropriate zoning regulations, planning activities in the township should not be terminated. Successful planning and zoning requires a continuous effort on the part of public officials in order to meet changing land use needs and circumstances in the community. As a result, a program for periodic review and update of the land use plan and zoning resolution should be established.

With respect to the adoption of amended zoning regulations, it is recommended that the township officials utilize the "Model Township Zoning Resolution" prepared by the County Planning Commission and the County Prosecutor's office. The "Model" will provide a sound legal basis for the township's zoning and it can be tailored to the specific needs and desires of the community as well.



Burton Township Proposed Zoning Map

Zoning Districts

- I-C: Industrial & Commercial
- R-5: Low Density Residential 5 acres
- R-3: Medium Density Residential 3 acres

N

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Feet

An Amendment to the Burton Township Zoning Map Is Hereby Adopted by the Board of Township Trustees this ____ day of _____, 19__.

_____
Trustee: Glenn Marx

_____
Trustee: Frank B. McBride

_____
Trustee: Daniel Whiting

_____
Clerk: Evelyn Luoma

Effective the ____ day of _____, 19__

_____
Clerk: Evelyn Luoma

Prepared by: Geauga County Planning Commission 9/28/99
Geauga County Planning Commission does not warrant the accuracy of this map.

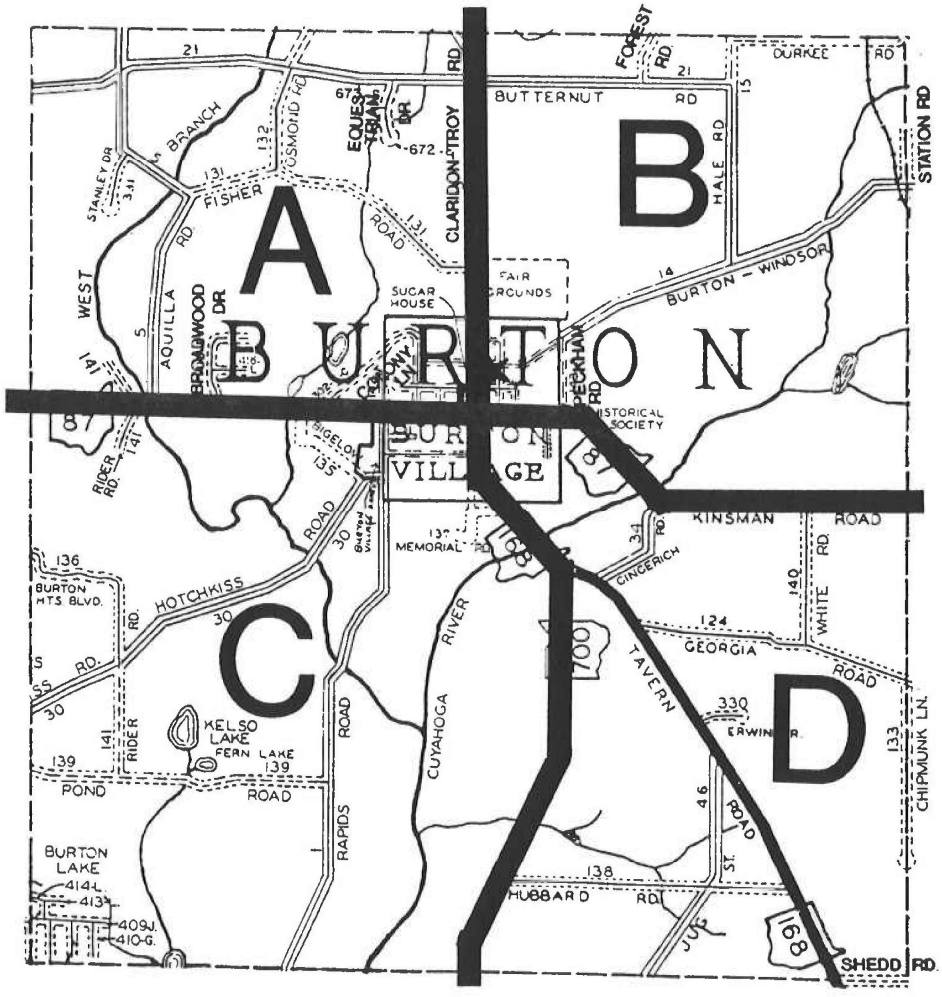
Appendix

SURVEYS SENT:	972
SURVEYS RETURNED:	442
RESPONDED:	45%

BURTON TOWNSHIP SURVEY: 1991

1. In which section of Burton Township do you live?
(Please CHECK the appropriate letter in the space from the map below).

	No.	%
A)	138	33.3
B)	62	15.0
C)	108	26.1
D)	106	25.6



2. What county do you work in?

	a) Wage Earner #1		b) Wage Earner #2	
	No.	%	No.	%
1) Retired	74	17.7	42	14.6
2) Geauga County	175	42.0	146	51.0
3) Cuyahoga County	116	27.8	76	26.5
4) Ashtabula County	6	1.4	5	1.7
5) Lake County	26	6.2	6	2.1
6) Portage County	5	1.2	7	2.4
7) Trumbull County	4	1.1	1	0.3
8) Other	11	2.6	4	1.4

3. What do you feel is the best minimum lot size for residential development without central sewer and water services? (Please check only one answer).

	No.	%		No.	%
a) less than 1.5 acres	16	3.8	e) 4 acres	24	5.7
b) 1.5 acres	45	10.6	f) 5 acres	117	27.6
c) 2 acres	87	20.5	g) other	21	5.0
d) 3 acres	114	26.8			

4. What do you feel should be the minimum lot frontage for residential development? (Please check only one answer).

	No.	%		No.	%
a) less than 200 feet	48	11.3	d) 300 feet	97	22.9
b) 200 feet	163	38.4	e) other	10	2.4
c) 250 feet	106	25.0			

5. What do you feel should be the minimum lot size for general light industrial development? (Please check only one answer).

	No.	%		No.	%
a) 2 acres	48	12.0	d) 5 acres	208	52.1
b) 3 acres	53	13.3	e) other	47	11.8
c) 4 acres	43	10.8			

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6. What do you feel should be the minimum lot size for general commercial development? (Please check only one answer).

	No.	%		No.	%
a) 2 acres	69	16.9	d) 5 acres	183	44.9
b) 3 acres	51	12.5	e) other	83	20.3
c) 4 acres	22	5.4			

7. In your opinion, should the Township's zoning regulations permit the following? (Please check each answer).

	Yes		No	
	No.	%	No.	%
a) An area for a mobile home park	138	32.3	289	67.7
b) Two-family homes (duplexes)	255	60.0	170	40.0
c) Multi-family housing	130	31.2	287	68.8
d) Manufactured housing	211	51.1	202	48.9
e) Mobile homes outside of park	62	15.1	349	84.9

8. In your opinion, how important is it to preserve farmland in Burton Township? (Please check only one answer).

	No.	%		No.	%
a) Very Important	264	61.3	c) Somewhat Important	51	11.8
b) Important	88	20.4	d) Not Important	28	6.5

9. What do you like about living in Burton Township? (Please check each answer).

	Yes		No	
	No.	%	No.	%
a) Rural atmosphere	420	99.1	4	0.9
b) Rate of development	254	64.0	143	36.0
c) Housing opportunities	233	59.4	159	40.6
d) Commercial/industrial development	154	39.8	233	60.2
e) Public schools	327	82.2	71	17.8
f) Zoning regulations in effect	286	73.3	104	26.7
g) Employment opportunities	173	43.7	223	56.3
h) Quality of the environment	389	94.0	25	6.0
i) Availability of shopping/services	230	56.9	174	43.1
j) Availability of parks/recreation	273	67.6	131	32.4
k) Good farmland	363	89.4	43	10.6
l) Road maintenance	259	64.1	145	35.9
m) Public services	238	62.0	146	38.0
n) Other	16	69.6	7	30.4

10. Which of the following would you like to see more of in Burton Township? (Please check each answer).

	Yes		No	
	No.	%	No.	%
a) Residential development	189	45.9	223	54.1
b) Commercial development	171	40.9	247	59.1
c) Light industrial development	214	51.1	205	48.9
d) Parks/recreation facilities	300	73.9	106	26.1
e) Preservation of farmland	366	88.2	49	11.8
f) Road maintenance	321	79.5	83	20.5
g) Shopping facilities	182	44.6	226	55.4
h) Recycling program	364	88.4	48	11.6
i) 911 - Emergency Service	370	89.2	45	10.8
j) Preservation of wetlands	340	82.7	71	17.3
k) Other	12	75.0	4	25.0

11. Burton Township owns land directly behind and adjacent to the administration building on Rapids Road. If funds were available, would you: (Please check each answer).

	Yes		No	
	No.	%	No.	%
a) Want to see park facilities developed on a small portion of this land?	316	77.1	94	22.9
b) Be willing to volunteer assistance for park projects?	180	47.6	198	52.4
c) Like to see one or more of these projects in a park:				
1) Pavilion with electricity, fireplace, wheelchair ramp, handicapped tables	305	76.4	94	23.6
2) Horseshoe pits	235	62.7	140	37.3
3) Tennis courts	219	58.7	154	41.3
4) Basketball courts (ice skating rink when flooded in winter)	280	70.9	115	29.1
5) Playground	296	77.3	87	22.7
6) Other	25	100.0	0	0.0

12. The following is a list of public services. Please rate each item by checking the appropriate column.

	Excellent		Good		Fair		Poor	
	No.	%	No.	%	No.	%	No.	%
a) Fire protection	155	38.3	214	52.8	30	7.4	6	1.5
b) Police protection (Sheriff)	67	16.6	198	49.0	99	24.5	40	9.9
c) Ambulance service	125	31.9	208	53.1	51	13.0	8	2.0
d) Health services/facilities (county)	74	19.2	211	54.7	85	22.0	16	4.1
e) Schools	69	17.2	231	57.5	86	21.4	16	3.9
f) Recreational facilities	20	5.0	116	29.0	161	40.3	103	25.7
g) Road maintenance	35	8.6	173	42.6	135	33.3	63	15.5
h) Environmental controls (county)	29	7.4	169	43.2	142	36.3	51	13.1
i) Zoning enforcement	46	12.1	189	49.9	106	28.0	38	10.0
j) Other	1	20.0	1	20.0	0	0.0	3	60.0

13. Zoning and other land use regulations have several objectives. Please indicate your feelings about each of the possible objectives listed below.

VI - Very Important
SI - Somewhat Important
NI - Not Important

	VI		SI		NI	
	No.	%	No.	%	No.	%
a) To protect property values	261	80.1	56	17.2	9	2.7
b) To protect the character of the community	322	76.7	83	19.7	15	3.6
c) To protect farmland	275	65.5	106	25.2	39	9.3
d) To protect property from flood damage	253	61.0	122	29.4	40	9.6
e) To protect the environment	339	81.1	74	17.7	5	1.2
f) To protect open space and recreation areas	276	65.9	124	29.6	19	4.5
g) To protect the economy of the community	270	65.9	124	30.2	16	3.9
h) To control the pace of development	285	68.8	95	23.0	34	8.2
i) To separate incompatible land uses	253	63.1	127	31.7	21	5.2
j) To direct development into areas best suited for it	268	67.7	114	28.8	14	3.5
k) To control the type of development which takes place in the community	322	78.7	67	16.4	20	4.9
l) Other						

14. How concerned are you about each of the following issues?

VC - Very Concerned
SC - Somewhat Concerned
U - Unconcerned

	VC		SC		U	
	No.	%	No.	%	No.	%
a) Increased population	190	46.6	164	40.2	54	13.2
b) Residential development	184	44.2	178	42.8	54	13.0
c) Commercial development	203	49.5	159	38.8	48	11.7
d) Industrial development	228	56.4	131	32.4	45	11.2
e) Quality of drinking water	358	85.2	47	11.2	15	3.6
f) Surface water quality (streams, ponds, springs) in relation to livestock	290	68.7	107	25.4	25	5.9
g) Surface water quality (streams, ponds, springs) in relation to recreation	266	64.6	118	28.6	28	6.8
h) Surface water quality (streams, ponds, springs) in relation to wildlife	290	69.9	105	25.3	20	4.8
i) Other						

15. In general, are all of the following types of facilities within reasonable reach? (Please check each answer).

	Yes		No	
	No.	%	No.	%
a) Shopping facilities	342	81.8	76	18.2
b) Recreation & leisure time facilities for adults	275	65.5	145	34.5
c) Recreation & leisure time facilities for children	232	57.6	171	42.4
d) Educational facilities	387	93.3	28	6.7
e) Employment opportunities	246	58.7	173	41.3
f) Other				

16. Please feel free to make any additional comments or suggestions in the space remaining. We tried to address all the concerns of the community in this survey. However, if there are other areas you feel should be addressed, please add them.

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THANK YOU VERY MUCH FOR YOUR HELP!

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