

Growth Management Plan

for

Village of Birch Run



Updated June 2022

Table of Contents

DEMOGRAPHIC ANALYSIS	1
POPULATION GROWTH.....	1
TABLE 1	2
MAP 1 POPULATION GROWTH	4
HOUSEHOLD SIZE	5
TABLE 2	5
NUMBER OF HOUSEHOLDS.....	5
TABLE 3	6
HOUSEHOLD COMPOSITION	6
TABLE 4	7
AGE DISTRIBUTION	8
TABLE 5	8
HOUSING.....	8
TABLE 6	9
TABLE 7	10
TABLE 8	11
INCOME AND OCCUPATION.....	11
TABLE 9	11
TABLE 10	12
TABLE 11	12
TABLE 12	13
PROJECTIONS	13
TABLE 13	13
TABLE 14	14
TABLE 15	15
LAND USE	16
EXISTING LAND USE	16
LAND USE CATEGORIES.....	16
EXISTING LAND USE	17
MAP 2 LAND USE 1978.....	19
MAP 3 LAND USE 1988.....	20
MAP 4 LAND USE 1997.....	21
MAP 4A LAND USE 2000	22
TABLE 16	23

CHANGES IN STATE EQUALIZED VALUE (SEV)	23
TABLE 17	24
NATURAL FEATURES	26
FLOODPLAINS.....	26
WETLANDS	26
MAP 5 WETLANDS.....	28
WOODLANDS	28
SOILS	29
Map 6 SOIL TYPES IN THE VILLAGE OF BIRCH RUN	31
TABLE 18	32
MAP 7 LIMITATIONS TO SEPTIC TANK ABSORPTION FIELDS.....	34
MAP 8 LIMITATIONS TO BUILDINGS WITH BASEMENTS.....	35
MAP 9 RUNOFF POTENTIAL	36
ROAD NETWORK	37
HIGHWAYS	37
ALL WEATHER ROADS	37
ROAD CAPACITY	38
TRAFFIC ACCIDENTS	39
ACCESS MANAGEMENT	40
TRAFFIC CIRCULATION AND VEHICULAR PARKING STUDY	41
MAP 10 BIRCH RUN AREA ROAD CLASSIFICATION & TRAFFIC COUNT	42
MAP 11 VILLAGE OF BIRCH RUN ROAD CLASSIFICATION & TRAFFIC COUNT IN 1997.....	43
MAP 12 ACCIDENT LOCATION.....	44
COMMERCIAL DISTRICTS ANALYSIS	46
WHAT IS A DOWNTOWN?.....	46
VILLAGE DOWNTOWN DEVELOPMENT AUTHORITY PLAN	47
MAP 13 VILLAGE OF BIRCH RUN DDA BOUNDARY LINES	48
TODAY'S COMMERCIAL AND DOWNTOWN TRENDS.....	51
AGRICULTURAL LAND IN THE VILLAGE	53
PA 116 LAND IN THE VILLAGE	53
PUBLIC FACILITIES AND SERVICES	54
WATER SYSTEM.....	54
SANITARY SEWER SYSTEM	56
MAP 14 PUBLIC WATER SYSTEM.....	58
MAP 15 SANITARY SEWER	59

MAP 16 STORM SEWER	60
POLICE PROTECTION	61
FIRE PROTECTION.....	61
PUBLIC WORKS.....	61
PUBLIC LAND AND BUILDINGS	62
MAP 17 PUBLIC FACILITIES.....	63
PARKS AND RECREATION PLAN.....	66
PUBLIC INPUT	68
ATTITUDE SURVEY.....	68
TOWN MEETINGS.....	79
MAP 18 SURVEY PLANNING AREAS.....	81
GOALS AND POLICIES.....	82
INTRODUCTION.....	82
ECONOMY	82
LAND USE	83
DOWNTOWN.....	84
INDUSTRIAL DEVELOPMENT	84
COMMERCIAL DEVELOPMENT	84
RESIDENTIAL DEVELOPMENT/NEIGHBORHOODS.....	85
OPEN SPACE, PARKS AND RECREATION.....	86
CAPITAL IMPROVEMENTS.....	87
TRANSPORTATION	87
UTILITIES.....	88
PUBLIC SERVICES.....	88
HEALTH.....	89
EDUCATION	89
VISUAL CHARACTER	89
CITIZEN ATTITUDES/OPPORTUNITY	90
INTERGOVERNMENTAL COOPERATION	91
LAND USE PLAN.....	92
LAND USE CLASSIFICATION SYSTEM AND LOCATIONAL CRITERIA.....	92
MAP 19 FUTURE LAND USE MAP	94
IMPLEMENTATION PLAN.....	94
INFRASTRUCTURE ANALYSIS	95
TABLE 19	98

MAP 20 TRANSPORTATION ALTERNATIVES SELECTED OPTIONS.....	100
MAP 21 INFRASTRUCTURE ISSUES	101
APPENDIX A	1
STUDY AREA	1
STUDY APPROACH.....	1
MAP 22 PLANNING AREAS	2
SUMMARY OF RECOMMENDATIONS.....	3
VILLAGE PARKING STUDY	6
SUMMARY OF RECOMMENDATIONS.....	6

DEMOGRAPHIC ANALYSIS

The purpose of this section is to analyze key indicators of change in the Village of Birch Run. The degree of change within the Village will enable community leaders to better understand current and projected trends taking place. It is with this understanding and knowledge that informed decisions can be made regarding “future growth” within the Village.

Much of the information contained in this section comes from the “trends and conditions” section of the Village of Birch Run and Birch Run Township Joint Plan for Planning.

Key indicators that are analyzed can be grouped into the following categories:

- Size of Population/Population Growth
- Household Size
- Number of Households
- Household Composition
- Age Distribution
- Housing
- Income and Occupation
- Projections

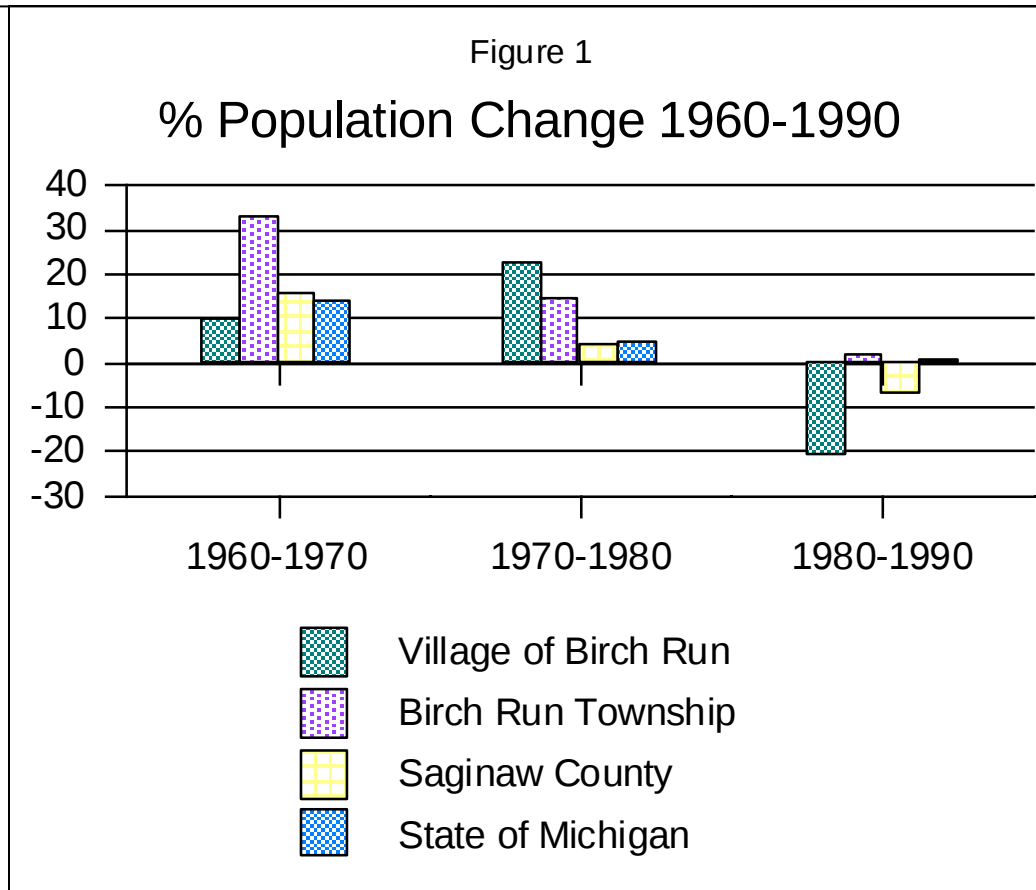
These indicators are analyzed, over time, in order to identify trends and make projections that may have a significant impact on future land use planning in the community. Of greater importance to the Village may be the impact on future services and programs needed to accommodate and manage growth.

POPULATION GROWTH

During the last three decades, population growth has been slow and some areas negative as shown on Map 1, Table 1 and Figure 1. Census data indicates that between 1980 to 1990 the Village lost 204 people, which represents a drop of 21 % over the ten year period. Birch Run Township gained only 70 new residents, for a modest increase of just 2 % between 1980 and 1990. During this same period, the surrounding communities all suffered a net loss of residents. These census figures do not reflect the recent increase in residential growth that has occurred in the Village over the past five years with multifamily and mobile home park development.

TABLE 1 POPULATION OF BIRCH RUN AND SURROUNDING COMMUNITIES 1980—1990				
Community	1980	1990	Total Change 1980–1990	Percent Change 1980–1990
SAGINAW COUNTY				
Village of Birch Run	1,196	992	–204	–17.0%
Birch Run Township	5,488	5354	-134	–2.4%
Bridgeport Township	13,978	12,747	–1231	–8.8%
Buena Vista Township	12,768	10,900	–1868	–14.6%
Carrollton Township	7,482	6,521	–961	–12.8%
City of Frankenmuth	3,753	4,408	655	17.4%
Frankenmuth Township	2,389	2,122	–267	–11.2%
Taymouth Township	4,581	4,524	–57	–1.2%
GENESEE COUNTY				
City of Clio	2,669	2,629	–40	–1.5%
Montrose Township	7,870	6236	-1,634	–20.8%
Thetford Township	8,499	8,333	–166	–2.0%
Vienna Township	12,914	13,210	296	2.3%
TUSCOLA COUNTY				
Arbela Township	3,192	3,182	–10	–0.3%
Tuscola Township	2,255	2,144	–111	–4.9%

Source: US Census, 1980, 1990



MAP 1 POPULATION GROWTH

POPULATION TRENDS BIRCH RUN TOWNSHIP AND SURROUNDING AREA

<u>BRIDGEPORT TOWNSHIP</u> 1970: 12,896 +1,082 OR 8.4% 1980: 13,978 -1,231 OR -8.8% 1990: 12,747	<u>FRANKENMUTH TOWNSHIP</u> 1970: 1,965 +424 OR 21.6% 1980: 2,389 -267 OR -11.2% 1990: 2,122	<u>CITY OF VASSAR</u> 1970: 2,802 -75 OR -2.7% 1980: 2,727 -168 OR -6.2% 1990: 2,559
	 <u>CITY OF FRANKENMUTH</u> 1970: 2,834 +919 OR 32.4% 1980: 3,753 +655 OR 17.4% 1990: 4,408	<u>TUSCOLA TOWNSHIP</u> 1970: 1,960 +295 OR 15.1% 1980: 2,255 -111 OR -4.9% 1990: 2,144
<u>TAYMOUTH TOWNSHIP</u> 1970: 3,196 +1,385 OR 43.3% 1980: 4,581 -57 OR -1.2% 1990: 4,524	<u>BIRCH RUN TOWNSHIP</u> 1970: 4,618 +870 OR 18.8% 1980: 5,488 -134 OR -2.4% 1990: 5,354	<u>ARBELA TOWNSHIP</u> 1970: 2,560 +632 OR 24.7% 1980: 3,192 -10 OR -0.3% 1990: 3,182
 <u>CITY OF MONTROSE</u> 1970: 1,789 -83 OR -4.6% 1980: 1,706 +105 OR 6.2% 1990: 1,811	 <u>CITY OF CLIO</u> 1970: 2,357 +312 OR 13.2% 1980: 2,669 -40 OR -1.5% 1990: 2,629	<u>THETFORD TOWNSHIP</u> 1970: 6,014 +2,485 OR 41.3% 1980: 8,499 -166 OR -2.0% 1990: 8,333
 <u>MONTROSE TOWNSHIP</u> 1970: 6,468 +1,402 OR 21.7% 1980: 7,870 -1,634 OR -20.8% 1990: 6,236	<u>VIENNA TOWNSHIP</u> 1970: 9,359 +3,555 OR 38.0% 1980: 12,914 +296 OR 2.3% 1990: 13,210	

MAP 1



PREPARED BY
ROWE ENGINEERING INC.

FLUSHING
1449 E. Pierson
810-659-3103

OTHER OFFICES LOCATED IN:
CARO FLINT
CORUNNA MT. PLEASANT
LAPEER

Card No: 06PS6172
Job No: S-5172

HOUSEHOLD SIZE

Household size decreased in the Village and the Township, as well as in all adjacent municipalities. Between 1980 and 1990, the number of persons per household declined from 2.98 to 2.38 in Village of Birch Run, and from 3.06 to 2.95 in Birch Run Township as shown in Table 2. This follows a nation wide trend that has seen a consistent drop in average household size since the turn of the century with smaller families, childless couple families, and more single parent households. The number of persons per household is an indicator of the size and composition of families. There are likely more single parent families and empty nester families in the Village than in the Township.--

TABLE 2 PERSONS PER HOUSEHOLD 1980 – 1990 BIRCH RUN AND SURROUNDING COMMUNITIES				
Community	1980	1990	Total Change 1980–1990	Percent Change 1980–1990
Saginaw County				
Village of Birch Run	2.98	2.38	–0.68	–25%
Birch Run Township	3.06	2.95	–0.11	–4%
Bridgeport Township	2.98	2.51	–0.47	–19%
Buena Vista Township	2.53	2.37	–0.16	–7%
Carrollton Township	2.78	2.42	–0.36	–15%
City of Frankenmuth	2.32	2.01	0.31	–15%
Frankenmuth Township	3.29	2.70	–0.50	–22%
Taymouth Township	3.39	2.98	–0.41	–14%

NUMBER OF HOUSEHOLDS

The result of dropping household size is that municipalities may decrease or remain constant in total population and still experience an increase in the number of households in the community. For example, the number of households increased 27% in Birch Run Township and 3% in the Village of Birch Run between 1980 and 1990. In surrounding Townships, growth in the number of households ranged from a decline of 2 % in Montrose Township(Genesee County) to a 50 % increase in the City of Frankenmuth (see Table 3).

**TABLE 3
HOUSEHOLDS
1980 – 1990**

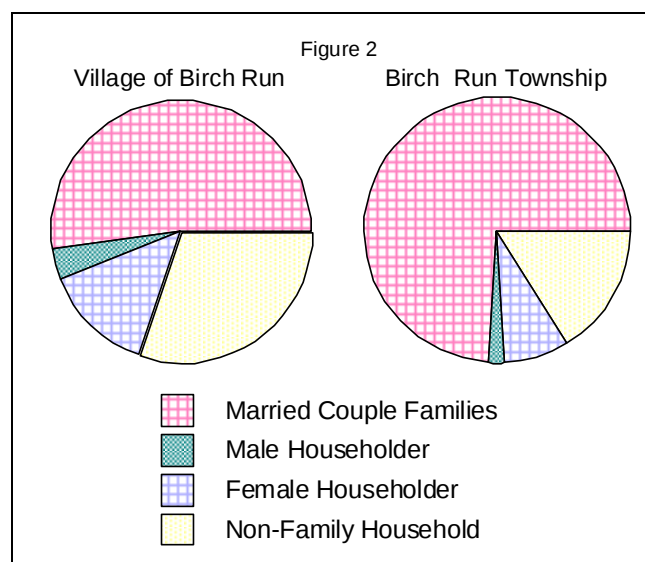
Community	1980	1990	Total Change 1980 – 1990	Percent Change 1980–1990
SAGINAW COUNTY				
Village of Birch Run	402	416	14	3%
Birch Run Township	1,077	1,481	404	27%
Bridgeport Township	3,208	4,514	1,306	29%
Buena Vista Township	2,219	4,039	1,820	45%
Carrollton Township	1,816	2,404	588	24%
City of Frankenmuth	920	1,838	918	50%
Frankenmuth Township	641	711	70	10%
Taymouth Township	1,170	1,461	291	20%

HOUSEHOLD COMPOSITION

- The term “household composition” is used to describe the general structure of households. The U.S. Bureau of the Census divides households into several categories:
- Married Couple Families composed of both spouses, with or without children.
- Single Head of Household, Families composed of one parent, with children or other relative.
- One person Household, 65+ years of age.
- One person Household under 65 years of age.
- Other Non-Family Households composed of unmarried couples and people sharing housing.

Table 4 and Figure 2 shows that a significantly large proportion (74%) of households in Birch Run Township consisted of married couple families. By contrast, the Village of Birch Run had a smaller share of its households (52%) made up of married couple families in 1990. The remaining 48% of the households in the Village consisted of single parent, single person, or non-family households. One of the reasons for this difference was a relatively large number of low cost dwellings such as apartments or mobile homes in the Village, which were suitable for households with one income or a fixed income. These high density residential developments are often inappropriate for rural areas without municipal services.

TABLE 4				
COMPOSITION OF HOUSEHOLDS				
	Village of Birch Run	%	Birch Run Township	%
Married Couple Families	215	52	1,092	74
Male Householder	17	4	35	2
Female Householder	58	14	114	8
Non-Family Household	126	30	240	16
Number of Households	416	100	1,469	100



This trend is nationwide, and will likely continue into the future. One of the potential results of this trend could be a shift in the types of housing being constructed. Due to a shrinking household size, a significant proportion of housing characterized by a smaller floor area and 2 or fewer bedrooms could be constructed in the future.

AGE DISTRIBUTION

The age distribution of the community suggests maturing families with children and a relatively moderate number of persons 65 years and over, as shown in Table 5. This is reflective of the national trends in age distribution, which result from the “baby boom” of the late 1940s to late 1950s. The population segment born during this period has impacted American society dramatically as they have aged, affecting demands for products, housing, and jobs. Recent in-migrants into the Township and Village has the potential of altering the age distribution of the community somewhat, but the current 40–55 year age cohort can be expected to continue to dominate the age demographics of the Village and Township.

TABLE 5 AGE 1990								
	Village of Birch Run		Birch Run Township		Saginaw County		State of Michigan	
	#	%	#	%	#	%	#	%
Under 5 Years	73	7	305	7	1,6428	8	702,554	7.5
5–17 Years	159	16	883	20	4,3149	20	1,756,211	18.9
18–24 Years	134	14	401	9	2,1289	10	1,004,527	10.7
25–44 Years	309	31	1,434	33	6,4381	30	2,908,702	32.0
45–64 Years	197	20	983	23	4,1096	19	1,742,542	18.6
65 + over	120	12	356	8	2,5603	12	1,108,461	11.8
Median Age	32.4	—	33.4	—	32.7	—	32.6	—

The median age of the community closely parallels the County and State figures. The 1990 median age in the Township was 33.4 years and the Village was 32.4 years. The County and State figures were 32.7 and 32.6 years, respectively.

HOUSING

The 1990 census shows 1,997 dwelling units in Birch Run Township (including the Village); 470 are in the Village of Birch Run and 1527 are outside the Village, in the Township.

Table 6 shows the characteristics of the dwelling units in the Village and in those areas of the Township outside the Village.

TABLE 6 DWELLING UNIT CHARACTERISTICS 1990			
Village of Birch Run		Birch Run Township (excluding Village)	
TENURE			
Owner Occupied	234	Owner Occupied	1,327
Renter Occupied	182	Renter Occupied	154
OCCUPANCY			
Occupied	416	Occupied	1,481
Unoccupied	56	Unoccupied	54
VALUE			
<\$15,000	3	<\$15,000	10
\$15,000 – \$29,999	24	\$15,000 – \$29,999	55
\$30,000 – \$59,999	450	\$30,000 – \$59,999	124
\$60,000 – \$99,999	64	\$60,000 – \$99,999	397
\$100,000+	3	\$100,000+	51
DWELLING TYPE			
Single Family – Detached	260	Single Family – Detached	1,363
Single Family – Attached	3	Single Family – Attached	10
Duplex	18	Duplex	19
3–4 Units	22	3–4 Units	14
5–9 Units	56	5–9 Units	19
10–19 Units	104	10–19 Units	0
Mobile Homes	2	Mobile Homes	76
Other	5	Other	26

The statistics show that the Village provides the majority of rental units in the area and has a higher percentage of multi family units. Those portions of the Township, outside the Village, are characterized by single family detached residences, and the housing stock has a higher value.

Tables 7 and 8 present recent building permit activity in both jurisdictions. Most new development has been single family homes. The Village had one dozen multifamily units and a manufactured home community built between 1992 and 1996. The Village experienced substantial commercial development in the last five years.

TABLE 7 VILLAGE OF BIRCH RUN BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
	SF	MF		
1987	—	—	3	—
1988	2	3	6	—
1989	1	1	8	—
1990	1	—	1	—
1991	1	—	2	—
1992	1	—	6	—
1993	8	3	10	—
1994	18	—	8	—
1995	5	4	4	—
1996	8	5	8	—

TABLE 8 BIRCH RUN TOWNSHIP BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
	SF	MF		
1987	11	1	—	—
1988	17	—	1	—
1989	17	—	4	1
1990	17	—	1	—
1991	16	—	1	—
1992	21	—	1	—
1993	24	—	2	—
1994	27	—	1	—
1995	36	—	2	—
1996	34	—	5	1

INCOME AND OCCUPATION

Table 9 shows that the median household income, in the Village of Birch Run, in 1989 was \$24,722. This was significantly lower than both Birch Run Township (\$33,004) and Saginaw County (\$27,980), as well as, the State as a whole (\$31,020). Further investigation of other indicators of household income may help to explain this disparity.

TABLE 9 MEDIAN HOUSEHOLD INCOME IN 1990 (DOLLARS)			
Village of Birch Run	Birch Run Township	Saginaw County	State of Michigan
\$24, 722	\$33,004	\$27,980	\$31,020

Table 10 shows levels of income for households in the Birch Run community. About 50% of Village households made less than \$25,000 in 1989. This is higher than Birch Run Township (33%) and Saginaw County as a whole (45%). The table also illustrates that only 35% of the Village households made \$35,000 or more per year in 1989. This figure was significantly lower than Birch Run Township (52%).

TABLE 10 INCOME IN 1989								
	Village of Birch Run		Birch Run Township		Saginaw County		State of Michigan	
	#	%	#	%	#	%	#	%
Total Households	426	100	1,469	100	78,254	100	3,424,122	100.0
Less than \$5,000	16	4	118	8	6,610	8	203,692	5.9
\$5000 – \$9,999	54	13	116	8	8,772	11	329,871	9.6
\$10,000 – \$14,999	40	9	71	5	7,204	9	293,659	8.6
\$15,000 – \$24,999	104	24	178	12	13,271	17	562,017	16.4
\$25,000 – \$34,999	68	16	232	16	11,350	15	525,350	15.4
\$35,000 – \$49,999	69	16	352	24	14,358	18	638,963	18.7
\$50,000 – \$74,999	65	16	337	23	11,850	15	556,760	16.3
\$75,000 – \$99,999	7	2	57	4	3,270	4	185,137	5.4
\$100,000 or more	3	1	6	1	1,570	2	128,673	3.7

Source U.S. Census, 1990.

This disparity can be explained by examining income types, in the respective jurisdictions, in 1989. Table 11 illustrates that only 78% of households in the Village of Birch Run received wage and salary income. This was lower than Birch Run Township (82%). About 25% of Village households received social security income and 6% received public assistance income in 1989. Taken together, these figures are higher than Birch Run Township (23% received social security income and 6% receive public assistance income).

TABLE 11 INCOME TYPE BY HOUSEHOLD IN 1989	
Income Type	Percentage
with wage and salary income	78%
with non-farm self-employed income	5%
with farm self-employed income	0.5%
with social security income	25%
with public assistance income	6%
with retirement income	19%

Source U.S. Census, 1990.

TABLE 12 OCCUPATIONS, 1990						
	Village of Birch Run		Birch Run Township		Saginaw County	
OCCUPATION	#	%	#	%	#	%
Managerial/Professional	95	20	448	18	18,422	21
Technical/Sales/Support	155	33	723	28	28,700	33
Service	66	14	364	14	11,744	13
Farming/Forestry/Fishing	4	1	52	2	1,186	1
Precision Production/Craft	56	12	350	14	10,855	12
Operators/Laborers	89	19	620	24	16,356	19
Total	465	100	2,557	100	87,273	100

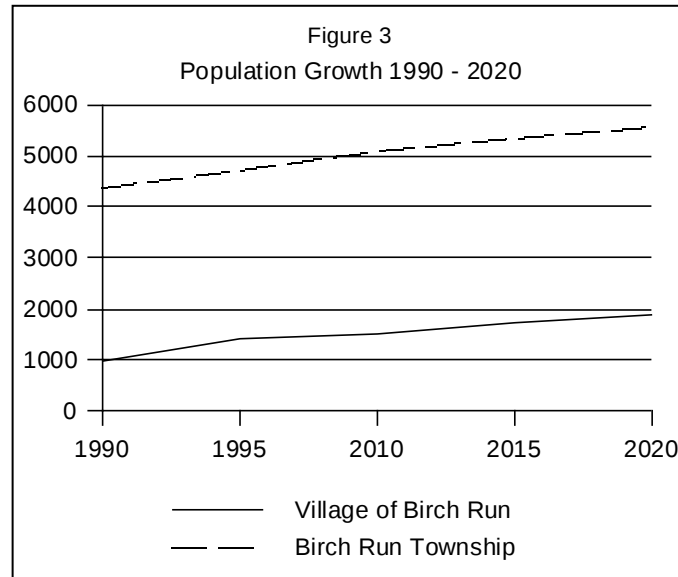
PROJECTIONS

Village of Birch Run had a population of only 992 persons in 1990 (see Table 1). The Planning and Zoning Center's Plan For Planning report estimated its 1995, population at 1,409 (see Table 14 and Figure 3). Birch Run Township had a 1990 population of 4,362 up by 70 persons from 1980. By 1995, population had risen to 4,705, based on building permit records.

TABLE 13 POPULATION OF BIRCH RUN AND SURROUNDING COMMUNITIES, 1980–2020 PROPORTION OF 1996 COUNTY ESTIMATES								
Community	1980	1990	1995	2000	2010	2020	Total Change 1990 – 2020	Percent Change 1990 – 2020
Saginaw County	228,059	211,946	212,500	213,800	212,600	209,300	–2,646	–1%
Village of Birch Run	1,196	992	995	1,001	995	980	–12	–1%
Birch Run Township	4,292	4,362	4,373	4,400	4,375	4,308	–54	–1%
Bridgeport Township	13,978	12,747	12,780	12,859	12,786	12,588	–159	–1%
Buena Vista Township	12,768	10,900	10,928	10,995	10,934	10,764	–136	–1%
Carrollton Township	7,482	6,521	6,538	6,578	6,541	6,440	–81	–1%
City of Frankenmuth	3,753	4,408	4,420	4,447	4,422	4,353	–55	–1%
Frankenmuth Township	2,389	2,122	2,128	2,141	2,129	2,096	–26	–1%
Taymouth Township	4,581	4,524	4,536	4,564	4,538	4,468	–56	–1%

TABLE 14
POPULATION PROJECTIONS OF VILLAGE OF BIRCH RUN AND TOWNSHIP
1980–2020

Community	1980	1990	1995	2010	2015	2020	Total Change 1990 – 2020	Percent Change 1990 – 2020
Village of Birch Run	1,196	992	1,409	1,519	1,729	1,887	895	47%
Birch Run Township	4,292	4,362	4,705	5,073	5,325	5,554	1,192	21%



Two recent projections of the Village's and Township's populations were performed in the [Plan for Planning](#) report. The first was based on earlier projections, by the State Data Center, of the future population of Saginaw County, and assumed that the Township and Village would retain their current proportion of total county population. This projection is shown in Table 13 and projects minor growth from 1995 until the year 2000, followed by a slight decline. The second, based on if current trends continued, projects that the population of the Village will climb to at least 1,887 persons and the Township population to at least 5,554 persons, by 2020 (see Table 14). The combined population in both jurisdictions would be at least 7,441. These numbers could be much greater if the State economy remains strong, and the Village and Township agree on a coordinated growth and development strategy.

Because the second projection seems to more accurately take into account the recent wave of growth that is occurring within the Village, we proposed to use the projections in Table 14, as the basis for projections of future land use and infrastructure needs.

Over the next decade, the segment of the population aged 65 years or older will tend to increase in the Village. (The increase in elderly population will be due to a slight increase in the overall population of the area, combined with a significant rate of growth in the elderly segment of the population.) That is, in 1990, about 23 % of the Village residents and 20 % of Township residents were between 45 and 64 years of age. By the year 2010, this entire segment of the population will be over the age of 65, while the segment aged between 45 and 64 years will have also increased. It should be noted that if the community continues to reflect state and national trends, more residents will tend to remain in the community upon retirement. Elderly tend to retire in more pedestrian-orientated, built-up areas, within walking distance, or short drive time of basic needs such as shopping, post office, entertainment service facilities, etc. This will impact the future land use needs of the community.

Household projections to 2020 based on census data for 1980 and 1990 and new building from 1990 to 1995 project a total of 434 new households in the Village and 1,009 in the Township (see Table 15). This is an increase of 51 % in the Village and 42 % in the Township from 1990. The total number of households in both communities in 2020, if current trends continue, would be 3,270. If true, and if population were to be about 3.0 persons per household, then future total population in 2020 could be as great as 9,810. However, current population per household figures in the Village are much lower than that (2.38 in 1990), thus the average future figure is likely to be less than 3.0 (more likely it will be about 2.7 which would result in a 2020 combined population of about 9,470 still much greater than the straight line projection in Table 15.

TABLE 15 PROJECTED HOUSEHOLDS 1980 – 2020							
Community	1980	1990	2000	2010	2020	Total Change 1990 – 2020	Percent Change 1990 – 2020
Village of Birch Run	402	416	660	755	850	434	51%
Birch Run Township	1,077	1,481	1,902	2,161	2,420	1,009	42%

LAND USE

EXISTING LAND USE

The existing land use in a community, and the distribution of that land use throughout the community, is the principal influence on future development. It is essential to understand the current pattern of land use in a community in order to identify how those land uses impact each other, the demand for municipal services created by those uses, and their impact on a community's natural resources.

To identify current land use, the Township staff used tax records to identify the predominant land use for each parcel in the Village and the Township. In instances where a residence was located on a large agricultural parcel, a one acre parcel was created to represent the farmstead, and the remaining acreage was classified as agricultural so as not to understate agricultural uses or overstate residential development. Parcels that were primarily woodlots were included in the "vacant/road right-of-way" category.

In order to obtain a historical context for existing land use patterns in the Village and Township, Rowe staff acquired 1"=2000' aerial photography of the area flown in 1978 and 1988 and by interpreting those photos they created land use maps for those two years. The data was then entered into a GIS system, and the area of each land use was calculated by year and by municipality. The result of this work is shown in Tables 16 and 17 and in Maps 2 and 3.

LAND USE CATEGORIES

The land use categories used in this inventory are:

Agricultural — Land used primarily for pasture or crop production

Commercial — Retail commercial activities

Cemetery — Includes cemeteries and accessory uses such as chapels, mausoleums, crematoriums

Communication Towers — Communication towers including cellular, radio, etc.

Industrial — Light and heavy industrial activities including warehousing, assembly, and fabrication activities

Institutional — Non-public institutional uses including fraternal organizations and meeting halls

Multi family — Structures or groups of structures each containing three or more residences

Office — Includes professional offices such as insurance, realty, medical accounting, and legal

Public — Public uses including township and village halls, DPW yards, fire stations, parks, etc.

Schools — School grounds including administration buildings and athletic fields

Single Family Residential — Single family detached structures on individual lots

Duplex — Two attached single family residences.

Utility — Utilities other than those owned by the Village or Township such as electric power or gas substations

Vacant/Road Right-of-Way — Land not currently used for any of the above uses, including vacant wood lots and road right-of-way

EXISTING LAND USE

The top seven land uses that makes up approximately 96% of the types of uses in the Village of Birch Run.

- Agriculture
- Commercial
- Single Family Residential
- Vacant/road right-of--way Land
- Multi-Family Residential
- School
- Public

The biggest land use in the Village of Birch Run, in terms of acreage is agriculture, with approximately 27% of the Village in this category (see Map 4). The land use with the largest impact is commercial, which represents more than 22% of the Village's total land use. Commercial uses are concentrated along east Main Street around the I-75/Main Street (Birch Run Road) interchange, and in the traditional downtown district near the center of the Village around the intersection of Church and Main Streets.

Single family residences comprise 12% of the total land area of the Village, slightly less than the vacant/road right-of--way land which makes up 13% of the land in the Village. Although there are some homes along East Main Street and on residential streets south of East Main, the majority of single family residences are in the southwest quadrant of the Village south of West Main Street as well as an area east of Church Street.

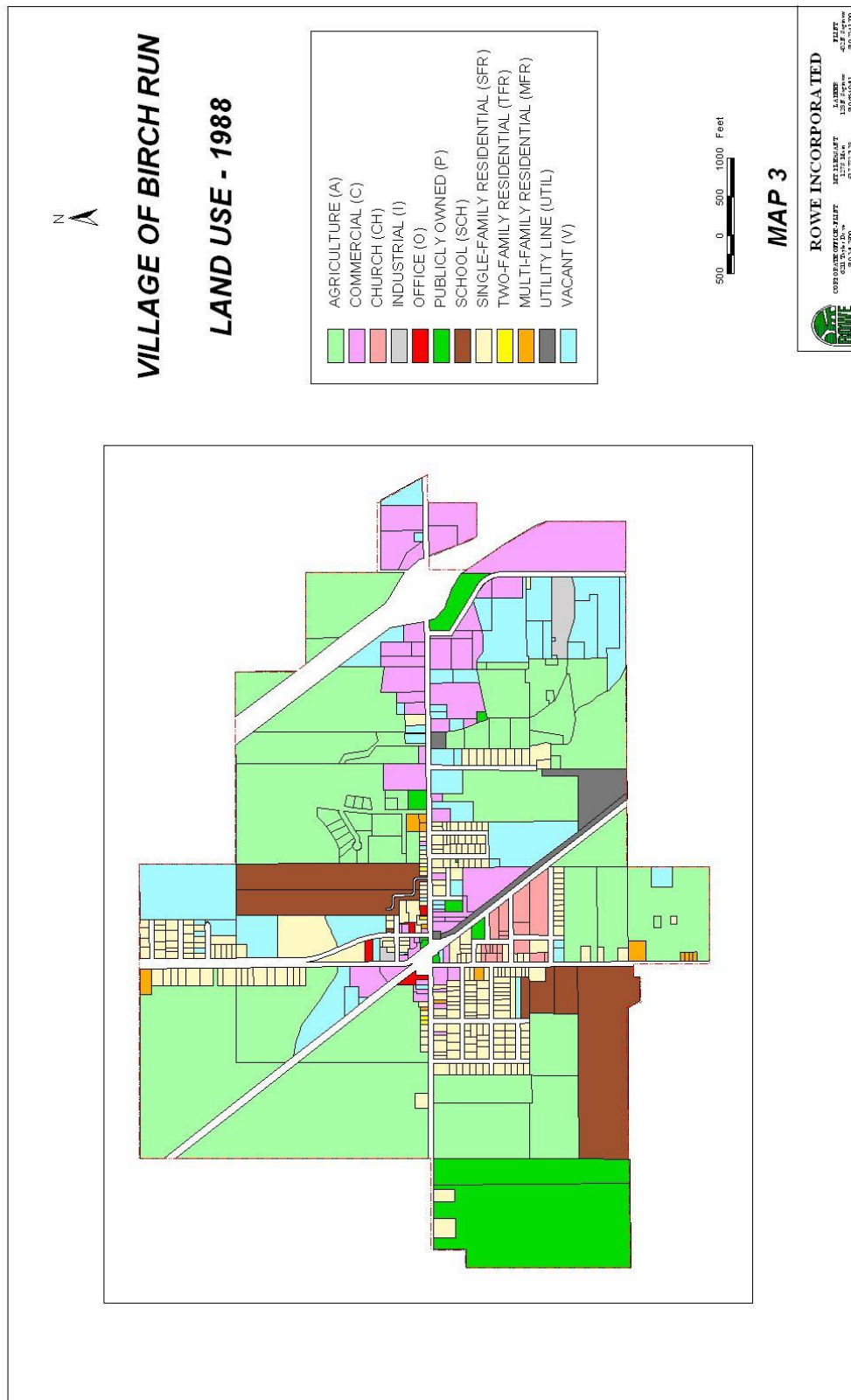
Multi Family uses include relatively new developments including Birchwood Farms Mobile Home

Park and Silver Creek Apartments. Multi family land uses constitute 4% of the Village's land area.

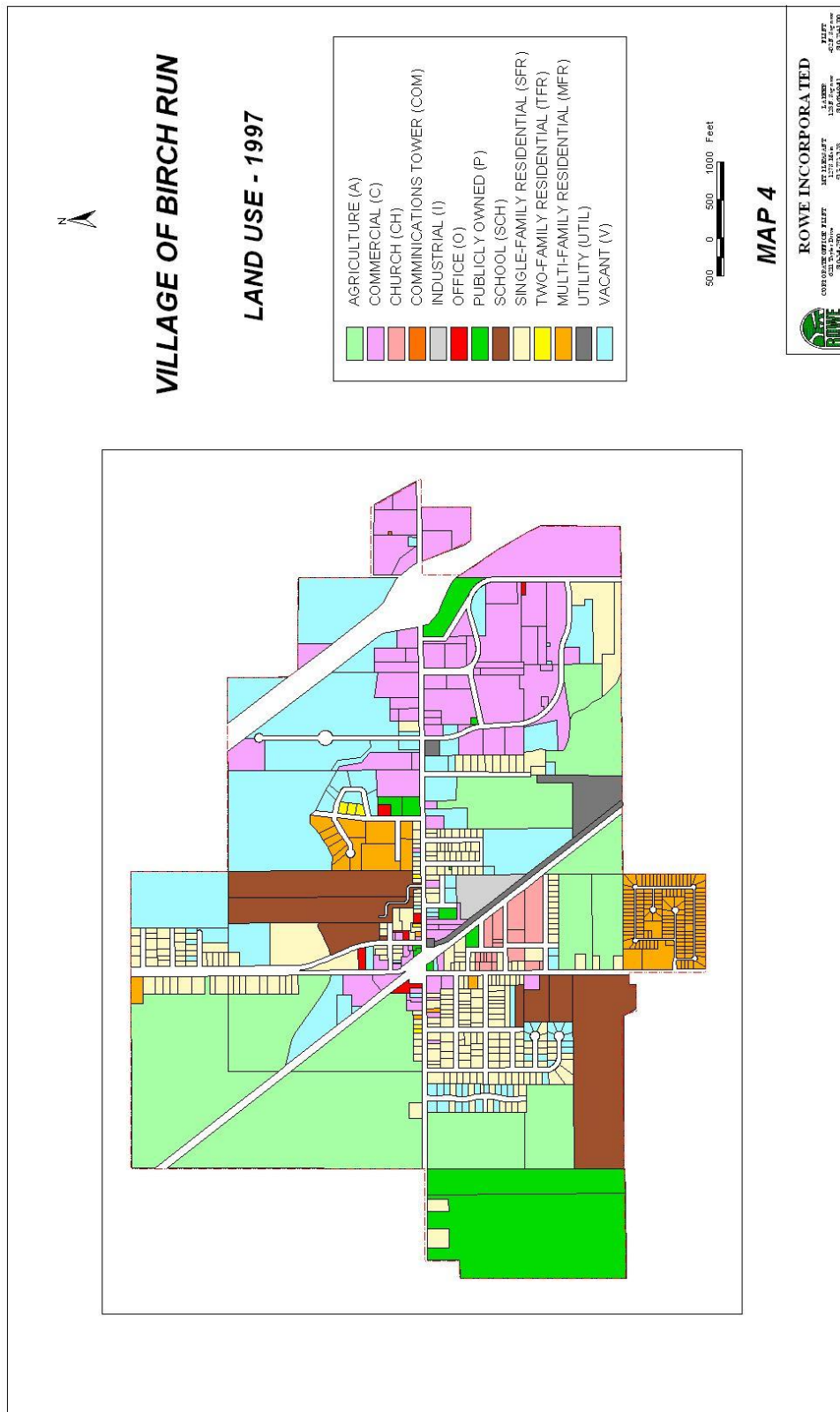
Public and school uses have increased in terms of total acreage in the Village since 1978. From 1988 to 1997 these two land uses have each made up approximately 9% of the total land use in the Village.



MAP 3 LAND USE 1988



MAP 4 LAND USE 1997



MAP 4A LAND USE 2000

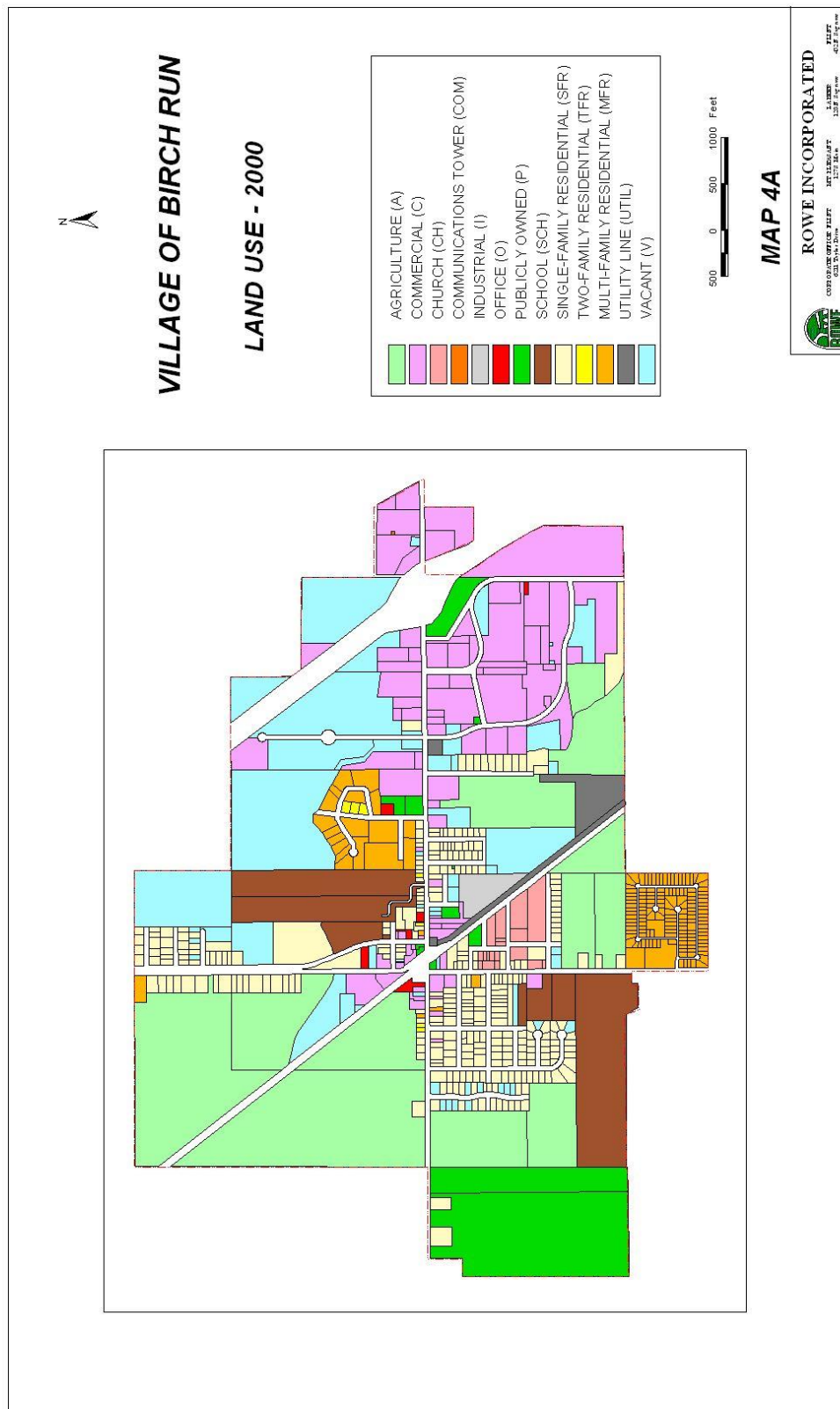


TABLE 16 VILLAGE OF BIRCH RUN EXISTING LAND USE (ACRES) 1978 – 1997			
	1978	1988	1997
Agricultural	592	544	299
Single Family Residential	103	102	127
Duplex	1	1	2
Multi Family	8	6	47
Commercial	60	106	247
Office	2	2	3
Industrial	1	7	1
Institutional	4	0	0
Churches	13	14	14
School	90	90	95
Public	89	93	95
Utility	11	11	11
Communication Towers	13	16	14
Vacant/Road Right-of-Way	83	78	115
Total	1,070	1,070	1,070

CHANGES IN STATE EQUALIZED VALUE (SEV)

All land in the State of Michigan is classified by use in order to estimate its value for taxing purposes. The change in value of each class of land, in a community, can provide some insight into changes in land use and development of land.

When analyzing the SEV residential uses comprise 27% of the Community's real property tax base, representing a state equalized value (SEV) of \$10,009,168. Commercial uses make up 72% of the tax base with a SEV of \$26,684,250. Industrial SEV is \$69,255 (less than 1%) and agricultural SEV is \$208,900 (.05%).

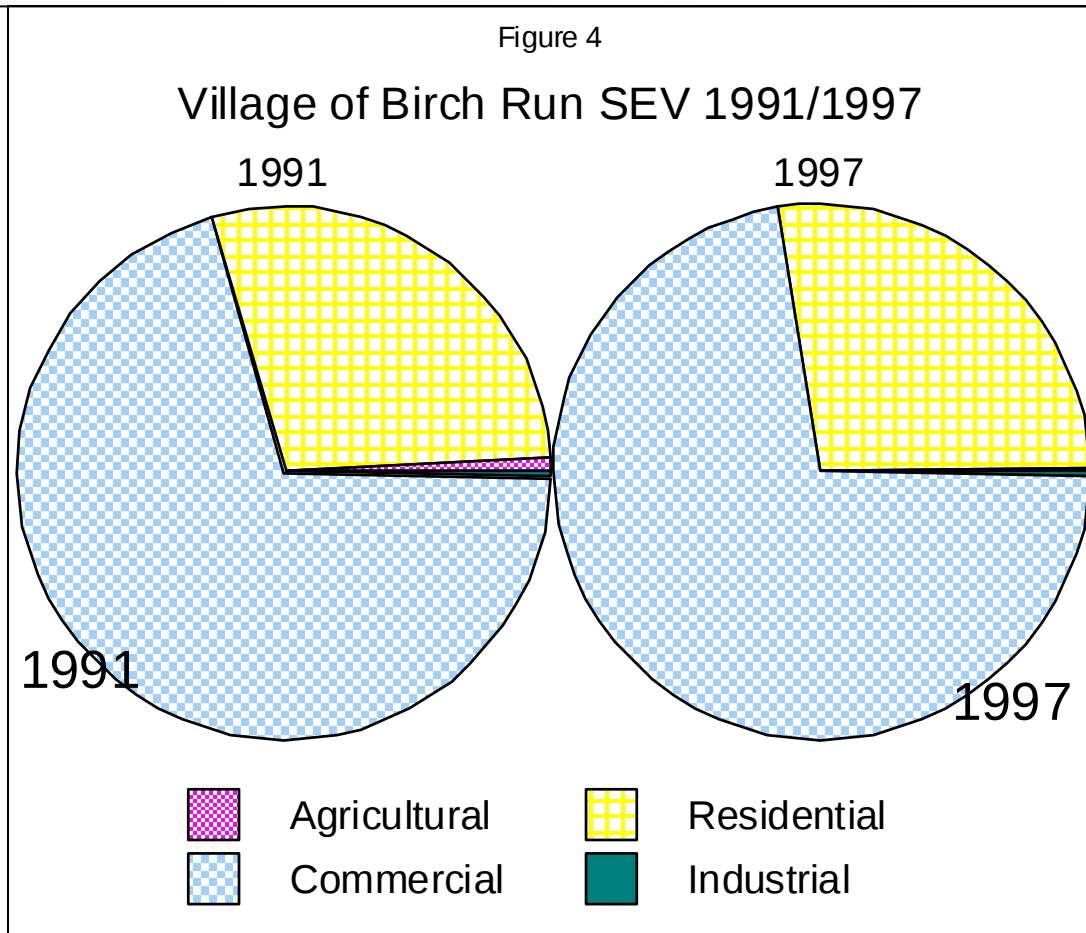
The make up of agricultural and industrial tax base has not significantly changed in the last six years. However, residential growth has shown a 75% increase in SEV, while commercial growth has increased by 89% during the same period.

In addition to new residential development, the residential SEV growth may be attributed to inflation and rising property values in the Community. Based on past building permit activity, the Community will experience moderate gains in residential SEV over the next 10–15 years.

Commercial growth will average somewhat less than the 10% +/- annual growth that has occurred over the past six years. The growth rate should average 3–6% over the next 10 years. Table 17 and Figure 4 details the annual change in SEV for the Village from 1991 to 1997.

TABLE 17 VILLAGE OF BIRCH RUN REAL PROPERTY TAXABLE VALUE BY CLASS					
	Agricultural	Residential	Commercial	Industrial	Total
1997	208,907	10,009,168	26,684,250	69,255	36,971,580
1996	229,367	8,833,115	23,069,188	68,457	32,200,127
1995	227,000	8,061,734	21,984,135	67,997	30,340,870
1994	221,500	7,325,159	19,078,650	60,300	26,685,611
1993	294,900	6,366,100	16,429,500	63,800	23,154,300
1992	272,100	5,990,300	14,551,500	55,300	20,869,200
1991	272,100	5,707,300	14,097,750	49,500	20,126,650

Figure 4



NATURAL FEATURES

Natural features are studied in the development of land use plans for two reasons: they impose limitations on the development potential of some areas, because of the existence of such elements as flood plains, steep slopes, or wetlands; and they enhance the community, development potential, and value of some areas due to the existence of such elements as river/lake access or views, mature woodlots, and easily “percing” soils. A major concern, in preparing the plan, is to protect the community’s environmental assets while allowing appropriate development.

In order to adequately address this concern, specific areas are analyzed:

- Flood plains
- Wetlands
- Woodlands
- Soils

FLOODPLAINS

Areas adjacent to creeks, streams, and rivers are susceptible to periodic flooding. Due to the property damage flooding causes and the effect that construction has in certain parts of floodplains, regulation of development in floodplains is important to sound planning. There are no floodplain areas mapped on the FEMA Flood Insurance Rate Map (FIRM) for the Village.

WETLANDS

Wetlands include marshes, swamps, and the areas between dry land and open water. These are areas typified by poor drainage and standing water. They are important community resources for several reasons. Wetlands provide a filter to keep inorganic materials out of the water supply, act as a sponge to retain water during dry periods, and to hold water during floods. One acre of marsh is capable of absorbing 300,000 gallons of water. Wetlands provide this holding capacity inexpensively. If destroyed they can be replaced only with expensive structural public improvements. Wetlands also function as critical wildlife habitats.

Because wetlands are a valuable natural resource, they are protected by the Wetlands Protection Act, a part of the Michigan Natural Resources and Environmental Protection Act (PA 451 of 1994 as amended). The Act requires that permits be acquired from the Michigan Department of Environmental Quality (DEQ) prior to altering or filling a regulated wetland. The Wetland Protection Act defines wetlands as:

“land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and is

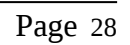
contiguous to the Great Lakes, an inland lake or pond, or a river or stream.”

Regulated wetlands include all wetland areas greater than 5 acres or those of any size contiguous to waterways. Wetlands which are hydro logically connected (i.e., via ground water) to waterways are also regulated. Activities exempted from the provisions of the Act include farming, grazing of animals, farm or stock ponds, lumbering, maintenance of existing non-conforming structures, maintenance or improvement of existing roads and streets within existing rights-of-way, maintenance or operation of pipelines less than six inches in diameter, and maintenance or operation of electric transmission and distribution power lines. Permits will not be issued if a feasible or prudent alternative to developing a wetland exists.

There are no official state wetland maps that will conclusively identify which areas are wetlands and those that are not. One of two types of maps that are commonly used as references in determining wetlands are the Michigan DEQ's Michigan Resource Inventory Systems's (MIRIS) Land Use/Land Cover Maps, which show wetlands mapped using 1978 infrared aerial photography. The program normally did not map land uses/cover under 5 acres in size, which means that small wetlands contiguous to a lake, stream, or pond, which are regulated, often don't show up. The other type of map is the U.S. Fish and Wildlife Service wetlands maps. Although these maps are not based on Michigan's definition of a wetland, they do identify small wetlands that do not show up on the MIRIS maps.

The Wetlands Map 5 shows the wetlands identified by the U.S. Fish and Wildlife Service. The only substantial wetland in the Village is in the southwest quadrant. This wetland is largely created by the sewage lagoons. There is an additional wetland adjacent to the lagoons, but it is primarily located in the Township. Two additional wetlands can be found in the northeast corner of the Village, east of I-75.

The extent of wetlands in these areas may justify the use of tools such as cluster development, or a reduction of overall development to protect the wetland areas.



WOODLANDS

The importance attached to woodlands is a function of their demonstrated ability to stabilize slopes, retard erosion, conserve water quality and quantity, maintain local micro-climates, filter the atmosphere, decrease noise levels, and provide wildlife habitats. Mature trees represent a valuable resource in maintaining the aesthetic character of a community. Future development should not occur at the expense of existing tree cover. Wooded areas should be managed to insure their long term existence and to help preserve the rural character of the community.

The 1978 MIRIS land use/land cover map and the 1997 land use information indicates that woodlots primarily exist in the northwest quadrant of the Village.

SOILS

One of the natural characteristics of a community, affecting its development potential, is the suitability of the soils (Table 18). Soils in a given area can vary widely in their capacity to handle various types of development. Some soils may be excellent for raising crops, but provide a poor foundation for roads. Other soils may provide good foundations for roads, but are inadequate for buildings with basements. Knowing the limitations of the community's soils for development should serve as a basis for future land use planning.

The *Soil Survey of Saginaw County, Michigan*, prepared by the United States Department of Agriculture's Soil Conservation Service(SCS) and published in 1994, maps the various soil types in the county and evaluates them according to their physical properties and soil suitability. Physical properties identified include the soils permeability, soil reaction, shrink-swell potential, slope, erosion factor, fertility, frequency of flooding, and average/seasonal height of the water table. Based on these characteristics, the soils are classified as to their suitability for various crops, recreational uses, as natural habitat for various types of wildlife, for building sites, for sanitary facilities, and as a source for construction materials such as sand and gravel.

Land Use and Soils

Each soil type has unique characteristics, which pose opportunities for some uses and limitations for others. The most important characteristics making the soil suitable or unsuitable for development are limitations on dwellings with basements, limitations on septic tank absorption fields, and suitability for farming. The degree of soil limitations reflects the hardship and expense of developing the land. Soil limitations can be classified into four categories:

Slight:	Relatively free of limitations or limitations are easily overcome.
Moderate:	Limitations need to be considered, but can be overcome with good management and careful design.
Severe:	Limitations are severe enough to make use questionable.
Mixed:	Limitations vary within the soils group.

The soil types present in the Village are shown on Map 6. Soil types found are essentially glacial deposits, acted upon by soil formation processes such as wind and water. As a result of glaciation, soil types vary widely from site to site. This, coupled with the fact that soil depths on USDA soil survey maps average 3–5 feet, make conclusive and accurate delineation of areas with severe limitations difficult. Site visits and inspections are necessary, in nearly all instances, to establish actual site conditions.

Limitations for Septic Systems

One of the soil characteristics important to consider in planning for future development is the suitability for use as septic tank absorption fields (Map 7). In areas where public sewer systems are not available, septic systems with septic tanks and absorption fields are the most common method used to dispose of sewage from private residences. Absorption fields disperse the effluent from septic tanks through a series of subsurface tiles and perforated pipes. The liquid then percolates down into the ground, the soil and micro-organisms in the soil acting to filter and clean the effluent before it reaches the groundwater below it.

The soils in the Village were categorized based on the SCS's system for evaluating soils according to the limitations the soils pose to construction and operation of septic tank absorption fields. Table 18 and Map 6 shows the various soil types and their classification, while the soil suitability map shows the distribution of the various soil types.

TABLE 18 SOIL TYPES/SUITABILITY		
Soil Name and Map Symbol		Septic Tank Absorption Fields
5A	Sumava	Severe: wetness
12	Corunna	Severe: ponding, percs slowly
13	Belleville	Severe: ponding, percs slowly, poor filter
15B	Wixom	Severe: wetness, percs slowly, poor filter
22B	Parkhill	Severe: ponding, percs slowly
24	Parkhill	Severe: ponding, percs slowly
26A	Pipestone	Severe: wetness, percs slowly, poor filter
33	Granby	Severe: ponding, poor filter
41A	Shiawassee	Severe: wetness, percs slowly
58B	Covert	Severe: wetness, poor filter
70	Udipsamments	Severe: poor filter
75B2	Strawn	Severe: percs slowly
98A	Poseyville	Severe: wetness, percs slowly

In general, the soils are not optimal for septic tank absorption fields. Medium and high density development should be limited to areas where future sewer service is planned, or through use of other sewage disposal methods such as sewage lagoons or package plants serving a cluster of homes or businesses. These systems, however, raise long term maintenance and responsibility issues that need to be carefully considered before they are permitted.

Municipal sewer systems are necessary when residential densities exceed the inherent ability of soils to prevent wastes from reaching ground water supplies. For most soil types that means densities of approximately four dwelling units per acre. With less dense development and soils without extreme limitations for septic systems, sewage can be disposed of safely by individual private systems on lots with a minimum lot size of around 22,000 square feet.

Basement Limitations

Limitations for dwellings with basements are shown on Map 8. Some soils are rated by the Soil Conservation Service as having severe limitations on basements because of excessive wetness, low strength, excessive slope, or shrink–swell potential. The map shows that a slightly smaller area poses severe limitations to basements than to septic fields. This means that if basements are to be constructed, special measures will be needed to keep them dry.

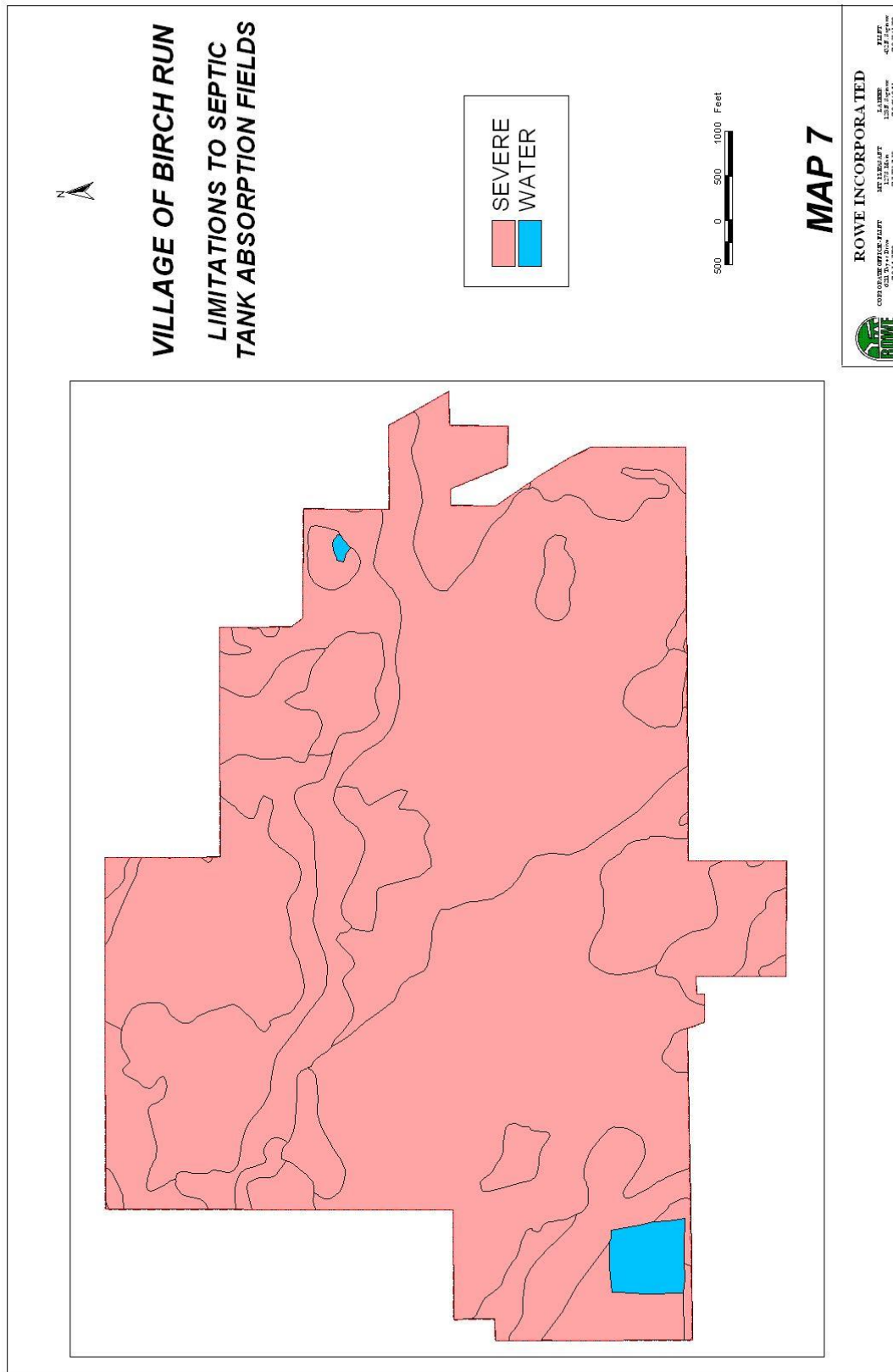
Hydric Soils

Hydric soils present another limitation to development. They are very poorly drained, saturate easily, and retain large quantities of water. They are generally unsuitable for structures. The Soil Conservation Service defines hydric soils as:

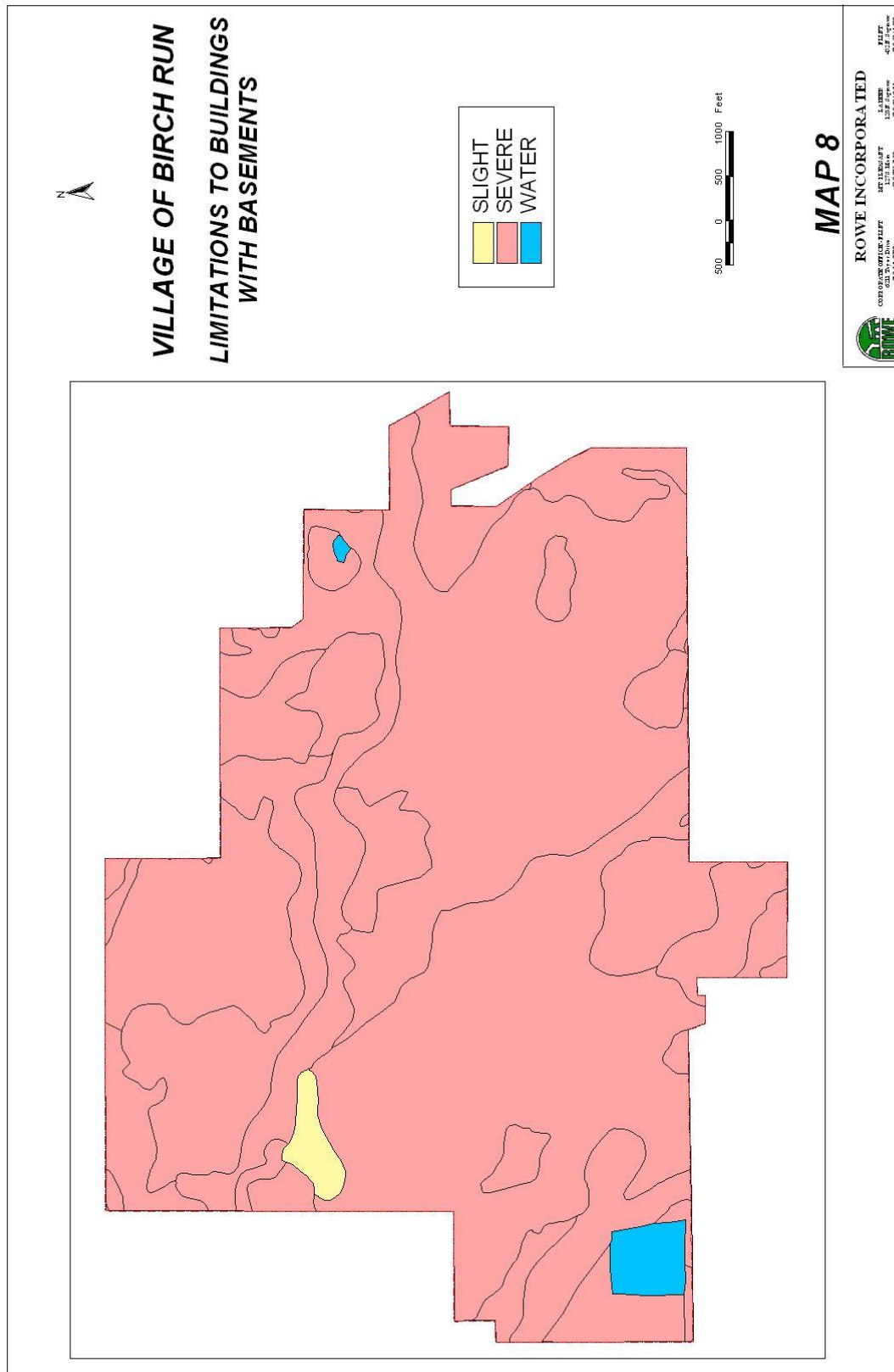
A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.”

Artificially drained, hydric soils can be suitable for farmland use. Map 9 shows where these hydric soils are located. Most of the hydric soils are found near water sources and correspond to present or former wetlands. Hydric soils represent 41.5% of the total land area. Residential, commercial, and industrial development in areas containing hydric soils should be discouraged.

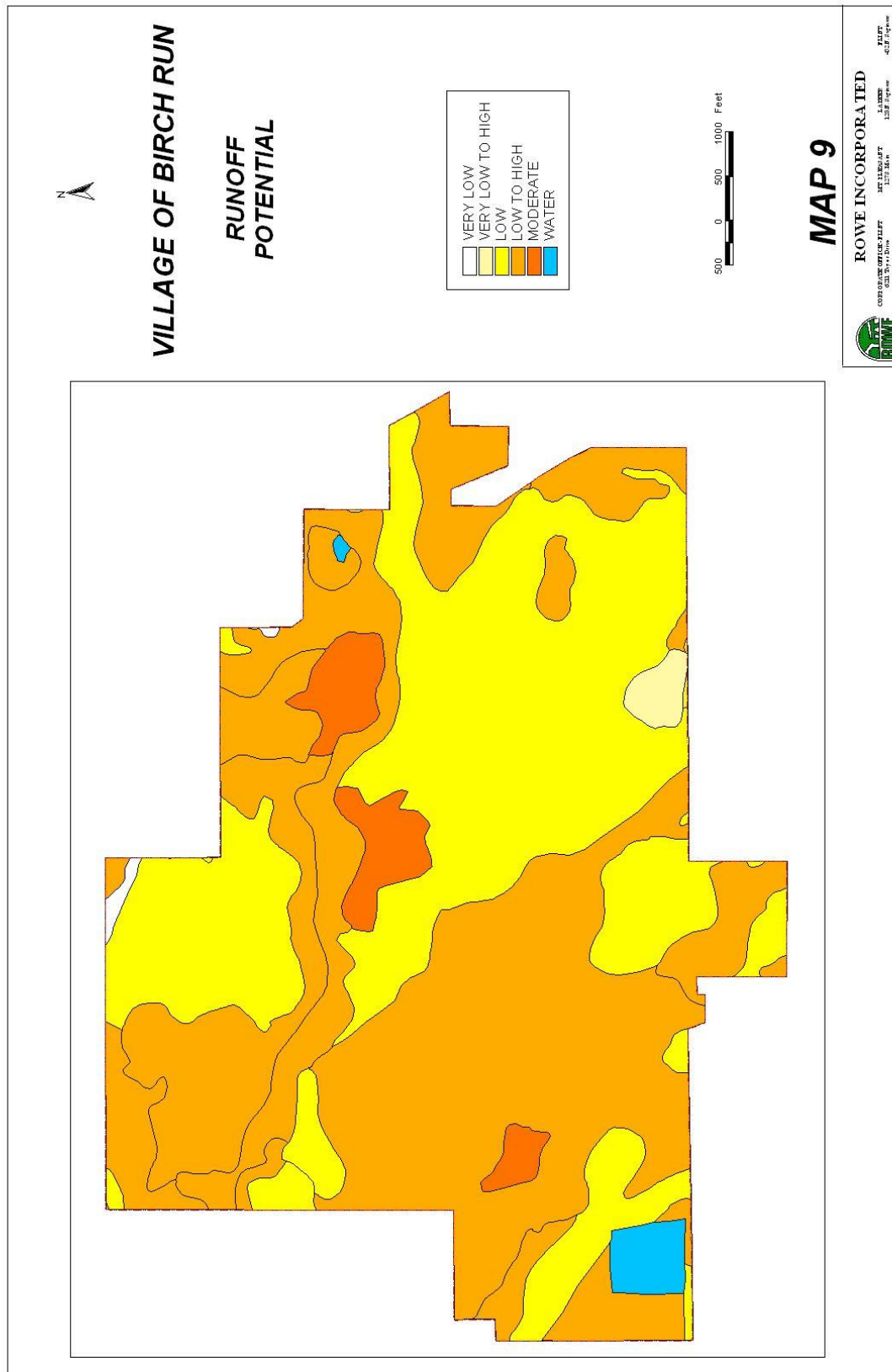
MAP 7 LIMITATIONS TO SEPTIC TANK ABSORPTION FIELDS



MAP 8 LIMITATIONS TO BUILDINGS WITH BASEMENTS



MAP 9 RUNOFF POTENTIAL



TRANSPORTATION

ROAD NETWORK

The Village road network is comprised of major and local streets (see Map 11). Traffic feeds into the Village from an east–west direction along Birch Run Road (Main Street). The major streets in the Village are Church Street, Main Street, Conquest Street, a portion of Racine Street, Beyer Road and Marketplace Drive. The remaining streets are classified as local. Generally speaking major streets are intended to carry the majority of the traffic and connect one end of the Village with another. Local streets provide access between parcels and neighborhood uses.

HIGHWAYS

The Birch Run community is heavily impacted by I–75, a major north/south corridor between the Detroit Metropolitan area and northern Michigan. I–75 carries an average of 52,000 vehicles per day. The interstate highway provides convenient access to the Flint and Saginaw Metropolitan areas. This combined with the fact that the I–75/Birch Run Road interchange is on the way to the City of Frankenmuth, one of the state’s leading tourist destination, has made Birch Run the site of rapid commercial development over the past ten years. Paralleling I–75 is an older, Saginaw/Flint connector, Dixie Highway, which is a county primary road.

Coming north out of Genesee County is state highway 54, Beyer Road and Maple Road. At the intersection with Birch Run Road (also called 54/83) it becomes state highway 83 and continues north, bisecting the Township and continuing into Frankenmuth Township and the City of Frankenmuth.

ALL WEATHER ROADS

Most roads in Michigan are designed to accommodate heavy loads for most of the year except during spring when the frost in the ground begins to melt. During this period, which averages about six weeks, the base of most roads is susceptible to damage from heavy trucks. As a result, road commissions have adopted “frost laws” which restrict heavy vehicle movement on these roads during the spring thaw. Some roads have been built up to permit heavy truck traffic during this period. Generally communities linked to all weather roads are the preferred location for industrial and commercial development since they can be used throughout the entire year.

The Saginaw County Road Commission maintains a complete list of All Season Special Roadways in Saginaw County. The all weather roads in Birch Run Township are Dixie Highway, M–83, and Birch Run Road between M–83 and I–75. All weather roads in the Village are Main Street, Maple Road, and Heath Street.

BRIDGES

Bridges can restrict development by forming “choke points” where weight limitations restrict

heavy vehicles and prevent trucks from being able to move conveniently from place to place. In the Village there are three bridges; one on Beyer Road north of Birch Run Road, one on Birch Run Road, west of Beyer and one on Maple Road north of Birch Run Road. None of the bridges on Beyer Road and Birch Run Road are rated, while the Maple Road bridge is rated for a 228 ton load.

ROAD CAPACITY

A road's capacity and current volume of traffic can affect the suitability of land for various uses. The road capacity is measured by delay, such as how close actual speed is to posted speed, length of wait at traffic signals and intersections, and frequency of adequate gaps in traffic to allow turns. A road with a relatively low capacity should not be used to access uses with high traffic generation rates such as commercial or high density residential uses. The same is true for a road with relatively high capacity and relatively high traffic volumes.

Map 10 shows the most recent 24 hour traffic counts for the primary roads in the Township. They vary from 7,049 vpd (vehicles per day) to 210 vpd. A standard 26' wide paved county road is estimated to have an average daily traffic capacity of 10,400 vpd. Generally speaking, the primary roads in the Township appear capable of handling existing traffic without major widening or other improvements.

Map 11 shows 24 hour traffic counts for some of the streets in the Village in 1997. They range from 15,000 vehicles per day between Beyer Road and Dixie Highway, to 8,000 – 12,000 vehicles per day in the Church and Maple Road area.

The road capacity is a measurement of Level of Service (LoS). The LoS mathematically measures traffic operations based on vehicle delays for various movements, such as delays at signalized and non signalized intersections during peak hours. A LoS of "A" represents very low traffic in relation to the design capacity of the street, while a LoS of "B" represents somewhat greater traffic levels, and short traffic delays. A LoS of "C" is a typical acceptable design standard, and is characterized by some delay but not congestion. A LoS "D" is considered the minimum acceptable LoS and involves long traffic delays.

In the Village of Birch Run, the following critical road segments have been rated on the Level of Service:

- Main Street at Beyer Road operates at LoS from B–D depending on type of traffic movement.
- Marketplace Drive at S. Beyer Road operates at a LoS B.
- South Beyer Road at Burt Road operates at a LoS A.
- Main Street at the intersection of Maple, Conquest and Church Streets operate at LoS from A–B, with LoS C for left hand turns during the PM peak hour.
- Main Street at Oak Street operates at a LoS A

TRAFFIC ACCIDENTS

Studying the location and type of traffic accidents, over a period of time, is a useful tool for determining transportation system problem areas. A significant pattern of accidents at one particular location could identify a design problem.

Traffic accident information for the Village is incorporated in the July 1997 Traffic Study Report. The accident data was provided by the Village of Birch Run Police Department, the Saginaw County Road Commission, and the Michigan Department of Transportation.

The analysis covers the period from 1991 to 1995 and includes Birch Run Road (Main Street) from Oak Street to the western most I–75 ramps (see Map 12). During this period 479 accidents were reported along Birch Run Road. The highest concentration of accidents took place between the Dixie Highway intersection and the Beyer Road intersection. There were 249 accidents at the I–75 interchange vicinity, 95 at Dixie Highway and 62 at Beyer Road.

Accident types involving right angles, left turn rear–ends, straight rear–ends, and head–on left turns are accidents that occur most frequently. Many of these are access related. These types of accidents can be reduced using various countermeasures. The appropriate counter measures would depend on the perceived cause of the accidents, but might include improved access management such as shared driveways and use of parallel access streets, wider travel lanes and the use of bypass lanes. The study found that none of the locations looked at had a high enough number of accidents to warrant development of countermeasures.

Detailed descriptions and recommendations are outlined in the Site by Site Summary found in the Accident Analysis section of the Traffic Study Report.

ACCESS MANAGEMENT

Access management is defined by Michigan Department of Transportation (MDOT) as “a process that provides or manages access to land development while simultaneously preserving the flow of the traffic on the surrounding road system in terms of safety, capacity and speed.” The goal of access management is to achieve a safe and efficient flow of traffic along a roadway while preserving reasonable access to abutting properties.

The benefits of access management are many including:

- reduced crashes and crash potential
- preserves roadway capacity and the useful life of roads,
- decreases travel time and congestion,
- improves access to properties,
- coordinates land use and transportation decisions,
- improves air quality, and
- maintains travel efficiency and related economic property

There are six basic principles of access management:

- Limit the number of conflict points
- Separate conflict points.
- Separate turning volumes from through movements.
- Locate traffic signals to facilitate traffic movement.
- Maintain a hierarchy of roadways by function.
- Limit direct access on higher speed roads.

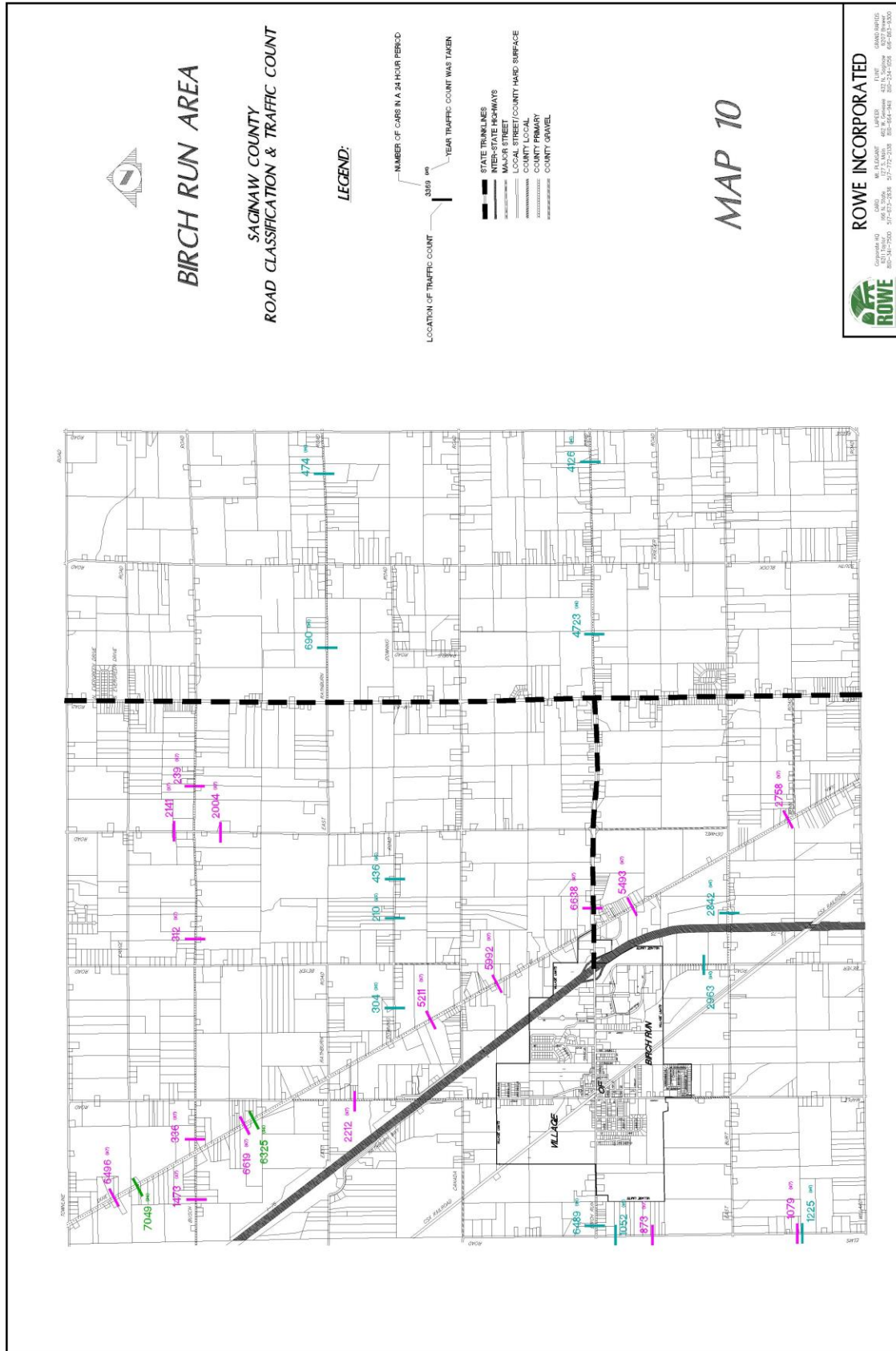
Existing State, County and Local access management programs can be used to achieve good access management. By law (Act 200 of the Public Acts of 1969), property owners must obtain permission to connect a driveway to a public road or highway from the authority with jurisdiction over the road or highway in question. County road commissions administer driveway permit programs similar to MDOT’s for all county roads within their county. Local access management programs range from in simple standards that separate and reduce the number of new driveways, to requirements for shared driveways and frontage roads to remediation programs in areas where access-related problems are severe. Most local governments manage access by utilizing zoning regulations and are based on corridor access management plans. What ever approach the Village chooses it should be an important part of this growth management plan.

The focus of access management in the Village of Birch Run should center around development along Birch Run Road. It will be critical to address access management in this area to avoid greater problems in the future.

TRAFFIC CIRCULATION AND VEHICULAR PARKING STUDY

The State, Saginaw County, Village of Birch Run, and the Horizon Group, have spent more than \$3.5 million on improvements to Birch Run Road and the I-75 interchange. They have revamped Beyer Road (twice), widened lanes and bridges, improved entrance and exit ramps, and installed traffic signalization devices in an attempt to reduce traffic congestion.

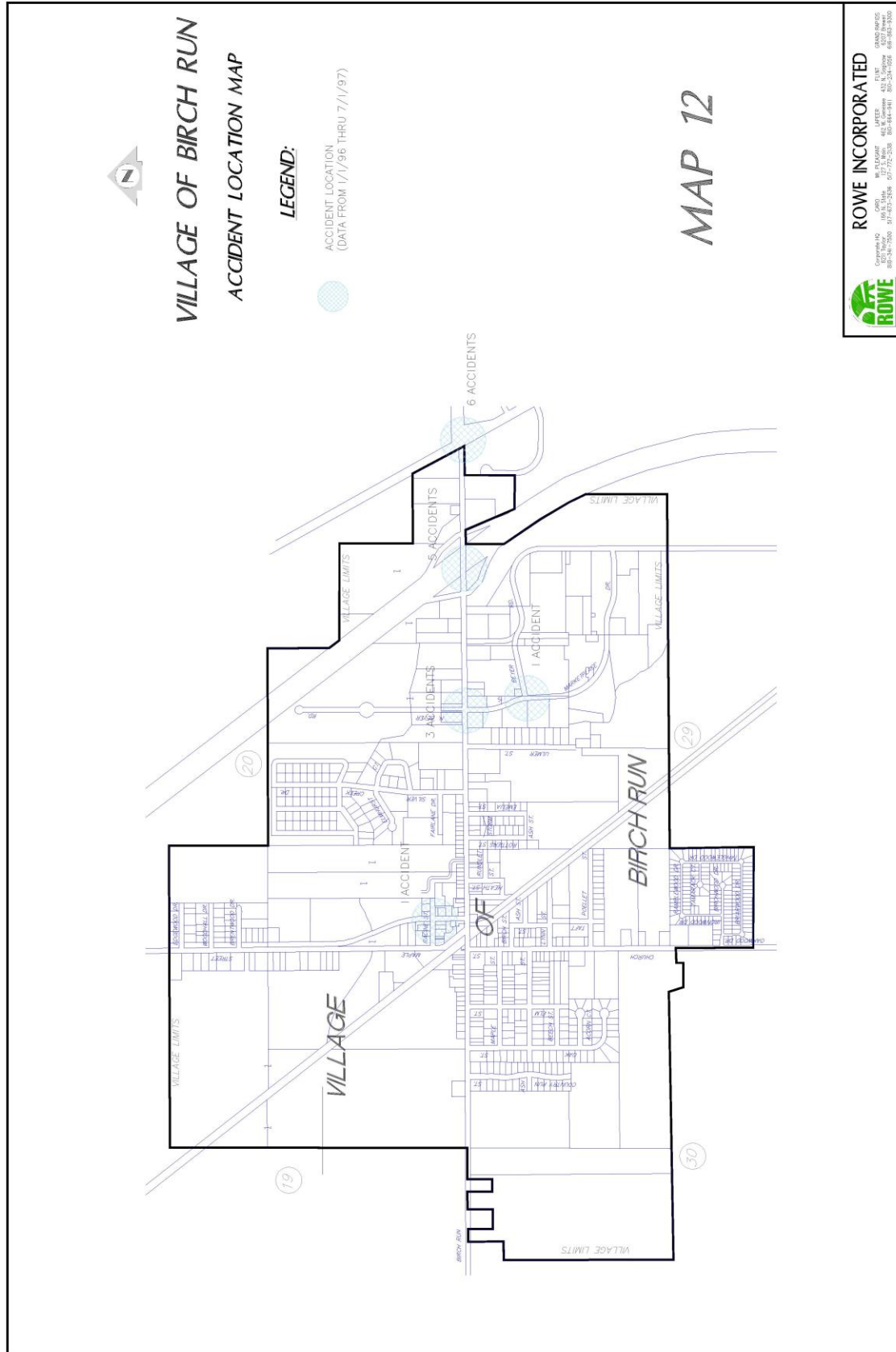
MAP 10 BIRCH RUN AREA ROAD CLASSIFICATION & TRAFFIC COUNT



MAP 11 VILLAGE OF BIRCH RUN ROAD CLASSIFICATION & TRAFFIC COUNT IN 1997



MAP 12 ACCIDENT LOCATION



Still, there is more traffic than the present roadway network can handle. The Michigan Department of Transportation has considered construction of a new freeway interchange at Burt Road. This would alleviate congestion at Birch Run Road, but the amount of dollars needed does not make this project feasible in the near future. It should be noted that development of an interchange at Burt Road would have impacts to surrounding land use as well as traffic. These impacts could include development of a second commercial strip radiating from the new interchange that could negatively affect the existing commercial center on Birch Run Road and promote additional commercial sprawl along Burt Road.

The Village Downtown Development Authority completed a Traffic Circulation Study and Vehicular Parking Study in mid 1997. The scope of the traffic study reviewed current flow of vehicular traffic, estimated traffic flow increases due to new commercial development, and formulated traffic operational improvements in and around the downtown and commercial areas. The study also generated sufficient data to justify the recommended roadway improvements. The study results form the basis for a traffic improvement program within the Village of Birch Run, the Outlet Mall, and the commercial areas in the Beyer Road area.

Some key recommendations include:

- Deficiencies in geometric design at the intersection of Main Street and Beyer Road needs to be addressed.
- Improvements relative to traffic control devices are needed at the intersection of Main Street and Beyer Road.
- The intersection of Burt Road and Beyer Road should be upgraded to handle future Outlet Mall traffic.
- Beyer Road from the Main Street signal south to the intersection of Marketplace should be widened.
- South Beyer Road and Marketplace Drive require improvements to improve the flow of traffic.
- The section of Beyer Road between Burt Road and the Outlet Mall should be upgraded to acceptable design standards. This would include complete reconstruction to twenty-four foot (24') wide travel way with standard gravel shoulders.
- No further intersection improvements are recommended unless, of course, a new interchange is constructed on I-75 at Burt Road. In this case turning lanes would be required for Beyer Road southbound left and Burt Road westbound right.

A summary of the studies is made part of this plan for reference (see Appendix A).

COMMERCIAL DISTRICTS ANALYSIS

The “commercial districts” in the Birch Run Community can be identified as the commercial uses centered in the vicinity of Church and Main Streets (the Villages traditional Central Business District) and the commercial uses centered in the vicinity of the I-75 interchange and the Dixie Highway intersection.

The major changes in the commercial districts, over the last 15 years, are due to a dramatic increase in commercial development near the eastern edge of the Village area adjacent to I-75 and areas annexed into the Village at the time of development. These new commercial uses have been intensive in nature, with the addition of a large outlet mall, new restaurants, hotels/motels, ice arena, golf course, and the expansion of several local service establishments. The nature of the original central business district (CBD) area has not changed because of the expansion of commercial development east along, and adjacent to Birch Run Road.

The area has maintained its integrity and still provides a broad base that supports the vitality of the Village businesses, with high vehicle accessibility provided by Birch Run Road (east–west); along with continued smaller business development, the original CBD continues to attract residents and visitors for convenience products and related business type services.

The expansion of new commercial development east of Church, along Main, has created an evolution in the orientation of the commercial districts area from a small town, convenience shopping center, to a major retail, entertainment, and specialty center. With a large population market size and physical regional economic characteristics, the Birch Run Community exhibits a dominant location with continued potential for future growth.

By recognizing that the downtown area of Birch Run is no longer identified as a “traditional downtown area”, the community can begin answering the questions, “Where are we headed?”, “What do we want to be?”

WHAT IS A DOWNTOWN?

The redefining and reshaping of the commercial districts in Birch Run took hold in 1985, with the establishment of a Village Downtown Development Authority (DDA). The new downtown area not only encompasses a community centrally located within the Village, but the area now generally extends from the east Village limits west to include properties north and south of Main Street (Birch Run Road) to a point 200 feet east of the Elm and Main Streets intersection. The northern boundary extends north from Main Street to include properties associated with I-75, Silver Creek Drive, and Maple Road. South from Main Street are two areas one of which is 2,200 feet south along South Beyer Road, west to the Trinklein Drain, and the other includes properties abutting

the C & O Railroad south of Ash Street to Main Street.

The CBD in the Birch Run Community is a traditional downtown. This CBD is characterized by both old and new features, including: narrow building setbacks from the street, continuation of adjacent buildings, historic building architecture, and large lot coverage in the historic downtown; modern suburban design in the new area. Numerous traffic access points various signage, and traffic control devices are common in both areas. These characteristics create a pedestrian and vehicular oriented environment that is unique, easily distinguished, and offers a range of physical and sensory experiences not found in many traditional Village downtown areas. These combined features are essentially the building blocks that can foster and promote community interaction and a strong sense of identity.

The commercial districts for the Birch Run Community clearly lies within the boundaries of the Village Downtown Development Authority and the Township Downtown Development Authority and it can be readily identified from its basic physical and sensory features.

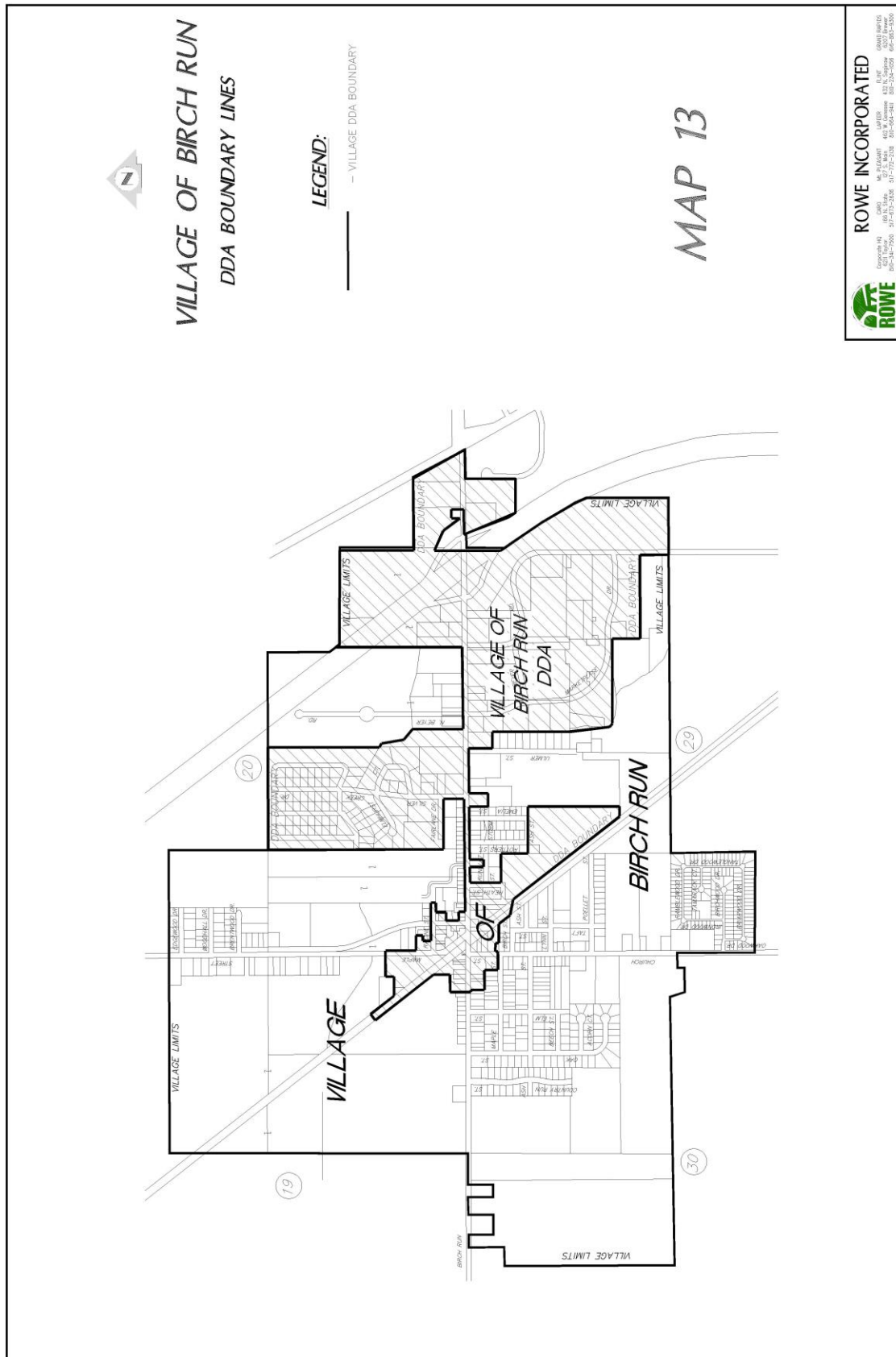
VILLAGE DOWNTOWN DEVELOPMENT AUTHORITY PLAN

In 1985, the Village of Birch Run established a Downtown Development Authority (DDA). The Village originally adopted a Tax Increment Financing and Development Plan for this area on December 30, 1985. The plan that was adopted at that time has served its purpose over the years with minor amendments occurring each year. During the first 5 years, the authority commenced several of the projects outlined in the original plan.

In 1992, the plan was amended to revise the development area boundaries and reprioritize proposed projects (see Map 13). The development area was amended to include a 22.8-acre parcel, in the southeast part of the DDA along the Trinklein Drain, and to include two additional parcels in the northwest part of the DDA, between Maple Road and the C & O Railroad. Some additional projects were added to reflect recent and proposed economic growth within the DDA.

The primary intention of the Village of Birch Run DDA is to encourage economic growth through proper planning and provision of necessary and desirable public improvements.

MAP 13 VILLAGE OF BIRCH RUN DDA BOUNDARY LINES



1992 PLAN PROJECTS

Projects are classified as short-range projects because the DDA expects to have them completed within the next 5 years or ongoing projects because they will involve expenditures every year.

The Authority has been able to meet their goal of achieving completion of many of its short range projects such as:

- Beyer Road Construction – The Beyer Road construction project will relocate the Beyer Road/Main Street intersection 850 feet west by extending Beyer Road to that point and reconnecting it to the existing roadway to the east. An arm of Beyer Road (Beyer Road south) will also be constructed. This road segment will extend 600 feet south to serve development in that area. It may be connected to an extended new Beyer Road south in the future.
- Beyer Road Intersection – The DDA is proposing to widen that portion of Main Street east of Ulmer Road to five lanes. This would complete a five-lane-wide section already constructed to service Manufacturers’ Marketplace. A new intersection will be constructed at Main Street and the Beyer Road relocation. This will include the installation of curbing, sidewalks, pedestrian crosswalks, and landscaping.
- Racine Street Improvements – Racine Street, from Conquest Street east 260 linear feet to the entrance of the middle school, will be reconstructed as part of the 1992 plan. The street was in need of drainage, curb and gutter, a new bituminous surface, and approaches with several connecting driveways.
- Sanitary Sewer Improvements – This project includes pumping the sewage from the DDA district east of the Trinklein Drain by forcemain to a Genesee County treatment facility. The remaining 3,200 feet of gravity sewer along Main Street from the west DDA boundary to Ulmer Road using forcemain. A proposed 10-inch forcemain would extend from the area of the discharge of Pump Station No. 1 at the lagoons and tie into the now existing main at Burt Road.
- Water System Improvements – The existing distribution system was intended to be looped to assure the proper circulation of water to users within the DDA. Particular areas focused on are concerns on the west and east portions of the DDA south of Main Street.

- Lighting and Landscaping – Installation of new streetlights, where needed, on both sides of Main street. Landscaping will be carried out along Main Street. This beautification project includes decorative, paved sidewalks; ornamental and shade trees; miscellaneous furniture; and various types of landscaping.

The development plan for revitalization of the downtown business area of the Village has led to the development of an extensive area of retail shopping south of Main Street and west of the I-75 interchange. To round out the development of the Main Street corridor, the DDA has encouraged and supported a mixed-use development between Main Street and Silver Creek Drain at Silver Creek Drive. The DDA's support for this development takes the form of infrastructure improvements constructed in several stages. The DDA has several other projects planned to be completed in the next five years.

The DDA is in the process of implementing a beautification project along Main Street. The beautification project would include decorative, paved sidewalks; ornamental and shade trees; miscellaneous furniture; and various types of landscaping.

After decades of companies putting utility lines overhead, the more recent trend has been to bury the lines. There are various utilities, such as electric, telephone, and cable television, running throughout the Downtown Business District that the DDA would like to put underground. This project should be completed before any other aboveground projects are undertaken (i.e., sidewalks). This project is consistent with the goals of the plan to improve the overall appearance of the Downtown area. Cluttered utility lines tend to compete with landscaping and detract from the attractiveness of a business district.

Currently, the storm sewer is in need of improvements. The DDA plans to upgrade portions of the current system in the DDA district, starting with the part along Main Street west of Emelia Street, as well as, the part along Maple Road. Storm drains found in disrepair will be replaced with new, adequately sized pipes.

In an area such as Birch Run, where tourism is a vital part of the economy, those features that add to the overall picture of the community are of utmost importance. Such amenities are important to tourists who walk from place to place. The DDA proposes to upgrade all sidewalks within its boundaries.

Maple Road is one of the major north–south roads in the Village of Birch Run. As is true with Main Street, the DDA wishes to continue the overall concept of the area with street lighting and landscaping along Maple Road from Main Street to the DDA limits. An extension of the existing berm of 150 feet will be constructed north of Main Street. It is important to keep the underlying theme of the area in mind when adding any lighting, etc., to the areas.

TODAY’S COMMERCIAL AND DOWNTOWN TRENDS

The commercial vitality of the Birch Run area as a whole is stronger today than ever. This strength can be attributed to a change in new commercial development, strategy, and location.

Throughout the eighties and nineties a shift in commercial strategy and development surfaced across the United States. It involved the general consolidation of convenience, comparison, and speciality commercial markets into large scale, multiuse, developments. The trend also occurred locally, as new commercial developments, such as the Outlet Mall, was built on the perimeter of the Village. The driving reasons for locations of these types of developments are the availability of freeway access and larger tracts of land, to allow for the expansive building foot print and area required for off–street parking areas.

Comparison shopping for the local and regional market of the Birch Run area was enhanced with these big retail centers, offering more product variety, lower cost, and increased ease and efficiency to purchase goods. Other commercial comparison and service industry followed this trend such as fast food restaurants and convenience stores, hotels/motels, all of which opted for Village perimeter development, encouraged by local zoning requirements and the ease and efficient access of vehicle and consumer traffic.

The appearance of these commercial centers in Birch Run is positive, from the stand point that the investment by these businesses, into the community and region, strongly confirms the existence of the large market that Birch Run provides. However, with the intensive level of commercial development on the outer limits of the Village, within the last 10 years, transitions have occurred in local shopping preference. Regionally, large convenience shopping districts have evolved in the Saginaw and Flint areas, which have added to the nearby shopping opportunities available to Village and Township residents.

In context of the current Downtown vitality, the role of the current perimeter commercial centers has created local competition in commercial variety, comparison, and convenience products. The focus on the Birch Run Community has shifted into a visible, more convenient, cost effective commercial area.

In order for the Birch Run Community to stay competitive with surrounding commercial retail centers and emerging trends, the community should consider strongly capitalizing on its assets including the pedestrian character of the existing downtown and the strong recognition of Birch Run as a shopping destination. With the enhancement of these existing features, combined with services and products that perimeter commercial areas can provide, the market population will be encouraged to continue to do business in the downtown area.

AGRICULTURAL LAND IN THE VILLAGE

The Village of Birch Run is situated on the fringe between agricultural land and developed areas. There are still some areas that are being utilized as agricultural land but it is unlikely that these areas will continue to be farmed or used for other agricultural purposes through the planning period.

Agricultural land in the Village is intended to be transitional land. This means that in the future this transitional land will be utilized for other types of land use besides agriculture. During the interim period preceding a change in the land use to something other than agricultural use, these areas will continue to be utilized as agricultural land. Uses like intensive feedlot operations should be prohibited because these uses are intensive agricultural uses that do not follow the intent of the Village to develop these areas as non-agricultural areas.

PA 116 LAND IN THE VILLAGE

A policy that encourages farm owners participation in the Farmland and Open Space Preservation Act, also known as PA 116 of 1978. This Act provides the landowner with certain tax benefits and in return the landowner gives up non-agricultural development rights in the property for a set period established under a contract entered into between the State of Michigan and the landowner. The minimum period is 10 years, the maximum is 99. This program has the potential of preserving prime farmland, but since it is voluntary, there is nothing to insure that all of the property owners in a community's prime agricultural area will enroll.

Currently, there is no PA 116 land in the Village of Birch Run.

PUBLIC FACILITIES AND SERVICES

WATER SYSTEM

The water system in the Village and Township includes thirty three miles of watermain, two elevated storage tanks, and one booster pump station. A map of the existing system is provided in Map 14.

The Village of Birch Run constructed a public water system in 1964. Water was supplied to the system from two wells. Much of the watermain in the Village was constructed at that time. Most of the watermains in the Village are six inch diameter. There are some eight inch diameter lines, and some are only four inch. In recent years, the Village has expanded the distribution system to serve the commercial development in the eastern part of the Village and to the Silver Creek apartments.

In 1976, the water transmission line to Birch Run Township, from the City of Saginaw, was completed. A booster pump station was built at the north Township limits on Dixie Highway and a transmission line was constructed along Dixie Highway to the Village of Birch Run. Since that time, the City of Saginaw has supplied water to both the Village and the Township.

All watermains in the Township have been constructed since 1976. Most of the watermains are extensions of dead end lines off of the transmission main. Most of these watermains are eight inch diameter lines.

Water Use

Water useage in the Village can be classified into the following three general categories:

- Residential
- Commercial/Institutional
- Unaccounted for

Residential customers are houses, apartments, and mobile home parks. Commercial/Institutional users include such uses as a car wash, laundromat, retail stores, offices, restaurants, schools, churches, and various businesses. Water usage by each customer is metered. Meters are read by Village/Township personnel quarterly and customers are billed for the quantity of water used.

Water that is pumped into the system but is not sold to customers is termed “unaccounted for”. It may be used to fight fires, lost through leakage, or consumed in other manners.

The rate at which water is used constantly changes. It varies hour to hour, day to day, and season to season. For example, water use will be greater on hot, dry summer days than during a cold,

wet autumn. Also, water use during the day, will generally be greater than late at night.

To properly meet the needs of its customers, the water system must be able to supply water at a sufficient rate to meet the customers' peak demands.

Water System Considerations

The water system is generally able to meet the demands of existing customers. The system is somewhat limited in its ability to provide the higher flow rates needed to fight fires and also in its ability to meet maximum day usage with one of the two booster pumps out of service.

One of the primary deficiencies of the water system is the layout of the distribution piping. The Township and Village are divided by the I-75 expressway, the CSX railroad tracks, and several large county drains. Construction of a watermain across such obstacles can be quite expensive. The development of the existing watermain network has minimized the number of crossings of these obstacles, apparently at least somewhat for economical considerations. This has in part contributed to the construction of the large number of dead end lines. Much of the watermain in the Township is dead end extensions off of the main transmission main. The watermain system, in the west part of the Village, is fed from the central part of the system by a single line crossing the railroad tracks. Pressure losses are greater in dead end lines than in interconnected systems. As a result, when large demands are imposed on dead end lines such as a fire flow, the friction losses significantly reduce the pressure and the quantity of water available.

As future development occurs in the area, it is recommended that more effort be put toward the interconnecting or "looping" of watermains. Interconnecting the existing piping system will improve the capacities and residual pressures in the outlying portions of the system. This can help improve capacity where existing problems exist, and will help prevent future deficiencies from developing.

Another deficiency of the water system is the MDEQ's requirement that maximum day demand be met with one of the two available booster pumps out of service. The booster pumps at the north Birch Run Township Limits need to be upgraded to meet the increased maximum day demands.

ROWE Incorporated completed an analysis of the water system for the Village and Township in 1999. This report contains detailed information and recommendations on the condition, use, and needs of the water system.

The 1999 water reliability study identified various deficiencies with the system. The need to upgrade the booster pumps, and loop dead ends is mentioned above. Birch Run is using more water than its contract with the City of Saginaw allows. The contract for water usage was for 70 million gallons per year. In 1997, usage for Birch Run was 165 million gallons surpassing the contracted amount of water. Future growth could be affected unless Birch Run can negotiate a higher volume of water from Saginaw. Also as indicated in the 1999 water study, the existing system can not provide the levels of fire protection recommended by the Insurance Service Organization (ISO). This is mostly a problem where fire flow demands are high, and in isolated areas. Lastly, increase water storage may be needed to meet future anticipated domestic demands in the southern portion of the village in the area where Church Street intersects the City boundary. It is suggested that an additional 100,000 gallon storage is necessary to meet the need of the community.

SANITARY SEWER SYSTEM

The Birch Run sewer system has two components (see Map 15). The Village-maintained lagoon in the southwest quadrant of the Village built in 1972 and a connection to the Genesee County Sanitary Sewer system. Most sewer built from 1972–1986 consisted of asbestos cement pipe. Pipe placed from 1986–present has been mainly PVC (polyvinyl chloride).

Approximately 160,000 g.p.d. (gallons per day) flow to the lagoon system which has a capacity of 240,000 g.p.d. The lagoon services the entire Village, west of and including Ulmer Street, with a system that combines approximately 7.9 miles of gravity flow sanitary sewer, 1,100 linear feet of force main sewer and three lift stations to carry the flows to a point approximately 900 feet west of Country Run Road on Main Street. From that point, another lift station pumps the flows through 1,850 linear feet of 12 inch force main to the lagoon. The depth of the sewer near the lift stations ranges from 17 to 22 feet.

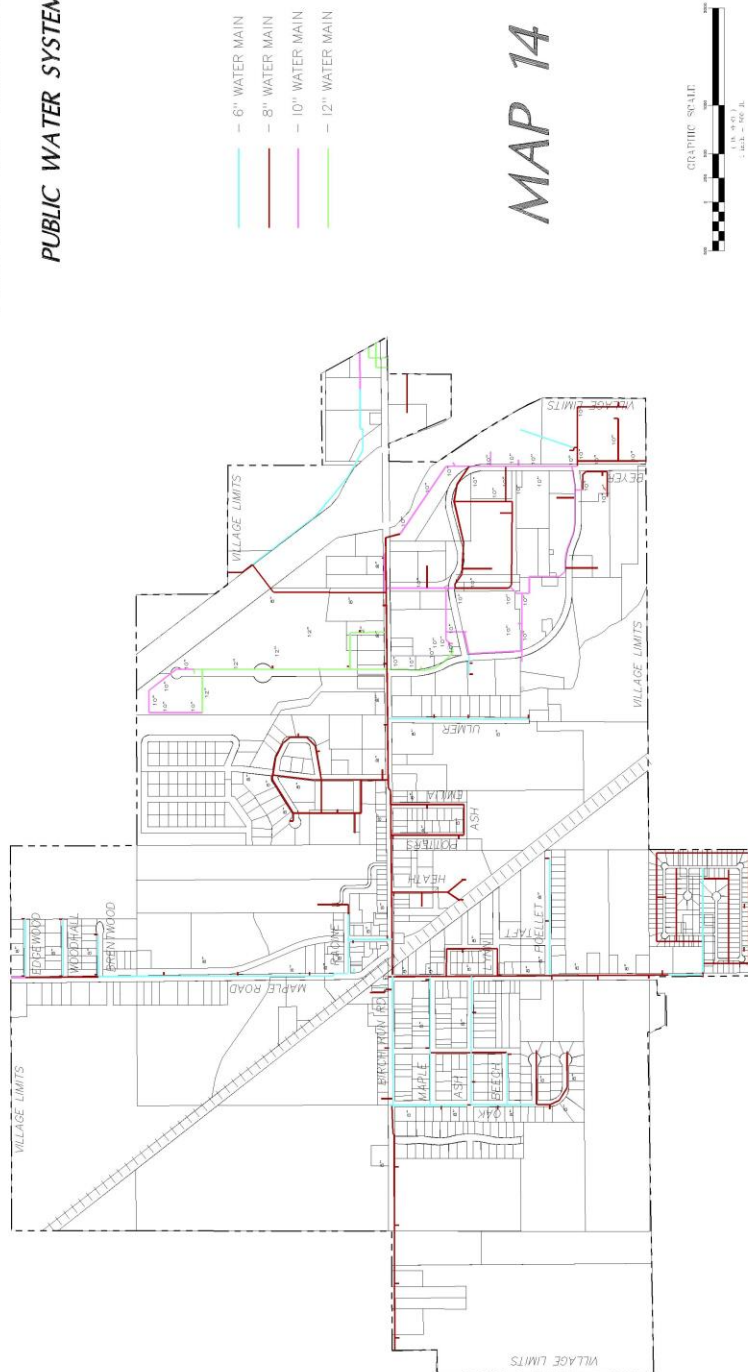
The remainder of the system was rerouted, in 1994, to connect to the Genesee County Sanitary Sewer System. The Village of Birch Run, in conjunction with Birch Run Township, purchased capacity from Genesee County. Of the possible 1,000,000 g.p.d. allowable, they currently utilize approximately 200,000 g.p.d. The system, connecting to Genesee County, carries all flows east of Ulmer Street with approximately 3.2 miles gravity sewer and 4,350 linear feet of force main and four lift stations. The previous system was rerouted at Ulmer Street with the placement of a lift station and an eight inch force main which carries flows south to the railroad tracks, then follows the tracks south to East Burt Road. The Township recently completed a ten and twelve

inch force main, which combines with the Village force main, at the railroad crossing on East Burt Road, and then continues as a twelve inch force main flowing west along East Burt Road and then south on Maple Road to Genesee County.

The current system handles all flows without major problems. There is capacity to handle additional flows in both systems. Currently, undeveloped areas could be serviced with systems that combine gravity sewer, lift stations, and possibly some force main.

Should problems arise in the future with the lagoon, a connection from the force main at the lagoon to the existing force main flowing to Genesee County could be made by placing under one mile of sanitary sewer force main along the Briggs Drain, which is the shortest route between the two systems.

VILLAGE OF BIRCH RUN
PUBLIC WATER SYSTEM



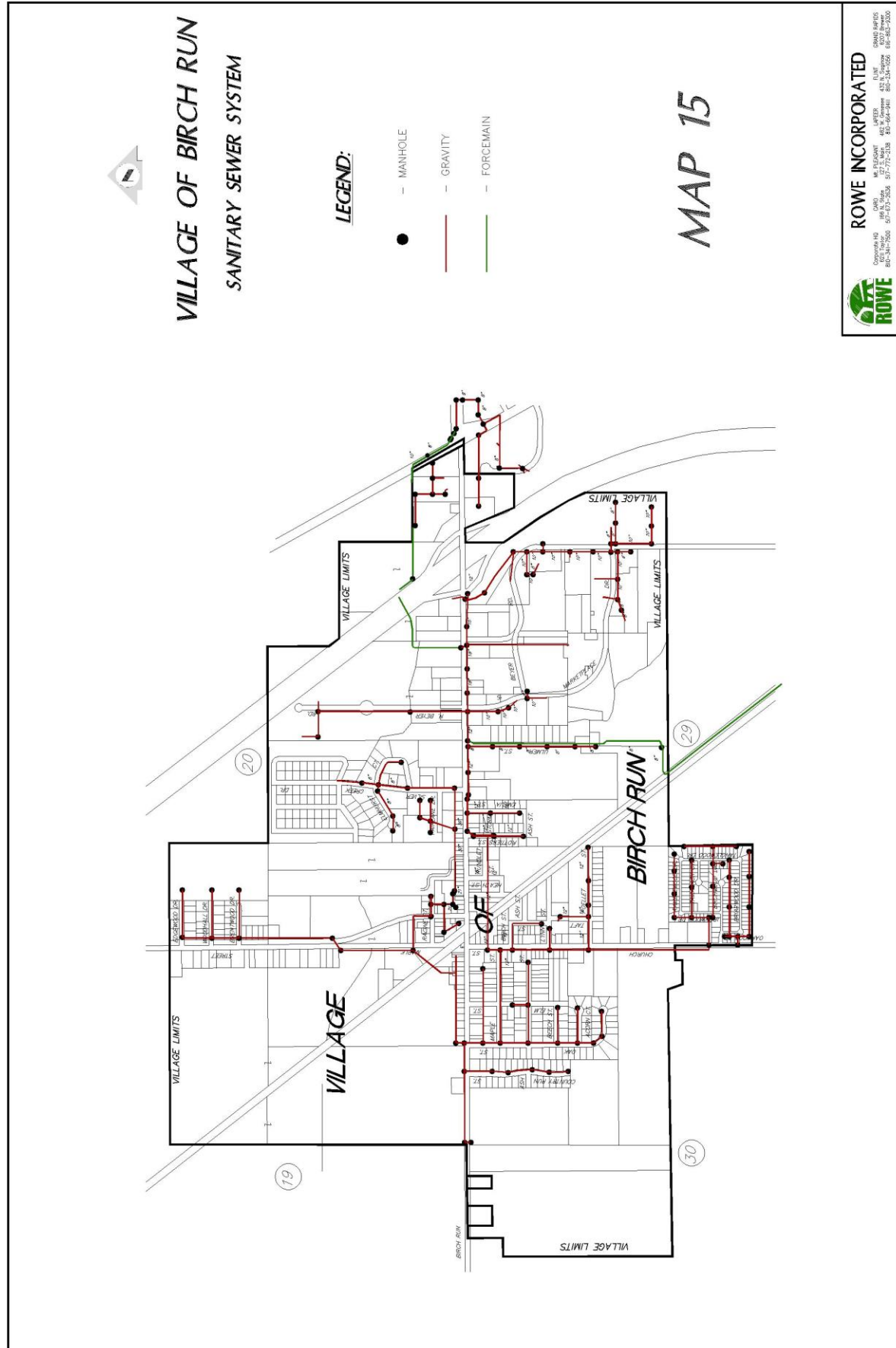
MAP 14



ROWE INCORPORATED

CORPORATE OFFICE	CARO	GRAND RAPIDS	ML. PLEASANT	LAFORCE	FUMT
8211 Taylor Drive 6001 341-7500	106 N. State 127 S. Main 616-87-3301	6207 Brewer Rd. 616-87-3301	517-772-2138	210-664-0511	210-214-1056

MAP 15 SANITARY SEWER



MAP 16

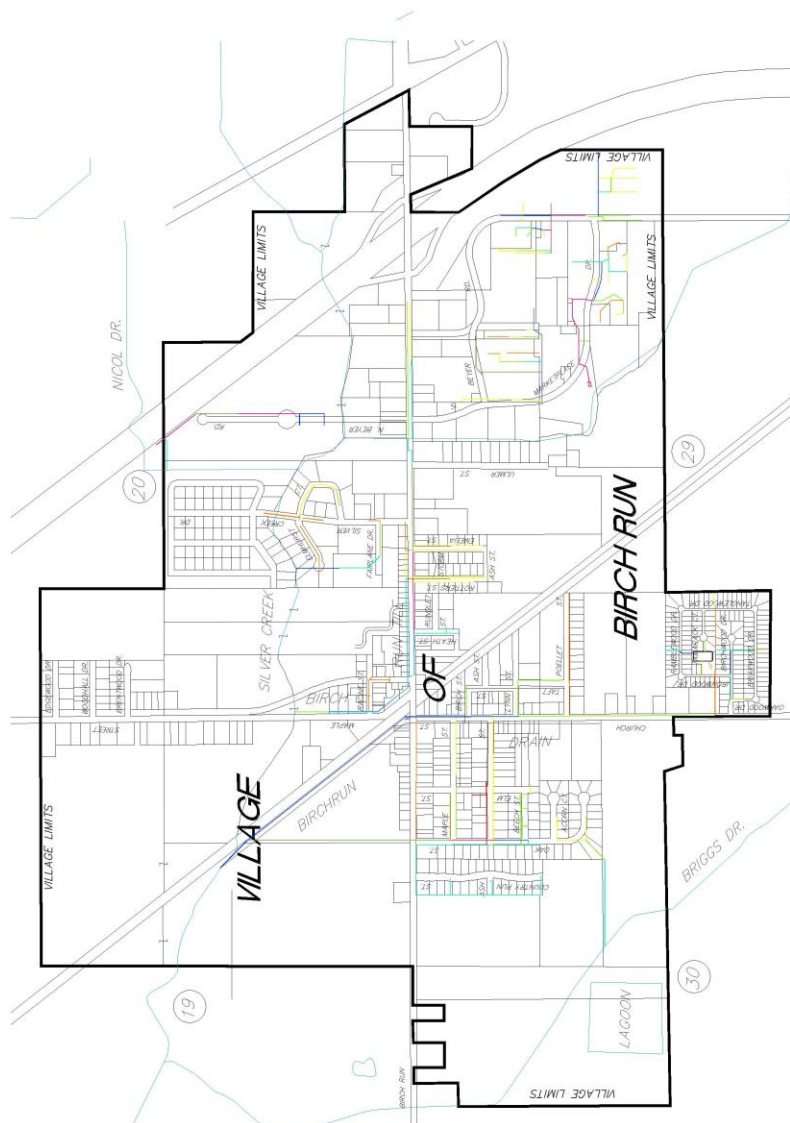


VILLAGE OF BIRCH RUN

STORM SEWER SYSTEM AND STORM DRAINS

LEGEND:

- | | |
|----|---------------------|
| 0 | MANHOLE |
| 1 | STORM SEWER |
| 2 | COUNTY STORM DRAINS |
| 3 | 8" STORM SEWER |
| 4 | 10" STORM SEWER |
| 5 | 12" STORM SEWER |
| 6 | 15" STORM SEWER |
| 7 | 18" STORM SEWER |
| 8 | 21" STORM SEWER |
| 9 | 24" STORM SEWER |
| 10 | 27" STORM SEWER |
| 11 | 30" STORM SEWER |
| 12 | 36" STORM SEWER |
| 13 | 42" STORM SEWER |
| 14 | 48" STORM SEWER |
| 15 | 54" STORM SEWER |
| 16 | STORM DRAINS |



ROWE INCORPORATED

NOVEL INNOVATIONS

Corporate HQ 6211 Taylor 800-341-7500	CARBO 160 N. State 517-473-7636	ML PLEASANT 127 S. Main 517-772-2138	LUPITER 467 W. Genesee 800-664-9411	FLINT 433 N. Saginaw 800-234-0556	GRAND RAPIDS 6207 Brewer 616-863-9300
---	---------------------------------------	--	---	---	---

STORM SEWER

Currently, the majority of the Village's storm drainage flows to Silver Creek, both overland and through the Village's underground storm sewer system (see Map 16). Recent developments have been required to release runoff from their sites at historic rates. This has resulted in the construction of detention ponds in the Village. All ponds are maintained by the developers. Drains that contribute to Silver Creek, within the Village, are the Briggs Drain and the Trinklein Drain.

The majority of the Village is serviced by underground storm sewer. Maple Road, north of the Silver Creek, has roadside ditches. The Village DPW has stated that, overall, the system is in good shape. With the proximity of drains to the undeveloped areas in the Village, it does not appear that providing storm sewer to these areas will present any problems.

POLICE PROTECTION

Two approaches are utilized for police service. The Township uses the Saginaw County Sheriff's Department and the Michigan State Police Department for its protective services. This provides 24 hour, 7 days a week coverage for the Township.

The Village has its own police department. The department is comprised of four full time officers including the Police Chief and four part-time officers, who are supported with three patrol cars. This provides 24 hour, 7 days a week protection for Village residents. The department is linked to other police agencies through computer and radio hook-up.

FIRE PROTECTION

Birch Run Township provides fire service to both the Village and Township. The department is staffed by an on call fire and rescue team. The department operates out of the fire station located at Birch Run Road and Silvercreek Drive. Currently, the fire department is supported by 23–30 on call volunteers, utilizing 4 fire trucks, a rescue van, and necessary equipment. Overall, fire fighting capability is good, however, it is necessary to closely monitor future needs and capabilities.

PUBLIC WORKS

The Village maintains a Department of Public Works located adjacent to the Village Office. The Department is staffed by three employees and two seasonal employees. The Department owns equipment necessary for the maintenance and repair of infrastructures, street cleaning, snow removal, and grass cutting.

PUBLIC LAND AND BUILDINGSGovernmental Facilities

Both the Village and Township operate out of separate office facilities. The Township Hall/Complex is located on Birch Run Road adjacent to Silver Creek Drive. The complex consists of a new 6,000 square feet library, the Birch Run Community Fire Station, and administrative office space for the Township.

The Village offices are located on Heath Street, one block south of Main (see Map 17). The Village maintenance department and police department are located adjacent to the Village Hall.

Cemeteries

The Township maintains two cemeteries. The Hammond Cemetery is located on Busch Road, between Block and Gera Roads. A second Township Cemetery is located off Dixie Highway (see Map 17). These two cemeteries should accommodate future needs. When expansion is required, the Township should acquire land adjacent to the cemeteries to reduce expansion costs.

Educational Facilities

The Birch Run School District facilities are located within the Village of Birch Run (see Map 17). School facilities consist of the Birch Run High School, Marshall Greene Middle School, North Elementary, and the School District's administrative offices.

Park and Recreational Facilities

Recreational facilities include a new park in the Township at Burt and Maple Roads, a Village Park at Church and Main, and facilities at the public schools in the Village (see Map 17). The Village Council and Planning Commission will investigate potential incentives to encourage the inclusion of playgrounds and parks within large residential developments with public access provided.

[illegible]

The Birch Run Township Park contains the following facilities:

Active

- 1 – Regulation Baseball Diamond
- 2 – Hard Surfaced Tennis Courts
- 1 – Concrete Basketball Court
 - Playground Equipment

Passive

- 1 – Picnic
- 2 – Pavilion
- 3 – Outdoor Grills

Support Facilities

- 1 – Hard Surfaced Parking Lot
- 2 – Restrooms

The facilities at the schools include:

- ***Birch Run High School***

Active:

- 1 – Regulation Baseball Diamond
- 1 – Regulation Softball Diamond
- 2 – Children Softball Diamonds
- *1 – Regulation Outdoor Football Field
- *1 – Outdoor ¼ Mile Oval, All Weather Track
- 1 – Outdoor Basketball Court

* Not available for public use.

Passive:

- Grass Field
- Classrooms

- ***Marshall Greene Middle School***

Active:

- 2 – Swing Sets w/10 seats
- 1 – Large Activity Center
- 8 – Basketball Nets
- 2 – Non-regulation Softball Diamonds (grass infields)

Passive:

- Grass Field
- Classrooms

- ***North Elementary School***

Active:

Playground Equipment

- 6 – Basketball Nets
- 2 – Climbing Centers
- 1 – 6' x 15' Concrete Wall for Dodge ball and Tennis
- 1 – 3 Level Balance Beams
- 1 – Wooden Activity Center
- 3 – Softball Diamonds for Children Only
- Walking in Halls – Allowed for Public Citizens Before Classes Being in the Morning.

Passive:

- Grass Field
- Classrooms

In addition to the public and semi-public facilities, there are a few private recreation facilities located within the Township, they are as follows:

1. Evergreen Subdivision

There is a small playground located within the Evergreen Subdivision (section 2) which is utilized only by the residents of this subdivision.

The residents of the Township also travel to the Clio/Montrose area and Bridgeport area to utilize indoor swimming facilities. Currently there are no swimming facilities located within Birch Run

Township.

The Township makes contribution to City of Frankenmuth Parks and Recreation Department each year for the Township residents residing within the Frankenmuth School District.

PARKS AND RECREATION PLAN

The Birch Run Township Park Board was created by the Birch Run Township Board. The Township Board delegated the responsibility to the Park Board for maintaining, scheduling, and controlling organized recreation programs, planning and development of projects, and submission of grants for future recreational development.

The Township Park Board has prepared a Five Year Parks and Recreation Plan. The plan was prepared with three goals in mind:

1. To provide the Township Board of Trustees with a basic understanding of recreational programs, facilities, needs, desire, budgets, and development schedules
2. To meet the requirements, as outlined by the Michigan Department of Natural Resources, to be eligible for grants from the Federal Land and Water Conservation Fund which helps to finance the acquisition and development of outdoor recreation activities
3. To help address the needs for the community in developing a short range and long range plan for the development of its new recreations park

This plan was authorized and financed by the Township Board and written with guidance of the Park Board. It was prepared consistent with the recreation planning guidelines established by the Michigan Department of Natural Resources.

The Recreation Plan serves as a guideline for establishing the short range and long range plan projects to meet the recreational needs of the Birch Run Community.

The plan recommends that a total of four additional recreational facilities be developed within the 20 year planning period. These include two neighborhood parks and two special interest facilities.

Neighborhood Parks

It is proposed that the one private neighborhood playground area be expanded and one new neighborhood park be developed within the 20 year planning period.

It is recommended that the new neighborhood park be a minimum of 2 acres in size and contain the following facilities:

- * — Playground Equipment
- * — Picnic Area
- * — Pavilion
 - Small Sledding Hill
 - A concrete surfaced multi-use area which could be used for basketball and tennis. It should be designed so that it can be flooded and used for ice skating in the winter months.

Expansion of the existing private playground in Evergreen Subdivision be completed. Facilities to be included at the site should include:

- Picnic Tables
- Additional Playground Equipment

PUBLIC INPUT

ATTITUDE SURVEY

In September 1997, a 30 question attitude survey was mailed out to approximately 2,350 households. The survey questions were based on comments from the leadership survey, conducted as part of the Village and Township Plan for Planning and reviewed by the Joint Planning Committee. The survey was formatted to allow up to two adult responses per household. A total of 564 surveys were returned, with a total of 916 responses. This represents approximately 24 % response rate on the survey. A copy of the survey form is attached as Appendix B. The survey planning areas are delineated in Map 18.

Four of the questions were open ended and the responses have been collated and a copy provided to the Township and Village. The remaining questions were multiple choice, numerical, or yes/no. The numeric answers included many questions where the respondent is asked to respond to a statement, with one equal to “strongly agree” and 5 equal to “strongly disagree”. All answers other than the open ended ones are summarized in the table on the following pages.

The questions covered ten general areas:

1. Traffic
2. Land Use
3. Housing
4. Agricultural Protection
5. Public Services
6. Interjurisdictional Cooperation
7. Community Character
8. Pace of Change
9. Economics/Jobs
10. Characteristics of the Responder

The responses were calculated for the community as a whole, for just Village residents, and just for Township residents outside the Village. Responses were also calculated for four sub areas in the Township and eight sub areas in the Village. (There were actually nine sub areas in the Village but one had no responses). Four areas; T4, V3, V4, and V9 had total responses that equaled 2% or less of the total responses. Because of the relatively low number, larger than expected variations from the average response can be expected. Approximately 20% (**183**) of the respondents did not indicate in which area they lived.

Traffic

In answering the questions regarding traffic strongly agreed that new development should be reviewed to determine its impact on traffic before approval (1.4) and should be designed to reduce impacts upon traffic congestion (1.4). There was no real variation in the response from different areas. There was general agreement that east west roads in the Village were a good idea, but it was not as strong (2.0) and there was less uniformity of agreement with residents in area V-4 scoring this concept a 3.1. This may, in part, be due to the fear of residents that a cross connector would link the Outlet Mall with Church Street.

Land Use

In answering the survey, residents of the Village and Township agreed that there is currently an imbalance between commercial development and other types of land uses, although residents in area V-2 and V-3 were less likely to agree. When asked what type of future land use should be encouraged, the largest group of respondents (44%) felt that residential development was appropriate, followed by agriculture (30%), industrial (15%), and commercial (11%). The numbers varied substantially between the Township were residential (37%) and agricultural land uses (35%) were almost even, followed by industrial (17%) and commercial (11%). In the Village, residential development was the predominant choice (63%), followed by a tie between industrial and agricultural (15% each), with commercial last (7%). In projecting the location of future commercial development, over half the respondents (54%) felt that Dixie Highway was the appropriate location. The next most popular location was along Birch Run Road from I-75 to Gera Road (24%), and just around the I-75/Birch Run Road interchange (21%)

Housing

The ranking of appropriate land uses was predictable, with single family residential scoring 1.4 (meaning it was highest priority for most respondents), followed by duplexes (2.8), apartments (3.1) and mobile homes (3.6). There was general agreement that the quality of housing in the Village and Township was good (2.3)

Agricultural Protection

The survey respondents agreed that farmland should be protected from non-agricultural development in general (2.1) and urban style residential land uses in particular (2.2). They also agreed that the zoning ordinance should limit the number of non-farm residences built in agricultural areas (2.1) and that agriculture should remain the primary land use in the Township (2.3). Agreement with these policies was .6 or .7 points stronger in the Township than in the Village.

Public Services

Residents were generally undecided on expansion of the sewer system into the Township (2.9), particularly Township residents (3.0). The greatest support in the township for this policy was in area T3, which surrounds the Village and much of it already has sewer service. There was general agreement that landowners and developers who benefit should pay the cost of sewer expansion. Less than one third of the respondents (30%) indicated that drainage was a problem in their area, although (45%) of Village residents indicated that it was a problem.

Interjurisdictional Cooperation

There was strong agreement (1.5) that the Township and Village should work cooperatively together and that they should jointly plan for the development of the area. There was strong approval for the Township and Village providing joint services in the area of police (82%) and fire/rescue (76%). Over half the respondents thought that the two jurisdictions should work cooperatively to provide library services (53%) and parks and recreation services (52%). The idea of the Township and the Village unifying into one government received a response (2.6) that was between agree and undecided, with Township residents closer to undecided (2.8) than Village residents (2.6).

Community Character

There was strong agreement (1.4) that the Village and Township should manage future growth so that the quality of life in the community is retained and/or improved. Residents were undecided that whether recent development has improved the character of the community (2.9), although Village residents are more likely to agree with that statement (2.4). There is agreement that the rural character of the township is an asset worthy of protection (1.8).

Pace of Change

There was general agreement (1.9) that the Community's responsiveness in providing infrastructure required by the pace of the new development has been a problem.

Economics/jobs

The responses were almost evenly split concerning the economic vision of the community, with **52%** envisioning a bedroom community, and **48%** anticipating a community with increased industrial development.

Characteristics of the Responder

The average responder to the survey has lived in the community **23** years, and is between **45 and 65** years of age. When asked to characterize their attitude towards development, **60%** described themselves as "pro development but support municipal controls to manage growth," **20%** indicated that they "opposed new development," **11%** said they were "pro development and supported minimal land use regulations," **3%** characterized themselves as "not very concerned about new development or land use regulations," and **7%** were undecided.

Village of Birch Run/Birch Run township Attitude Survey Results

2. Streets running from east to west through the Village should be developed so that local traffic does not need to use Birch Run Road during peak traffic periods.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.0	2.0	2.0	2.1	1.9	1.8	2.7	2.1	1.5	1.4	3.1	2.0	2.3	2.0	1.3
3. New development should be reviewed to determine its impact on traffic before approval.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.3	1.4	1.4	1.3	2.4	1.5	1.2	1.3	1.2	1.4	1.2	1.3	1.4
4. New development should be designed to reduce impacts on traffic congestion.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.3	1.4	1.3	1.3	2.4	1.5	1.1	1.3	1.1	1.5	1.4	1.3	1.4
5. There is an imbalance between commercial development and residential/industrial/agricultural land uses in the Village and Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.4	2.3	1.3	1.6	2.0	1.6	2.0
6. Which land use type should be encouraged the most in the future?														
(A) Residential														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
376	190	105	91	43	51	4	12	21	9	9	15	13	18	7
(B) Industrial														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
132	87	24	42	28	15	1	2	4	0	2	3	8	4	1
(C) Commercial														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V8
92	60	12	21	15	22	0	0	1	1	0	2	5	1	1

(D) Agricultural														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V8
257	183	25	85	52	40	2	6	4	3	1	1	4	6	0
7. Select one or more of the following which you agree with:														
(A) All future commercial development should locate along Birch Run road between I-75 and Gera Road.														
All	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
219	126	59	51	27	43	5	2	16	2	5	3	10	17	3
(B) All future commercial development should locate along Dixie Highway.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
495	309	102	136	86	76	4	16	18	10	8	8	15	21	5
(C) All future commercial development should locate around the Birch Run Road/I-75 Interchange.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
182	123	26	62	39	19	3	2	5	7	0	2	5	5	0
(D) All future commercial development should locate in downtown Birch Run.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
138	93	24	40	35	18	0	2	1	4	2	4	5	3	3
(E) All future commercial development should locate around the intersection of Birch Run Road and Gera Road.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
122	71	24	30	19	22	0	0	4	2	1	4	4	7	2
(F) All future commercial development should locate along Gera Road from Birch Run Road north to Frankenmuth.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
122	71	25	38	11	21	0	1	2	2	1	3	8	6	0

9. The quality of housing is good in our community.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.3	2.4	2.2	2.3	2.5	2.4	2.4	2.3	2.2	2.3	2.6	2.3	1.9	2.5	1.9
10. Farmland should be protected from non-agricultural development such as non-farm residences, commercial, and industrial uses.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.1	1.9	2.5	1.9	1.7	2.3	1.1	2.5	2.3	2.6	2.2	2.8	2.3	3.1	2.8
12. The zoning ordinance should limit the number of non-farm residences that can be built in an agricultural area.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.1	2.0	2.6	2.0	1.8	2.2	1.0	2.7	2.7	2.7	2.7	2.9	2.1	3.1	2.8
13. Agriculture should remain the primary land use in most of the Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.3	2.1	2.7	2.0	1.9	2.4	1.6	2.5	2.6	3.3	2.4	2.8	2.5	3.0	2.6
14. The sewer system should be expanded in the Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.9	3.0	2.4	3.2	3.0	2.7	3.0	2.8	2.2	2.7	3.1	2.0	2.3	2.2	2.1
15. The Landowners/developers who benefit should pay all the costs of expansion of the sewer system.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.8	1.8	1.8	1.7	1.9	2.0	1.4	1.5	1.9	2.0	1.8	2.5	1.3	1.8	1.6
16. Is storm drainage a problem in our area?														
True														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
277	161	81	68	42	48	0	11	2	7	4	14	20	20	1

False														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
639	394	97	188	102	92	7	11	28	8	8	10	15	9	8
17. The Township and Village should work cooperatively together.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.5	1.4	1.4	1.4	1.5	1.3	2.1	1.5	1.4	1.3	1.3	1.3	1.6	1.4	1.3
18. The Township and Village should jointly plan for the development of the Birch Run area.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.5	1.5	1.4	1.5	1.7	1.3	3.0	1.7	1.4	1.1	1.5	1.3	1.6	1.3	1.1
19. The Township and Village should jointly provide one or more of the following services.														
Police														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
754	467	154	217	116	121	7	22	27	15	9	16	29	27	8
Dept. of Public Works														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
447	281	107	108	83	81	3	11	21	10	3	11	24	20	6
Fire/Rescue														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
697	442	148	206	118	110	4	20	25	15	11	13	33	22	8
Parks														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
478	287	107	140	63	77	5	11	18	12	7	9	23	22	5

19. The Township and Village should jointly provide one or more of the following services.														
Library														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
484	297	118	134	71	85	3	15	19	10	9	9	26	21	7
Cemetery														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
374	218	95	107	39	67	3	12	12	10	5	12	21	17	6
20. The Village and Township should unify under one governmental unit.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.6	2.8	2.3	2.7	3.1	2.5	2.6	2.5	1.8	2.5	2.3	2.1	2.5	2.6	1.6
21. The Village and Township should manage future growth so that quality of life is retained and/or improved.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.4	1.4	1.4	1.4	2.6	1.5	1.4	1.3	1.0	1.4	1.4	1.5	1.0
22. Recent development has improved the character of Birch Run.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.9	3.0	2.4	3.4	2.6	2.9	2.7	3.0	2.3	2.7	2.1	2.2	2.4	2.4	1.8
23. The rural character of Birch Run Township outside of the developed land surrounding the Village of Birch Run is attractive and worthy of protection.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.8	1.7	2.3	1.5	1.7	1.8	1.9	2.3	1.9	2.4	1.8	2.5	2.3	2.6	2.1
25. The community's responsiveness in providing infrastructure required by the pace of new development is a problem.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.9	1.9	1.8	1.9	1.9	1.8	2.7	2.0	2.1	1.1	1.3	1.8	2.0	1.7	2.0

26. Which of the following best represents your vision of the Village and Township in the future.

(A) A bedroom community with industrial jobs provided primarily outside of the Village and Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
432	255	84	126	65	57	2	10	14	6	8	4	17	19	4
(B) A community in which an establishment of new industrial jobs is encouraged available within the Village and Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
373	229	84	85	72	68	3	11	13	7	4	20	15	9	5
27. How many years have you lived in the Village of Birch Run/Birch Run Township?														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
23	24	21	22	23	28	14	35	5	36	29	8	29	17	25
28. What area in the Community do you live in?														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
916	555	178	256	144	140	7	22	30	15	12	24	35	29	9
29. What is your age?														
(A) 18 – 30														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
82	43	27	22	6	10	4	0	10	0	4	0	3	9	0
(B) 31– 45														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
268	187	51	88	57	40	1	8	6	5	2	5	12	9	3
(C) 46–65														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
364	231	54	112	57	55	2	10	7	6	1	8	10	8	4

(D) 65 +

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
175	84	45	29	22	32	0	4	6	4	5	11	10	3	2
30. Would you characterize yourself as someone who is:														
(A) Pro development and supports minimal land use regulations.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
98	63	15	28	19	14	1	4	0	1	0	0	2	6	2
(B) Pro development but supports municipal controls to manage growth.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
523	389	125	121	94	81	6	10	22	12	8	18	26	20	7
(C) Not very concerned about ne development or land use regulations.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
27	15	3	8	2	5	0	2	1	0	0	0	0	0	0
(D) Opposed to new development.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
171	119	14	0	19	25	0	4	0	0	3	1	4	2	0
(E) Undecided.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
57	28	14	17	4	7	0	1	6	0	1	5	0	1	0

TOWN MEETINGS

Joint Township and Village Town Meetings

The planning process began with a series of town meetings where residents of the Village and Township were asked to provide input into the planning process. The initial meeting involved a presentation on the general trends in land use and development in the area over the last twenty years followed by two exercises conducted by the members of the public in small groups. The first exercise was the “Prouds and Sorries” exercise in which each small group was asked to list the items they were most proud of and most sorry about in the Village/Township community, and then share their lists with the balance of the group. The second was a “Futuring” exercise in which each person was asked to imagine the community twenty years from now and identify those features that characterized a successful development of the area over that time period.

The results of this input were collated and reported to the Township and Village Planning Commissions and served as the basis for draft goals and policies. These were then presented to the community at a second town meeting and were revised based on input from the community.

The goals and policies were then used as a basis for developing a conceptual land use plan that outlined general concepts in the township and village dealing with transportation, commercial development, growth management boundaries, and open space and farmland protection. A third town meeting was held to present these to the public and to contrast the concepts with the likely development patterns if no changes to planning and zoning trends occurred. As a result of public concern related primarily to recommendations regarding the growth management and farmland preservation, two additional meetings were held to outline alternative approaches to each issue. At the end of the fifth meeting, the Township and Village decided to continue discussion of those issues that were of primary concern to only one of the municipalities (such as downtown development for the village and farmland preservation for the township) separately.

Village Review of key

In reviewing future land use, as it relates to the parcels along Birch Run Road, the Village decided to:

- Maintain residential use as principal use (current plan policy)
- Evaluate current home occupation provisions to consider allowing more intensive home occupations in the area between Heath Street to Silver Creek Drive.

In considering the appropriate mix and density of residential and commercial development around the existing downtown, the Village decided to:

- Promote multi-family (preferably senior citizen housing) in area north of existing downtown
- Extend existing downtown to the northwest
- Principal use of vacant land west of downtown will be single-family residential
- Multi-family buffer between downtown extension area and single-family area

After considering several alternative approaches to improving east/west traffic flow, in the Village, the Village choose an approach that included:

- Provide east-west traffic link north of Birch Run Road by extension from Silver Creek west to Maple Street, then continue west, cross railroad and turn south to link with Birch Run Road near west village limits. Due to the potential for significant commercial traffic, this option element does not include connecting Beyer Road to the east-west connector.
- Provide east-west traffic link south of Birch Run Road by linking Market Place Drive with an Emelia Street which has been extended south. This portion of the east-west link is proposed to be one way east bound to avoid mall traffic from using Ulmer and Emelia Streets. This road segment would then be connected to Poellet Street with a railroad crossing. A loop would also be created connecting Church Street with Birch Run Road.

The Planning Commission reviewed the potential of conversion of land use in the Ulmer Road area which is currently single family residential and vacant/road right-of-way, but is bordered by commercial and industrial uses. The Planning Commission considered an range of alterations, including maintaining single family residences as the principle use in the area, multifamily development, a mix of office and single family attached residences, commercial development and light industrial development. The final concept includes:

- Conversion of the area along Ulmer Road to a commercial/office district through conversion of existing residential lots.
- Development of most of the vacant land west of Ulmer Road for light industrial uses.

[illegible]

GOALS AND POLICIES

INTRODUCTION

Goals and objectives play a fundamental role in the Village of Birch Run Comprehensive Plan. The goals and objectives chart the Plan's direction and form. Policies, a later step in development of a Plan, present key implementation strategies to assure the Plan's direction is followed. The relationship between goals, objectives and policies is as follows:

A **GOAL** is a destination, a final condition which a community seeks to attain. A goal is the most general level of policy and, by itself, is often not very helpful to decision makers. It needs further refinement to assist decision makers to reach their selected destination. At the individual level, a goal is like saying, "I want to take a vacation once each year."

An **OBJECTIVE** is a benchmark which specifies in general terms the way (route) by which the goal (destination) can be reached. An objective indicates the kinds of actions that should be used to achieve the goal. It is like deciding to set aside "\$X" by "Y date" to travel to "Z."

A **POLICY** is a course of action which, if followed, will achieve an objective. A policy is more detailed than an objective and can be readily translated into specific action recommendations or design proposals. It is like saving \$100 extra dollars a month by reducing spending on non-essentials and entertainment in order to afford the vacation.

ECONOMY

Goal 1: Birch Run has a sustainable, growing and diversified economy, providing full employment at sufficient wages to support a family.

Objectives:

- Create new jobs through the retention and expansion of existing employers and the attraction of new companies through an aggressive marketing effort that would include a person hired to attract new business (or if feasible, assigned as a new responsibility to an existing employee).
- Target the manufacturing, finance, insurance, service and distribution sectors of the economy as the primary focus of new job creation (including research, design, engineering, administration and production).
- Continue to upgrade and enhance the Village's transportation, communications and utilities infrastructure systems to meet the needs of business and industry.
- The Village of Birch Run and Birch Run Township will share services and resources in the

coordination of economic development activities to promote a positive image for the Birch Run area.

- Capitalize on assets like I-75, the railroad, the mall and existing industrial areas.

Goal 2: Birch Run has a skilled work force to help attract new economic development.

Objectives:

- Promote the training and retraining of a work force able to secure and maintain employment, work productively and earn a wage sufficient to support families in a changing economy.
- Promote the establishment of technical and educational support programs which match residents with business and industry needs.

LAND USE

Goal 1: Birch Run Village manages growth to prevent sprawl beyond the edge of developed areas, to promote new development at urban densities in and adjacent to the developed portions of the Village and to encourage reinvestment in older areas of the community.

Objectives:

- Encourage compact development that uses land and infrastructure efficiently.
- Protect environmentally sensitive areas until it is needed for development.
- Encourage highest densities around key activity centers and along major transportation routes.
- Provide a linked system of planned open space that connects newly developing and existing neighborhoods.
- Promote relationships between jobs, housing and transportation that are convenient, efficient, healthy and mutually supportive.
- Encourage development of senior citizen housing as part of a senior citizen complex close to stores and churches in the village.
- Separate new businesses from residential areas by landscaping, fencing, and other methods which minimize noise, lights, dust, ground vibration and other nuisances.
- Expand parks and recreation facilities, provide incentives for private developers to provide for them

DOWNTOWN

Goal 1: Enhance Birch Run’s downtown as the area’s major focus for local business, cultural and civic activities.

Objectives:

- Reinforce the viability of the downtown through continued physical improvements, including improved vehicular and pedestrian access, parking, uniform lighting, landscaping and new civic space.
- Identify and protect structures and places of historical and/or architectural significance to support/reinforce the special identity and character of downtown. Target special efforts on retaining the historic character of the “Marriage Mansion.”
- Encourage the maintenance and upgrading of businesses and homes along Main Street.
- Work to retain existing employers in downtown.
- Encourage establishment of a produce market, bank, drugstore and other locally oriented businesses and services downtown.

INDUSTRIAL DEVELOPMENT

Goal 1: Birch Run has an ample supply of competitively located and appropriately sized industrial sites.

Objectives:

- Encourage high density job development of one or two Industrial Parks; target this area as the primary focus for new and expanding job development.
- Identify and reserve land for future industrial growth in planned business park settings with excellent access and appropriate buffering from residential uses.
- Ensure that development occurs in such a way that undue environmental harm does not result.
- Creation of a State Certified Industrial Park.

COMMERCIAL DEVELOPMENT

Goal 1: Birch Run has clearly defined nodes of commercial activity, appropriately distributed and scaled to serve state/regional, community and neighborhood needs.

Objectives:

- Discourage strip commercial development.
- Encourage commercial development in compact clusters/planned centers.
- Develop strict zoning regulations and design guidelines that permit when appropriate,

neighborhood-scaled commercial uses adjacent to residential areas and ensure resident concerns are adequately addressed before action is taken.

- Ensure new commercial development is designed to give the same consideration to the needs of pedestrians, bicyclists and bus riders as to the needs of motorists and trucks.
- Expand local retail business and services downtown and in other planned locations that primarily serve local residents rather than outlet mall shoppers.
- Focus economic development efforts on retaining existing businesses.

Goal 2: Birch Run's existing commercial mall corridor continues to serve as a viable business location.

Objectives:

- Upgrade the function and visual appearance of the mall area as needed.
- Provide guidelines for reinvesting in and upgrading older commercial mall and related structures.
- Buffer mall commercial, service and office development from abutting residential uses wherever necessary.
- Better link the street system in the mall to improvements within the Village and Township.

RESIDENTIAL DEVELOPMENT/NEIGHBORHOODS

Goal 1: Birch Run has revitalized, older neighborhoods providing a range of housing choices in a safe and attractive environment.

Objectives:

- Encourage a variety of housing choices in neighborhoods through a balance of preservation, rehabilitation and new construction of both affordable, middle income and upper end housing.
- Strengthen the livability of existing neighborhoods through improved safety, upkeep, reinvestment and community involvement.
- Preserve historic structures, and neighborhoods where feasible.

Goal 2: Birch Run's newly developed neighborhoods expand the range of lifestyle choices within the Village.

Objectives:

- Encourage new residential development in cohesive neighborhood units with a mix of housing types compatible with adjacent uses of land.
- Zone land to offer a variety of density and housing types to optimize dwelling choices.
- Ensure the design of new neighborhoods has a street system that is fully integrated with the existing public street system.

Goal 3: All of the neighborhoods in the Village of Birch Run are free of violence and have low crime rates.

Objectives:

- Promote active local neighborhood organizations by helping them tap into resource programs such as Neighborhood Watch in all areas.
- Encourage close working relationships between residents and police.
- Encourage public participation in neighborhood organizations.

OPEN SPACE, PARKS AND RECREATION

Goal 1: Birch Run offers a wide variety of indoor and outdoor recreation opportunities for families and persons of all ages.

Objectives:

- Provide neighborhood and community parks within new residential neighborhoods as they are developed.
- Work in partnership with the schools to meet community recreation and cultural needs.
- Maintain, improve and market present and future regional recreational and cultural attractions.
- Base recreational planning/programming decisions on regularly updated evaluations of resident needs and preferences.
- Encourage additional private sector involvement in providing open space and recreation opportunities to the residents of Birch Run.
- Develop a community center.
- Develop new, public recreational facilities, including an indoor pool, tennis courts, ball diamonds, community theater and a linked trail system.

CAPITAL IMPROVEMENTS

Goal 1: Establish an annually updated capital improvement program (CIP).

Objectives:

- The Village would annually prepare, coordinate and adopt as a part of the budget cycle, a schedule of proposed capital improvements for the next six years and a capital budget for the next year.
- Prepare, adopt and periodically update an official map of future public facility improvements in the Village.

TRANSPORTATION

Goal 1: Birch Run Village continually maintain and upgrade the roadway infrastructure serving each community to provide safe, convenient access and to complement balanced, orderly growth.

Objectives:

- Balance the preservation of neighborhood quality with community-wide access needs.
- Alleviate traffic congestion problems by developing new east-west roads both north and south of Birch Run Road that run the full width of the Village and cross the railroad tracks.
- Create at least one grade separated crossing of the railroad.
- Continue to maintain street surfaces in good condition.

Goal 2: Birch Run provides local travel alternatives to automobile use including bikes, walking, and bus.

Objectives:

- Provide an efficient and pleasant bicycle and pedestrian system that safely connects residential areas with most desired destinations.
- Erect an overhead pedestrian crossing for Birch Run Road and I-75 if other means to ensure safe pedestrian crossing are not effective.
- Encourage the private sector to create a large “park-n-ride” to and from the mall. If feasible, structure a service to also incorporate hotels and potential neighborhood riders.

UTILITIES

Goal 1: The Village's storm sewer, sanitary sewer and water systems are upgraded and extended to support balanced, orderly growth.

Objectives:

- Closely monitor the condition of all infrastructure to ensure early detection and correction of problems.
- Improve storm water systems within and adjacent to the Village to solve existing problems and meet growing needs. Correct spot drainage problems first.
- Maintain the quality of water supply wells.
- Expand sewer and water lines in planned increments that are consistent with this Plan.
- Coordinate utility construction with road construction.
- Where practical, bury all overhead utility wires.

PUBLIC SERVICES

Goal 1: The Birch Run provides high quality, rapid response and cost effective public safety services.

Objectives:

- Provide comprehensive, full time and cost effective police protection, fire protection and emergency medical response service to all parts of the Village.
- Cooperate regionally in the provision of public safety facilities and programs.
- Explore the feasibility of a joint Village/Township Police Department.
- Explore the feasibility of a Fire Department with round-the-clock personnel and a full-time fire chief/fire marshall/inspector.
- Purchase new fire equipment that is able to meet the needs of three story buildings.
- Encourage the creation of an urgent care clinic.

HEALTH

Goal 1: Birch Run provides high quality, affordable health care to all citizens.

Objectives:

- Promote health education programs to improve health outcomes at the lowest cost.
- Promote the establishment of a centralized emergency service facility to serve the Birch Run community. Explore the feasibility of expanding the Saginaw County Health Center.
- Promote drug prevention education and drug abuse treatment services adequate to serve the community.
- Extend D.A.R.E. education into high school.
- Encourage the creation of a fitness center as part of new municipal recreation facilities, or as part of a private facility.

EDUCATION

Goal 1: Birch Run has a wide range of public and private educational opportunities using state-of-the-art technology, for education of students of all ages.

Objectives:

- Encourage schools to produce students who meet or exceed State standards of excellence.
- Promote life-long, quality adult education with college course offerings as essential in achieving a sustainable community.
- Promote the availability of lifelong learning opportunities.
- Encourage the provision of college or university-level courses in Birch Run.
- Encourage the reinstatement of a “back-to-basics” emphasis in Birch Run Schools.

VISUAL CHARACTER

Goal 1: Birch Run is a beautiful and well maintained community.

Objectives:

- Promote a high standard of building, landscape and other property maintenance across the entire Village and Township.
- Maintain a consistent enforcement program for building, housing and property maintenance codes.
- Ensure that all publicly-financed infrastructure repairs are of high quality.
- Incorporate open spaces, landmark and historic structures, natural land forms and stream courses as part of the design of new development to help ensure a high quality visual environment that is compatible with these important elements of the existing community.

- Carefully integrate new development with design guidelines prepared for the area, and with the scale, architecture and design of adjacent quality buildings and landscaping to ensure compatibility and harmony in appearance.
- Develop design guidelines for important districts, corridors, gateways and nodes to maintain their attractiveness and unique character, and which illustrate their differences as urban or rural settings.
- Encourage property owners and businesses to make improvements consistent with adopted design guidelines. Key guidelines should be incorporated into regulations to ensure conformance.
- Develop a joint Village and Township comprehensive sign program that is both functional and visually attractive.
- Adopt uniform sign regulations that restrict the size, number and placement of new signs and billboards in the Village.

CITIZEN ATTITUDES/OPPORTUNITY

Goal 1: Birch Run benefits from the cooperation and contributions of all groups within the community.

Objectives:

- Civic and special interest groups, the Village and Township and School District all contribute and cooperate in almost all community projects (especially the 4th of July parade).
- Senior citizens are tapped for more organized involvement and recognized for their contributions.
- Schools should encourage, if not require youth to get involved in community activities.
- Businesses and corporations are encouraged to participate more in civic events.
- Birch Run is known as a friendly community that is willing to work together in achievement of a common vision of the future.
- A Civic Events Council is created to manage community wide events, to encourage civic participation and to liaison between the needs of residents and local government.
- Birch Run Village and Township should assist in fostering civic activities financially, by waiving fees, and to promote public relations.
- Town Hall meetings occur with occasional frequency.

INTERGOVERNMENTAL COOPERATION

Goal 1: The Village of Birch Run and Birch Run Township cooperate with each other, surrounding communities, and the Birch Run School District to achieve mutual benefit in the provision of services, in interjurisdictional planning and in the coordination of development regulations.

Objectives:

- Develop a shared set of policies as a framework for decision making between governmental entities, including where feasible, shared building code enforcement and uniform zoning regulations between the Township and the Village.
- Jointly develop a plan for infrastructure and utility service expansion consistent with this Plan.
- Coordinate costs, timetables, responsibilities and resources to continue upgrading all other public services and facilities.
- Establish mechanisms for dealing with issues of greater than local concern.
- Representatives of the Township Board and Village Council regularly attend meetings of the County Board of Commissioners.

LAND USE PLAN

LAND USE CLASSIFICATION SYSTEM AND LOCATIONAL CRITERIA

The purpose of this section is to outline the general future land use classification system proposed as part of this plan, to identify the purpose of each classification, the range of uses envisioned suitable in that classification and the criteria to be used to determine when a particular area is appropriate for one or more classifications. Map 19 shows the future land use in the Village of Birch Run.

Single Family Residential

The single family residential classification is intended to provide locations for low density and medium density single family residences and related uses in the village. It will allow approximately 3 dwelling units per acre (3 du/ac) for low density and 5 dwelling units per acre (6 du/ac) in medium density areas. The classification will correspond with existing R-1A, and R-1 zoning districts. Locational criteria includes the areas of current single-family residential development and the areas on the extreme west end of the Village.

Multi Family Residential

The multi-family residential classification will provide locations for multi-family and high density residential development in the village including apartments, townhouses, and mobile home parks. The classification corresponds with the existing R-2A, R-2B, and R-2C zoning districts. This district will be located in the areas of the existing mobile home park, the Silver Creek development, and areas adjacent to the Village downtown. Density bonuses will be considered to encourage the provision of recreational facilities for village residents.

Office/Commercial

The office commercial classification provides a buffer between general commercial, residential, and light industrial uses, south of Birch Run Road, and provides for redevelopment of residential uses along Ulmer Road. Locational criteria stipulates areas providing buffers between incompatible land uses and to allow for the conversion of residential parcels to non-residential uses.

General Commercial

The purpose of the general commercial classification provides for commercial development that ranges from regional commercial facilities to highway service uses. It corresponds with existing C-1, C-3, and C-4 zoning districts. This classification is located primarily in that portion of the Village west of Silver Creek Drive.

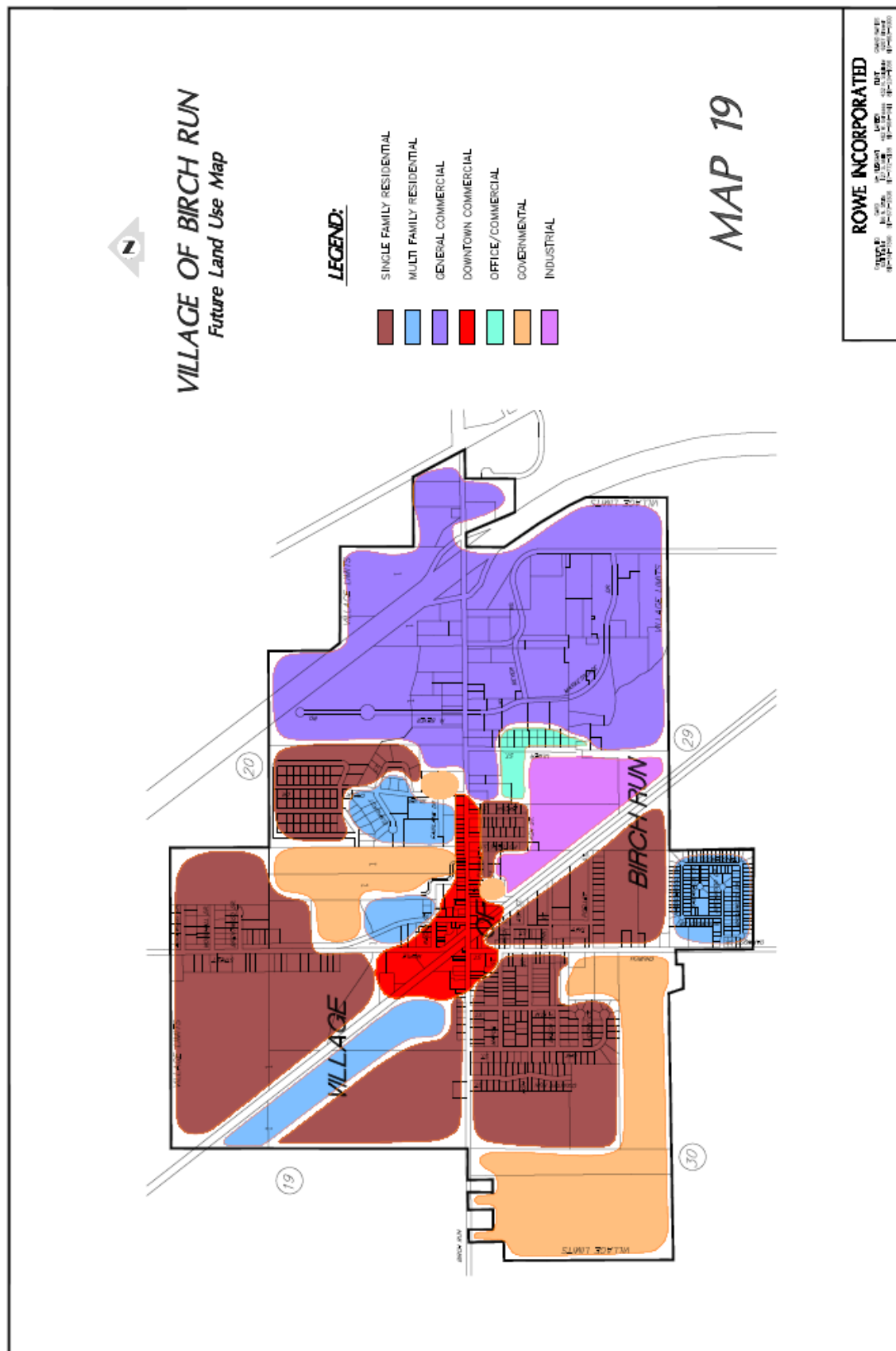
Downtown Commercial

The downtown commercial classification provides for commercial development in a traditional pedestrian based downtown setting. It corresponds with the existing C-2 zoning district. It will be located in the area of existing downtown around the intersection of Main and Church Streets, North along Maple Road, and then East along both sides of Main Street to Silver Creek Drive. The primary goals of this district are to encourage strengthening the downtown by promoting infill development within the current CBD and expansion of commercial development and mixed uses along Main Street.

Industrial

The industrial classification provides locations for light and heavy industrial development, including warehousing, heavy repair, assembly, fabrication, and processing activities. The district corresponds with the M-1 and M-2 zoning districts, and is located in areas of existing light industrial facilities, the property east of I-75, and allows for the expansion of the light industrial area south of Birch Run Road. The village has begun efforts to explore the possible development of a State Certified Industrial park south of Birch Run Road between Ulmer Road and the railroad ROW.

MAP 19 FUTURE LAND USE MAP



IMPLEMENTATION PLAN

INFRASTRUCTURE ANALYSIS

The purpose of this section is to evaluate the ability of the current infrastructure to handle the proposed future land uses for the Village of Birch Run. In the analysis, the municipal water system, Village and Village/Township sewer system, Village and County storm sewer and drains, transportation, and public facilities will be examined. This analysis will provide the issues that will need to be addressed as the Village develops. Map 21 shows the various infrastructure issues that are discussed further in the sections to follow.

Water System

The current water system, as discussed previously, purchases its water capacity from the City of Saginaw. The Birch Run Water Authority then distributes the water to its customers. The first issue that must be addressed before any further development occurs, is the issue of capacity.

Currently, the water usage by the Village, far outweighs the amount actually contracted. While, this has not yet created a problem, as water demands in other communities increase, the ability of Saginaw to provide additional capacity without a contract for it may diminish. It is therefore suggested, in the water study completed by Rowe, in 1999, that the Village renegotiate its water contract, with the City of Saginaw.

There are two principal concerns identified by the 1999 water study of the existing Birch Run Village water system. First, the current maximum day demand exceeds the firm pumping rate into the Birch Run system. If one of the two booster pumps is out of service for a prolonged period during a time of high water use, the system will not be able to meet domestic and commercial demands. Second, the existing system cannot provide the level of fire protection recommended by ISO. This is largely a problem in areas where ISO requirements are high (3,000 to 6,000 gpm) and in isolated areas. Additionally, as development occurs, it should be required to loop its water connection. The looping of the water line alleviates the problem of pressure loss posed by a dead end line. The looping of the water connection, should be required for any industrial development that occurs between the railroad tracks and Ulmer Street. This loop should link Marketplace Drive with Church Street, via Poellet Street.

Sewer System

The Birch Run sewer system is serviced by a Village-maintained lagoon in the southwest quadrant of the Village, and a connection to the Genesee County Sanitary Sewer system. The lagoon services the entire Village, west of and including Ulmer Street, with the remaining portion of the Village serviced by Genesee County.

Approximately 80,000 g.p.d. (gallons per day) additional capacity exists within the lagoon system. This would accommodate an additional 228 sewer units before the system would require the construction of additional capacity. Each additional acre of lagoon space constructed services 20 sewer units, and costs approximately \$60,000 to \$100,000 dollars to construct. If residential development were to occur to its fullest extent in the proposed areas, it would result in an additional 1100 dwelling units, creating the need for an additional 1100 sewer units, or 55 acres of lagoon capacity. Any light industrial development or commercial development, along Main Street, would also increase the number of sewer units needed. The number of sewer units requires by an industrial or commercial development depends upon its water usage. A restaurant requires far more sewer units than a warehouse. Based on the number of additional acres needed for residential development, lagoon construction costs would range between \$3.3 million and \$5.5 million.

The commercial development proposed north along Beyer would feed into the Genesee County system. Currently, the Village has purchased 500,000 g.p.d. of capacity, of which they currently use 200,000 g.p.d.. The remaining 300,000 g.p.d. would accommodate an additional 857 sewer units. This may provide sufficient capacity depending upon the combination of developments.

A second alternative to building additional lagoon capacity would be a connection from the force main at the lagoon to the existing force main flowing to Genesee County. This could be made by placing under one mile of sanitary sewer force main along the Briggs Drain, which is the shortest route between the two systems. This option may also necessitate the purchase of additional capacity from Genesee County.

Storm Sewer and Drains

The storm water system in the Village of Birch Run is composed of a combination of underground storm sewer and county storm drains, draining into Silver Creek. The issues raised by future development revolve around capacity. Currently, the system is able to handle current flows. However, the County drains have not been cleaned in a notably long time. This limits the capacity of the drains to handle increases in flow. In addition, neither the Village, nor the County have a storm water ordinance. The County is currently working towards creating a storm water ordinance. In the absence of these ordinances, as new developments occur, the County generally

asks the developer to assume that the drains and river are full, and any additional flow the development would create should be retained.

Transportation

The impact of transportation upon the Village of Birch Run has increased significantly in the past decade. A traffic study for the Village was prepared in 1997, by Traffic Engineering Associates, Inc. The significant findings of the report include suggestions that would aid in the efficiency of the Beyer Road - Main Street interchange. However, their conclusions state that given the improvements, the interchange would still be over capacity during peak hours, and the situation will continue to worsen. The presence of the outlet mall creates significant amounts of traffic between I-75 and Beyer Road. It has also resulted in the need to upgrade the capacity of Beyer Road, south of Main Street. There is little suggested to accommodate this problem, other than the construction of a new interchange at Burt Road and I-75.

The location of the outlet mall to I-75, limits its impact upon the rest of the Village, however it results in a difficulty of the Village residents to travel west or south. One proposal to ease this situation would be the connection of Poellet Street with Market place Drive, intersecting the end of Ulmer Street. This would provide an alternate route for Village residents, and any increased truck traffic created by industrial development. An additional east/west and north/south connection would be served by creating a street connecting Church Street near the south Village limits. This street could then be extended north to and then angled east to connect Maple Street to provide access to the northwest quadrant of the Village. Finally, a east/west connection can be created by a street connecting Silver Creek Drive with Maple Street. It is not the Villages intention to extend this connection east to Beyer Road due to the significant increase in non-local traffic that it could generate for the residential neighborhood west of Beyer Road.

Public Facilities

Police and Fire Protection

As the Village grows, as a result of new residential, commercial, and industrial development, the facilities, equipment, and staff should be increased as necessary.

Educational Facilities

The Birch Run School District facilities are located within the Village of Birch Run. School facilities should be examined to determine the impacts of new residential developments on the capacity of the school system.

Park and Recreational Facilities

Recreational facilities include a new park in the Township at Burt and Maple Roads, a

Village Park at Church and Main, and facilities at the public schools in the Village. Table 19 shows the comparison of standards for recreational facilities.

As part of the planning process, the issue of passive parks within the Village was addressed. It was suggested that the Veterans' Memorial be located to the north side of Main Street, just east of Maple Street. It was also suggested that the former MDOT site, adjacent to I-75, be renovated into a park, with a trail system connecting to the outlet mall. Furthermore, an ongoing study is examining the feasibility of connecting the old trolley line at the end of Conquest Street, with a comprehensive trail extending to Mt. Morris. This may potentially serve as a connection between the downtown area and the park at Burt and Maple Roads.

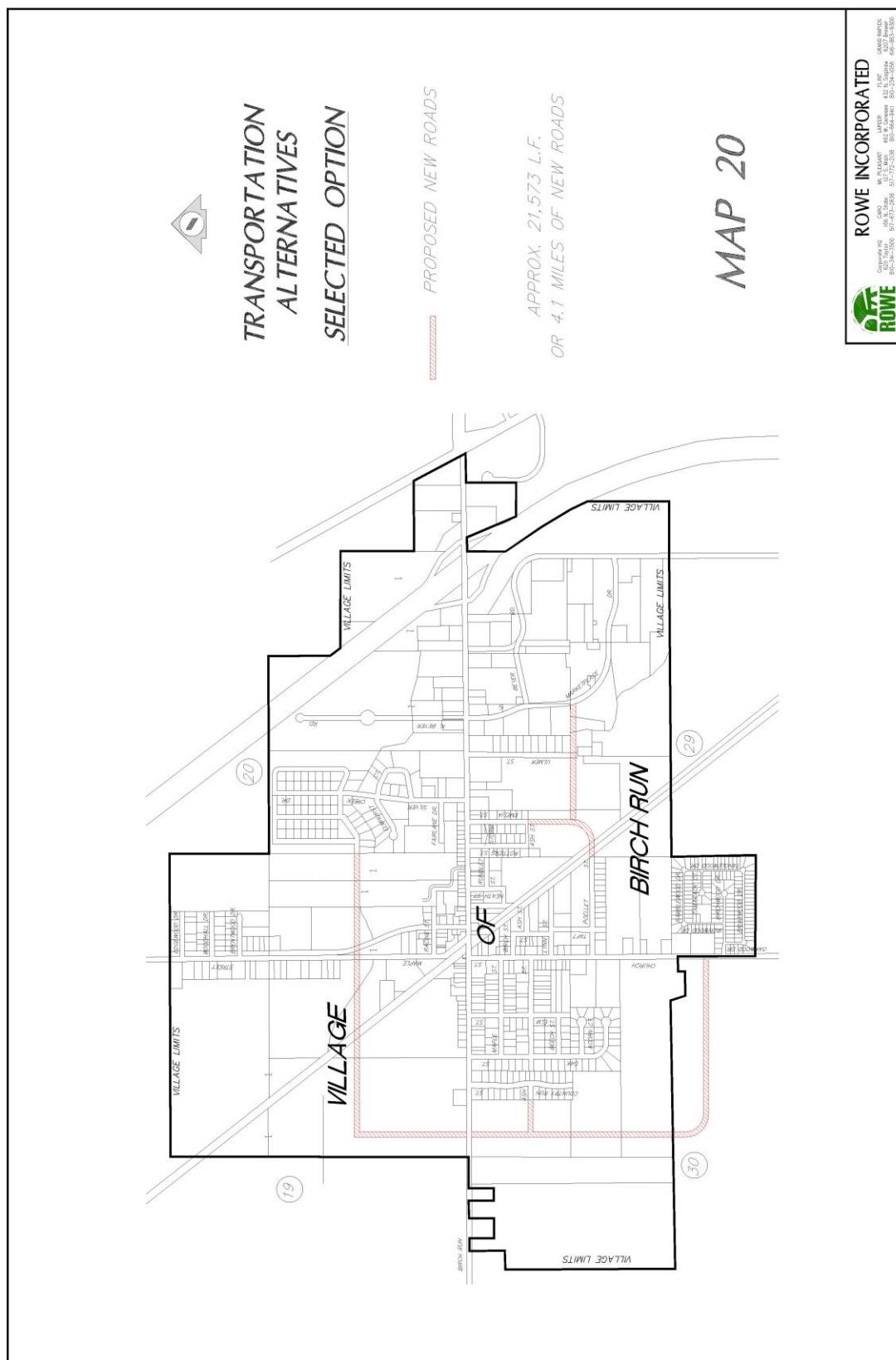
Future residential developments should be encouraged to develop neighborhood oriented park and recreational facilities, preferably facilities that would be accessible to the general public. These would serve to address the needs of the new and local residents, resulting in less strain on the already limited facilities.

TABLE 19 RECREATIONAL STANDARDS COMPARISON				
Type of Opportunity	Plan Standard (a)	Current Facilities	Required by Current Pop. (992)	Required by Projected Pop. (1887)
Local Park Land (acres)	10/1000	?	10	20
Picnic Areas (tables)	1/200	1	5	10
Boat Launches (parking)	1/400	0	2	5
Campgrounds (campsites) (d)	1/150	0	6	12
Fishing Access (feet)	1000/1000	0	1000	1900
Land Open to Snowmobiling (acres)	10/1000	0	10	19

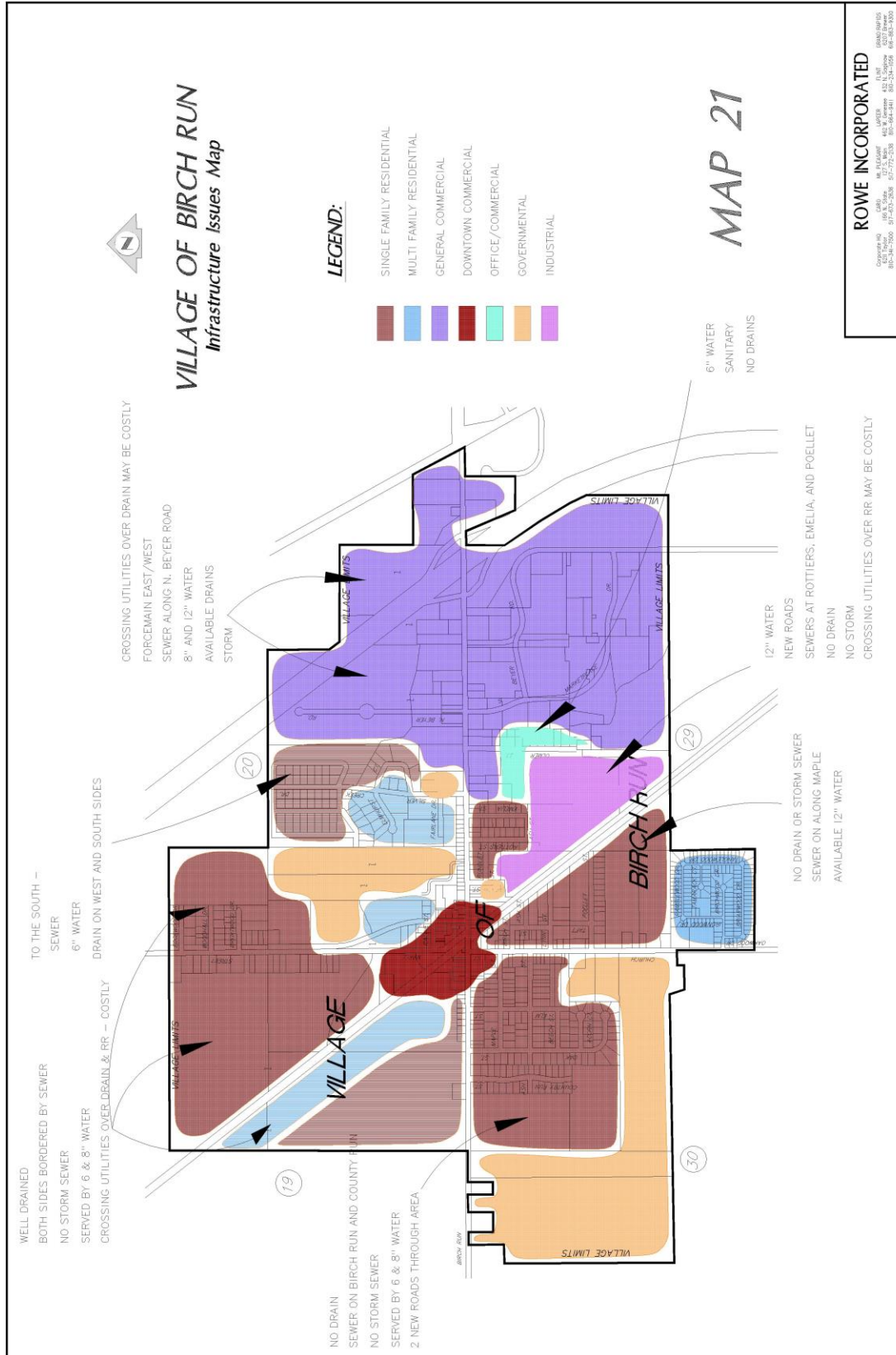
Parking

It is anticipated that future parking demand generated by commercial development outside the CBD will be handled by zoning requirements for off-street parking on individual business sites. Future parking for areas in the CBD will depend on several factors including the character and pace of development, changes in street alignments including Maple and Conquest Streets and the extent of development of nearby housing around the CBD. Alternatives for parking to be considered should include flexible off-street parking requirements that reflect the availability of on-street parking and which promote shared parking, the development of additional on-street parking and the development of off-street parking spaces by the Village, DDA or possibly a CBD based parking authority.

MAP 20 TRANSPORTATION ALTERNATIVES SELECTED OPTIONS



MAP 21 INFRASTRUCTURE ISSUES



APPENDIX A

STUDY AREA

The July 1997 Traffic Circulation Study defined the Study Area as Birch Run Road between Dixie Highway and Oak Street on the west and Beyer Road from Birch Run Road south to the intersection of S. Beyer Road and Marketplace Drive (see Map 22). The Study Area was later revised by omitting the Birch Run Road segment from the southbound I-75 ramp signals east to Dixie Highway, which is a State Trunkline Highway (M-54 & M-83) as well as the intersection at Dixie Highway which is under the jurisdiction of the Michigan Department of Transportation (MDOT).

MDOT's traffic improvements in this area are focused on specific problems and currently are as follows:

- P interconnect I-75 ramp signals to create a clearance phase for left turning vehicles
- P intersection improvements at Dixie Highway

For clarity and better organization, the Study Area was further segmented into the following three (3) subareas where the operational and roadway features were alike.

SUBAREA "A" — Main Street at Oak Street

SUBAREA "B" — Main Street at Church Street, Maple Street, and Conquest Street

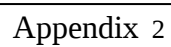
SUBAREA "C" — Outlet Mall Area, Main Street at Beyer Road, S. Beyer Road at Marketplace Drive, and Beyer Road at Burt Road

A "Study Area Map" is enclosed to show the three (3) subareas of the study and their spatial relations.

STUDY APPROACH

To generate the necessary traffic database the following steps were proposed and completed:

1. Existing accident, traffic volume, and roadway drawings were secured from the Village of Birch Run, Saginaw County Road Commission, and the State Department of Transportation (MDOT).



Plan

2. A detailed review of accidents was conducted which revealed the type, time, and severity of accidents in the Study Area. This work was completed to determine corrective measures and indicators which require immediate attention.
3. Intersection condition drawings were generated which were not available from existing sources.
4. Traffic volume counts and peak hour turning movement counts were collected at all major intersections which were used for capacity analysis.
5. A diagnostic review of existing traffic signs and pavement markings were conducted. Some of the findings were immediately conveyed to the Village Manager for corrective action.
6. A detailed traffic engineering analysis was conducted at major intersections to determine operational problems, Level of Service (LoS) and indications for improvements.

SUMMARY OF RECOMMENDATIONS

SUBAREA “A” — Main Street at Oak Street

P No remedial action required.

SUBAREA “B” — Main Street at Church Street, Maple Street, and Conquest Street (see Map 22).

P Install a center turn lane on Main Street between Church Street and Conquest Street by revising the pavement markings. This will require the removal of existing on street parking from a point 150 feet west of Church Street, to a point 150 feet east of Conquest Street. No new street construction will be required to accomplish this improvement.

SUBAREA “C” — Outlet Mall Area, Main Street at Beyer Road, S. Beyer Road at Marketplace Drive, and Burt Road at Beyer Road (see Map 22).

Main Street and Beyer Road

- Extend the Beyer Road northbound right lane south, to the intersection of Beyer Road South at Marketplace Drive. This will allow more effective utilization of the dual right turn lanes, and will effectively increase the capacity of the northbound thru lane.
- Increase the length of the left turn lane and concurrent tapers on the west leg of Main Street. This will increase the capacity to accommodate future Main Street eastbound left turns. It will also alleviate the forced shift to the left for Main Street westbound thru vehicles.
- Convert the Main Street west Bound right lane to a directional painted right turn only operation. This will require the installation of a painted island in the northeast quadrant of the intersection to allow the right turns to be conducted on a red indication without conflicting with other northbound traffic. This will increase the capacity of the Main Street westbound right turn.
- Install overhead lane usage signs on the east leg of Main Street to reduce motorists confusion, particularly for visitors from out of town.
- Alter the signal phasing to display a green right arrow indication to Beyer Road northbound traffic concurrent with the non conflicting Main Street left turn and thru right phases. This will dramatically increase the capacity of the Beyer Road northbound right turn, under both current and future conditions.
- Alter the signal sequence to include an overlap phase for Beyer Road southbound left–thru–right traffic following the Beyer Road exclusive left turn phase. This will increase the capacity of the Beyer Road southbound thru–right movements to meet the increased traffic demand under future conditions.
- Improve the traffic signal timings by increasing the cycle lengths. This will provide a small increase in intersection capacity and allow minimal crossing time for pedestrians.
- Provide standard pedestrian crosswalk on all four legs of the intersection.
- Install additional left turn signal head and “LEFT” sign for southbound to eastbound Beyer Road traffic.
- Construct an exclusive right turn lane for westbound to northbound Main Street traffic — provided Right-of-Way can be acquired. This would increase capacity and improve Level of Service for “built out” conditions north of Main Street.

Beyer Road — from Main Street to Marketplace Drive

- This area requires road widening to accommodate the following laneage; two (2) lanes for southbound traffic, one (1) lane for left turning traffic into the Outlet Mall and three (3) lanes to match laneage at the traffic signal for northbound and eastbound traffic.

South Beyer Road and Marketplace Drive

- Install lane use signs on the southbound and eastbound directions to supplement the existing pavement marking arrows.
- Optimize the traffic signal timing by increasing the green time on Beyer Road to meet increased traffic demand under future conditions. (The existing timing is satisfactory for current conditions.)
- Remove the median island on the west leg of the intersection and replace with appropriate pavement markings.
- Remove pedestrian crosswalk markings on the south leg which encroaches in the travel lanes.

Burt Road and Beyer Road

- Request the Saginaw County Road Commission to evaluate the feasibility of reconstructing Beyer Road to an acceptable design standard between Burt Road and the Outlet Mall.
- Request the Michigan Department of Transportation (MDOT) to evaluate the feasibility of constructing a new interchange on I-75 at Burt Road to provide a second major access point to the Outlet Mall. This would also require substantial road improvements to Burt Road and South Beyer Road.

Additional Recommendations

- Secure a survey and scaled engineering drawing for Main Street which should be the basis of any future road widening and/or Right-of-Way purchase project.
- Acquire a traffic database, either in computerized or hard copy form, to record and maintain the following data elements:
 - sign inventory
 - pavement marking inventory
 - parking inventory
 - roadway access inventory
- Develop an access management plan for Main Street.

VILLAGE PARKING STUDY

The Downtown Development Authority completed a Vehicular Parking Study in August of 1997. The Study Area was along Main Street in the Village of Birch Run. The objective of this study was to determine the following:

- Identification and mitigation of unsafe parking conditions close to intersections
- Updated parking policies and generate an upgrade of same when it is warranted
- Alternatives for on street parallel parking to accommodate traffic operational improvements

The scope of the Parking Study was limited to the survey and evaluation of parallel parking along Main Street (Birch Run Road) from Oak Street on the west, to Silvercreek Drive on the east. The intent was to capture average parking conditions and to record crowded and/or concentrated parking conditions. The field survey of existing parking conditions provided the following results:

- An estimate of on street parking capacity on Main Street
- Recommended changes in parking limits and prohibitions

SUMMARY OF RECOMMENDATIONS

Parking conditions appear to be adequate and well regulated along Main Street in the Village of Birch Run. The survey team did not observe any concentration and/or competition for parking spaces in the Study Area and/or evidence of illegal parking cases. On the contrary, the survey team noted certain prohibitions which could be revised to produce more parking spaces.

Following are recommendations summarizing findings of the parking survey:

A) To Provide More Parking

- 1) Reassess parking prohibition on the South side of Main Street between Conquest Street and Heath Street
- 2) Reassess parking prohibition on the north side of Main Street from the railroad crossing west to Oak Street

B) To Improve Traffic Operation

- 1) Remove parking on the south side of Main Street from the railroad crossing east to Conquest Street, so a left turn lane can be provided to north bound Maple and Conquest Streets, and a bypass lane can be provided for east bound Main Street traffic

C) To Improve Intersection Safety

- 1) Re-measure location of parking limits at intersections to assure consistent location for parking prohibition signs — including cross streets controlled by stop signs
- 2) Update the Village's Traffic Control Ordinance to comply with the Michigan Vehicle Code and MMUTCD as revised

D) Other Improvements

- 1) Revise parking signage east of Silver Creek Drive to convey more effective prohibition
- 2) Generate a Scaled Parking Inventory as part of the Village's Signing and Pavement Marking Inventory