Comprehensive Plan
for the City of

Prepared by RDG Planning & Design
with TeKippe Engineering
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PLANNING • DESIGN

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Introduction

This plan lays out a vision for the future of Manchester, Iowa, a community of approximately 5,200 residents in Delaware County, Iowa. As both the county seat and the most populous city in Delaware County, Manchester has a significant role in the economic, social and environmental health of the region.

INTRODUCTION: MANCHESTER PLAN

This plan lays out a vision for the future of Manchester, Iowa, a community of approximately 5,200 residents in Delaware County, Iowa. As both the county seat and the most populous city in Delaware County, Manchester has a significant role in the economic, social and environmental health of the region. The following plan builds on the success of Manchester's 2009 "Good to Great Plan," by identifying additional issues and opportunities in areas such as land use, infrastructure, public facilities, and environmental resources. The final section of this plan combines the goals and visions of "good to great" with the findings of this report to create a flexible implementation program to achieve shared community goals.

MANCHESTER GEOGRAPHY

Manchester is situated along the Maquoketa River, near the crossroads of US Highway 20 and State Highway 13. The city has a total area of 4.14 sq. miles, including 0.04 sq. miles of water bodies.

Manchester is locally referred to as the "heart of the golden triangle," due to its central location between three major cities: Cedar Rapids (46 miles to the south), Dubuque (40 miles east) and Waterloo (45 miles west).

MANCHESTER HISTORY

Manchester was incorporated in the spring of 1866, thirty years after the first permanent settler arrived in what is now Delaware County. Pioneer settler Robert Hutson located a home site a few miles north of Manchester in 1836, near the present junction of Iowa Routes 13 and 3.

Four years later, Delaware County was organized with a population of 168 persons. The county seat was initially set in Delhi, approximately 6 miles southeast of the future site of Manchester, and county population grew to 1,759 over the next 10 years.

In 1850, Steiner Eiversen purchased the first plot of land in what is now Manchester, a few hundred acres of land near Manchester's current Main Street. Five years later, a Mr. Burrington officially platted the community and named it for himself (the name was later changed from Burrington to Manchester). Burrington, in cooperation with the founder of Dyersville, began promoting the Manchester area as the route for the proposed Dubuque and Pacific Railroad. The team was successful in their campaign, cementing the deal by negotiating a payment of $13,000 to the railroad company for additional construction costs associated with the Burrington route.

A post office was established in Burrington in 1856, and was referred to as "Manchester" to avoid confusion with Burlington, Iowa. Two years later, the community was renamed Manchester to eliminate the inherent confusion in this arrangement.

In 1859 the Dubuque and Pacific Railroad tracks were extended to Manchester, followed closely behind by an extension through Manchester to Independence, Iowa. The combination of the railroad connection and the post-Civil War agricultural boom ensured Manchester's rapid development in the following years. By 1869,

Manchester had begun to compete with Delhi for relocation of the county seat, arguing that the seat should be located in the county's most prosperous city. After an 11 year battle, Manchester was named the new county seat in 1880.

Throughout its development, Manchester served as a supply center for rural residents in the surrounding area, and a shipping center for agricultural produce. When the agricultural economy began to change in the mid 20th century, the community began efforts to adapt its economic base to keep pace with modern economic development, an objective which continues today.

COMMUNITY & CULTURE

Manchester proudly offers a variety of attractions and opportunities in recreation, dining, entertainment and shopping. The city recently constructed a community recreation center, aquatic center and expansive baseball-softball complex. The City maintains 4 tennis courts and 6 city parks and enjoys a proximity to Backbone State Park, Iowa's oldest state park. Manchester features several popular restaurants, two full service hotels, a movie theatre, two golf courses, a bowling alley, archery range, and a well-preserved Carnegie Public Library. Manchester offers a range of retail stores and services, including antique and other specialty shops.

Manchester and Delaware County provide many employment opportunities, including 1,600 jobs split between 19 industrial manufacturers in Manchester and 14 manufacturers in Delaware County. These industries produce products and services such as lead acid batteries, dump bodies, aviation instrumentation, construction equipment attachments, truck equipment installation, telemarketing, and specialized trailers. Other major employers include the medical center and West Delaware school district.

The Regional Medical Center provides routine healthcare and emergency medical treatment, while private organizations offer long term nursing care and assisted living facilities. Educational needs are met through a private elementary school, public elementary and high school, community college and university. Other colleges and trade schools are located in nearby larger cities such as Cedar Falls, Dubuque and Cedar Rapids.

A VISION FOR THE FUTURE

The Manchester Comprehensive Plan provides a comprehensive vision for the city's future and a set of concrete action steps to improve quality of life and make the city more attractive for potential growth. The plan builds on the vision and goals of the 2009 "Good to Great Plan," created as part of an extensive participatory public process.

THE ROLES OF A COMPREHENSIVE PLAN

Comprehensive planning is a transparent public process in which residents create a shared vision to promote the health, safety and prosperity of the community. A comprehensive plan has two fundamental purposes: First, the plan provides a legal basis for land use regulations by analyzing existing conditions and developing growth

goals. Secondly, the plan presents a unified and compelling vision for a community and establishes the specific actions necessary to fulfill that vision. These goals are detailed in the following sections.

THE LEGAL ROLE

Section 414 of the Code of Iowa enables cities to adopt zoning and subdivision ordinances to promote the "health, safety, morals or general welfare of the community". Land use regulations, such as zoning and subdivision ordinances, recognize that people in a community live cooperatively and have certain responsibilities to coordinate and harmonize the uses of private property. These regulations govern how land is developed within a municipality and its extra-territorial jurisdiction. The Iowa Code requires these ordinances to be in conformance with a comprehensive plan and its corresponding vision for the community's physical development. The Manchester Comprehensive Plan therefore provides the legal basis for the city's authority to regulate land use and development.

THE COMMUNITY BUILDING ROLE

A comprehensive development plan defines a shared vision and presents a unified action program that will implement the city's goals. The plan is designed as a working document that both defines future goals and provides a flexible implementation program that can respond as demographic and economic environments change over time.

IOWA'S SMART PLANNING LEGISLATION

In the spring of 2010, the Iowa State Legislature passed the "Iowa Smart Planning Act" as a way to guide and encourage the development of local comprehensive plans. The legislation outlines 10 Smart Planning Principles and 13 comprehensive plan elements that Iowa cities should use to develop their comprehensive plans. These guidelines are intended to improve economic opportunities, preserve the natural environment, protect quality of life, and ensure equitable decision-making processes.

The smart planning principles and comprehensive plan elements as defined in the legislation are listed below. Though the sets of elements and principles may look similar, they differ in that the 10 smart planning principles are meant to be the overarching values that inform each of the 13 elements of the plan. A full explanation of these principles and elements are included in Appendix A.

10 Smart Planning Principles

Broad Guiding Values For Comprehensive Plans

- Collaboration
- Efficiency, Transparency and Consistency
- Clean, Renewable and Efficient Energy
- Occupational Diversity
- Revitalization

- Housing Diversity
- Community Character
- Natural Resources & Agricultural Protection
- Sustainable Design
- Transportation Diversity

13 Comprehensive Plan Elements

Sections to Include in All Comprehensive Plans

- Public Participation
- Issues and Opportunities
- Land Use
- Housing
- Public Infrastructure and Utilities
- Transportation
- Economic Development
- Agricultural and Natural Resources
- Community Facilities
- Community Character
- Hazards
- Intergovernmental Collaboration
- Implementation

The Manchester comprehensive plan was created in compliance with the guidelines of the Iowa Smart Planning Act. Appendix B provides an overview of this compliance by matching the components of this plan with the corresponding principles and elements of the legislation.

THE COMPREHENSIVE PLAN: APPROACH AND ORGANIZATION

The comprehensive plan takes a goal-oriented approach to the future development of Manchester. The plan is laid out in three sections: the first identifies the city's existing conditions and growth needs; the second establishes a community vision; and the third forms an action plan that responds to issues and goals of the first two sections. The plan addresses all thirteen elements of a Comprehensive Plan required by the Iowa Smart Planning Principles (see table 0.1), but is organized in a format that fits Manchester's unique needs. The full plan outline is detailed below.

PLAN SECTIONS

SECTION 1: ISSUES AND OPPORTUNITIES

This section of the plan reviews the city's existing conditions and growth needs in the following areas:

1. DEMOGRAPHICS AND ECONOMICS

Population trends, population projections, income levels, age and race/ethnicity distributions, existing employment and industries, and retail performance.

2. LAND USE

Existing land use inventory, housing trends, housing demand projections, and land need projections

3. ENVIRONMENT AND STORMWATER

Environmental preservation principles, natural hazards, and an inventory of natural features, including watersheds, air quality, drainage patterns, wetlands, open spaces, soil conditions, stream corridors, and floodplains.

4. TRANSPORTATION

Street classifications, automobile levels of service, and alternative transportation analysis, including bike and pedestrian systems

5. PARKS AND TRAILS

Facility classification, levels of service and quality evaluations

6. INFRASTRUCTURE

Existing Infrastructure systems, including Water, Sewer, Solid Waste, Recycling, and Telecommunications

7. PUBLIC AND COMMUNITY FACILITIES

City-owned, educational, and medical facilities

SECTION 2: A COMMUNITY VISION

The residents of Manchester play the most important role in establishing and realizing the vision for Manchester's future. Section 2 draws on the recent "Good to Great" strategic plan, which involved an extensive public participation process. The Good to Great findings are summarized and paired with the profiles in section 1 to frame key issues and establish the plan's goals and guiding principles.

SECTION 3: COMMUNITY PLAN

This section considers how Manchester will grow, and provides a detailed strategy to guide growth into both the traditional community core and into new strategically-located growth areas. The city's development strategy incorporates plans for all the necessary components of a strong and vibrant community, including chapters on future land use, economic development, parks and trails, transportation, infrastructure, and public facilities. The final chapter of this section draws together the analysis and policies of the plan into an implementation program and timeline.

Community Profile
SECTION 1

Chapter 1: Demographic Profile

Chapter 2: Land Use Profile

Chapter 3: Environmental Profile

Chapter 4: Transportation

Chapter 5: Parks and Recreation

Chapter 6: Infrastructure

Chapter 7: Public Facilities

Community Profile
SECTION 1

1

Demographic Profile of Manchester

As Manchester plans for its future, the first step in the process is to understand past demographic and economic trends. The analysis below examines these trends and makes projections for the future, thereby providing a solid foundation for subsequent components of this Plan.

A DEMOGRAPHIC PROFILE OF MANCHESTER

As Manchester plans for its future, the first step in the process is to understand past demographic and economic trends. The analysis below examines these trends and makes projections for the future, thereby providing a solid foundation for subsequent components of this Plan.

POPULATION HISTORY AND CHARACTERISTICS

This discussion presents important changes in the characteristics and dynamics of Manchester's population. Table 1.1 summarizes the historical population change in Manchester. Table 1.2 includes comparisons with Dyersville, Independence, Pella, Carlisle, Grimes and Clear Lake. Tables 1.1 and 1.2 indicate the following trends:

- Manchester population grew consistently from 1910-2000.
- Population decreased 1.5% from 2000 to 2010.
- Over the past 50 years, growth has occurred in comparable communities such as Dyersville, Pella, Carlisle and Grimes. The growth in the later three of these communities could be attributed to their closer proximity to Des Moines.
- Manchester had a higher historic growth (1960-2000) than Dyersville and Independence in 2000. By 2010 however, Dyersville population increased slightly, while both Manchester and Independence lost population.

Table 1.1 *Historical Population Change for Manchester, 1900-2000*

Year	Population	Decade	Percent Change
2010	5,179	2000-2010	-1.5%
2000	5,257	1990-2000	2.3%
1990	5,137	1980-1990	3.9%
1980	4,942	1970-1980	6.5%
1970	4,641	1960-1970	5.4%
1960	4,402	1950-1960	10.4%
1950	3,987	1940-1950	6.0%
1940	3,762	1930-1940	10.2%
1930	3,413	1920-1930	9.7%
1920	3,111	1910-1920	12.8%
1910	2,758	1900-1910	-4.5%
1900	2,887		

Source: U.S. Census Bureau, 2010

Table 1.2 *Population Change for Manchester and Other Iowa Cities, 1960-2000*

	1960	1970	1980	1990	2000	2010	% Change 1960-2000	% Change 2000-2010
Manchester	4,402	4,641	4,942	5,137	5,257	5,179	19.4%	-1.5%
Dyersville	2,818	3,437	3,825	3,703	4,035	4,058	17.4%	0.6%
Independence	5,498	5,910	6,392	5,972	6,014	5,966	9.4%	-0.8%
Pella	5,198	6,668	8,349	9,270	9,832	10,352	89.1%	5.3%
Carlisle	1,317	2,246	3,073	3,241	3,497	3,876	165.5%	10.8%
Grimes	697	834	1,973	2,653	5,098	8,246	631.4%	61.7%
Clear Lake	6,158	6,430	7,458	8,183	8,161	7,777	32.5%	-4.7%

Source: U.S. Census Bureau, 2010

In addition to changes in total number of citizens, Manchester has also experienced a shift in the age distribution of its population. These changes can have important socio-economic implications, including new demands for jobs, housing, social economic support, healthcare, and other goods and services.

Figure 1.1 shows the Manchester population divided into 5 year age increments, or cohorts, for 2000 and 2010. Figure 1.2 shows the same set of information, but divides the population by gender. Table 1.3 and Figure 1.3 group the population into "life stage categories," including children (under 19), young adults (20-34), mid-age adults (35-59) and retirees (60 and older). Examining population change by these categories can help inform policy recommendations regarding age-specific services, such as recreation or employment. For example, a town with a growing senior population could use age-cohort information to anticipate a growing demand for senior services, such as healthcare or pedestrian amenities.

The age-cohort analysis revealed the following characteristics and trends:

- Population declined in the Children (-7.5%) and Young Adult (-12.1%) life stage groups from 2000 to 2010
- Population increased in the Mid Age Adult (10.2%) and Retiree (5.2%) life stage groups from 2000 to 2010. This is reflective of the "baby boomer" generation moving through its life cycle.
- Children (under 19) comprise the largest age group, followed by Mid Age Adults and Retirees.
- At the cohort level, the 5-19 and 30-44 age groups decreased in population, while the under 5 and 45-69 groups increased.
- There is no consistent variability in age distribution change with regards to gender (i.e. - both genders appear to be changing in a roughly similar pattern)
- The median age in 2010 was 41.1, 3 years higher than the state of Iowa median age of 38.1

Table 1.3: *Population Change By Specific Age Group, Manchester, Iowa 1900-2000*

Life Stage Groups	2000 Population	2010 Population	Change 2000-2010	% Change	% of Total 2000	% of Total 2010
Children (Under 19)	1,519	1,405	-114	-7.5%	28.9%	27.1%
Young Adults (20 to 39)	1,269	1,116	-153	-12.1%	24.1%	21.5%
Mid Age Adults (40 to 59)	1,208	1,331	123	10.2%	23.0%	25.7%
Retirees (Over 60)	1,261	1,327	66	5.2%	24.0%	25.6%
Total	5,257	5,179	-78	-1.5%	100.0%	100.0%

Source: US Census 2010

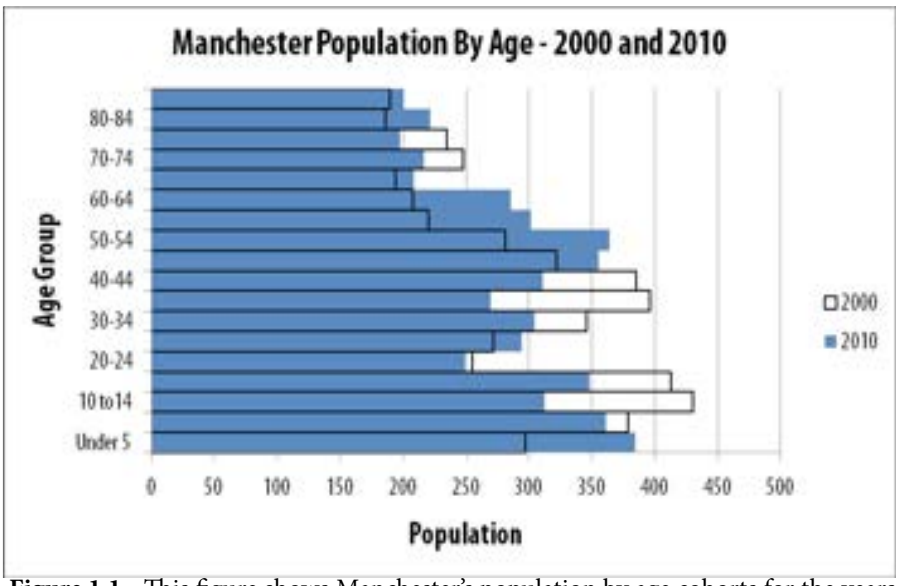


Figure 1.1 - This figure shows Manchester's population by age cohorts for the years 2000 and 2010.

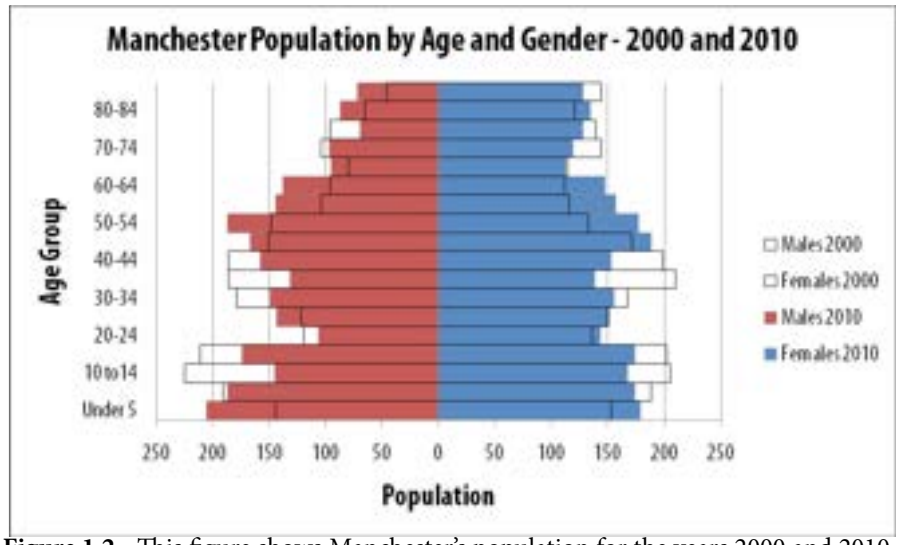


Figure 1.2 - This figure shows Manchester's population for the years 2000 and 2010, broken down by both age cohort and gender.

Table 1.4 *Racial and Ethnic Makeup of Population, 2000-2010*

	White		Black/African American		Native American		Asian or Pacific Islander		Other Race		Two or More Races	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Manchester	98.99%	97.70%	0.10%	0.60%	0.15%	0.27%	0.31%	0.43%	0.06%	0.15%	0.40%	0.85%
Delaware County	99.28%	98.55%	0.07%	0.27%	0.10%	0.10%	0.15%	0.29%	0.10%	0.14%	0.30%	0.65%
State of Iowa	93.92%	91.31%	2.10%	2.93%	0.30%	0.36%	1.28%	1.81%	1.27%	1.84%	1.08%	1.75%

Source: US Census 2000

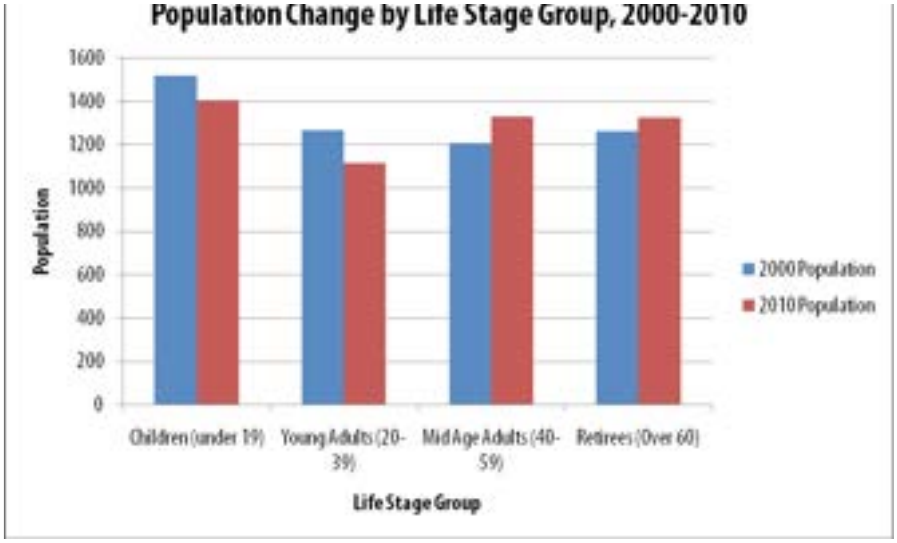


Figure 1.3 - This figure shows the change in Manchester's population by life stage group, from year 2000 to year 2010.

Table 1.4 illustrates the racial composition of Manchester in 2000 and 2010. Key Findings Include:

- 98.99% of Manchester residents identified themselves as white in 2000 census, which lowered slightly to 97.7% in 2010.
- In both 2000 and 2010, Manchester had lower proportions of residents in non-white racial classifications than the state of Iowa as a whole.
- Manchester's racial composition did not change significantly between 2000 and 2010. There were slight increases in the proportion of minority population groups in Manchester, Delaware County and the State of Iowa.

POPULATION PROJECTIONS

Population projections can help Manchester plan efficiently for future land use and community service needs. These projections are formed by first evaluating Manchester's historic trends in population and construction activity, and then projecting these trends out toward the future.

Population dynamics are first assessed by comparing expected population, based on birth and death rates, to actual census population numbers. These population figures are also split by gender.

Table 1.5 *Predicted and Actual Population Change, 2000-2010*

	2000	2010	Change	Percent Change
Predicted Population (based on survival & birth rates)	5,257	5,159	-98	-1.86%
Actual Population	5,257	5,179	-78	-1.48%
Predicted Male Population	2,453	2,436	-17	-0.71%
Actual Male Population	2,453	2,454	1	0.04%
Predicted Female Population	2,804	2,724	-80	-2.87%
Actual Female Population	2,804	2,725	-79	-2.82%

Source: U.S. Census Bureau, 2010

Table 1.6: *Predicted and Actual Age Cohort Change*

Age Cohorts	2010 Predicted	2010 Actual	Difference (actual-predicted)	% Variation
Under 5	283	384	101	35.7%
5 to 9	275	361	86	31.3%
10 to14	296	312	16	5.4%
15-19	378	348	-30	-7.9%
20-24	427	249	-178	-41.7%
25-29	409	294	-115	-28.1%
30-34	253	304	51	20.2%
35-39	269	269	0	0%
40-44	342	311	-31	-9.1%
45-49	389	355	-34	-8.7%
50-54	374	364	-10	-2.7%
55-59	307	301	-6	-2.0%
60-64	259	285	26	10.0%
65-69	193	208	15	7.8%
70-74	170	216	46	27.1%
75-79	144	197	53	36.8%
80-84	157	221	64	40.8%
85+	233	200	-33	-14.2%
Total	5,159	5,179	20	0.4%

Sources: U.S. Census Bureau, 2010; RDG Planning & Design, 2008

Table 1.5 summarizes the findings of this analysis for Manchester, which include the following:

- The actual 2010 population is slightly greater than predicted , indicating a small net in-migration of residents.
- There is a noticeable gender difference in population growth. Male population is increasing slightly (.04%) despite a negative change prediction, but the female population is decreasing by appoximately 2.8%, as predicted. However, females continue to outnumber males.

Table 1.6 compares the predicted and actual 2000 population cohorts. Average birth and death rates are applied to cohort data from 2000 to determine the 2010 predicted population. The comparison between actual and predicted provides an indication of which cohorts experienced growth (or decline) beyond natural population change. Several interesting variations emerge, including:

- Variation for the total population (all age groups) is positive .4%, indicating a small in-migration of population.
- The 15 to 29 age group populations were lower than expected, possibly due to young people moving to other communities for colleges and careers. This trend could indicate a lack of employment or cultural/social opportunities for this age group in Manchester.
- Corresponding positive variations in the 30 to 34 age group and under 14 age groups could indicate in-migration of families with children. This may reflect the community's appeal as a desirable environment for families.
- Negative variation in population within the 40 to 59 age groups could be indication of lack of quality job growth. However, it is important to note that the variation in these groups is very small (55-59 was lower by only 6 people, for example), so the trend is less significant than those in other age groups.
- Positive variation among the 60 to 84 age group may be the result of Manchester's appeal as a retirement destination.

Table 1.7 *Residential Construction Activity 1996-2009*

Type	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total	Average	Pop./HH
SF	17	10	8	7	11	12	6	11	10	10	11	15	6	7	141	10	
2 – 4 Family	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
Multi Family	24	12	0	24	0	0	0	0	0	0	0	0	0	0	64	5	
Total Permits	**41**	**22**	**8**	**35**	**11**	**12**	**6**	**11**	**10**	**10**	**11**	**15**	**6**	**7**	**205**	**15**	**2.36**
Demolished	11	0	1	1	1	4	0	9	5	5	11	4	1	1	53	4	
Net Total	**30**	**22**	**7**	**34**	**10**	**8**	**6**	**2**	**5**	**5**	**0**	**11**	**5**	**6**	**152**	**11**	

Source: City of Manchester

Table 1.7 shows residential construction activity from 1996-2009. This activity is an indicator of population growth and can be helpful in projecting future growth. Figure 1.4 graphs the construction activity by housing type. Key trends are listed below:

- Average residential construction from 1996 to 2009 was 15 dwelling units per year (without considering demolition).
- Net Average residential construction from 1996 to 2009 was 11 dwelling units per year (considering demolition).
- Average annual residential demolition from 1996 to 2009 was 4 units per year.
- Multi-family and 2-4 family dwellings were built only in 1996, 1997, and 1999. In other years, only single family dwellings were constructed.

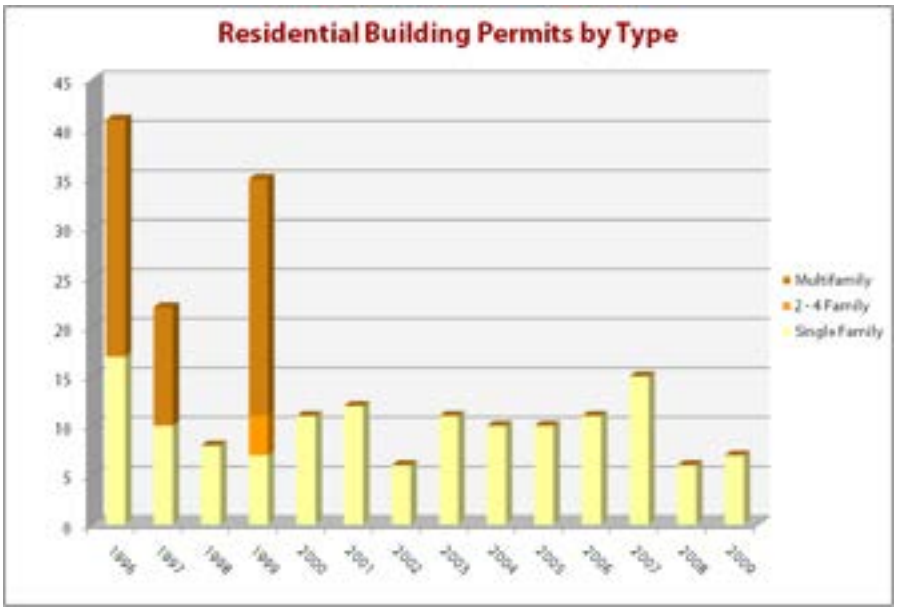


Figure 1.4 - This figure shows the number of residential building permits issued annually from 1996-2009, categorized by dwelling type.

Using the historic trends in population change and construction activity, population is projected out to the year 2030. Table 1.8 and Figure 1.5 present various growth scenarios, and compare them with natural population change and recent construction activity. A brief explanation of each scenario is included below:

- **Natural population change**: The expected population based solely on births to deaths (does not include migration in or out of Manchester). This is not a realistic growth scenario; it is shown for comparison purposes only.
- **Negative 0.15% Growth Rate**: Annual growth rate between 2000 and 2010. This growth rate would result in a population of 5,025 in 2030.
- **0.25% Growth Rate**: Annual growth rate between 1990 and 2000. This rate would result in a population of 5,444 by 2030.
- **0.5% Growth Rate**: Annual growth rate between 1960 and 2000. Applying this rate to 2010 census estimate results in a population of 5,722 by 2030. This rate indicates the city's desired rate of growth which will increase its population over 5,257 (2000 census level) by 2015.
- **0.75% Growth Rate**: An aggressive rate of growth which would increase the city's population to 6,014 by 2020. Based on historic growth patterns and construction rates, this growth rate is unlikely.
- **Construction Rate (Average 15 dwelling units/year)**: The construction rate scenario shows the population that can be accommodated if the current rate of dwelling unit construction continues (15du/yr from 1996 to 2009).

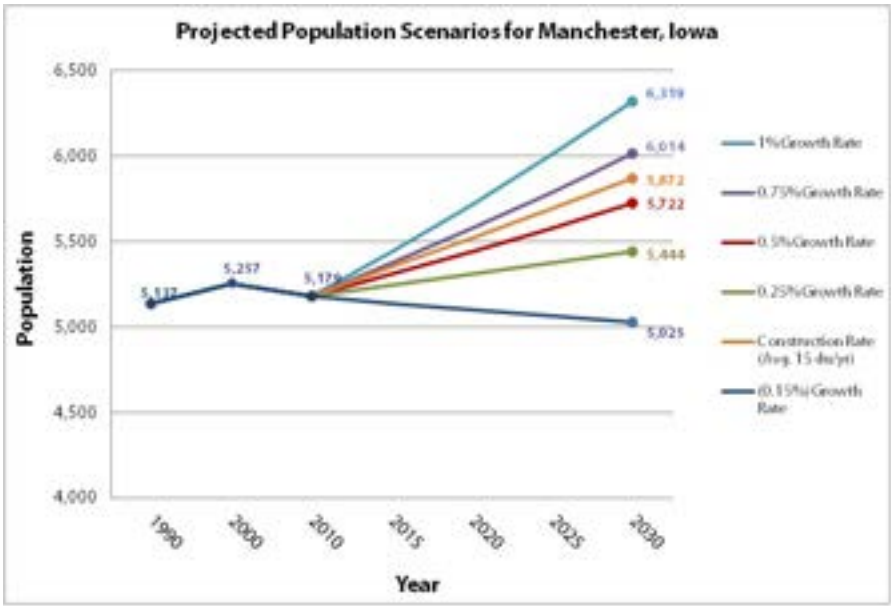


Figure 1.5 - This figure shows multiple scenarios for Manchester's population growth through the year 2030. This plan recommends the 0.5% annual growth rate, shown here in red.

Table 1.8 *Projected Population*

	2000	2010	2015	2020	2025	2030
Natural Popn. Change	5,257	5,159	5,173	5,204	5,204	5,163
(0.15%) Growth Rate	5,257	5,179	5,140	5,102	5,063	5,025
0.25% Growth Rate	5,257	5,179	5,244	5,310	5,377	5,444
0.5% Growth Rate	**5,257**	**5,179**	**5,310**	**5,444**	**5,581**	**5,722**
0.75% Growth Rate	5,257	5,179	5,376	5,581	5,793	6,014
1% Growth Rate	5,257	5,179	5,443	5,721	6,013	6,319
Construction (Avg. 15du/yr)	5,257	5,179	5,352	5,526	5,699	5,872

Figure 1.6 - Manchester's location in relation to three of northeast Iowa's major population centers: Waterloo, Dubuque and Cedar Rapids.

This plan recommends using an average **annual growth rate of 0.5%.** Although recent growth is not this high, the 0.5% rate of growth reflects larger historic trends (1960-2000) and exceeds the city's growth goal by bringing the population back up to 2000 numbers by 2015. This growth rate also corresponds well with the city's construction trends; as shown in Table 1.8, the 1996-2009 average construction of 15 du/yr will keep pace with the 0.5% level of growth.

ECONOMIC FACTORS

Manchester is economically independent, but strongly connected to the larger region. While Manchester provides numerous jobs in the industrial, commercial, agricultural, retail and service sectors, its job market is heavily influenced by proximity to nearby larger communities, including Cedar Rapids, Dubuque and Waterloo (Figure 1.6 shows the proximity of Manchester to these cities). The following section reviews the Manchester's employment and income trends.

EMPLOYMENT

Employment within a community can be assessed in terms of both occupation and industry. Employment by occupation describes the kind of work a person does on the job, while industry reflects the kind of business conducted by a person's employer. For example, an individual might be an accountant (their occupation) for a major manufacturer (the industry). Tables 1.9 and 1.10 examine Manchester's employment trends by occupation and then by industry. At the time this report was written, 2010 employment numbers were not yet available. These data reveal the following trends:

- Over 25% of Manchester's residents are employed in management and professional occupations while another 25% are employed in production and transportation occupations.
- In comparison Delaware County and Iowa, Manchester has a lower percentage of their population employed in Management, and a higher percentage of employment in Service.
- Manchester experienced significant employment increases in the following industries: Arts and Entertainment (1900%), Construction(37.5%), and Public Administration (79.2%)
- Manchester experienced significant employment decreases in the following industries: Wholesale Trade (-33.7%) and Transportation and Warehousing (-54.6%)
- More than 40% of Manchester residents are employed by either Manufacturing or Educational, Health and Social Services. These industries grew from 1990 to 2000 by 13.1% and 17.2%, respectively.

Table 1.9: *Employment by Occupation, Manchester 2000*

	Manchester		Delaware County		State of Iowa	
	Number	%	Number	%	Number	%
Management, professional, and related occupations	631	25.3%	2,719	29.2%	466,436	31.3%
Service occupations	418	16.8%	1,141	12.3%	219,837	14.8%
Sales and office occupations	554	22.2%	1,971	21.2%	385,794	25.9%
Farming, fishing, and forestry occupations	18	0.7%	145	1.6%	15,877	1.1%
Construction, extraction, and maintenance occupations	233	9.4%	1,026	11.0%	132,530	8.9%
Production, transportation, and material moving occupations	636	25.5%	2,296	24.7%	269,342	18.1%
Total Employed	**2,490**	**100.0%**	**9,298**	**100.0%**	**1,489,816**	**100.0%**

Source: U.S. Census Bureau, 2000

Table 1.10: *Employment by Industry, Manchester 1990-2000*

	1990	2000	Change	% Change	% of Total Employment (2010)
Agriculture, forestry, fishing and hunting, mining	110	105	-5	-4.5%	4.2%
Construction	144	198	54	37.5%	8.0%
Manufacturing	465	526	61	13.1%	21.1%
Wholesale trade	104	69	-35	-33.7%	2.8%
Retail trade	459	374	-85	-18.5%	15.0%
Transportation and warehousing, and utilities	108	49	-59	-54.6%	2.0%
Information*		44	44	-	1.8%
Finance, insurance, real estate, and rental and leasing	109	94	-15	-13.8%	3.8%
Professional, scientific, management, administrative, and waste management services	169	143	-26	-15.4%	5.7%
Educational, health and social services	487	571	84	17.2%	22.9%
Arts, entertainment, recreation, accommodation and food services	7	140	133	1900.0%	5.6%
Other services (except public administration)	71	82	11	15.5%	3.3%
Public administration	53	95	42	79.2%	3.8%
Total	**2,286**	**2,490**	**204**	**8.9%**	**100%**

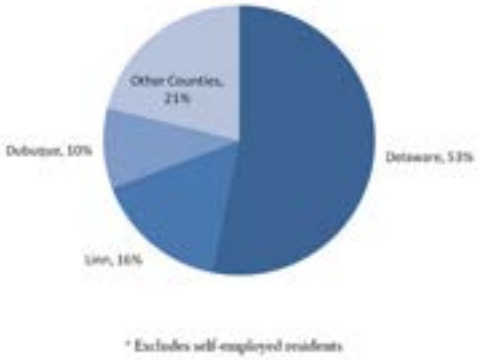
* New Category in 2000 Source: U.S. Census Bureau, 2000

Table 1.11: *Commuting Patterns, 2000*

	Average Travel time to Work (min)	% Who walked to work
Manchester	18	5.0%
Independence City	20	6.5%
Dyersville City	14	3.8%
Pella	11	13.7%
Carlisle	27	1.5%
Grimes	20	1.2%
Clear Lake City	15	5.7%

Source: U.S. Census Bureau, 2010

Figure 1.7 - Top Workplace Destinations for Residents of Manchester, by County



COMMUTING PATTERNS

Commuting patterns provide one indication of how well the city is fulfilling its citizens employment needs. In 2000, the average commute for a Manchester resident was 18 minutes, indicating that many residents worked outside in immediate area. Figure 1.9 displays the top workplace destinations for Manchester residents in 2008. While the majority of residents work in Delaware County, 47% work outside of the county, primarily in Dubuque and Linn counties.

Table 1.A compares average travel time to work and percentage of residents who walk to work in Manchester and other comparable communities. Manchester ranks 4 out of 7 for both lowest travel time and highest percentage of commuters who walk. About 5% of residents in Manchester walk to work, in contrast to 13.7% of Pella residents. Pella's significantly higher pedestrian commute ratio is likely the result of stronger pedestrian amenities, a more compact development pattern, and/or higher concentration of employment centers.

INCOME

Household income levels are another important indicator of local prosperity and growth potential. Table 1.11 describes the year 2000 income distribution for Manchester, Delaware County, the State of Iowa and several comparison communities that are demographically similar to Manchester. Table 1.12 shows the change in annual median income from 1990-2000 for Manchester and comparison communities. At the time this report was written, 2010 data were not yet available. The income data reveal the following:

- Manchester's median household income in 2000 and 2009 (estimated) was the lowest out of Delaware County, the State of Iowa and all comparison communities.

Table 1.11: *Income Distribution for Household by Percentage,2000*

	Under $15,000	$15,000-24,999	$25,000-34,999	$35,000-49,999	$50,000-74,999	Over $75,000	2000 Median Income
Manchester	20.4%	22.1%	13.9%	13.5%	19.3%	10.7%	31,099
Delaware County	27.5%	20.5%	20.1%	17.9%	9.5%	4.5%	37,168
State of Iowa	11.3%	11.3%	12.2%	17.3%	22.1%	25.7%	39,469
Independence City	35.0%	21.9%	14.6%	15.4%	9.2%	3.9%	36,554
Dyersville City	24.9%	25.2%	14.2%	19.8%	11.6%	4.2%	38,469
Pella	16.7%	21.4%	22.0%	21.8%	11.3%	6.8%	45,496
Carlisle	25.6%	12.4%	17.2%	24.8%	16.2%	3.9%	47,528
Grimes	14.4%	20.5%	14.3%	29.2%	19.5%	2.1%	56,275
Clear Lake City	23.1%	22.9%	20.1%	19.0%	12.1%	2.7%	35,097

Source: U.S. Census Bureau, 2000; City Data.com

Table 1.12: *Change in Annual Median Household Income*

	1990	2000	2009 estimate	% Change 1990-2000	%Change 2000-2009
Manchester	25,833	31,099	36,079	20.4%	16.0%
Delaware County	25,757	37,168	45,243	44.3%	21.7%
State of Iowa	26,229	39,469	48,044	50.5%	21.7%
Independence City	21,565	36,554	47,687	69.5%	30.5%
Dyersville City	24,884	38,469	45,326	54.6%	17.8%
Pella	30,392	45,496	55,580	49.7%	22.2%
Carlisle	32,732	47,528	58,702	45.2%	23.5%
Grimes	35,444	56,275	66,809	58.8%	18.7%
Clear Lake City	27,418	35,097	43,239	28.0%	23.2%

Source: U.S. Census Bureau, 2000; City Data.com

- Manchester's percent increases in median household income from 1990-2000 and 2000-2009 were about 20% and 16% (respectively), the lowest among all comparison communities.
- Over 56% of Manchester households earn less than $35,000. Delaware County has relatively more residents in this lower income category (68.1%), while the State of Iowa has significantly fewer (34.8%).
- Over 30% of Manchester households earn higher than $50,000. Delaware County and comparison communities have significantly fewer residents in this category (13.1%-21.6%), while the State of Iowa has more higher income residents (47.8%)
- Manchester has the largest percentage of households in the highest income bracket (Over $75,000) out of all comparison communities.

Table 1.13: *Taxable Retail Sales ($000,000's)*

	2002	2003	2004	2005	2006	2007	2008	% Change 2000-2008
Manchester	69.40	68.18	69.68	66.17	63.16	67.23	70.26	1.2%
Delaware County	101.00	99.14	99.70	97.77	97.62	102.62	109.90	8.8%
State of Iowa	28,446.62	28,704.90	29,099.28	29,805.30	31,108.39	31,645.72	33,089.02	16.3%
Independence City	65.17	64.43	66.98	70.49	72.92	77.00	83.98	28.9%
Dyersville City	70.65	63.72	67.90	69.00	71.82	70.34	68.80	-2.6%
Pella	113.78	118.83	115.88	115.48	124.23	127.64	137.85	21.2%
Carlisle	12.96	12.80	13.27	14.12	14.98	17.76	16.80	29.6%
Grimes	98.38	106.88	114.25	133.14	175.65	152.13	129.90	32.0%
Clear Lake City	75.62	72.48	79.67	71.41	79.52	82.20	84.62	11.9%

Source: U.S. Census Bureau, 2000

RETAIL SALES

The retail market analysis below reveals opportunities for Manchester to expand its total sales. Table 1.13 describes the retail sales for Manchester and comparison communities from 2002 to 2008. Key findings include:

- Manchester's net retail sales increased by 1.2% from 2002 to 2008
- Manchester had the second lowest percent increase in retail sales among comparison cities, Delaware County and the State of Iowa.

Annual Retail Trade Analysis Report

In addition to the information above, Iowa State University provides a report on retail trade to help Iowa Communities gauge their economic performance. The Analysis is based on reported sales of goods and services that are subject to the statewide sales tax. Figure 1.8 shows that while sales in the state of Iowa have stayed relatively constant, Manchester's retail sales decreased to between 80-90% of 2000 levels.

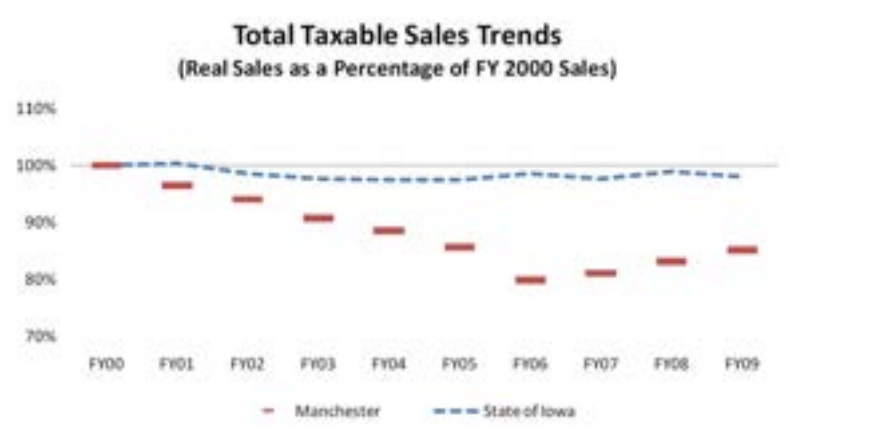


Figure 1.8 - Total Taxable Sales for Manchester and the State of Iowa in Fiscal Years 2000-2009, shown as a percent of FY 2000 sales.

Source: ISU Retail Trade Analysis Report, 2009

The Iowa State University report also provides a "pull–factor" analyses, which compare a city's actual sales performance with the total sales one might expect for a city of its size and income level. Pull factor analysis includes an analysis for trade surplus or leakage, trade area capture, and pull factor ratio, explained below.

Trade surplus and trade leakage -

Trade Surplus and Trade Leakage measure the difference between a city's total retail sales and the total retail sales that would be generated if residents met all their retail needs within the city. When a city is not satisfying all the retail needs of their residents, they are experiencing trade leakage. When a city's sales are higher than would be necessary to meet the retail needs of their residents, they are said to have a trade surplus.

Figure 1.9 shows that Manchester has experienced sales surplus in all years from 2000-2009. However, the estimated trade surplus has decreased since 2000, reaching a low of approximately $17 million in 2006 before beginning to rise again in the following three years.

Trade Area Capture

Trade Area Capture is another way to measure how many of residents' retail dollars are being "captured" by local businesses. The city's total annual retail sales are divided by the expected annual retail spending of its residents, to determine the "annual shopper equivalents" whose needs are satisfied by the city. When the number of shopper equivalents is higher than the population, the city's trade area is serving both residents and non-residents.

Manchester's "annual shopper equivalents" have been consistently higher than its population would suggest, and follow a similar trend as the trade surplus numbers, indicating that Manchester retailers are successfully capturing retail spending from consumers out-side the city, but to a lower degree than in years past.

Pull Factor Ratio

Pull Factor Ratio measures the attractiveness, or "pull," of the city's retail environment with regards to consumer spending. The ratio is calculated by dividing trade area capture (see above) by population. A ratio greater than 1 suggests that local businesses are attracting shoppers from outside the city, while a ratio lower than 1 indicates that residents are leaving the city to make purchases.

Figure 1.10 compares Manchester's Pull Factor with the median pull factor of a peer group of similar cities. For all years analyzed, Manchester's pull factor was consistently higher than the group median.

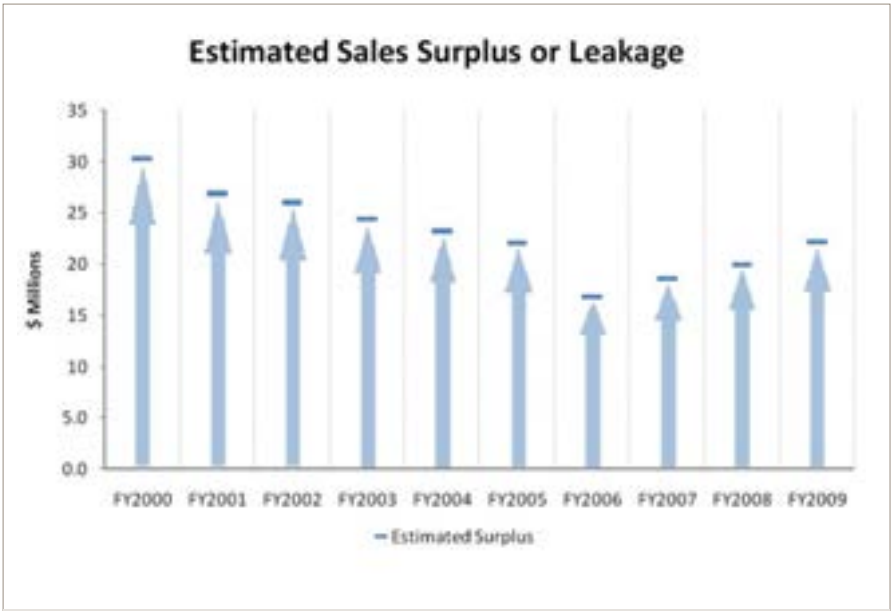


Figure 1.9 - Estimated Sales Surplus for Manchester, Iowa, calculated annually for Fiscal Years 2000-2009.

Source: Iowa State University Retail Trade Analysis Report, 2009

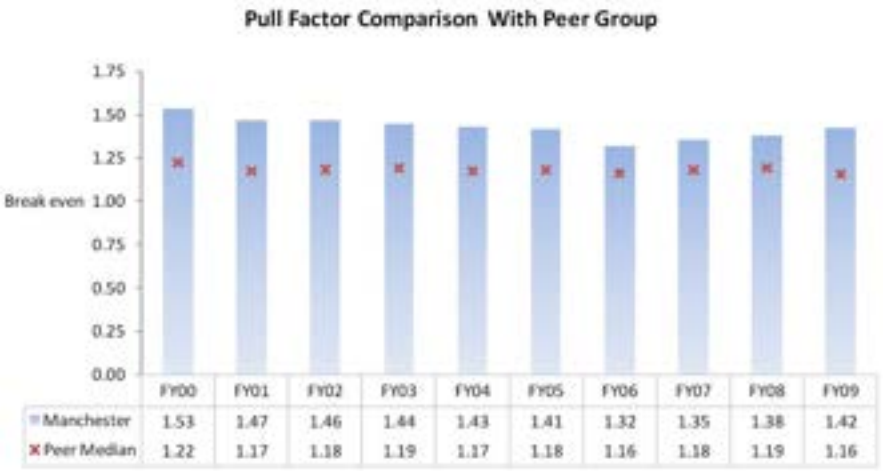


Figure 1.10 - Pull Factor Comparison of Manchester and City Peer Group for Fiscal Years 2000-2009.

Source: Iowa State University Retail Trade Analysis Report, 2009

Regional Shopping Distribution

The distribution of local shopping destinations can provide further insight into the relative retail strength of each community. The figures below illustrate the geographic distribution of retail purchases throughout Delaware County and the larger region.

Figure 1.11 shows Manchester's percentage share of Delaware County's taxable sales in 2009 in comparison to its share of population in 2008. Although Manchester's share of the county population is only 28.3%, their share of county taxable sales is comparatively large, at 65.2%. This is likely due to the fact that there are fewer shopping opportunities in the non-urban areas of the county. Many county residents may be doing much of their shopping in Manchester.

Figure 1.12 ranks Manchester and neighboring communities by their retail sales levels, providing an indication of the regional magnets for trade activity. Although Manchester ranks 1st in population, it ranks 3rd in retail sales, just behind Edgewood and Dyersville.

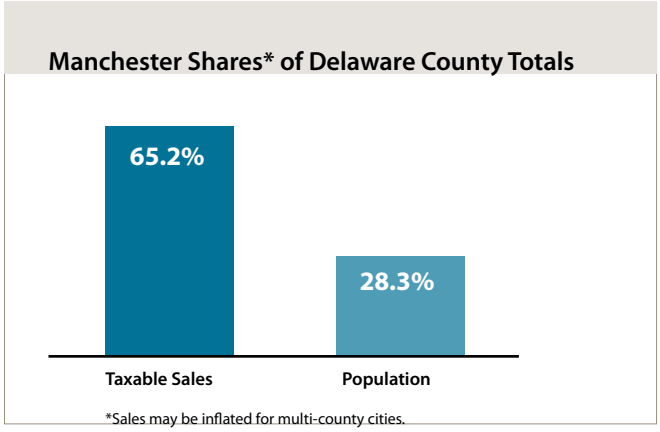


Figure 1.11 - Manchester share of total taxable sales in Delaware County, as compared to its share of population.

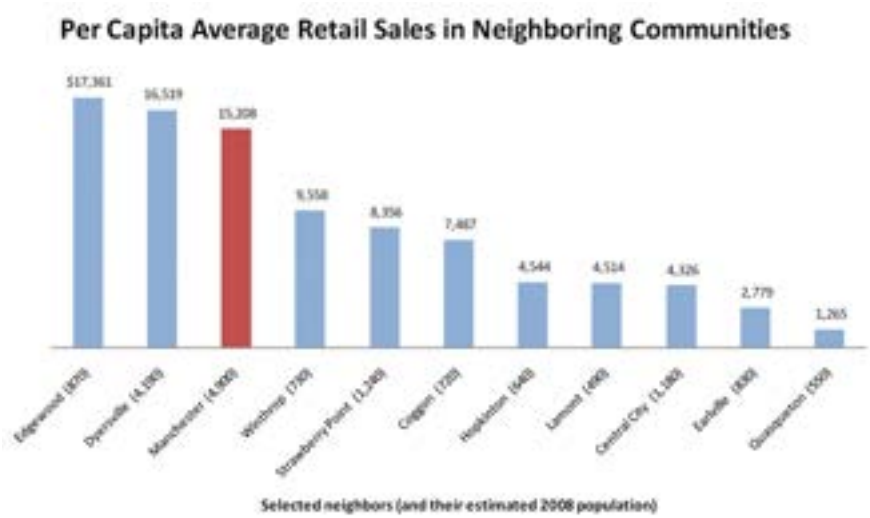


Figure 1.12 - Per Capita Average Retail Sales in Manchester, Iowa and neighboring communities.

HOUSING ANALYSIS

The quality and occupancy of a community's housing stock are key indicators of economic prosperity. Table 1.14 compares changes in housing occupancy from 1990 to 2009, revealing the following trends:

- Total housing units increased by approximately 10% from 1990 to 2000 but growth slowed down significantly to 1.1% in the following decade.
- The percentage of occupied units that are renter-occupied units in Manchester is 29.5%. This ratio falls very close to the 30-35% range that is considered a "balanced market" between renter and owner units.
- The city's vacancy rate increased by a little more than 1% from 1990-2000, but remained relatively steady from 2000-2010. Low vacancy rates limit the amount of choice that potential buyers have in the market while higher vacancy rates indicate empty neighborhoods and lack of housing demand. Manchester's 6% vacancy rate is within the range of what is considered healthy.

Table 1.15 presents a comparison of housing values in Manchester and comparison cities. Manchester has the lowest median housing value and the second lowest percent of owner occupiers. Pella's higher rental rate likely results from Central College students.

Table 1.14*: Change in Key Housing Occupancy Indicators*

	1990	2000	2010	Change 1990-2000	Change 2000-2010*	% Change 1990-2000	% Change 2000-2009
Total Housing Units	2,102	2,315	2,341	213	26	10.1%	1.1%
Total Occupied Units	1,992	2,167	2,199	175	32	8.8%	1.5%
Owner Occupied Units	1,407	1,538	1,551	131	13	9.3%	0.8%
% Occupied units that are Owner Occupied	70.6%	71.0%	70.5%	0.4%	0.5%	-	-
Renter Occupied Units	585	629	648	44	19	7.5%	3.0%
% Occupied units that are Renter Occupied	27.8%	29.0%	29.5%	1.2%	0.5%	-	-
Vacant Units	110	148	142	38	-6	34.5%	-4.1%
Vacancy Rate	5.2%	6.4%	6.1%	1.2%	-0.3%	-	-
Median Value	$47,000	$74,400	$91,349* (2009 est.)	$27,400	$16,949 *	58.3%	22.8%*
Median Contract Rent	$301	$298	NA	($3)	NA	-1.0%	NA

Source: Census Bureau, 2010. Claritas Inc.

**Median Value is a 2009 estimate. At the time this report was written, 2010 data were not available.*

Table 1.15 *Comparative Housing Trends, Manchester and Other Communities, 2000 and 2009 Estimates*

	2000		2010	
	% Owner Occupied	Median Value	% Owner Occupied	Median Value*
Manchester	70.9%	$74,400	70.5%	$91,349
Independence	72.7%	$76,600	71.4%	$100,391
Dyersville	82.3%	$93,900	81.0%	$124,293
Pella	67.8%	$116,600	66.4%	$159,663
Carlisle	77.4%	$92,600	78.3%	$124,882
Grimes	81.1%	$108,000	84.6%	$153,433
Clear Lake	74.8%	$88,880	71.4%	$116,793

Source: U.S. Census Bureau, 2010; * Claritas, Inc. 2009 Estimates

**Median Value is a 2009 estimate. At the time this report was written, 2010 data were not available.*

2

Land Use Profile

Land Use is the central element of a comprehensive plan because it establishes the overall physical configuration of the city, including the mix and location of uses and community systems that support them. This chapter reviews existing land use conditions, followed by projected needs for future land and housing.

A LAND USE PROFILE OF MANCHESTER

Land use is the central element of a comprehensive plan because it establishes the overall physical configuration of the city, including the mix and location of uses and community systems that support them. Because the land use plan is a statement of policy, public and private decision makers depend on it to guide individual actions such as land purchases, project design, and land review and approval processes. This chapter reviews existing land use conditions, followed by projected needs for future land and housing.

LAND USE PATTERNS IN MANCHESTER

The City of Manchester (incorporated area) covers approximately 4.8 square miles, approximately 64% of which is developed. Developed land was inventoried by parcel, and categorized according to a land use. Table 2.1 and Figures 2.1 and 2.2 show the distribution of land uses in Manchester in 2010. Land Use can be summarized into **five major categories**:

RESIDENTIAL USES

Residential uses comprise the largest land use category, accounting for 43% of the City's developed area.

- Low density, Single Family Residential properties are the most prevalent residential use in Manchester, accounting for approximately 95% of residential land use.
- Multi-family housing accounts for approximately 3.2% of residential land use.
- Manchester has a net density of approximately 6.35 people per residential acre, or 2.66 people per developed acre.

COMMERCIAL USES

Commercial development covers approximately 8.5% of developed land in Manchester. This category includes uses such as offices, restaurants, services, retail stores and auto services.

- Primary commercial nodes in the city include the Downtown and parts of the Main Street Corridor.
- Some Commercial uses exist along N Franklin Street at the northern city limits

INDUSTRIAL USES

Industrial uses (excluding transportation infrastructure and utilities) constitute approximately 11% of the total development area and include storage, warehousing, light industrial and heavy industrial uses.

- Industrial uses are located close to US 20 and Iowa 13, with primary nodes on the south side of town
- Other industrial uses exist along Main street east of Bailey Dr and along Quaker Mill Dr, north of town

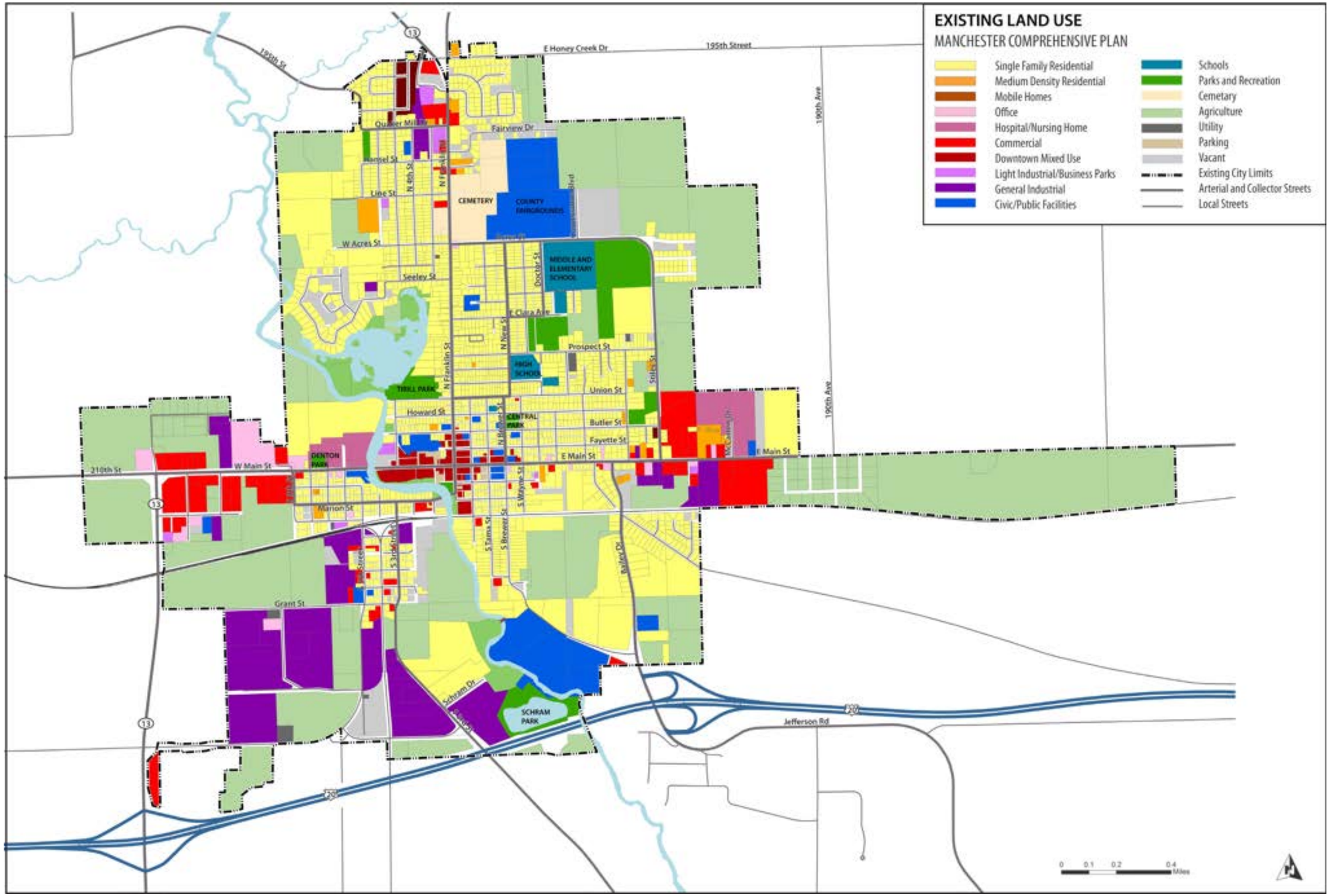


Figure 2.1 - Existing Land Use in Manchester - 2011

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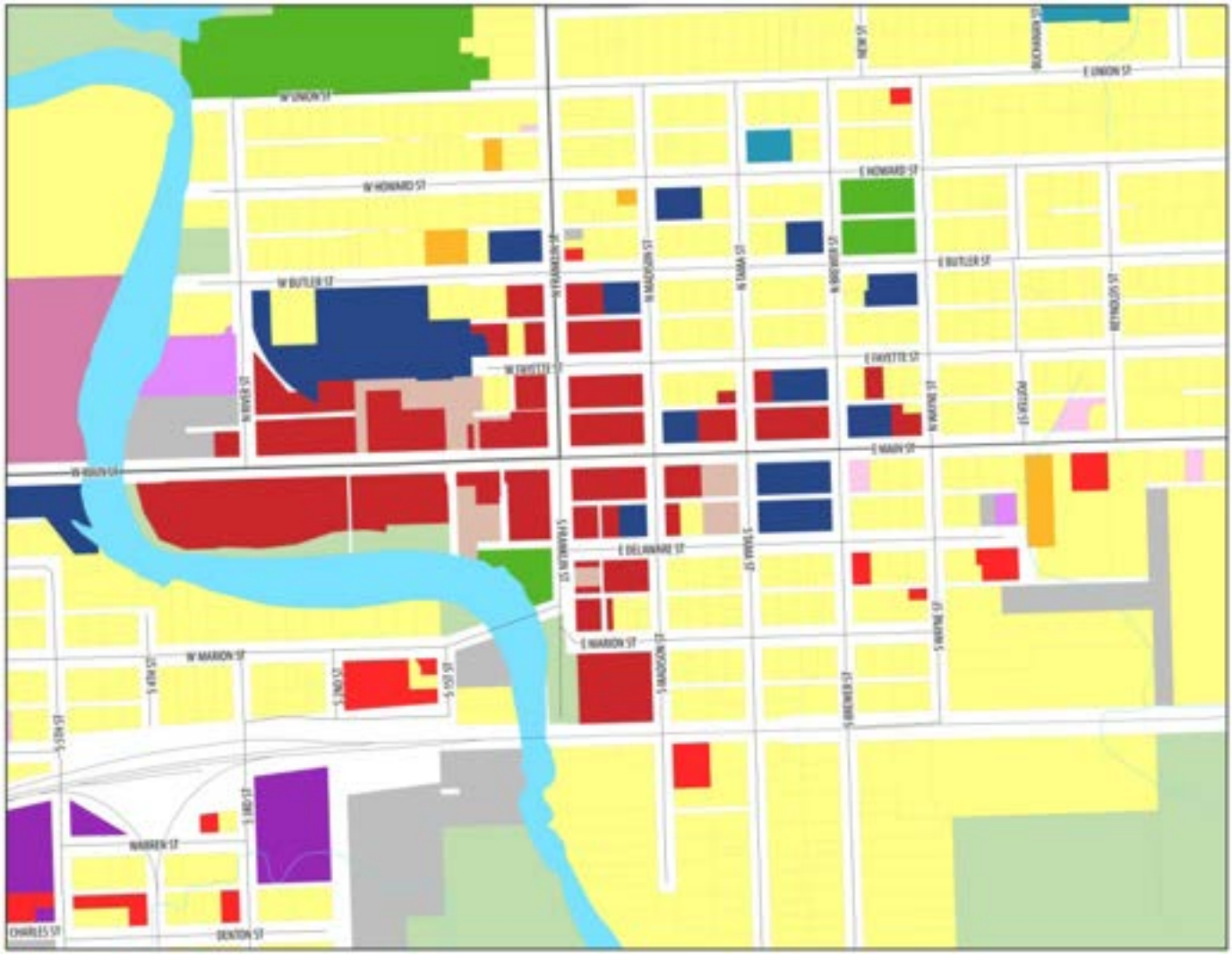

Figure 2.2 - Downtown Manchester Land Use

Table 2.1: *Land Use in Manchester, 2010*

Land Use Category	Acres	% of Developed Land	Acres per 100 People
Residential	815.08	42.7%	15.74
Single-Family	780.64	40.9%	15.07
2 Family/Duplex	-	-	-
Multi-Family	26.46	1.4%	0.51
Mobile Home	8.00	0.4%	0.16
Commercial	162.94	8.5%	3.15
Office	30.12	1.6%	0.58
Retail	113.12	5.9%	2.18
Downtown Mixed Use	19.70	1.0%	0.38
Industrial	207.14	10.8%	4.00
General Industrial	198.34	10.4%	3.83
Lt. Industrial/Warehousing	8.80	0.5%	0.17
Civic	321.81	16.8%	6.21
School	32.02	1.7%	0.62
Public-Semi Public/Health Facilities	74.22	3.9%	1.43
Civic	132.53	6.9%	2.56
Parks & Rec.	83.04	4.3%	1.60
Transportation/Utilities/Other Miscellaneous	403.75	21.1%	8.43
Utilities/Parking	27.07	1.4%	0.52
Roads/ROW	376.68	19.7%	7.27
Total Developed Land	**1910.72**	**100.0%**	**36.89**
Agriculture, Open Space, and Water	1,010.81		19.52
Vacant Urban Land	93.50		1.81
Maquoketa River	32.68		0.63
Total Land In City Limits	**3,047.71**		**58.85**

Source: RDG Planning & Design, 2011

CIVIC/PARKS AND RECREATION USES

Civic and park uses account for approximately 17% of developed land area. This category includes uses such as schools, religious institutions, churches, public buildings, parks, recreation facilities, libraries, and government offices.

Approximately 26% of Civic Land falls under the Parks and Recreation system. Parks and recreation facilities are important factors for community quality of life and will be further analyzed in a later chapter.

UNDEVELOPED AREAS

Undeveloped areas include agricultural uses, open space, water, vacant urban land, and Maquoketa River. Approximately 37% of the area inside Manchester city limits is undeveloped. The land use plan in section three of this document will examine what portion of that area is best suited for potential future development.

Tables 2.2 and 2.3 show how Manchester's land use distribution compares to other Iowa towns. , Pella, Clear Lake and Kalona are "independent" Iowa small communities, and Grimes, Carlisle and Polk City are suburban communities in the Des Moines metro area. These two types of communities often vary in their land use distribution, due in part to differing demands for density and commercial/industrial services. Suburban communities, while notably different from Manchester, can therefore serve as an interesting point of comparison. The comparison reveals the following trends and characteristics:

- Manchester's percentage of residential use is similar to Carlisle, Clear Lake and Kalona, but much lower than Polk City and approximately 10-15% higher than Grimes and Pella. From this comparison, it appears that Manchester's residential land use percentage is in a reasonable range. Manchester's has a relatively balanced land use mix, with an appropriate level of economic and civic uses in relation to residential acreage.
- Compared with the other independent communities, Manchester has more commercial ground than Pella, but substantially less than Kalona and Clear Lake. Pella is a relatively compact city, with a dense thriving downtown area and a relatively small amount of "strip commercial" area. Clear Lake has a large amount of strip commercial area along Highway 218. Manchester's commer-

Table 2.2: *Comparative Land Use by Percentage of Developed Area*

	"Independent" Communities				Suburban Communities		
	Manchester	Pella	Clear Lake	Kalona	Grimes	Carlisle	Polk City
Residential	42.7%	26.8%	42.3%	41.5%	32.1%	42.6%	60.2%
Commercial	8.5%	4.3%	14.4%	13.9%	10.7%	1.5%	4.6%
Industrial	10.8%	18.0%	19.9%	5.1%	18.9%	11.2%	0.5%
Civic	16.8%	31.3%	15.6%	13.4%	25.9%	10.9%	11.4%
Transportation	21.1%	19.6%	14.0%	26.1%	22.0%	33.8%	23.4%
Total Developed Area	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2.3: *Comparative Land Use by Acres per 100 Residents*

	"Independent" Communities				Suburban Communities		
	Manchester	Pella	Clear Lake	Kalona	Grimes	Carlisle	Polk City
Residential	15.74	9.75	13.23	12.86	9.67	12.76	12.49
Commercial	3.15	1.56	4.51	4.31	3.22	0.45	0.96
Industrial	4.00	6.53	6.21	1.58	5.69	3.34	0.11
Civic	6.21	11.38	4.88	4.15	3.63	3.27	2.35
Transportation	7.80	7.12	4.36	8.07	7.87	10.11	4.85
Total Developed Area	36.89	36.34	33.19	30.98	30.09	29.93	20.75

Source: RDG Planning & Design, 2011

cial percentage reflects its healthy downtown commercial area and reasonable amount of strip commercial areas.

- Manchester's industrial percentage is substantially lower than Pella, Clear Lake and Grimes and just below Carlisle. This percentage reflects existing industrial uses, not designated industrial areas, and indicates that Manchester may lag behind in its percentage of industrial uses.
- Manchester has the highest number of both residential acres per resident and total acres per resident, making it the least dense of all comparison cities.
- Civic acres per resident is noticeably higher than most comparison cities (with the exception of Pella). This high percentage reflects the location of the county fairgrounds within the city borders.

LAND NEED ANALYSIS AND PROJECTIONS

The population projections in the previous chapter and the current land use conditions described above guide forecasts for land needs through the year 2030. Chapter 1 presented a population growth scenario that would create a 2030 population of 5,700 (Chapter 1, Table 1.8). This population growth will increase the need for residential, commercial and industrial lands. In order to project the amount of residential land, the analysis first projects the number of housing units that will be needed in the coming decades.

HOUSING PROJECTION

Methodology

Table 2.4 builds a 20 year housing demand model based on the population projection of 5,700. Housing unit demand is calculated through the following process:

- **Household population** is calculated by multiplying the total population by the percentage of the population in households (based on 2010 census data). This percentage excludes population living in institutions, such as nursing homes.
- **Household demand** is calculated by dividing household population by the number of people per household (based on 2010 census data). This determines the number of households in need of housing.
- Household demand is added to the projected number of vacant units (based on 2010 vacancy rate) to determine the **housing unit need.**
- **Replacement need** is estimated based on the number of housing units expected to be demolished or converted to other uses. Cities with older housing stock tend to have a higher replacement need, while cities with newer or well-maintained housing stock have a lower replacement need.
- Replacement need is added to housing unit need to determine the **cumulative need**, which indicates the total number of housing units that must be built during the planning period.
- These calculations are recorded below by 5-year periods. In each column, the written year indicates the final year of the 5-year period.

The model makes the following assumptions:

- Average people per household is expected to remain constant at 2.31 over the next twenty years.
- The vacancy rate over the next twenty years will increase from 6.07% to 7.57% by 2030 in order to maintain a healthy level of vacancy. Manageable housing vacancy provides housing choice for new residents moving to a community.

Findings

The projections in Table 2.4 indicate a cumulative need of 367 housing units between 2010 and 2030. This indicates an average annual construction of 18 housing units, which is slightly higher than Manchester's historic average of 15 units per year (1996-2009). The difference between historic and projected rates is due to the slightly optimistic population growth rates that form the basis of this analysis (see chapter 1 for details on growth rate selection) and a slight decrease in household size.

These housing projections heavily inform the residential land need projection detailed in the following section.

RESIDENTIAL LAND NEEDS PROJECTION

Single family detached units are the predominant housing form in Manchester, and will likely retain their prominence throughout the planning period. However, townhomes, attached units, condominiums and apartments are growing more popular among young families and seniors. The economic downturn of 2008, declining residential construction rates, and changing demographics are increasing the demand for more affordable home-ownership and rental options. In particular, the aging of the "baby boom" generation will drive the need for more condominium and senior housing options.

Table 2.5 displays the amount of land that will be required for new residential development from 2010-2030. The projections are based on the housing demand projection in the preceding section and the following assumptions:

Table 2.4: *Projected Housing Development Demand*

	2010	2015	2020	2025	2030	Total
Population at the end of period	5,179	5,310	5,444	5,581	5,722	
Household population at end of period	5,073	5,201	5,332	5,467	5,605	
Average people/household	2.31	2.31	2.31	2.31	2.31	
Household demand at end of period	2,196	2,252	2,308	2,367	2,426	
Projected vacancy rate	6.07%	6.57%	7.07%	7.32%	7.57%	
Housing unit need at end of period	2,338	2,410	2,484	2,554	2,625	
Replacement Need		20	20	20	20	80
Cumulative Need		92	94	90	92	367
Average Annual Construction		18	19	18	18	18

Source: RDG Planning & Design, 2011

- Approximately 75% of new units will be single family detached homes, 10% will be single family attached homes (townhomes or duplexes) and 15% will be multi-family homes (apartments and condominiums). (As of 2000, Manchester had approximately 74% single-family detached homes, 8% single family attached/duplex, 14% multi-family and 4% mobile homes/trailers).
- Gross Densities will equal approximately 3 units per acre for single family homes, 6 units per acre for single family attached homes, and 12 units per acre for multi-family homes.
- Land designated for residential development during the planning period will be twice the area needed for actual construction to provide market choice and prevent artificial inflation of land cost.

Under these assumptions, total residential land need is calculated through the following method:

- The cumulative housing unit need (see previous section) is split up by type (single family, multi-family, etc.), based on existing housing distribution.
- The housing unit need for each housing type is divided by the gross density for that housing type to determine the number of acres needed.
- The number of acres needed is multiplied by 2 to allow for optimal market function (see above assumption)
- The land need for each housing type is added together to determine the total land need
- Land Need estimates are divided into two 10-year periods, 2010-2020 and 2020-2030.

To accommodate the projected population growth, the City should reserve approximately 205 acres of land for new residential development in the next 20 years. The development concept outlined later in this document identifies the areas in which this potential development should occur.

Table 2.5: *Required Residential Land 2010-2030*

	% of Demand	Units	Gross Density (du/Ac)	Land Need (Acres)	Designated Land (Acres x 2)
2010-2020					
Single Family Detached	75%	140	3	47	93
Single Family Attached	10%	19	6	3	6
Multi Family	15%	28	12	2	5
Total	100%	186		52	104
2020-2030					
Single Family Detached	75%	136	3	45	91
Single Family Attached	10%	18	6	3	6
Multi Family	15%	27	12	2	5
Total	**100%**	**181**		**51**	**101**
Total 2010-2030		**367**		**103**	**205**

Source: RDG Planning & Design, 2011

COMMERCIAL AND INDUSTRIAL LAND NEEDS PROJECTION

Commercial Projections

Population growth and new residential development spur demand for additional commercial services. Commercial growth is an important part of the city's overall economic development strategy, and it is important to correctly anticipate land needs for commercial and retail activities. While too little commercial land can limit growth, designating too much commercial land can produce inefficient land patterns, scatter development, restrict other land uses, and require customers to travel excessive distances, usually by private automobile. Sustainable land development patterns should locate commercial development close to customers and be designed to encourage active transportation modes such as pedestrian, bicycle, and potentially public transportation.

Industrial Projections

The demand for industrial development is linked in part to industrial attractors such as infrastructure capacity and labor force characteristics, rather than exclusively to population growth. In contrast to typical residential or commercial development, a single major corporate decision can dramatically increase (or decrease) the projected industrial land demand in a community. Active recruitment of industrial development can also affect land needs beyond those dictated by population growth. Accessibility to major corridors such as Highway 20 and Iowa 13 and proximity to major population centers (Waterloo, Dubuque, Cedar Rapids) make future attraction of industrial facilities probable for Manchester. Existing facilities may also choose to expand or relocate within the city. Though these factors make it difficult to predict industrial land need, an estimate is calculated using the methods below.

PROJECTION METHODS - COMMERCIAL AND INDUSTRIAL

Population Proportion Method

This projection method assumes that the current proportion of commercial/industrial land per 100 people will remain the same as Manchester grows. New commercial/industrial development will therefore grow in proportion to population growth.

Table 2.6: *Required Commercial Land 2010-2030*

	2010	2020	2030	Conversion Need	Designated Land (x1.5)
Population Proportion Method					
Projected Population	5,179	5,444	5,722		
Commercial Use/100 Residents	3.15	3.15	3.15		
Projected Commercial Use (acres)	163	172	180	17	26
Residential Use Proportion Method					
Residential Land (acres)	815	867	917		
Commercial/Residential Ratio	0.20	0.20	0.20		
Projected Commercial Use (Acres)	163	173	183	21	31

Source: RDG Planning & Design, 2011

Residential Use Proportion

This projection method assumes a constant relationship between the amount of residential land and the amount of commercial/industrial land. New commercial/industrial development will therefore grow in proportion to residential growth.

Table 2.6 shows the results of these projection methods for commercial land use. The "hard demand" for new commercial land is estimated to be between 17-21 acres. To provide alternative site options and allow the market to function efficiently, the land use plan should designate 1.5 times the "hard demand," approximately 26-31 acres.

This analysis emphasizes neighborhood and community-oriented commercial development and de-emphasizes possible regional retail facility growth. Because regional commercial development is not closely related to changes in a community's population, it is extremely difficult to accurately estimate future demand for this type of development. Additional land above this projected amount may need to be added at the Highway 13/20 interchange to reflect its potential as a site for regional commercial development.

Table 2.7 calculates additional industrial land needs within the city. Based on the projection methods described above, Manchester should plan for between 33-39 acres for industrial and business park uses. It is important to note that this projected demand includes existing vacant industrial park land. There are currently 66 acres of undeveloped industrial land in the Enterprise Avenue industrial park area, another 8 acres of vacant land on the south side of East Main Street at the east end of Manchester, and 48 acres of vacant industrially-zone land in other locations (South side, east of the railroad and north of Grant Street on either side of the railroad). Thus, a total of 122 acres of industrially-zoned land are available for development in Manchester. Since the projected demand for industrial land is only 33-39 acres, it is unlikely that additional industrial land will be needed beyond what is currently zoned for industrial.

Table 2.7: ***Estimated Industrial/Business Park Land Requirements, 2010-2030***

	2010	2020	2030	Conversion Need	Designated Land (x1.5)
Population Proportion Method					
Projected Population	5,179	5,444	5,722		
Commercial Use/100 Residents	4.00	4.00	4.00		
Projected Commercial Use (acres)	207	218	229	22	33
Residential Use Proportion Method					
Residential Land (acres)	815	867	918		
Commercial/Residential Ratio	0.25	0.25	0.25		
Projected Commercial Use (Acres)	207	220	233	26	39

Source: RDG Planning & Design, 2011

3

Environmental Profile

A town's environmental structure helps define a sense of place and has a tremendous impact on quality of life. This plan will encourage sustainable use of Manchester's natural resources, such as its rolling farm ground, the Maquoketa River and natural drainage corridors.

ENVIRONMENTAL PROFILE

PHYSICAL CHARACTER OF MANCHESTER

Each community has natural assets and features that affect how it can develop and grow. Before determining a land use plan, a comprehensive plan should consider how to preserve natural resources and work with, rather than against, natural systems. A town's environmental structure helps define a sense of place and has a tremendous impact on quality of life. This plan will encourage sustainable use of Manchester's natural resources, such as its rolling farm ground, the Maquoketa River and natural drainage corridors.

NATURAL RESOURCES AND HAZARDS

WATERWAYS AND FLOODPLAINS

Creeks, lakes, and wetlands provide important aquatic habitat for a myriad of plants and animals, and can provide valuable recreational opportunities for city residents. They also perform a critical function in conveying stormwater and protecting urban areas from flood damage. A comprehensive plan should address goals and policies related to conservation of water resources and existing floodplains in the city and surrounding areas.

Manchester's primary water feature is the Maquoketa River, which runs directly through the center of town, providing a valuable natural amenity for both neighborhoods and the downtown area. Figure 3.1 shows the Maquoketa River and associated drainage corridors, including: a north-south drainage corridor running through the eastern half of Manchester; an east-west corridor that runs west from the Maquoketa to city limits; and multiple other minor corridors. The 100 and 500-year floodplains that surround these waterways are also shown in the figure. Floodplains are areas adjacent to water bodies which are susceptible to flooding during periods of excessive rain or runoff. A 100-year floodplain has a 1% chance of flood in any given year, while a 500-year floodplain has a .2% chance of flooding in any given year.

A significant amount of development has occurred in Manchester's 100 and 500 year floodplains, including the area between E Main Street and E Acers Street, between Tama Street and Stiles. This area developed prior to the time when identification of floodplains and restriction of development in these areas began. Today, Manchester has regulations limiting or restricting development in the floodplain and floodway. In addition to the obvious risk of property damage, development in a floodplain has the potential to hinder the floodplain's natural function for handling excess water, resulting in increased flooding and damage upstream and downstream. These impacts can be mitigated with strategic storm-water management techniques, by decreasing the level of impervious surface in the floodplain, or through development restrictions or prohibitions. Waterways and floodplains are often preserved as greenways and links to the city's parks and recreation system.

Manchester has two significant wetland areas along the Maquoketa River: in the northwest, West of N Franklin and South of Seeley; in the southwest, east of the intersection of Grant St and 3rd St (Figure 3.1). Smaller wetland areas are shown scattered throughout the city. Wetlands are areas of poorly drained soils characterized by permanent or temporary soil saturation and occasionally standing water. Wetlands perform an important ecological function by both absorbing and slowing floodwaters, and providing a unique habitat for plants and animals.

Figure 3.2 shows Manchester's hydric soils, which are soils that have a high capacity to detain water. Hydric soils capture and detain rainwater, releasing it more gradually into rivers, creeks, and other drainage ways. Allowing hydric soils to perform this functions can be an important part of a stormwater runoff management plan. For this reason, soil conditions were considered when creating the development plan in section three of this document.

TOPOGRAPHY

Topography is the form of the earth's surface, in particular the changes in elevation of the surface. Topographic analysis helps determine areas where development should be avoided or where potential constraints may exist. It is important to protect steep or otherwise erodible slopes because their disturbance will result in soil erosion and other environmental problems.

Although Manchester's topography is relatively constant, minor topographical changes should be considered when anticipating infrastructure costs for new development. Figure 3.3 displays changes in elevation in Manchester using 10-Foot contour lines and floodplain maps. Figure 3.4 shows slope gradation for Manchester. The vast majority of Manchester land has a grade of less than 2%. A few areas of steeper grade are present in small amounts, typically around waterways. The infrastructure section of this plan discusses ways to address any topographical challenges in growth areas, with regard to the cost-effective extension of infrastructure.

NATURAL AREAS

Natural Areas include resources such as rural forest lands, native forest communities, woodlands, conservation areas, areas of biological diversity, plantations, and urban forests. Any land use proposed surrounding these areas will have an impact on these areas and such impacts should be minimized as much as possible.

Figure 3.5 illustrates the existing parks and woodland/treed areas in Manchester. The majority of treed land directly surrounds the waterways, again emphasizing the need to preserve these waterway areas. Updates to the park and trail system should consider utilizing these natural tree/water corridors to connect parks to natural areas and to each other. Several parks, such as Schram Park on the south side of town, are already connected to these areas.

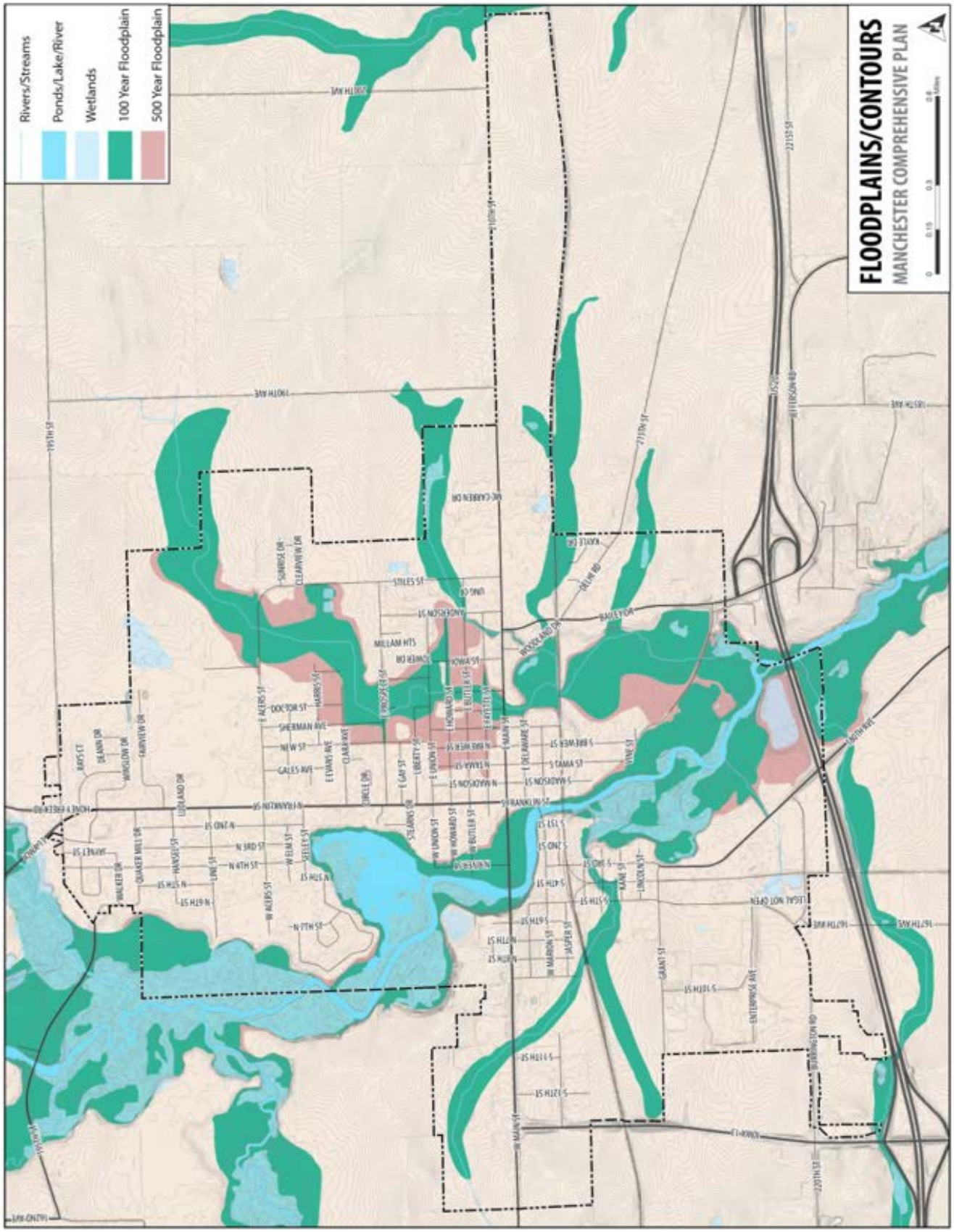

Figure 3.1 - Manchester Waterways, Floodplains, and Wetlands

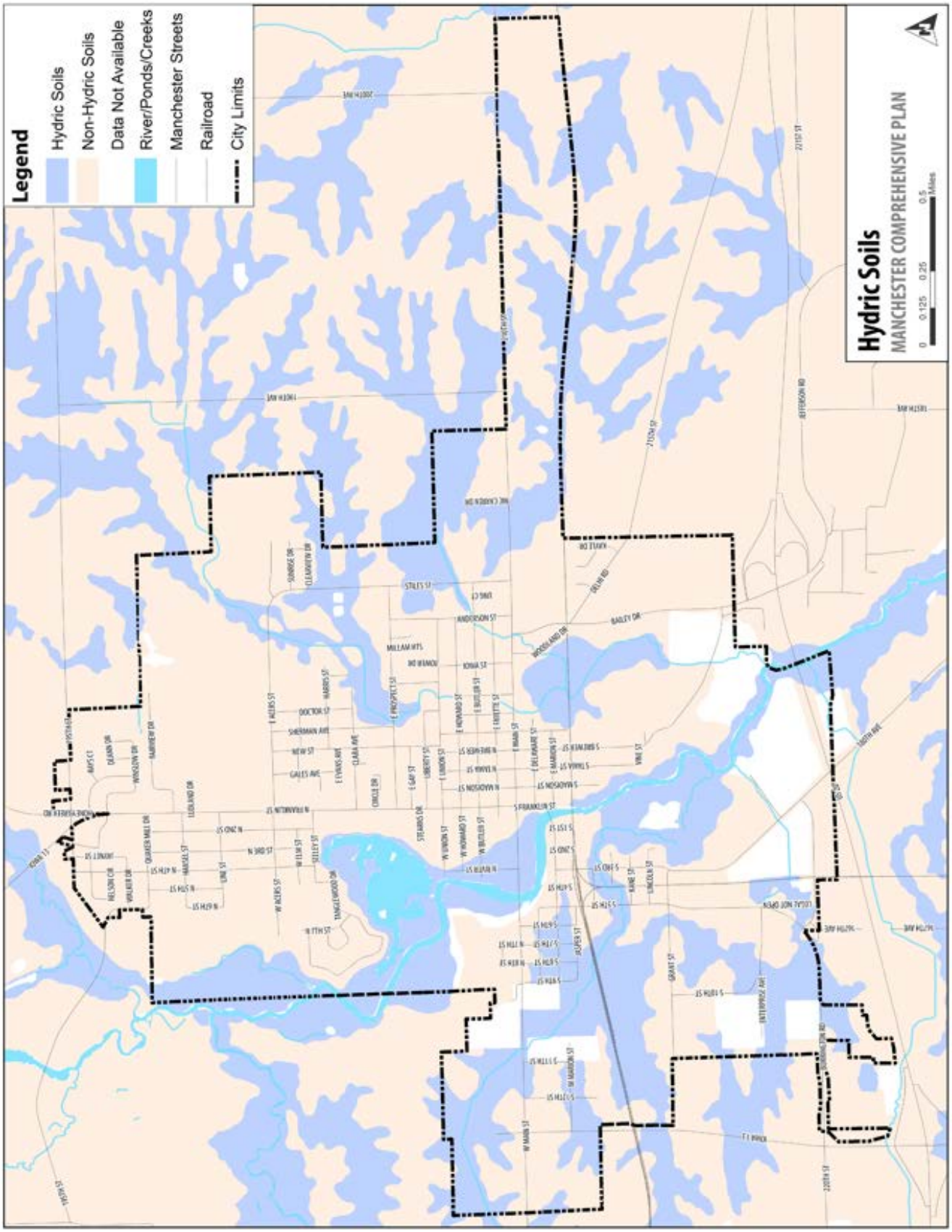

Figure 3.2 - Hydric Soils in Manchester

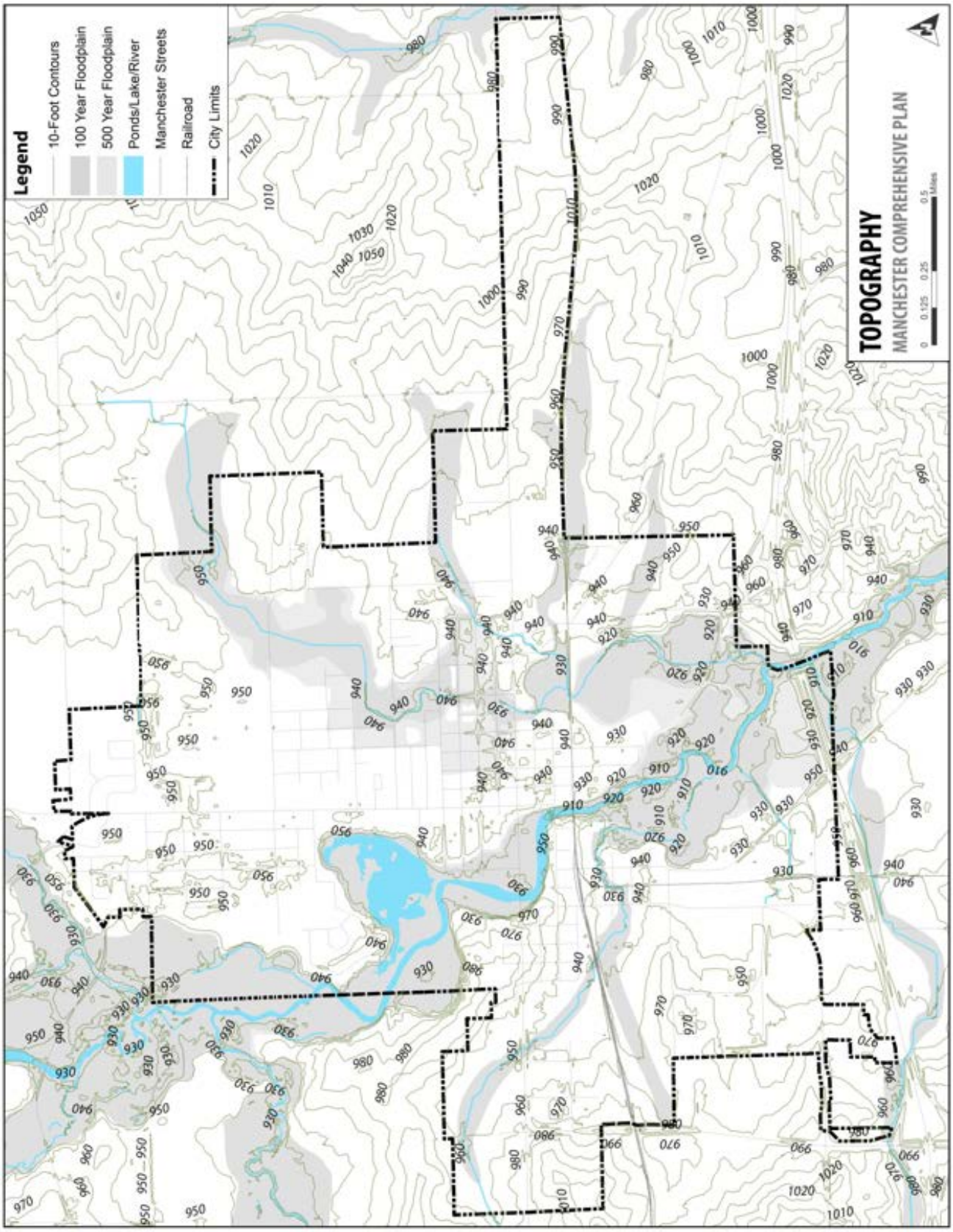

Figure 3.3 - Manchester Topography

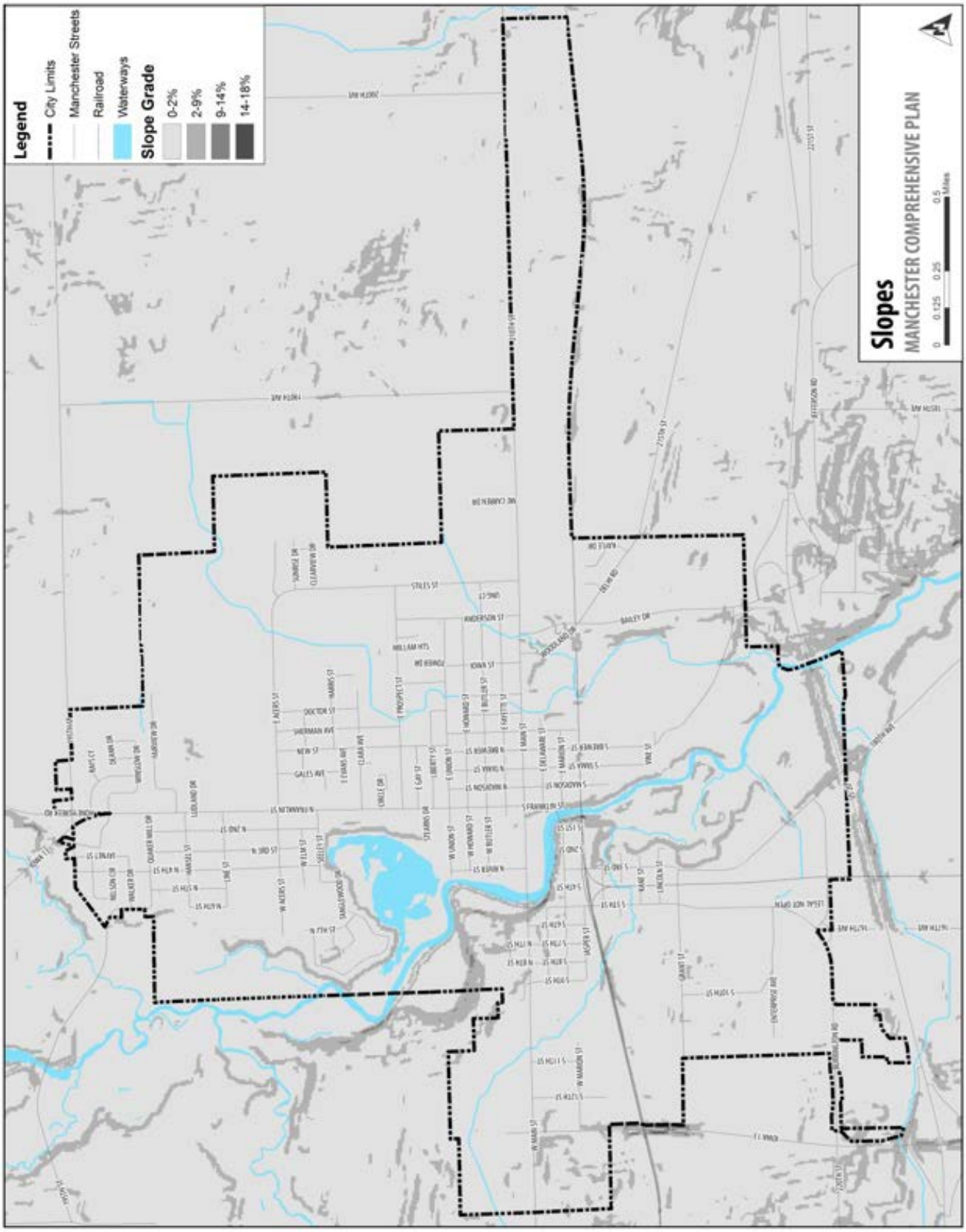

Figure 3.4 - Manchester Slope Grades

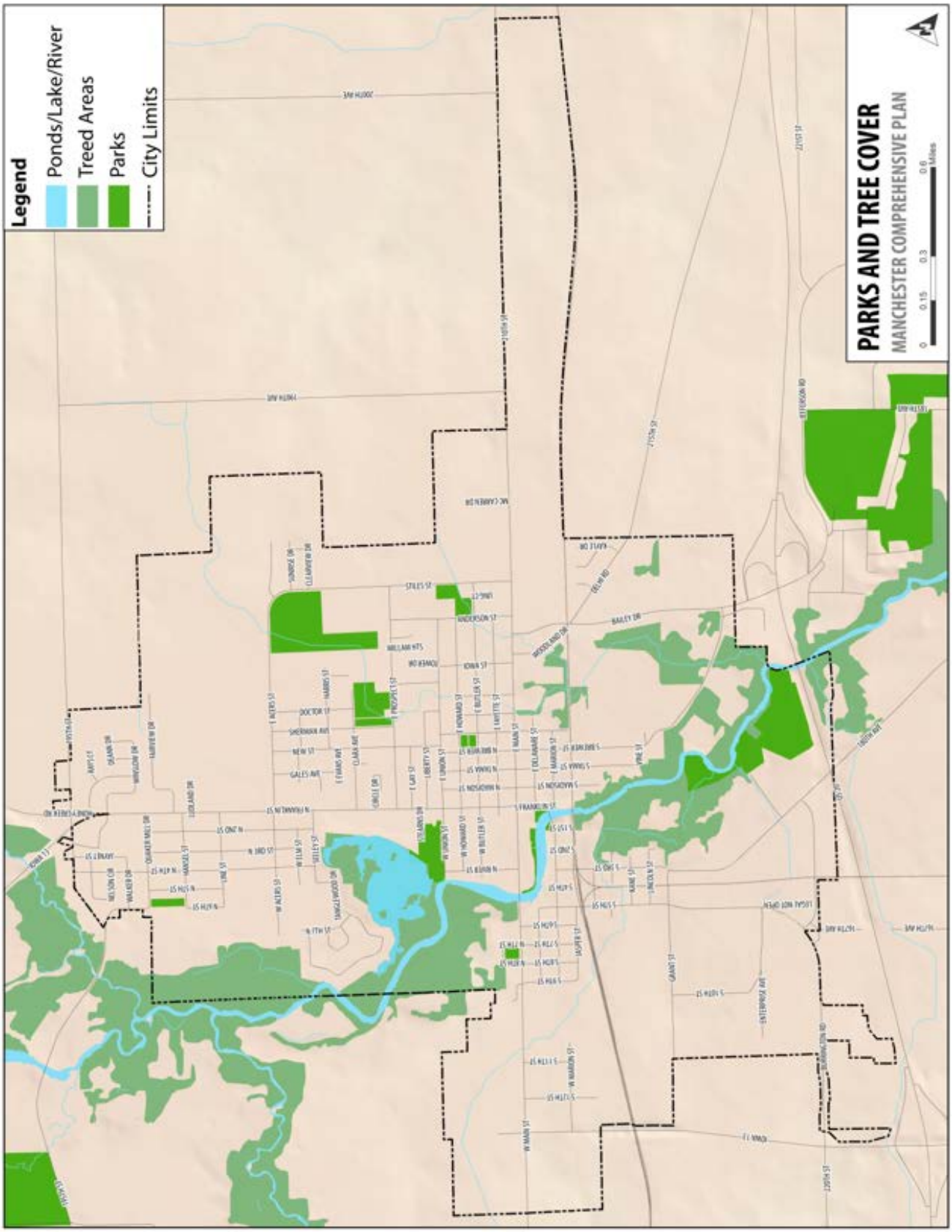

Figure 3.5 - Parks and Treed Areas in Manchester and surrounding area.

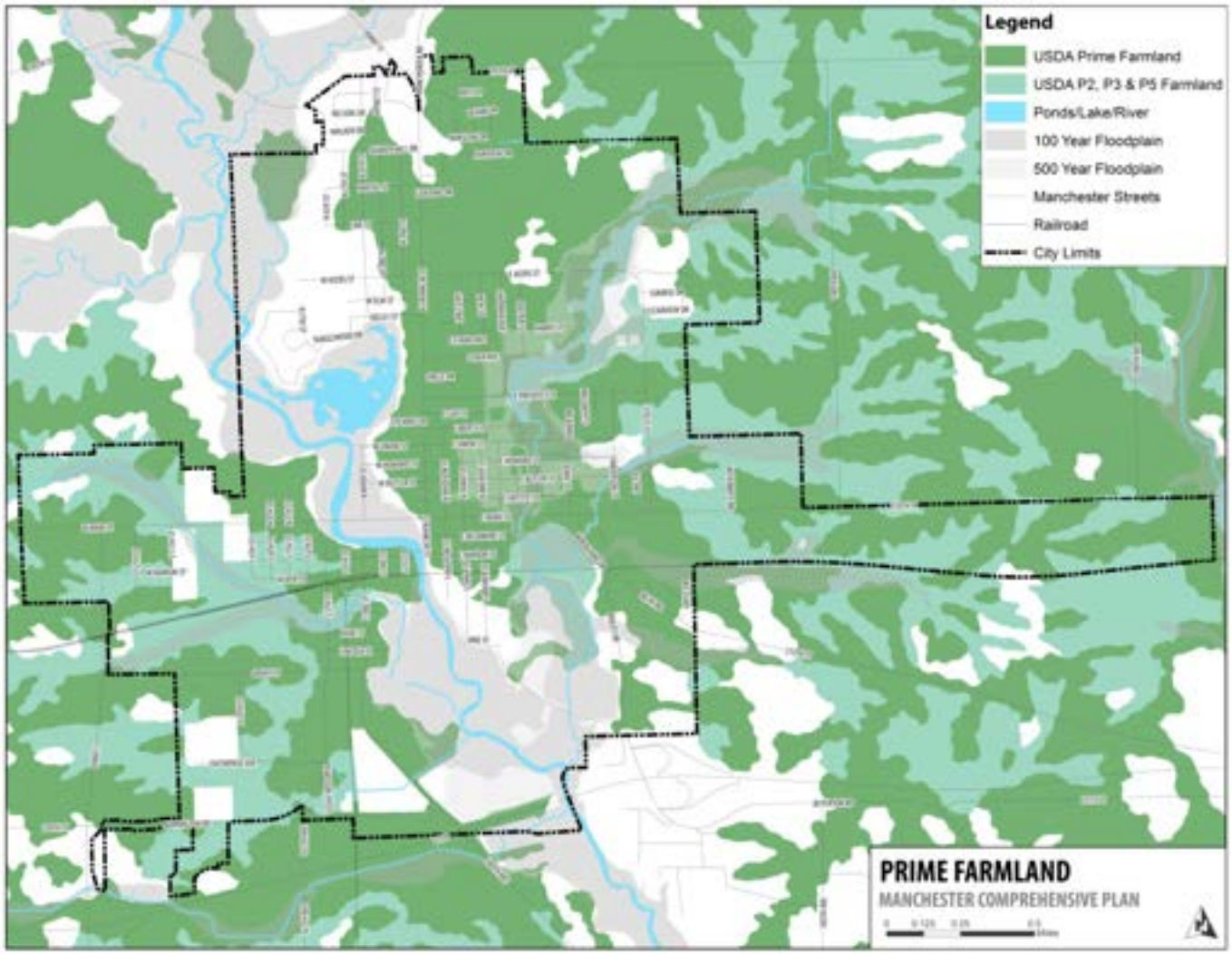

Figure 3.6 - USDA Prime Farmland in Manchester area

PRIME AGRICULTURAL LANDS

Agriculture is an important part of the Manchester's landscape and character, but prime agricultural lands can be threatened by development pressure as a city grows. The USDA defines certain soils as "prime" agricultural land and splits these prime lands into four classifications: The "prime" or P classification means that the area is prime farmland just as it is, without any special modifications or precautions needed. The P2, P3, and P5 classifications are used for areas that are considered prime farmland only if they are drained and/or protected from flooding.

Figure 3.6 shows Manchester's prime farmland (P, P2, P3 and P5), a portion of which is already developed. Relatively large areas of prime farmland in the northeast and eastern portions of the city are still undeveloped, with other smaller areas spread around the outskirts of the city limits. The goal to preserve prime farmland where possible is reflected in the land use plan of this document. The majority of land not marked as prime (P, P2, P3 or P5) on this map is land that has agricultural productivity limitations due to steep slopes or flooding, but may still be of local or regional importance.

4 Transportation

Smart land use planning requires an understanding of the relationship between land use and multi modal transportation systems. Manchester has implemented an aggressive street reconstruction program over the last 20 years, but there are still several areas that need improvement, as identified in a long-term street improvement plan.

TRANSPORTATION AND TRAFFIC ANALYSIS

Smart land use planning requires an understanding of the relationship between land use and multi modal transportation systems. A critical start to understanding this relationship is to examine the functionality of the existing street system. Manchester has implemented an aggressive street reconstruction program over the last 20 years, but there are still several areas that need improvement, as identified in a long-term street improvement plan.

EXISTING STREET CLASSIFICATION

In this section, Manchester streets are classified according to the US Department of Transportation Federal Functional Classification System. The classification system divides roadways into five categories, which are detailed below: interstates, principal arterials, minor arterials, collectors and local streets. Figure 3.6 maps the existing street classifications in Manchester. The City periodically recommends these designations to the Iowa Department of Transportation, who must review and accept the designations.

STREET CLASSIFICATION DEFINITIONS

INTERSTATES

Interstates serve national needs by connecting cities and allowing travel over multiple states. These roads offer high capacity and fast travel speeds.

MANCHESTER INTERSTATES:

None - The nearest interstate access is at the intersection of Interstate-380 and Highway 20, approximately 45 miles west of Manchester

PRINCIPAL ARTERIALS

Principal Arterials serve regional needs and connect major activity centers. These roads provide long distance connections and relatively high travel speeds with minimum interference to through movement.

MANCHESTER PRINCIPAL ARTERIALS:

- Highway 20
- Highway 13

MINOR ARTERIALS

Minor Arterials connect with and complement the principal arterial system by linking activity centers and connecting various parts of the city together. As a general rule, these streets are spaced at 0.5 to 1.0 mile intervals in developed urban areas.

MANCHESTER MINOR ARTERIALS:

- E Main Street
- W Marion Street
- New Street between E Acres Street and E Main Street
- East Union Street between Franklin Street and New Street
- Bailey Drive

COLLECTORS

Collector streets link neighborhoods together and connect them to arterials and activity centers. Collectors are designed for relatively low speeds (35 miles per hour and below), are typically 32 feet wide and provide unlimited local access.

MANCHESTER COLLECTORS:

- 210th Street
- S 3rd Street
- Jefferson Road
- Stiles Street
- E Acres Street
- Honey Creek Road
- 195th Street

LOCAL STREETS

Local Streets serve individual properties within residential or commercial areas. These streets provide direct, low-speed access for relatively short trips, and have the least stringent design standards. The remaining streets in Manchester (not listed above) are designated as local streets.

TRAFFIC CAPACITY ANALYSIS (LOS)

A capacity analysis compares the actual traffic volumes on a street segment with the design capacity of that segment. The ratio of volume over capacity (V/C) corresponds to a "level of service" (LOS) rating, which provides a rough qualitative measure of speed and smoothness of traffic flow. LOS categories are described as follows:

- **LOS A**: Free-flowing operation. Vehicles face few impediments to maneuvering. The driver has a high level of physical and psychological comfort. Minor accidents or breakdowns cause little interruption in the traffic stream. LOS A corresponds to a volume-capacity (V/C) score of 0 to 0.60.
- **LOS B**: A reasonably free-flowing operation. Maneuvering ability is slightly restricted, but ease of movement remains high. LOS B corresponds to a V/C score of 0.60 to 0.70.

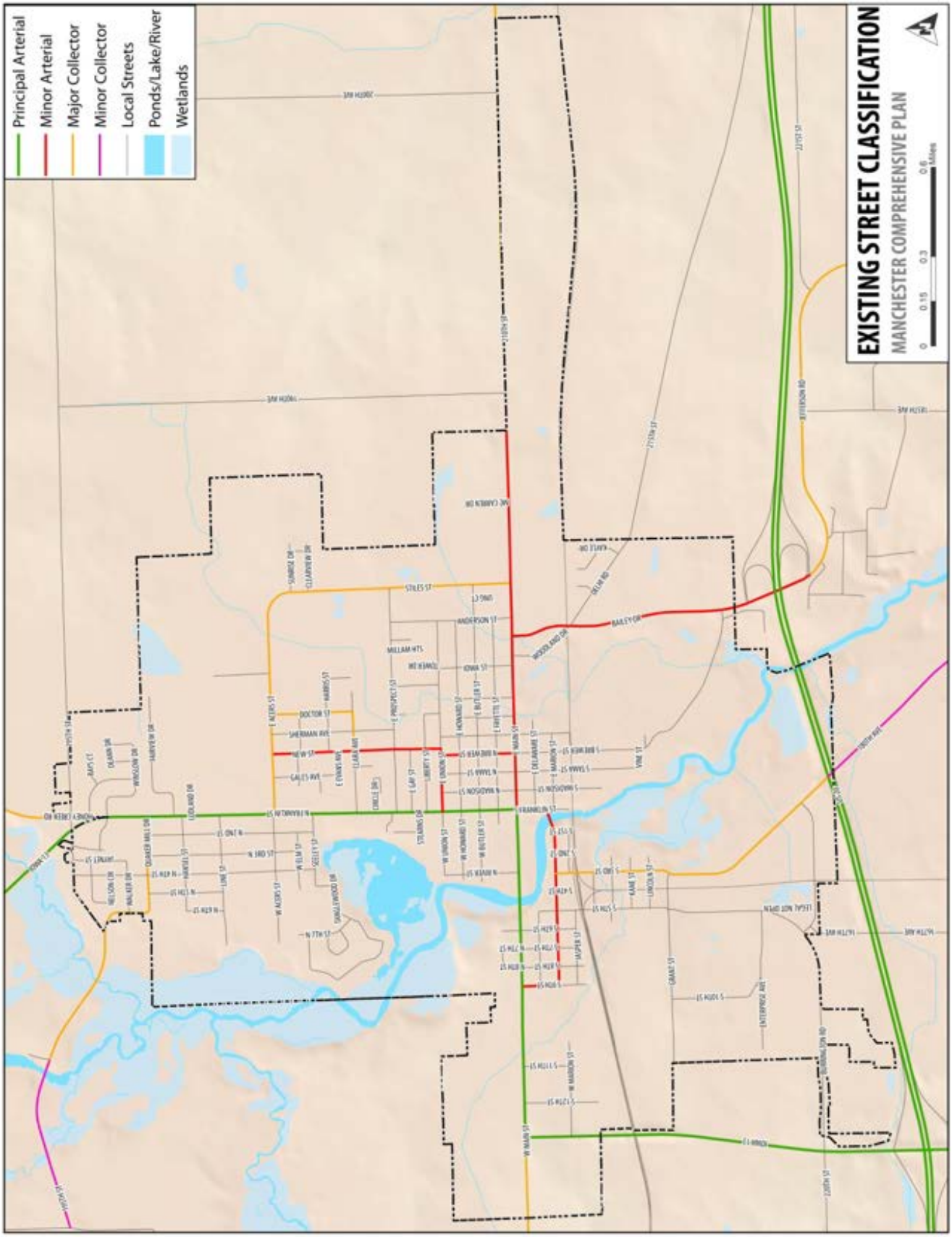

Figure 3.6 - Manchester's Existing Street Classification

Table 3.4: *Typical Traffic Capacity by Facility Type*

	Capacity at LOS D (VPD)		
	2-Lane	3-Lane	4-Lane
Minimal Access	12,500	16,500	25,400
Residential	12,300	16,250	25,300
Mixed Zoning	11,200	14,850	23,600
Central Business District	9,400	12,650	20,500

Source: RDG Planning & Design, 2010

- **LOS C**: Stable operation. Traffic flows approach the range in which traffic increases will degrade service. Minor incidents can be absorbed, but a local slowdown will result. LOS C corresponds to a V/C score of 0.70 to 0.80.
- **LOS D**: Borders on unstable traffic flow. Small traffic increases produce substantial service deterioration. Maneuverability is limited and comfort reduced. LOS D corresponds to a V/C score of 0.80 to 0.90.
- **LOS E**: Traffic is at full design capacity of street. Operations are extremely unstable because there is little margin of error in the traffic stream. LOS E corresponds to a V/C score of 0.90 to 1.00.
- **LOS F**: A breakdown in the system. Such conditions exist when queues form behind a breakdown or congestion point. This condition occurs when traffic exceeds the design capacity of the street. LOS F corresponds to a V/C score of above 1.0.
- Table 3.4 presents the capacity of various street sections at LOS D, the point at which congestion problems begin to occur. The analysis in Table 3.5 will compare traffic levels on Manchester streets to these identified capacities to determine existing deficiencies.

Cautions about the LOS System

Although the LOS system gives a rough measure of key street elements such as speed and traffic flow, LOS does not measure other important values including:

- Neighborhood preservation
- Environmental quality
- Economic vitality and access
- Energy conservation
- Efficient development patterns
- Transit and bicycle accommodation
- Pedestrian environment

Efforts to improve LOS at the exclusion of these other values have the potential to negatively affect the community and the overall travel experience. For example, low density land development patterns meant to improve traffic flow may simply spread

traffic over a larger area, resulting in longer driving distances and greater dependence on automobile travel. Widening roadways and adding lanes may improve the flow of traffic, but increased traffic speeds may diminish pedestrian safety.

While LOS is a useful tool, it should not be used to the exclusion of other values. The transportation system should serve the overall environment, not dominate it.

Operational Analysis

Table 3.5 provides the LOS rating of key segments of Manchester's street network, based on 2009* traffic counts conducted by the Iowa Department of Transportation. The capacity number is an average of road capacity based upon number of lanes, number of turn lanes and side friction (due to access drives or parallel parking). The estimated LOS should be used for comparative purposes rather than empirical evidence on the performance of street segments.

As indicated by the table, drivers in Manchester experience mostly LOS of "A". There are a few street segments rated at LOS "D", including: E Main Street between N Franklin Street and N Brewer Street; and N Franklin Street between Butler Street and Clara Avenue. There are no streets with an "E" or "F" rating, which indicates there are no major road capacity issues.

Table 3.5: *Performance of Key Street Segments, Manchester 2009*

Street Name	Section Description	Lanes/Land Use	Capacity (VPD)	2009 Count	V/C Ratio	Estimated LOS
US 20	West of Iowa 13	4/Mixed Use	23,600	5,700	0.24	A
	East of Iowa 13	4/Mixed Use	23,600	6,400	0.27	A
	East of Bailey Drive	4/Mixed Use	23,600	6,400	0.27	A
	West of Bailey Drive	4/Mixed Use	23,600	7,200	0.31	A
Iowa 13	South of US 20	2/Agriculture	12,300	4,060	0.33	A
	North of US 20 and South of Burrington Road	2/Mixed Use	11,200	5,300	0.47	A
	North of Burrington Road	2/Mixed Use	11,200	4,430	0.40	A
	South of Main Street	2/Mixed Use	11,200	3,860	0.34	A
	North of Quaker Mill Drive	2/Mixed Use	11,200	6,600	0.59	A
	North of Winslow Drive	2/Mixed Use	11,200	4,260	0.38	A
W Main Street	West of N Franklin Street and east of N River Street	4/Central Business District	20,500	10,500	0.51	A
	West of N River Street and east of Legion St	2/Mixed Use	11,200	10,000	0.89	D**
	Between S 6th Street and S 12th Street	2/Mixed Use	11,200	8,900	0.79	C
	Between S 12th Street and Iowa 13	2/Mixed Use	11,200	5,100	0.46	A
	West of Iowa 13	2/Mixed Use	11,200	1,780	0.16	A
E Main Street	East of N Franklin Street and west of N Brewer Street	2/Central Business District	9,400	8,100	0.86	D
	East of N Brewer Street and west of Bailey Drive	2/Mixed Use	11,200	6,700	0.60	A
	East of Bailey Drive to west of Country Ridge Apartments	2/Mixed Use	11,200	6,500	0.58	A
	East of Country Ridge Apartments	2/Mixed Use	11,200	2,240	0.20	A
N Franklin Street	North of Main Street and South of Butler Street	4/Central Business District	20,500	9,200	0.45	A
	North of Butler Street and South of Union Street	2/Mixed Use	11,200	9,200	0.82	D
	Between N Union Street and Clara Ave	2/Residential	12,300	10,100	0.82	D
	Between Clara Ave and Seeley Street	2/Residential	12,300	9,300	0.76	C
	Between E Acres Street and Seeley Street	2/Residential	12,300	7,400	0.60	A
	Between E Acres Street and Quaker Mill Drive	2/Mixed Use	11,200	7,900	0.71	C
S Franklin Street	South of Main Street and North of W Marion Street	4/Central Business District	20,500	5,300	0.26	A
	South of W Marion Street	3/Central Business District	12,650	1,925	0.15	A
W Marion Street	West of S 1st Street	2/Mixed Use	11,200	4,430	0.40	A
	East of S 1st Street*	2/Mixed Use	11,200	6,400	0.57	A
	West of S. 7th Street	2/Residential	12,300	960	0.08	A
	West of S 3rd Street*	2/Residential	12,300	4,670	0.38	A

Street Name	Section Description	Lanes/Land Use	Capacity (VPD)	2009 Count	V/C Ratio	Estimated LOS
Stiles Street	South of Butler Street	2/Mixed Use	11,200	2,540	0.23	A
	South of Prospect Street*	2/Mixed Use	11,200	2,120	0.19	A
	North of Prospect Street*	2/Mixed Use	11,200	1,840	0.16	A
Jefferson Road	US Hwy 20 Junction	2/Mixed Use	11,200	3,090	0.28	A
	South of Hwy 20	2/Residential	12,300	2,500	0.20	A
Bailey Drive	South of Main Street	2/Mixed Use	11,200	3,740	0.33	A
S 3rd Street	US Hwy 20 Junction	2/Mixed Use	11,200	970	0.09	A
	North of US Hwy 20*	2/Mixed Use	11,200	1,380	0.12	A
	South of Marion Street	2/Mixed Use	11,200	2,390	0.21	A
Honey Creek Road	North of 195th Street	2/Mixed Use	11,200	2,050	0.18	A
210th Street	West of 190th Ave	2/Mixed Use	11,200	2,240	0.20	A
Quaker Mill Drive	West of N Franklin Street	2/Mixed Use	11,200	730	0.07	A
Acres Street	East of N Franklin Street	2/Mixed Use	11,200	3,250	0.29	A
Clara Ave	East of New Street	2/Mixed Use	11,200	620	0.06	A
N Brewer Street	North of E Main Street	2/Mixed Use	11,200	1,630	0.15	A
E Union Street	East of N Franklin Street*	2/Residential	12,300	780	0.06	A
New Street	North of E Union Street	2/Residential	12,300	1,430	0.12	A
	Between Prospect Street and Gay Street*	2/Residential	12,300	1,720	0.14	A
	Between Prospect Street and Acres Street*	2/Residential	12,300	500	0.04	A

Source: 2009 Traffic Counts from Iowa Department of Transportation; *Traffic Counts are from year 2005 for these street segments
**W Main Street from River Street to 6th is nearly all bridge - there are few turning movements.

5

Parks and Recreation

This chapter examines Manchester's existing park and recreation system, including all city-owned and operated recreation areas and other parks with public access.

PARKS AND RECREATION

Manchester's diverse park and recreation system is a vital component of community life. As the community grows, this system must expand to maintain a high level of recreational service.

FACILITY ANALYSIS

This chapter examines Manchester's existing park and recreation system, including all city-owned and operated recreation areas and other parks with public access. The following components are analyzed:

- Current levels of service in the existing park system
- Gaps in service coverage
- An inventory of existing parks

Park facilities are evaluated below according to three standards:

- **Park Classification:** Facilities are classified according to the size of the area they serve.
- **Geographic Distribution:** The service radius of each facility is analyzed to identify geographic gaps in service.
- **Population Service Standards (NRPA):** Manchester's current system is analyzed according to National Recreation and Park Association (NRPA) standards for the provision of park and recreation facilities.

PARK FACILITY CLASSIFICATION

Manchester's recreation and park areas are classified according to the National Recreation and Park Association (NRPA) classification system. Table 3.1 lists Manchester's park facilities by category and Figure 3.1 shows the location of these park facilities. The text below gives an overview of Manchester's total park space, followed by descriptions of each park classification.

OVERVIEW: TOTAL PARK SPACE IN MANCHESTER

- 44 acres of parkland in the Manchester city limits (excluding Beckman Sports Complex and High School Athletic Fields)
- 83 acres of parkland including Sports Complex and Athletic Fields
- Approximately 8.5 acres of parkland per 1,000 residents (excluding Beckman Sports Complex and High School Athletic Fields)
  - Traditional park area standards set by the National Recreation and Park Association (NRPA) suggest 10 acres of parkland per 1,000 residents. Manchester does not meet this standard.

PARK CLASSIFICATIONS

Mini Parks

- Purpose: Fulfill open space needs or provide niche recreation opportunities
- Size: Less than 1 acre
- Service Radius: Less than 1/4 mile
- Discouraged by many cities, due to their relatively high maintenance costs and limited use
- Manchester Example: Riverfront Park and Gazebo

Neighborhood Parks

- **Purpose**: Serve as basic unit of a community's park system, providing a recreational and social focus for residential areas; Accommodate informal recreational activities, both active and passive
- Size: 5-10 acres
- Service Radius: ¼ - ½ mile (easy walking distance)
- Manchester Examples: Seibert Park, Baum Memorial Park, Denton Park, and Central Park (Several of these do not meet the typical neighborhood park size)
- Total Acreage in Manchester: 10 acres; 1.9 acres of per 1,000 residents
  - NRPA Standards: 1-2 acres of neighborhood parkland per 1,000 residents. Manchester does meet the NRPA standard.

Note: Although schools can serve as neighborhood parks, they are not considered in this analysis.

Community Parks

- Purpose: Meet diverse community-based recreation needs, preserve significant natural areas and provide space for larger recreation facilities
- Size: 30-50 acres
- Service radius: ½ mile - 3 miles.
- Often include a special attraction that draws people from a larger area, such as a swimming pool, pond or lake, ice skating rink, trails, special environmental or cultural features, or a specialized sports complex.
- Manchester Examples: Tirrill Park and Schram Park (smaller than typical community parks.)
- Total Acreage in Manchester: 34.1 acres; 6.6 acres per 1,000 residents (Excludes Beckman Sports Complex)
  - NRPA Standards: 5- 8 acres per 1,000 residents; Manchester does meet the NRPA standard for community parks.

School Parks

- Purpose: Help meet neighborhood park needs, particularly in areas not served by a neighborhood park
- Manchester Example: West Delaware High School Athletic Fields

Special Use Park

- Purpose: Serve a single use, such as a sports complex or cultural facility
- Manchester Examples: Aquatic Center and Beckman Sports Complex

Table 3.1: *Park Systems Analysis, Manchester, 2010*

Facility	Location	Total Acres	Playground Areas	Playing Fields	Courts	Amenities
COMMUNITY PARKS						
Tirrill Park	West Union Street	10.2	Yes	No	Tennis Courts	Large pavilion, band shell, formal gardens and fountain, restrooms, lighted tennis courts, grills, picnic tables, electricity; two shelters (Large shelter has working fireplace); bikeway/walkway and fishing
Schram Park	Off of Hwy 20	23.9	No	No	No	Shelter, Trail, Boat Access, Riverfront, Lake, Fishing, Picnic Areas, Grills, Open Space
Total Community Parks		34.1				
Meets NRPA Standard?		Yes*				
NEIGHBORHOOD PARKS						
Baum Park	Anderson and E Butler Street	4.5	Yes	No	Basketball Court	Shelter, grills, restrooms, picnic area, paved bikeway/walkway, garden and open green space
Central Park	N Brewer and E Butler Street	1.5	Yes	No	Basketball and Tennis Courts, Volleyball Court	Playground area, shelter, restrooms, picnic area, lighted basketball and tennis courts, volleyball court
Denton Park	W Main and N 7th Street	1.5	Yes	No	No	New playground, open air shelter, grills, picnic tables, handicap-accessible restrooms, Gazebo, Love Cabin, picnic areas
Seibert Memorial Park	Shawver Dr.	1.9	Yes	No	Volleyball and Basketball Court	Playground area, playing field, restrooms, shelters, grills, horse shoe pit, volleyball court, open space, memorial hall
Total Neighborhood Parks		9.4				
Meets NRPA Standard?		Yes*				
MINI PARKS						
Riverfront Park and Gazebo	S Franklin and W Mario Street	0.7	No	No	No	Bikeway/Walkway along Maquoketa River, gazebo, flower gardens, fishing
Total Mini Parks		0.7				
Sub-Total Parks		44.2				
Meets NRPA Standard?		No*				
SCHOOL PARKS						
High School Athletic Fields		9.8		Baseball field and track		Play areas
Total School Parks		9.8				

Facility	Location	Total Acres	Playground Areas	Playing Fields	Courts	Amenities
SPECIALITY PARKS						
Aquatic Center	Tirrill Park				Sand Volleyball	3 Water Slides, Diving Board, Zero Depth Entry, Spray Fountains, Sand Volleyball, Sunbathing Area, Concessions
Beckman Sports Complex	Stiles and Acres Street	29.1	No	4 Softball/ Baseball		Parking, concession stands, restrooms, picnic shelter
Total Specialty Parks		29.1				
Total Parks (including school and special use parks)		83.1				

*Based on 2010 population of 5,179

Baum Park

Denton Park

Central Park

Tirrill Park

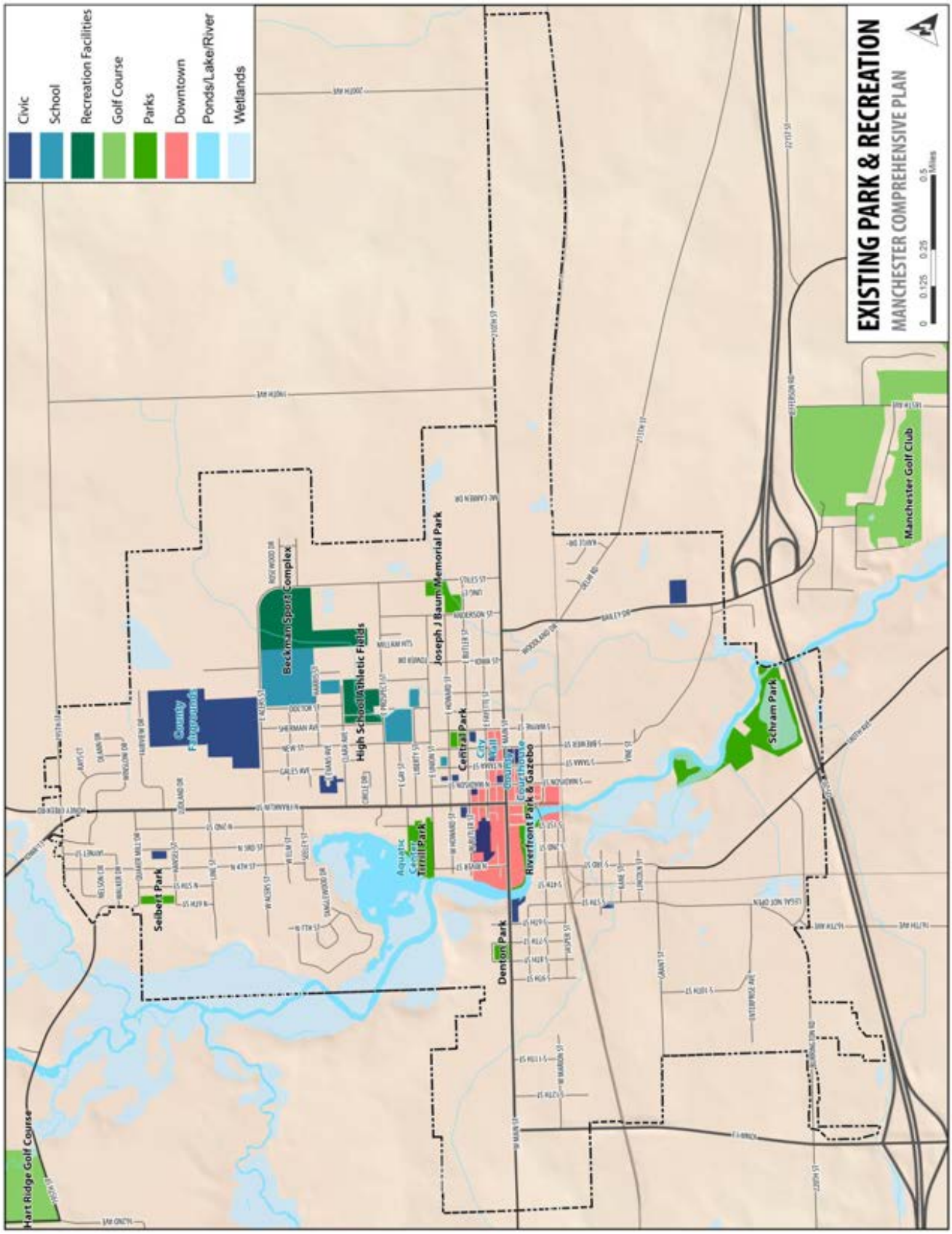

Figure 3.1 - Existing Park and Recreation Facilities in Manchester

LEVEL OF SERVICE ANALYSIS BY PARK FACILITY CLASSIFICATION

Recreational opportunities help make a community and attractive place to live, work and invest. As outlined earlier in the Plan, Manchester's projected population for 2030 is 5,722. Table 3.2 identifies the additional park needs associated with this population increase, based on local and national standards. This analysis assesses park needs for the year 2030 according to two different methodologies:

- Park needs based on existing service levels.
  - This methodology suggests a need for an additional 1.5 acres of neighborhood parks and 3.7 acres of community parks, for a total of 5.2 acres additional parkland.
- Park needs based on an elevated level of service (LOS) that improves recreation opportunities for residents.
  - This methodology suggests a need for 7.8 acres of additional neighborhood parks and 11.7 acres of community parks, for a total of 19.5 acres additional parkland.

Several factors must be considered when determining a community's future park land needs, including gaps in service coverage and new community demands. Please note that this analysis does not cover physical factors such as geographic location of parks, accessibility, service area, and park facilities.

GEOGRAPHIC DISTRIBUTION

In order to provide equitable park service for all citizens, park facilities should be well distributed throughout all geographic areas. Figure 3.2 illustrates the location of Manchester's park and recreation facilities, as well as the service radius of each park. Each park classification has a different service radius, ranging from less than 1/4 mile for mini parks with limited use, up to 3 miles for community parks with a wider draw. (Special use parks often serve much larger areas, and are therefore not evaluated according to a specific service radius.)

Figure 3.2 illustrates that most developed areas of Manchester are served by existing parks. Residential areas South of Main Street are underserved and have limited accessibility to neighborhood parks because of physical barriers like Highways and the River. New residential areas along the east, northeast and southwest of town will require more neighborhood parks as they develop.

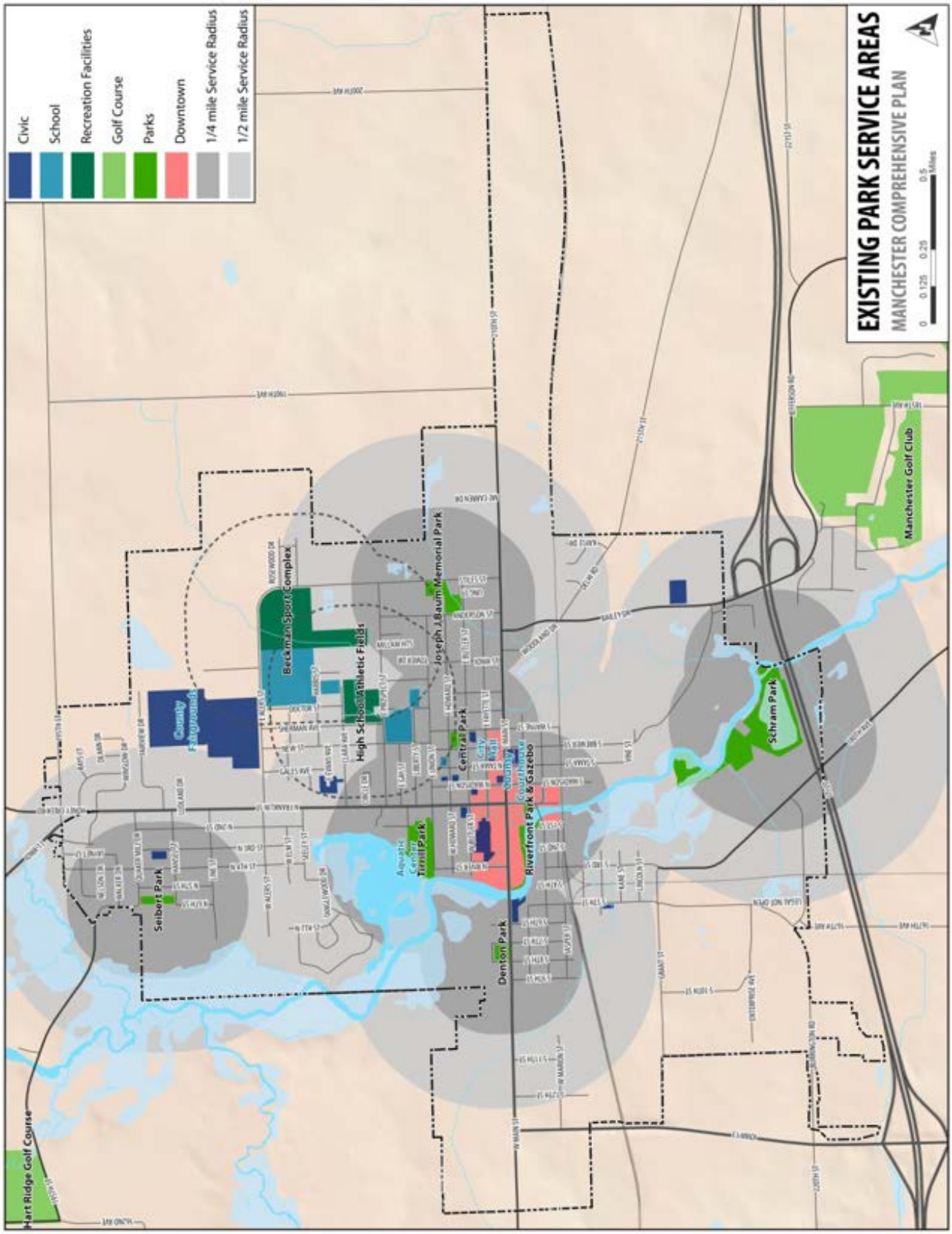

Figure 3.2 - Geographic service coverage of Manchester's existing neighborhood and community parks.

Table 3.2: *Future Parkland Needs (In Acres)*

Park Type	Existing	Acres per 1,000 Residents	2030 Need* (Existing Level of Service)	Additional Parkland Needed	Acres per 1,000 Residents (Elevated LOS)	2030 Need* (Elevated LOS)	Additional Parkland Needed
Neighborhood Parks	9.4	1.9	10.9	1.5	3.0	17.2	7.8
Community Parks	34.1	6.6	37.8	3.7	8.0	45.8	11.7
Mini Parks	0.7	0.1	0.8	X	X		
Total Park and Recreation Area	**44.2**	**8.6**	**49.5**	**5.2**	**11.0**	**63.0**	**19.5**

Source: RDG Planning & Design, 2010
*Based on 2030 Population of 5,722

Table 3.3: *Parks and Recreation Services in Relation to Population, Manchester*

Facility Type	NRPA Standard	Existing Quantity	Present Need	2010 Surplus (Deficit)	2030 Need	2030 Surplus (Deficit)
Baseball Fields	1 per 3,000	4	2	2	2	2
Softball Fields	1 per 3,000	3	2	1	2	1
Basketball Courts	1 per 5,000	4	2	2	2	2
Football Fields	1 per 20,000	0	0	0	0	0
Soccer Fields	1 per 10,000	0	0	0	0	0
Golf Courses	1 9-hole standard per 25,000 1 18-hole standard per 50,000 1 driving range per 50,000	0	0	0	0	0
Picnic Shelters	1 per 2,000	9	3	6	3	3
Playgrounds	1 per 2,000	5	3	2	3	2
Running Track	1 per 20,000	0	0	0	0	0
Swimming Pools	1 per 20,000	1	0	1	0	1
Tennis Courts	1 per 2,000	4	3	1	3	1
Horseshoe Pits	1 per 7,500	1	0	1	0	1
Sand Volleyball Courts	1 per 5,000	3	1	2	1	1

Source: RDG Planning & Design, 2010

Population Service Standards

The National Recreation and Park Association (NRPA) establishes national standards for park facility service, according to local population. Table 3.3 summarizes an evaluation of Manchester's park facilities based on these standards. Projections for future demand are included in this evaluation, based on a 2030 population of 5,722. Major findings of this analysis include the following:

- Manchester has a higher than average supply of baseball/softball fields, which provide an economic draw for the community.
- Manchester has a higher than average supply of many facilities, including playgrounds and picnic shelters. The 2030 projection shows Manchester maintaining this superior level of service.
- The projections for facility needs in 2030 are identical to current facility needs. This is the case because NRPA standards for these services are in terms of large popula-

tion increments (5,000 or 10,000), therefore the projected increase in population of 543 is not large enough to increase the facility need. However, new recreation facilities may be needed over the next 20 years if existing facilities outlive their use or new needs are identified, such as the increasing desire for soccer fields.

PARK SITE ASSESSMENT

Continued investment in the existing park system is needed to ensure its status as a major community asset. While a detailed park analysis is beyond the scope of this plan, this section identifies preliminary needs at each park, based on feedback from park staff. To address these needs, Manchester should develop a community-wide park and recreation plan, which will prioritize and budget for park improvements through a participatory public process.

PARK SITE ASSESSMENT AND PROPOSED IMPROVEMENTS

Baum Park

- Condition: Good
- Needs:

  Shelter upgrades

  Restroom upgrades

Schram Park

- Condition: Good; New
- Needs:

  Active playgrounds

  Boat ramp for pond

  Paved Parking

  Other amenities as determined by public

Schram Park

Tirrill Park

- Condition: Good; heavily used
- Needs: Connection to trails

Denton Park

- Condition: Fair; Park has newer shelter and playground areas
- Needs:

  Gazebo improvements

  More open space

Seibert Park

- Condition: Good
- Needs: Additional landscaping

Central Park

- Condition: Fair; well located
- Needs:

  Address poor condition of shelter

  Replace roofs on restrooms

  Resurface Tennis Courts

Beckman Sports Complex

- Condition: Excellent; heavily used; Ample seating
- Needs:

  Larger Concession stand

  Paved parking lot (long term)

Denton Park

6

Infrastructure

This section presents an inventory and evaluation of Manchester's infrastructure systems, including water distribution and storage, sanitary sewer collection and treatment, storm water conveyance, and transportation. Considerations for growing these systems are also covered.

INFRASTRUCTURE INVENTORY AND ANALYSIS

This section presents an inventory and evaluation of Manchester's infrastructure systems, including water distribution and storage, sanitary sewer collection and treatment, storm water conveyance, and transportation. Considerations for growing these systems are also covered.

WATER SYSTEM

WATER SUPPLY AND DISTRIBUTION

The City of Manchester has three water towers that provide a total of 1.05M gallons of storage. There are five water wells in Manchester, and three of those are currently on-line. When all five wells are on-line, they can support a flow of 2,525 gallons per minute. Water is chlorinated for disinfection and fluoridated for dental health (standard municipal practices). The distribution system (Figure 6.1) has piping ranging from 4" in older parts of town, to between 6" to 16" diameter in newer or recently upgraded areas.

Evaluation

- Condition of Water Wells: Good; No indication of reduced capacity
- System Capacity: Adequate capacity for production and storage; efforts are ongoing to improve distribution

Recommendations

- Upgrade aging and small (less than 6" diameter) water mains in older parts of town
- Continue routine maintenance and treatment

Growth Considerations

- As the distribution system expands, elevations must be examined to determine if system pressure will be adequate in growth areas

SANITARY SEWER SYSTEM

WASTEWATER COLLECTION

Manchester's wastewater collection system covers approximately 4 miles and has service lines ranging from 6 to 18 inches in diameter. The system has 0.3 miles of 6" lines, 21 miles of 8", 5.1 miles of 10", 2.7 miles of 12", 2.2 miles of 15" and 0.2 miles of 18" service lines. All new installations are PVC, but older sections of the city still have clay piping. The system is kept in good condition by cleaning and jetting 40-50% of the lines every year. 75% of service lines are at minimum grades.

Evaluation

- Maintenance: Adequate maintenance and replacement service; Some lines are difficult to maintain due to location

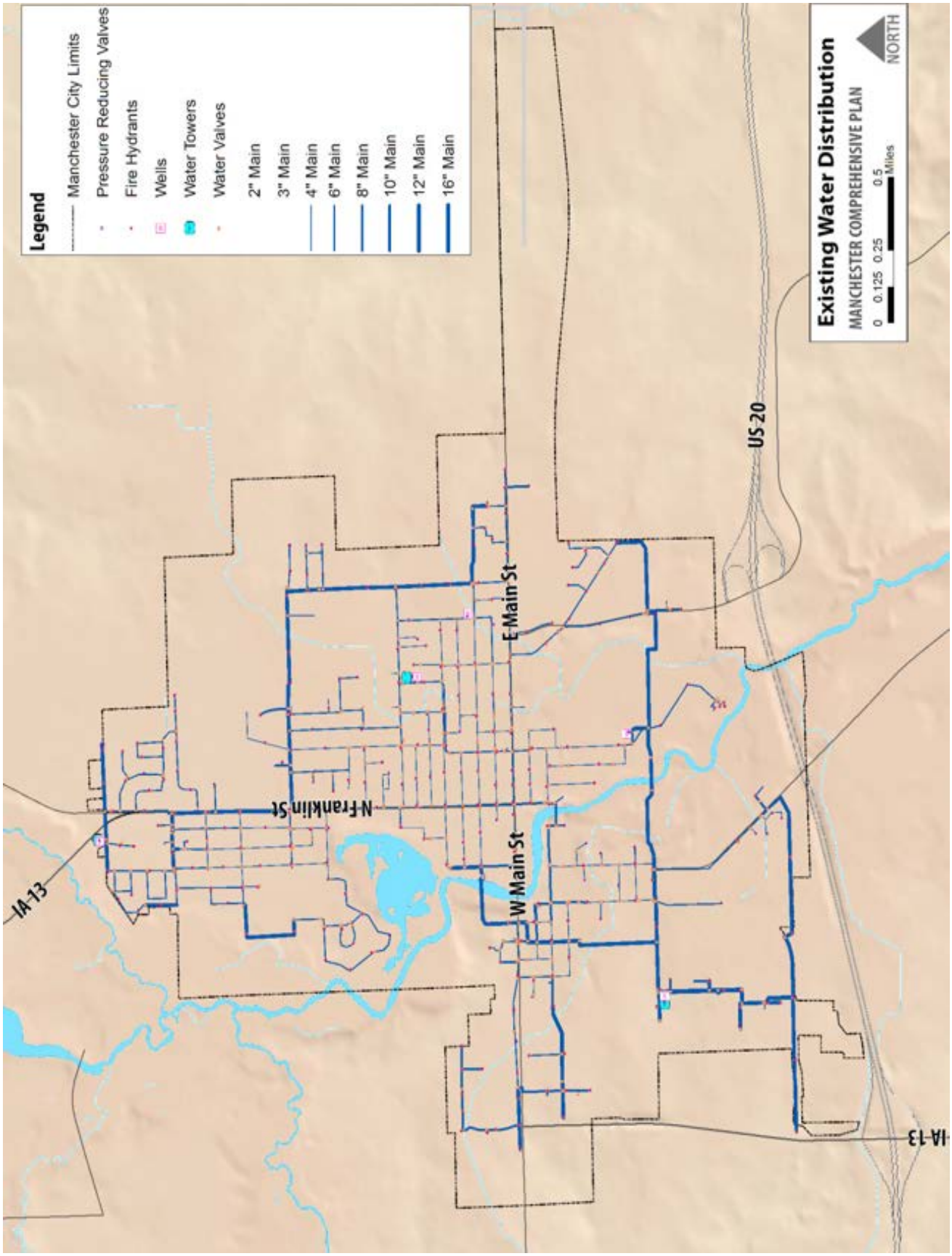

Figure 6.1 - Manchester's Existing Water Distribution System, including piping, water towers, and valves.

Recommendations

- Perform a Trunk line capacity study from the north half of city to the Waste Water Treatment Plant
- Re-line or replace trunk line from West Union to Seeley Street

Growth Considerations

- Gravity service may be challenging in some growth locations due to topography
- Existing main and trunk line capacities should be reviewed for large developments or new industrial users

WASTEWATER TREATMENT PLANT

Manchester's Wastewater Treatment Plant, located at 541 S. Brewer Street, was designed to provide adequate, flexible treatment capacity through the year 2030. The plant performs screening, grit removal, aeration, clarification, disinfection and sludge digestion. There are two aerobic digesters, four pumps and one sludge holding tank.

The facility completed multiple upgrades in 2010, including a new aeration basin, new control building, and an upgrade from chlorine disinfection to UV light disinfection. These improvements allow for additional treatment capacity, but future expansion may be necessary if new water-intensive industry develops in Manchester. Current capacity is 986,000 gallon per day, with an average flow of 700,000 gallon per day.

Evaluation

- Condition: Plant looks new, Recently remodeled
- Operation: Plant is operating and removing pollutants well

Recommendations

- Replace plant effluent/outfall pipe from the U.V. disinfection manhole to the River
- Keep equipment maintained and in good condition
- Address potential inflow and infiltration problems for Sewer Collection System

Growth Considerations

- New industries, especially "wet" processes, may require plant expansion

LIFT STATIONS

The wastewater collection system has eight lift stations. Two stations have been upgraded recently and the remaining stations will be improved or eliminated as their service life expires. Areas with eliminated stations will convert to gravity service.

Evaluation

Grayson Subdivision Lift Station @ Kayle Drive

- Condition: Fair, 30 years old
- Capacity: Low flow, pumps are adequately sized

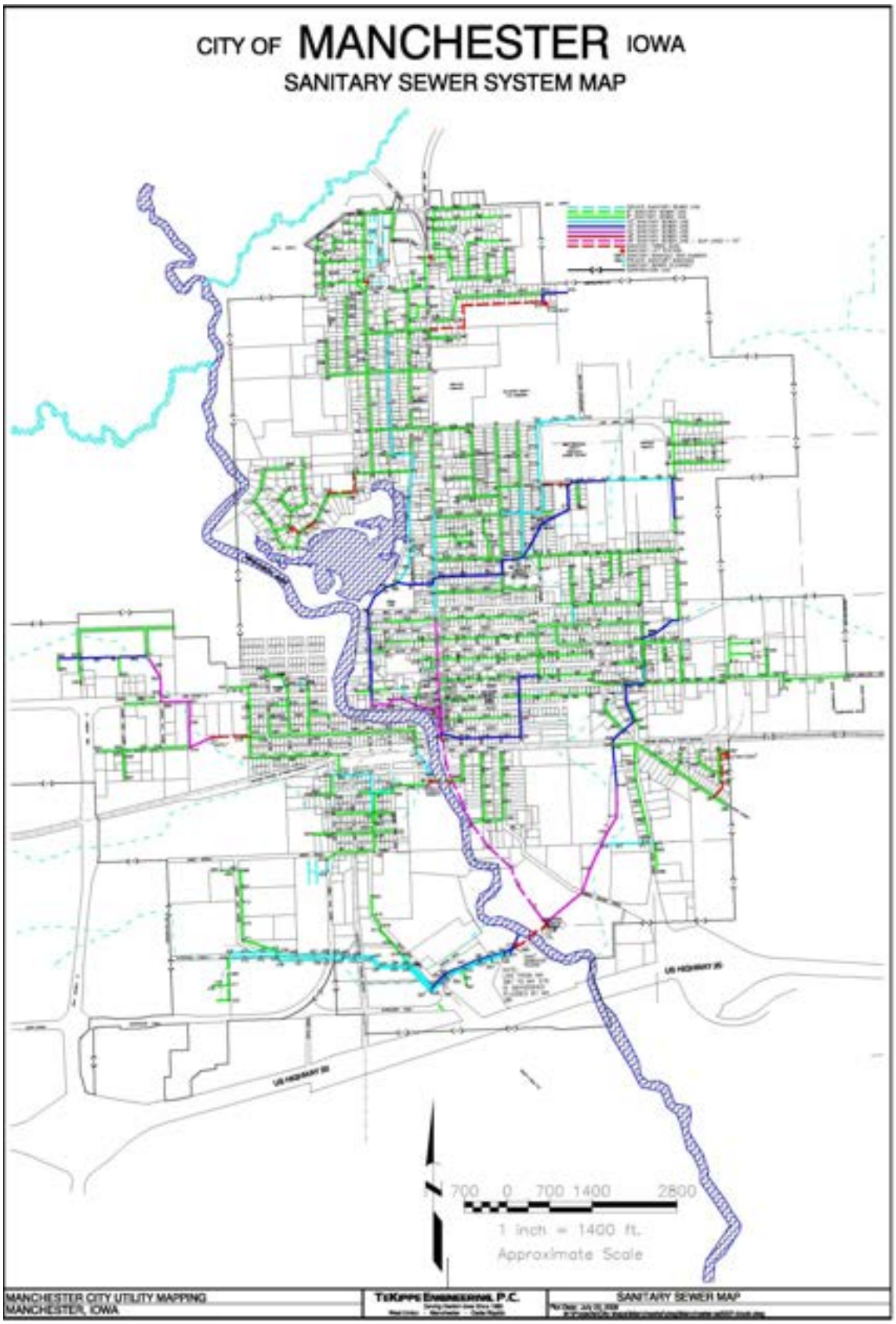

Figure 3.4 - Manchester's Existing Sanitary Sewer System

- Needs:

  Provide new force main piping and valves in valve vault

  If development occurs to the east, this building should be replaced or eliminated and replaced with a gravity sewer

Industrial Park Lift Station @ S. 3rd Street and Schram Drive

- Condition: Excellent (aside from flood repair needs, see below), Rebuilt in 2007
- Capacity: Adequate size
- Needs:

  Perform flood restoration to control panel

Turkey Timber Lift Station @ S.1st Street

- Condition: Excellent, Rebuilt in 2007, Nearby manholes and sewer pipes were replaced in 2010
- Capacity: Adequate size for dry weather
- Needs:

  Experiences moderate inflow/infiltration - More research is needed to find resolution for this issue

Motel Lift Station @ W. Marion Street near Super 8 Motel

- Condition: Fair, 24 years old
- To be upgraded with W. Marion Street extension project in 2011
- Needs:

  Control panel is un-housed; A building is needed

  Raise elevation of wet well and valve vault

  Note: Both of these needs are being addressed as part of the West Marion Street Extension project, scheduled for completion in the Fall of 2011

Fairview Subdivision Lift Station @ Fairview Drive

- Condition: Good
- Capacity: Very low flow, pumps are adequate
- Needs:

  Phase converter seems to be causing one pump to malfunction

Schulte Subdivision Lift Station @ N. Franklin Street

- Condition: Functional, 35 years old
- Capacity: Too small for current size of subdivision - Should be expanded
- Needs:

  Install a bigger wet well and pumps on the west side of N. Franklin Street to accommodate subdivision growth

Nelson Trailer Court Lift Station @ N. 4th Street

- Condition: Functional, 40 years old

- Capacity: Low flow
- Needs:

  Replace cast iron piping in the wet well and raise the float switch hanger/electrical junction box

Tanglewood Subdivision Lift Station @ Tanglewood Drive

- Condition: Fair, over 30 years old
- Capacity: Pumps are adequate
- Needs:

  Finish new force main piping in valve vault

  Consider replacing the building

STORMWATER COLLECTION SYSTEM

STORM DRAINAGE SYSTEM

Manchester covers approximately 3,100 acres within the 176,000 acre Maquoketa watershed. Manchester's comprehensive storm sewer system is designed in newer areas to convey a 5-yr rain event, with safe overflow paths for larger (100-yr) events. In older areas, some storm sewers are designed only for a 2-year event, which results in flooded streets during 5-year events.

Evaluation of Stormwater Collection System

- Condition: Fair, Retention north of E Acres Street is positive step in dealing with stormwater in the drainage way
- FEMA buyouts in the floodway have had a positive impact on stormwater collection. The reversion of these properties to greenspace increases infiltration and slows runoff, thereby reducing the strain on the collection system.
- Issues:
  - Localized Storm Sewer backups and surcharges occur in some locations during large events
  - Private ownership of most dry runs creates maintenance and public access issues
  - Nelson Trailer Ct. area has drainage problems due to lack of capacity
  - Addition of impervious groundcover creates capacity issues in older areas of town

Recommendations

- Continue to update stormwater system as streets are redone
- Make functional improvements to dry runs and the river area

Growth Considerations

- Capacity of existing facilities should be reviewed prior to connection to new facilities, even after meeting detention requirements

- Discharge of detention facilities directly to open drainage channels will help prevent overload for existing facilities
- To mitigate capacity issues, encourage new detention and retention facilities to exceed performance requirements by increasing detention and lowering release rates.

REGIONAL DETENTION FACILITIES

Manchester has only one regional detention facility, Cornerstone Pond, located near the corner of Stiles and E Acers Streets. Cornerstone Pond was constructed in 2009 as a joint project of the City, Delaware County Fairgrounds, and what is now Cornerstone Baptist Church. The culverts under E Acers St previously overflowed during major rain events, but can now detain a 25-yr event, and delay a 50-yr or greater event. New subdivisions feature smaller retention basins.

The primary candidate for the next major regional detention facility is a channel on the west end of town, which crosses under N 13th St near W Howard St, then under W Main St and the railroad before connecting to the Maquoketa River. This channel drains over one square mile before entering City Limits. The channel was recently modified to create a small detention pond for a commercial development near Lextron, but more modifications would be needed to serve the larger region.

CONSIDERATIONS FOR THE FUTURE

Additional facilities north of the railroad would be helpful for managing stormwater, but available land in that area is considered prime commercial real estate and thus may be difficult to obtain at a reasonable price.

A main water channel runs along the south side of Enterprise Avenue and the north side of Schram Drive. This channel has not been a major problem in the past, but has the potential to effect a large portion of established industrial properties.

A minor dry run with no detention facilities crosses Stiles Street north of E Butler Street and flows through Baum Park, but because it is a minor waterway, it is a low priority for detention.

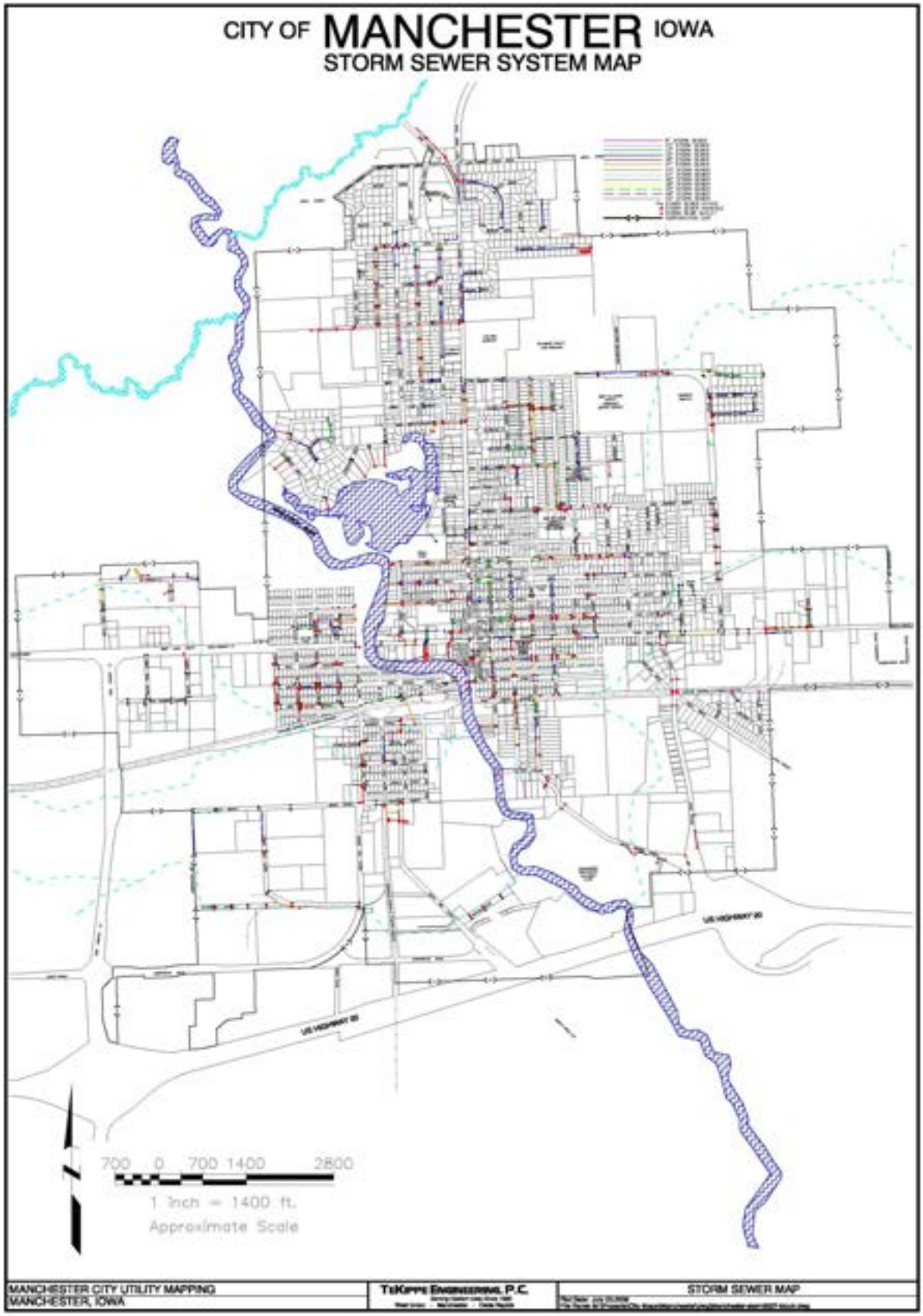

Figure 3.5 - Manchester's Existing Storm Sewer System

7 *Public Facilities*

Manchester's public facilities house a wide variety of services, from police protection to library services. The following section presents an inventory and evaluation of these facilities, and proposes changes that may improve their service to the community. The evaluations are based on survey results from facility operators and/or city staff. Additional research and public participation may be needed to determine Manchester's priority recommendations.

PUBLIC FACILITY INVENTORY AND ANALYSIS

MANCHESTER CITY HALL

CITY HALL OVERVIEW

Location	208 East Main Street; Downtown
Age	Built in 1885
Size	5,250 sq ft; (11,700 sq ft with police department)
Functions	City Hall, Council Chambers, Offices for city staff and elected officials, Conference Rooms, Records Storage, Water Department offices, lab, and equipment testing
Parking	8 stalls in garages; On-Street Parking
Facility Features	Bricks and Mortar Structure, Three Stories, Handicap Accessible,
Staff	6 administrative staff, including city manager

CITY HALL EVALUATION AND RECOMMENDATIONS

Facility Condition	Average to Poor
Assets	Location, Adequate Space for Operations
Challenges	Limited Parking Limited Functionality of Upper Floors (not heated) Poor Building Condition
Recommendations	Enable better use of the upper floors Install Elevator Add Foyer for front office Replace windows on the 2nd and 3rd floors Install new flooring throughout the 1st floor Remodel 2nd and 3rd Floors

POLICE DEPARTMENT

POLICE DEPARTMENT OVERVIEW

Location	208 East Main Street; Adjacent to City Hall
Size	6,724 Sq Ft
Functions	Provides office/work space for officers and staff; communication center; storage; Exercise area (for officers); meeting room; officer training
Parking	3 on-street spaces in front of building
Facility Features	Brick Masonry Building; Three Stories; Handicap Accessible on First Floor
Staff	9 officers (including 1chief officer); Animal control officer, Administrative assistant, Dispatcher, Chief Dispatcher

POLICE DEPARTMENT EVALUATION AND RECOMMENDATIONS

Facility Condition	Average
Assets	Newly remodeled bathroom and communications center Updated Squad Room and Chief's Office Attached Garage; Great Location
Challenges	Department outgrowing space Need more security
Recommendations	Update Electrical, Heating and Cooling systems Add storage space Increase handicap accessibility Consider a new facility in the long term

VOLUNTEER FIRE DEPARTMENT

FIRE DEPARTMENT OVERVIEW

Location	400 East Main Street
Age	Built 1978; Remodeled 2008
Size	10,880 Sq Ft
Functions	Truck and Equipment Storage, Training, Meeting Room, Offices
Parking	928 Sq Ft, off-street parking adjacent to building; 6,460 sq.ft across alley
Facility Features	Single Story Brick and Concrete Structure; Metal Roof; 10 Garage Bays; Handicap Accessible The department covers 68 square miles which includes City of Manchester, Delaware Township and parts of Coffins Grove, Prairie and Milo.

FIRE DEPARTMENT EVALUATION AND RECOMMENDATIONS

Facility Condition	Excellent
Assets	Emergency Power Generator
Recommendations	Replace the 5 original garage doors Acquire more property for future expansion

PUBLIC LIBRARY

PUBLIC LIBRARY OVERVIEW

Location	300 North Franklin Street; Downtown
Age	Original Library built 1903; Addition and Remodeling completed 1993
Size	Approximately 10,000 sq ft
Functions	Provides public access to 40,000 library materials and services, including books, music, magazines, newspapers, computers, internet access, meeting space, and special programs
Parking	Street Parking; 19 Space Lot
Facility Features	3 Levels (2 public levels; 1 storage); Handicap Accessible; Elevator
Staff	Library Director, Children's Librarian, Custodian, 4 Assistants, 2 Student Aides

PUBLIC LIBRARY EVALUATION AND RECOMMENDATIONS

Facility Condition	Very good
Assets	Good public space & Good location Ample parking Handicap accessible Able to meet many educational, recreational and informational needs of the public Well maintained grounds
Challenges	Needs continued maintenance of building, equipment, technology and furnishings Limited staff Lack of storage space
Recommendations	Replace and/or upgrade computers and technology Replace copy machine Update interior painting Upgrade circulation system Perform Tuckpointing on building exterior Replace furnishings

SEIBERT MEMORIAL HALL

SEIBERT MEMORIAL HALL OVERVIEW

Location	508 Quaker Mill Drive; Adjacent to Seibert Park
Age	Not given
Size	80 person event capacity
Functions	Rented to the public for special events
Parking	Limited
Facility Features	One story; Heated/Air-Conditioned; Fully Equipped Kitchen; Restroom; Handicap Accessible

SEIBERT EVALUATION AND RECOMMENDATIONS

Facility Condition	Good
Assets	New Tiles; New Patio
Challenges	Pillar in center of room is an obstruction
Recommendations	Install new carpet Replace Air Conditioning Replace back door Pave Parking lot Replace Kitchen cabinets and equipment

BECKMAN SPORTS COMPLEX

BECKMAN SPORTS COMPLEX - OVERVIEW

Location	901 E Acres Street; Adjacent to West Delaware Middle School and Lambert Elementary
Age	Built 1997
Size	15.6 acres
Functions	Home of Manchester Kids League and West Delaware High School Baseball
Parking	Available on site
Facility Features	4 baseball/softball fields; Handicap Accessible; Bleacher seating for 500, additional seating on lawn; Restrooms; Concession Stand, Garage; Crow's Nest; Open Air Shelters

SPORTS COMPLEX EVALUATION AND RECOMMENDATIONS

Facility Condition	Very Good; Widely Used
Assets	Ample seating space for viewers Nice Concrete Entrance; Fencing Near walkway Concession Stand
Recommendations	Pave Parking Lot

PARK MAINTENANCE BUILDING

PARK MAINTENANCE BUILDING OVERVIEW

Location	324 S 3rd Street
Functions	Woodworking shop; Storage for mowers, trucks, etc.;
Parking	--
Facility Features	1.5 story building; 2 bays; Handicap Accessible; Heated Shop

EVALUATION AND RECOMMENDATIONS

Facility Condition	Good
Assets	Co-located with Public Works Facilities, easy to share equipment and staff
Challenges	Difficult to find Limited Space Difficult to access 2nd story storage
Recommendations	--

PUBLIC WORKS FACILITIES

PUBLIC WORKS FACILITIES OVERVIEW

Location	324 S 3rd Street
Age	Original Structure - 32 years; Other structures added since that time
Size	11,180 indoor space (4,800 heated) 175,000 sq ft (Complex yard total) 140,000 sq ft (Additional space in Floodplains)
Functions	Storage for Equipment, Salt, Sand, Rock, Decorations, Misc.
Parking	--
Facility Features	5 single story pole structures; 16 overhead bay doors
Staff	--

EVALUATION AND RECOMMENDATIONS

Facility Condition	Fair; 1 building in poor condition (Recently replaced)
Assets	Heated space
Challenges	Public Works may need to expand as Manchester grows
Recommendations	Continue Routine Maintenance

AQUATIC CENTER

AQUATIC CENTER OVERVIEW

Location	200 Stearns Drive
Age	Built 1998
Functions	Public pool and water play
Parking	Surface Lot
Facility Features	Zero Depth Entry; 2 water slides; Drop slide; Diving board; Spray Fountains, Lily Pad Water Walk; Sand Volleyball; Sunbathing Area; Concessions

EVALUATION AND RECOMMENDATIONS

Facility Condition	Good; Starting to Show Age
Assets	Special Amenities, e.g. zero depth entry, slides, diving board
Challenges	Limited in-water play features
Recommendations	Upgrade Equipment (Chairs, Benches, Tables, Umbrellas, etc.) Replace roof Repaint Service pumps

OTHER COMMUNITY FACILITIES

MEDICAL FACILITIES

The Regional Medical Center, located on Highway 13, provides emergency medical treatment for Manchester and surrounding communities. The Center was founded in 1950 and takes pride in its community oriented, family centered primary care setting.

Services at the Center include inpatient care, obstetrics/family health, critical care, surgery, outpatient specialty clinics, outpatient observation, laboratory, radiology, cardiac rehabilitation and physical therapy. The Center houses 25 acute care beds, provides 24 hour professional nursing services, and offers a fitness center, health and wellness coaching, and classes on diabetes management, childbirth, babysitting, CPR, First Aid, and EMT.

A new 19,000 square foot addition to the hospital is under construction to accommodate expanding services.

SCHOOLS/EDUCATIONAL FACILITIES

The **West Delaware County Community School District** serves approximately 1850 students through their high school, middle school, and public elementary school. The mission of the District is to provide a safe, culturally rich environment in which all students can reach their full potential academically, emotionally, physically and socially. Details about each school are outlined below:

Lambert Elementary School is located at 1001 Doctor Street and provides 4 to 6 sections for each grade level, with an average of 20 students per classroom.

West Delaware Community Middle School is located at 1001 Doctor Street and serves approximately 470 students in grades 5-8 and employs 70 teachers and staff. The middle school focuses on providing a transitional education experience, emphasizing basic education, exploratory experiences and opportunities for social development.

West Delaware High School serves approximately 650 students from the communities of Ryan, Dundee, Greeley, and Masonville. The professional staff of 47 provides opportunities in competitive sports, speech, drama, music, and clubs such as FFA, FBLA, National Honor Society, SAAD, Youth Association for Disabled Citizens, WD Volunteer Coalition, and others.

St Mary Elementary School is a private school at 132 W Butler Street, educating 228 students in grades 1-6.

Northeast Iowa Community College has a branch in Manchester.

Other Colleges - There are 14 colleges and 2 technical colleges located within a 50 mile radius of Manchester (Source: MANCHESTER – Making It Happen).

CHILD CARE FACILITIES

Manchester Residents have access to the following child care facilities:

- **Carousel Day Care**
- **StoryLand Childcare**
- **TLC Preschool**
- **In-home care providers**
- **Before/after school and summer programs operated by the YMCA**

  Source: *MANCHESTER – Making It Happen*

CEMETERIES

Manchester has two cemeteries, both privately operated by the Manchester Cemetery Company:

- **Oakland Cemetery - 1223 N Franklin Street**
- **Saint Mary's Cemetery - 1860 Honey Creek Road**

ADDITIONAL PUBLIC SAFETY RECOMMENDATIONS: HAZARD MITIGATION PLAN

Additional public safety improvements are covered in the Manchester Hazard Mitigation Plan (2009). These improvements include the following:

- Maintain and improve protocol for response to ice storms (fire department)
- Identify and publicize locations for storm shelters (fire department)
- Continue to train weather spotters to alert citizens to potential hazardous weather (fire department)
- Improve protocol for snow removal (streets superintendent)
- Purchase 2 generators and writing for lift stations for use in the event of power failure caused by severe storms
- Maintain and Improve outdoor warning system – get estimates on replacing 3 existing sirens and adding a 4th

PUBLIC FACILITY PRIORITIES

The planning and zoning commission should review on an annual basis the recommendations and needs listed above to identify priority recommendations.

Community Vision
SECTION 2

Chapter 8: Community Vision

Community Vision
SECTION 2

8

Community Vision

The Manchester Comprehensive Plan included multiple outlets for public input and incorporated the recent "Good to Great" strategic planning process. This chapter presents the participation process, the "Good to Great" strategic plan summary, and the resulting community vision for Manchester.

A VISION FOR MANCHESTER

Participation and input from Manchester residents was central to the planning process, thereby allowing residents to frame the goals and directions of the plan. The Manchester Comprehensive Plan included multiple outlets for public input and incorporated the recent "Good to Great" strategic planning process. This chapter presents the participation process, the "Good to Great" strategic plan summary, and the resulting community vision for Manchester.

PUBLIC PARTICIPATION PROCESS

STEERING COMMITTEE

A Comprehensive Plan Steering Committee, consisting of the City's Plan and Zoning Commission, was the primary contributor to this process. Planning Commission members represent a variety of community interests. The Planning Commission members met to review previous planning goals, identify issues, develop vision statements, and prioritize the community's goals. They also reviewed the progress of the overall plan and met nearly monthly over the course of the comprehensive plan development. All Planning Commission meetings were open to the public.

COMMUNITY ISSUE IDENTIFICATION WORKSHOP

A community-wide workshop was held in October 2010. Interested residents were invited to share their thoughts on the issues and opportunities for Manchester over the next 20 years.

COMMUNITY PRESENTATION

The Plan's Policy statements (goals) and the community profile (section 1) were presented to the community in February of 2011.

DESIGN STUDIO

A four-day public design studio in February 2011 engaged residents, business owners, and other stakeholders in the planning process. The workshop looked at overall goals for the entire city, as well as more focused opportunities for the downtown and key community corridors. Participants shared their ideas and concerns informally with planners and designers, and reacted to first drafts of redevelopment concepts. The results of the workshop are the basis of the Development Plan outlined in Section 3.

OPEN HOUSE

A Community Open House was held in January 2012, offering the public an overview of the Plan and opportunities to provide feedback on the Plan.

REAFFIRMATION OF THE GOOD TO GREAT PLAN

At their kick-off meeting in October 2010, the Comprehensive Plan Steering Committee thoroughly reviewed the "Good to Great" Plan and reaffirmed the plan's relevance to Manchester.

COMMUNITY ISSUES

As part of the public participation process, steering committee members and the general public were asked to identify the most important issues that Manchester is facing or is likely to face in the near future. Participants agreed that Manchester needs new, fresh ideas and that it is important for the residents to start thinking outside of the box. Community issues were categorized into several groups, summarized below. The resulting themes validated and expanded upon the Emerging Themes of the "Good to Great" Plan. A detailed listing of individual comments is included in Appendix C.

- Retail Growth/Economic Development

  Manchester should expand efforts to maintain the vitality of Manchester, retain young people, and grow in population. Community improvements in quality of life amenities and supporting quality hospitality businesses are directly related to economic development. Regional medical services are an important growth area.

- Community Growth and Development

  As new growth occurs, new development areas should be well-connected to existing neighborhoods and community facilities. There is concern about development that is occurring directly outside city limits in Delaware County, where there are no zoning controls. A reuse plan is needed for floodplain buyout properties.

- Community Character

  Manchester is a clean, safe and friendly community with a fine quality of living and small town atmosphere. A number of well-maintained, architecturally unique buildings in older neighborhoods and the downtown area form a central feature of the community. The downtown remains a vital core of both community and county business. However, Manchester's quality of life is not well-known outside Delaware County. Manchester needs to grow, develop and enhance the community to gain recognition as one of the finest communities in the state.

- Gateway Features/Landmarks

  Manchester has an opportunity to establish a presence at the Highway 20 interchanges, where an average of 11,000 vehicles pass each day. Manchester can capitalize on its location to become known as the western gateway to the upper Iowa Mississippi River region and the southern gateway to beautiful northeast Iowa.

- Facilities & Infrastructure

  Manchester has a good school system with quality facilities, a regional health center, county fairgrounds and quality city facilities. Manchester should improve its sidewalk network by filling in gaps and addressing ADA compliance.

- Parks and Recreation/Trails

  Manchester provides a variety of recreational amenities, including county parks, city parks, and the river. Existing trails are well-used by residents, especially senior citizens. Manchester should expand these offerings to provide a safe, pedestrian and bicycle friendly environment for both residents and visitors to access all community amenities. Manchester should also consider adding a recreational amenity that would bring people in from outside the community, such as the whitewater river facility proposed for the downtown.

- Tourism/Marketing

  The West Delaware School District is renowned in the state for sports, arts and music. The city should take advantage of this prominence for marketing purposes. Manchester should consider collaborating with nearby towns to create tourism "packages" that feature a series of attractions spread out among all participating communities.

GOOD TO GREAT PLAN

REAFFIRMATION OF THE PLAN

In 2009, Manchester completed the "Good to Great" Strategic Plan after an extensive public participation process, including a series of public "mini-summit meetings" hosted by Manchester Enterprises and a core group of key Manchester and Delaware County government and institutional representatives. In October of 2010, the comprehensive plan steering committee reviewed the "Good to Great" plan and reaffirmed its relevance to Manchester's overall goals. The committee determined that the "Good to Great" plan would be used to set the vision for the comprehensive plan. A summary of the "Good to Great" plan is provided below.

PLAN DEVELOPMENT

In February 2008, Manchester Enterprises facilitated a Community Development Summit with the Manchester City Council, Manchester Area Chamber of Commerce, and Delaware County Economic Development. The goal of the Summit was to determine how to move Manchester from a "Good Community" to a "Great Community" utilizing techniques identified in "Good to Great," a book by Jim Collins.

Throughout 2008 Manchester Enterprises worked with representatives from the City of Manchester, West Delaware County Community School District, Regional Medical Hospital, Manchester Area Chamber of Commerce, and Delaware County Economic Development to host a series of "mini summits" that posed the following questions to the community:

1. Manchester is a good community. What would it take to make Manchester a great community?
2. How can Manchester retain its youth and grow our population base?
3. In what areas does Manchester have a competitive advantage/disadvantage?
4. If you were asked to describe Manchester to a friend from outside the state of Iowa, what would you say about our town?

Using the information gleaned from the mini summits, the "Good to Great" committee formalized a plan of action. Grants awarded by Black Hills and Alliant Energy assisted Manchester Enterprises in hiring Smart Solutions Group to develop the "Good to Great Plan". On February 4, 2009, Smart Solutions presented the plan to over 80 community members and business leaders. The plan broke down into 4 main categories, which are summarized below:

1. Emerging Themes (summarizing the mini summit themes)
2. The "Good to Great" Goal
3. Strategic Objectives
4. Strategies and Tactics: Action Plan.

"GOOD TO GREAT" EMERGING THEMES

JOB CREATION, DEVELOPMENT AND GROWTH

Manchester should grow a diverse business and industry base by supporting existing business expansions, attracting new business, and encouraging downtown retail growth.

Growing population

Manchester should grow its population and school enrollment by attracting skilled workers and their families.

Community beautification

Manchester should strive to become one of the most visually attractive communities in Iowa.

Marketing the community

Manchester should utilize a variety of communication tools to aggressively market

its assets through a unified brand/identity, including a one-stop community website.

TOURISM

Manchester should leverage its assets, such as Backbone State Park and the strong local school system, to become a "destination" community for tourists, recreation enthusiasts and families.

Cultivating leadership

Manchester should cultivate leadership and civic engagement for residents of all ages.

Educational commitment

Manchester should actively support post-secondary education institutions (NICC and others) that will enhance continuing educational opportunities and meet on-going industry training needs.

Enhanced transportation

Manchester should continually improve its transportation network in a way that will draw people, businesses and jobs.

Economic Development Efforts

Manchester should build a network to support and cultivate local entrepreneurial activity.

Good Organization and Communication

Manchester should have clear and efficient lines of communication between all key organizations, to encourage a common course of action.

THE "GOOD TO GREAT" GOAL

"Manchester will build on its assets to proactively, aggressively and in a comprehensive manner, take coordinated action to become a 'great' community."

"GOOD TO GREAT" STRATEGIC OBJECTIVES

1. Through net growth in industrial, service, commercial and retail business establishments, expanding existing businesses and business start-ups, Manchester will **stop population decline** and in the next 10 years exceed the year 2000 population levels.
2. Through a comprehensive community-wide beautification program, Manchester will improve all aspects of its' physical appearance and **become one of the most visually attractive communities in Iowa.**
3. Through an integrated community communication and marketing effort aimed at both internal and external target audiences, including families

and new skilled workers, Manchester will clearly **convey a consistent set of messages that will lead to an improved image and increased awareness of key assets.**

4. Through a comprehensive "Manchester Destination" strategy, the community will package, promote and improve features (including transportation assets) and facilities which will lead to **increased visits and in turn, improved retail sales and business activity.**
5. Through a Leadership Development and Action program that will target K-12 students, young professionals and established workforce, Manchester will **develop and involve new leaders and will increase participation** in the effort by 10% each year.
6. Through a "Manchester Education Excellence " strategy, Manchester will support **continual quality improvements in the K-12 system and increased post-secondary, continuing education presence in the community.**
7. Through a collaborative organizational structure, "Manchester Success" will **involve all key organizations and create mutual accountability for implementing the action plan.**

THE "GOOD TO GREAT" ACTION PLAN: STRATEGIES AND TACTICS

To meet the above defined Strategic Objectives, Smart Solutions Group and the "Good to Great" Committee developed a multi-facetted Action Plan:

1. **Branding and Marketing**

   Implement an integrated Manchester Branding and Marketing Campaign aimed at improving the community image internally and externally which will lead to business and population growth and support the strategy of positioning Manchester as a "destination". The campaign will strive to achieve a unified community-wide effort around a common set of positive messages.

2. **Attracting New Businesses and Start Ups**

   Establish the Manchester Area Business and Entrepreneurial Growth Initiative (MGI) that will implement a targeted, proactive effort to support and attract new business and company start-ups.

3. **Strengthen Existing Business Outreach**

   Strengthen existing business outreach to maintain regular dialogue between existing business decision-makers and Manchester Enterprises.

4. **Education Excellence**

   Develop and implement a continuous product improvement strategy focused on achieving comprehensive "Educational Excellence" in Manchester that will be evidenced by improving K-12 academic performance, increasing the post-secondary education presence in the Manchester area thus assuring a quality

workforce in the future.

5. **Improve Visual Attractiveness**

   Create a focused effort to improve the visual attractiveness of the Manchester area through a community-wide beautification program that will enhance the ability to serve as a "destination" in Northeast Iowa.

6. **Coordinating Committee**

   Manchester should create the Good to Great Coordinating Committee with an organizational structure that will establish the broad accountability that will successfully implement the strategy.

APPLYING THE VISION AND GOALS

The goals of the Good to Great plan, outlined above, will guide the remainder of the Manchester Comprehensive Plan. The comprehensive plan steering committee determined it was unnecessary to repeat the extensive community input process that had been undertaken through the Good to Great Plan process, but sought instead to supplement the Good to Great plan through the community workshops referenced above. Community feedback from these workshops validated and re-enforced the goals of the "Good to Great" plan. The following section will develop a framework plan for Manchester's future growth, guided by the above goals.

Community Plan

SECTION 3

Chapter 9: Future Land Use Development Framework

Chapter 10: Parks and Recreation

Chapter 11: Transportation

Chapter 12: Infrastructure

Chapter 13: Economic Development

Chapter 14: Annexation

Chapter 15: Implementation

Community Plan
SECTION 3

9 *Future Land Use Development Framework*

Manchester's Land Use Plan should establish a development vision, identify directions for future growth, maintain and enhance the quality of existing development, and provide a sound basis for public and private decisions. This section of the document outlines the land use development concept, starting with the principles that guided its preparation.

FUTURE LAND USE - DEVELOPMENT FRAMEWORK

Manchester's Land Use Plan should establish a development vision, identify directions for future growth, maintain and enhance the quality of existing development, and provide a sound basis for public and private decisions. This section of the document outlines the land use development concept, starting with the principles that guided its preparation.

PLANNING PRINCIPLES

The analysis and calculations presented in earlier chapters estimated the amount of land Manchester will require to serve potential growth. Although residential and commercial growth is an important component of sustaining a high quality community, some residents may worry that such growth will deteriorate community character. However, if guided by sound principles, growth can enhance the special qualities of a community. New development can and should use land efficiently, be environmentally and economically sustainable, and reinforce the quality and character of Manchester.

As summarized in the Introduction, Iowa has adopted ten "Smart Planning Principles" to guide the preparation of city comprehensive plans. These principles encourage new development that supports order, efficiency and unity, while balancing developer and community perspectives on responsible growth. Smart Planning principles encourage land development policies that are profitable for developers while being community-oriented, environmentally sensitive and fiscally responsible. The principles of the Manchester Plan, detailed below, incorporate and expand upon the Iowa Smart Planning Principles.

PRINCIPLES OF THE MANCHESTER COMPREHENSIVE PLAN

Revitalization: Full and Efficient Use of Urban Services

Smart planning encourages compact development patterns and demands efficient use of public infrastructure. To avoid stretching city services over wide areas, which increases both government expenditures and resident travel distances, new growth should occur either in underutilized infill properties or in other areas adjacent to existing development. This development practice will help maintain a unified, economically efficient and attractive community. Without conscious strategies for responsible development, pressures in the real estate market may over-concentrate development on the fringe of the city, thereby contributing to the deterioration of more established neighborhoods in the core of the city. Existing developed areas of town must maintain viability in order to support efficient use of urban infrastructure and services.

Natural Resources and Agricultural Protection

Even with efficient development patterns, expansion of Manchester at the edge of the existing community will likely occur in the coming decades. Smart planning promotes the balance of development growth with the preservation of valuable agricultural and natural areas. Natural areas provide important community spaces, habitats

for plants and animals, recreational opportunities, and added property value for adjacent development. Environmentally sensitive areas such as floodplains and drainage ways must be maintained in order to avoid flooding and other adverse impacts to the built and natural environment.

Sustainable Design

Manchester should promote buildings and infrastructure that utilize sustainable design and construction standards. These standards conserve natural resources by reducing waste and pollution while making efficient use of land, energy, water, air, and materials. In areas where new development extends to agriculture or open spaces, that development should occur in conformance with best management practices for accommodating the natural environment.

Community Character

New residential areas often develop incrementally, resulting in relatively isolated pods that may lack common space and connectedness to the greater community. As a result, community character can be diluted as cities expand. A smart growth concept for Manchester encourages promoting development that reflects the character of the community and maintains a sense of structure and connectedness.

Mixed Land Uses

Mixing compatible uses, such as including a corner store or a school in a residential neighborhood, creates more interesting and efficient communities. Providing uses that are closer and linked together can reduce the distance that people must travel by car to conduct their daily lives. Including multiple uses in a neighborhood ensures that it is active throughout the day, thereby enhancing security and maintaining dynamic, resilient neighborhoods. A mixed land use pattern opens up opportunities to build a variety of housing types conveniently located near commercial and civic activities.

Housing Diversity

Most of Manchester's residential development is in the form of single family detached units. However, housing needs and preferences today are changing to include a more diverse housing types. The mortgage crisis and subsequent economic downturn of 2008-2009 have many residents looking for more affordable housing options. As the baby boomer generation ages, more empty nesters are looking for smaller or attached housing. At the same time, the Millennial generation is trending more toward mixed-use, multi-family living or smaller lot single family development in innovative design settings. Manchester should plan to provide opportunities for a variety of housing and mixed-use developments, in order to accommodate people of varying preferences at all stages of life.

Promote Walkable Neighborhoods

Iowa's older small communities tended to have compact development patterns clustered around the traditional downtown, which created a small town feel and pedestrian friendly environment. New developments in the late 20th century were focused more on auto-dependency and used street patterns that made pedestrian movements unsafe. Land use patterns and new investments that promote "active transportation"

will create a healthier city. Smart planning encourages development pattern that serve a range of users including pedestrians, bicyclists and motorist moving around the community in a convenient and efficient manner. Local commercial services, schools and major activity centers should have safe and comfortable routes to most neighborhoods. Alternative transportation modes such as walking increase opportunities for social interaction and incorporate physical activity into the daily routine of citizens, thereby contributing to a healthier community.

Transportation Diversity

Providing people with more choices in housing, shopping, communities and transportation is a key aim of the Iowa Smart Planning legislation. Many communities have begun to realize the need to provide a wider range of transportation options. A completely auto-dependent city limits accessibility for groups such as young people and seniors who do not drive, or lower income citizens who have limited access to a vehicle. As Manchester grows, distance between major features will become greater. This increase in physical distance should not limit access for any resident group. Techniques that increase the ability of all residents to move freely around the city include increasing connectivity within the street network, mixing land uses, and developing multi-modal streets that accommodate all forms of transportation. Implementation of these techniques will maximize mobility, reduce congestion, conserve fuel, and improve air quality.

Clean, Renewable, and Efficient Energy

Planning, zoning, development, and resource management should be undertaken to promote clean and renewable energy use and increased energy efficiency.

Occupational Diversity

Planning, zoning, development, and resource management should promote increased diversity of employment and business opportunities, promote access to education and training, expand entrepreneurial opportunities, and promote the establishment of businesses in locations near existing housing, infrastructure, and transportation.

Hazard mitigation and public safety

Growth and development policies should minimize the risk of injury or property damage due to natural hazards, such as flooding. To improve public safety, the land use plan should not direct future development to floodplains or other hazardous areas. Natural drainage-ways that lessen flash-flooding risk should be preserved.

Collaboration

City government should implement policies that measure and respond to the priorities of residents and encourage collaboration among all stakeholders. Partnerships between neighborhoods, surrounding communities, developers, nonprofit organizations, and the city will support and accelerate implementation of the City of Manchester Comprehensive Plan.

Efficiency, Transparency, and Consistency

Planning, zoning, development, and resource management should be undertaken to provide efficient, transparent, and consistent outcomes. Individuals, communities, regions, and governmental entities should share in the responsibility to promote the equitable distribution of development benefits and costs.

FUTURE LAND USE AND DEVELOPMENT COMPONENTS

Smart planning principles provide general concepts pertaining to future development in Manchester. Applying these general principles to Manchester helps to provide guidance for development decisions. This section presents land use strategies that will enable Manchester to plan successfully for projected growth and respond to the pressures of land use change and development.

While projections of future land needs are useful, the future land use plan should not be based only on calculated numbers and projections. It should also delineate logical boundaries for growth. Overall proposed development patterns should reinforce the functional and aesthetic values and traditions of the community, even as new development extends into the surrounding landscape. New development should be linked to existing developed areas to accommodate pedestrian and vehicular mobility. Manchester's future growth should take maximum advantage of existing resources and community assets such as the highway, downtown, parks and recreation, trails, the river, the natural landscape and open space to ensure continued vitality.

A two day design workshop was held in Manchester to produce a Development Concept for growth areas, a key element of the Comprehensive Plan. The workshop involved informal and formal meetings with staff, municipal officers, the Steering Committee and Manchester residents. During the process, land use planners applied the Planning Principles summarized above to the growth areas while protecting the floodplains and natural areas. New developments in Manchester should be focused in those areas designated by the Development Concept, shown in Figure 9.1. The Manchester Development Concept incorporates the following major components:

- **Preservation of Natural Areas/Floodplains**
- **Residential Growth Centers**
- **Commercial/Industrial Growth Opportunities**
- **Downtown District/Core Development**
- **Interconnected Transportation System**
- **Parks and Recreation**
- **Annexation Policy**

The remainder of this chapter will cover the first four components in detail. The last three components are covered in separate chapters later in this section.

PRESERVATION OF NATURAL AREAS/FLOODPLAINS

The creation of the development concept started with consideration of important natural areas and greenways. Manchester's future growth should protect the natural areas inside and surrounding the existing city limits, including wetlands, steep slopes,

and flood prone areas. Manchester Waterways, Floodplains, Wetlands, Topography, Parks, Natural Areas, Hydric Soils and Tree Cover are identified on maps in the environmental profile (section one, chapter three). These critical areas are identified as greenways on the development concept map and are considered in planning the land use for surrounding areas. Much of this natural setting is preserved as an extensive open space and park system which includes parks, wetlands, ponds, drainage ways and flood zones. Fingers of greenways extend along the drainage areas and flood prone areas, connecting neighborhoods together. These natural areas can be used for ecological and recreational purposes and for creating linkages between existing neighborhoods and future residential areas. Preserving and protecting these natural areas also helps frame community character. The preservation of floodplain areas to greenway also serves public safety and hazard mitigation functions, by lessening the risk of property damage, and keeping residences out of harm's way. This preservation approach to future land use helps fulfill several important goals of the Manchester Hazard Mitigation Plan (2009), including: Enforce the floodplain ordinance (which specified that subdivisions should minimize flood damage, had adequate drainage, and means of access); Continue to monitor development of land…and potential for the creation of hazards to the city (flooding).

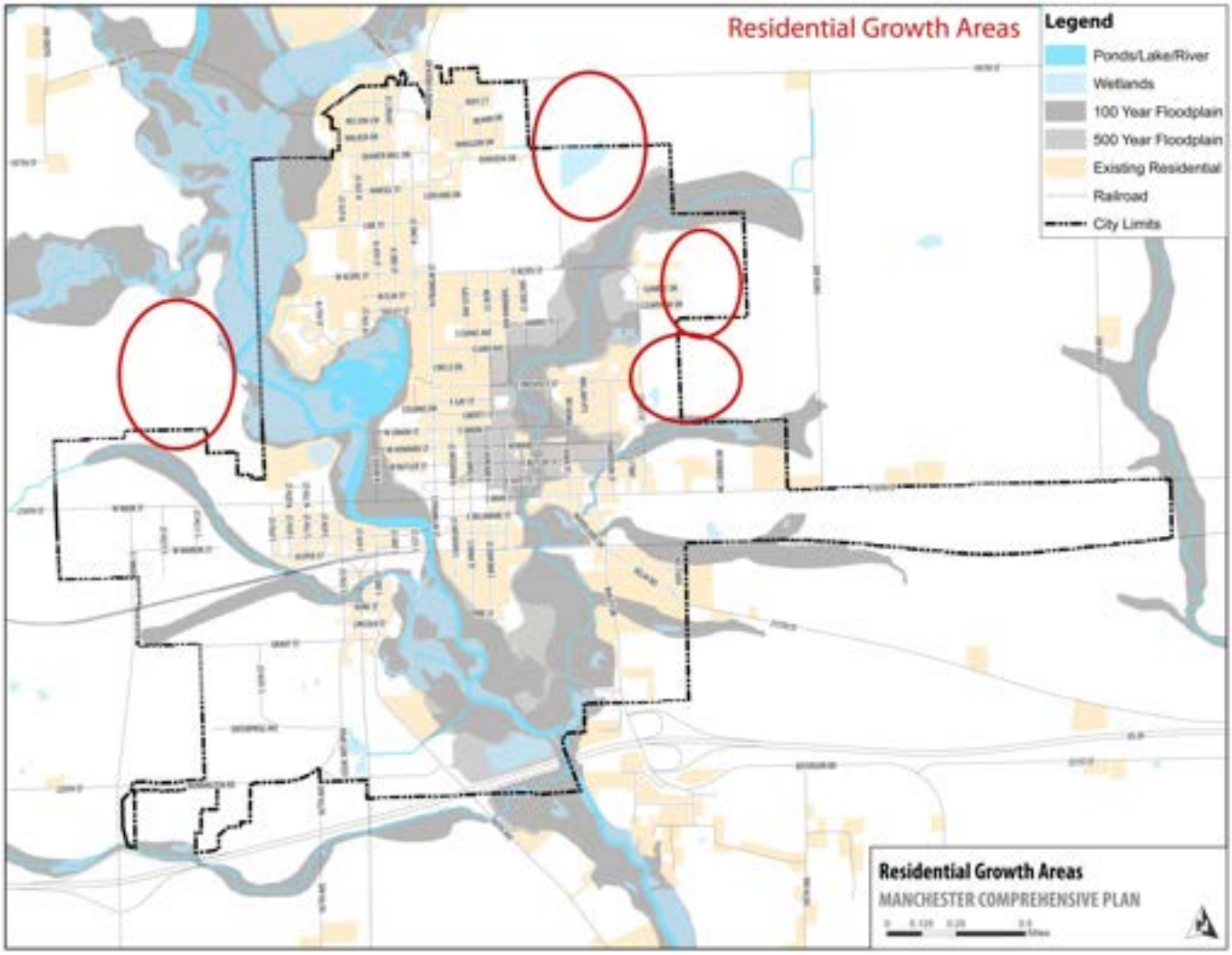

Figure 9.2- Residential Growth Areas

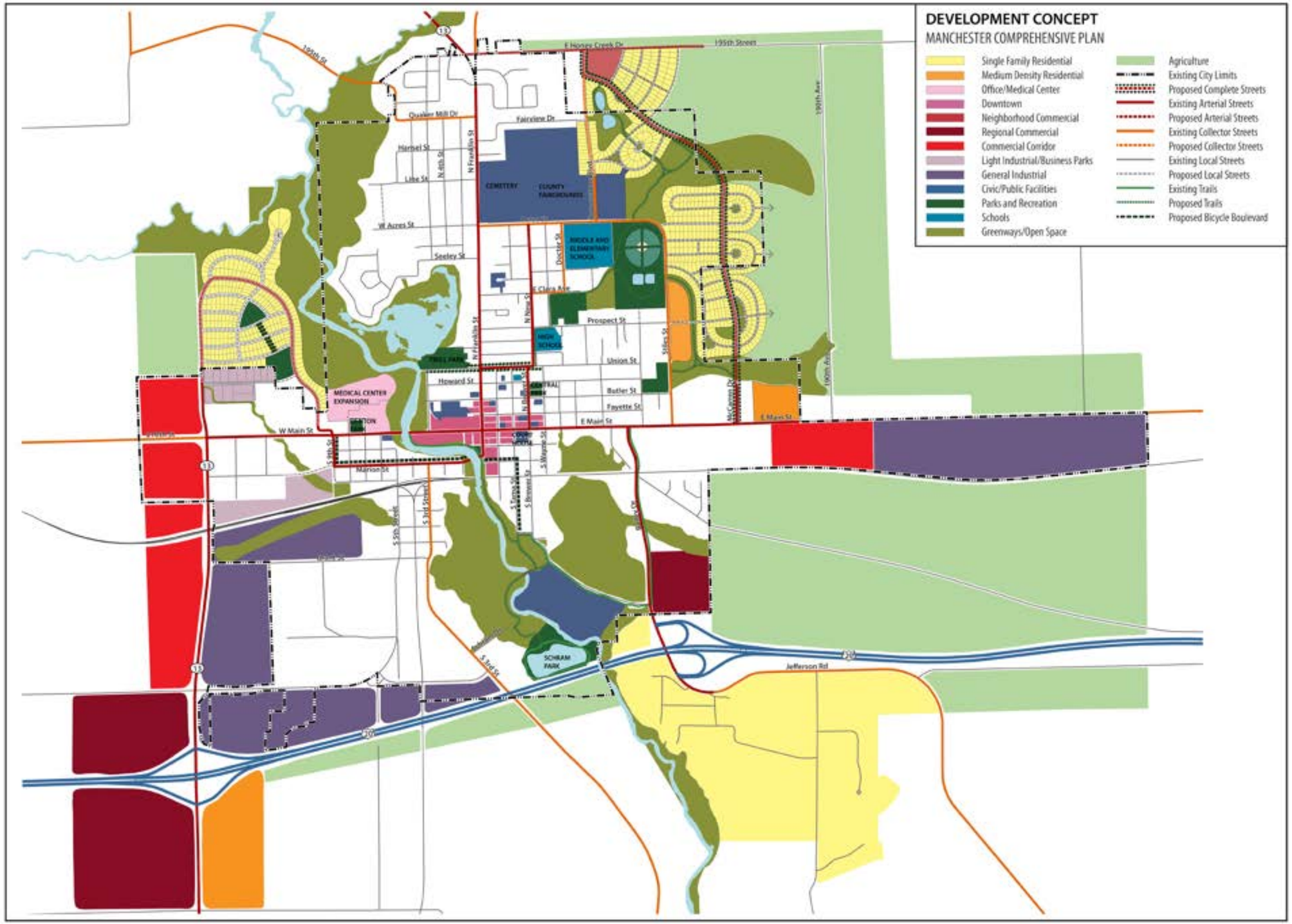

Figure 9.1- Development Concept

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RESIDENTIAL GROWTH CENTERS

Manchester should guide its new residential and commercial growth to create quality, planned neighborhoods with improved mobility. The development concept guides growth to the northeast and west areas of the city, circled in Figure 9.2. These areas are most appropriate for growth because they allow efficient extension of public services, avoid the floodplains of the Maquoketa River and other sensitive natural areas, and have the ability to connect well to adjoining residential developments. By ensuring that new developments possess these characteristics, Manchester can maintain the vitality, quality and character of existing and future residential neighborhoods. New residential areas that follow the development concept will fit well into the existing neighborhood structure and avoid becoming isolated.

Manchester's new residential areas should provide a mix of housing types, developed around neighborhood parks and greenways and well-connected to the surrounding area by streets and pathways. The streets and open space network illustrated in the development concept should be followed in order to ensure proper linkages for vehicular, pedestrian and bicycle traffic. These components will be outlined in more detail in the transportation chapter and parks and recreation chapter, both included later in section three. The following section covers the two residential growth areas, northeast and west, in greater detail.

Northeast Growth Area: This new neighborhood is situated north of Main Street and east of Stiles Street. Figure 9.3 presents a detailed concept of this neighborhood. Easy access to municipal services, proximity to schools and recreation facilities, and adjoining residential developments make this area appropriate for residential growth. The development concept for this area of the city evolves from the

Figure 9.3 - Northeast Residential Growth Area

consideration of physical features of land, such as the topography, floodplains and drainage ways. Major components of the development concept for this growth area include:

- McCarren Drive development as a minor arterial connecting Main Street to East Honey Creek Drive (195th Street). This new corridor should be developed as a "Complete Street" (see Transportation Section).
- Extension of Cornerstone Blvd north to E. Honey Creek Drive.
- Expansion of the existing senior housing, or a similar land use, to the east along E Main Street.
- Provision for medium density residential development east of Stiles Street.
- Single Family home development on both sides of proposed extension of McCarren Drive, with conservation of existing floodplains/wetlands as green spaces. Existing residential streets east of Stiles are extended to the east.
- Trails along the greenways connect new residential areas with the existing neighborhoods and other community facilities. The main trail, extending northeast through the conservation area from Acres St., connects this growth area to the Middle and High Schools and ultimately to Tirrill Park and Downtown.
- Accommodation of the existing wetland area east of Fairview Drive through creation of a sub-regional stormwater management facility that also serves as a neighborhood open space amenity.
- A small neighborhood oriented commercial area to be developed adjacent to proposed single family homes, at the intersection of extended McCarren Drive and E. Honey Creek Drive.

Figure 9.4 - West Residential Growth Area

West Residential Growth Area: The floodplains of the Maquoketa River frame the proposed development in this area (Figure 9.4). Accessibility to municipal services, proximity to the medical center and community facilities and appealing natural landscape make this area appropriate for residential development. Protection of the floodplain and adequate storm water management are essential to developing this area. Key elements of this growth area concept include:

- North 13th Street extension as a collector street that loops back and connects to existing 9th Street at West Main.
- The river floodplain corridor providing continuous green space lined with river-view homes along the bluff. This provides for a high-end housing type similar to the Tanglewood Drive development and can help Manchester compete against rural estate developments.
- Housing clustered around two interconnected neighborhood parks. These parks are lined with streets so as to provide maximum accessibility and visibility.
- Potential expansion space for the existing regional medical center.

The first street of dwellings north of Howard could be bi-attached homes. Design standards should be enforced upon the Howard Street light industrial uses to ensure an appropriate buffer between these uses and the residential district to the north.

COMMERCIAL/ INDUSTRIAL GROWTH OPPORTUNITIES

Manchester should provide attractive sites for future commercial and industrial development to provide additional employment opportunities for local and regional residents. The City should provide contemporary settings for existing and new businesses and low-impact industries that take full advantage of the city's transportation, location, and environmental assets. Future development should strengthen and support local businesses, offer opportunities for investment and facilitate economic prosperity. The distribution and location of commercial and industrial facilities within Manchester are detailed in the Development concept. However, several of the key future commercial locations are currently outside the Manchester corporate boundaries. While these areas are discussed here in terms of their future commercial potential, the section on Annexation below discusses a specific future annexation strategy. The peripheral commercial/industrial growth areas are shown below in Figure 9.6.

The development concept suggests that commercial development should continue to focus within the downtown, at major intersections and key neighborhood nodes and in mixed use settings that provide easy access to services for residents in surrounding neighborhoods. Along with a focus on revitalizing the downtown area, the city should promote corridor commercial development on Iowa 13. The concept suggests focusing Industrial and light Industrial uses in the southwestern portion of the city adjacent to existing industrial uses, with easy access to Iowa 13 and Hwy 20 and railroad. Additional industrial development can occur along East Main Street. The development concept proposes the establishment of mixed used districts that combine higher density residential and commercial uses or commercial and light industrial uses. The development of business park settings creates a quality environment that stimulates economic diversity.

Strong commercial centers are an important component of Smart Growth. These

centers act as focal points for neighborhoods and for the community. Well designed commercial centers offer a mixture of different activities and land uses in a pedestrian-oriented environment accessible to bicycles, pedestrians, and auto users. People who work, shop and live in or near a commercial center should be able to satisfy many of their daily needs without using an automobile. Commercial development occurs on different scales, ranging from neighborhood shops and services to regional commercial centers. Manchester's new commercial and industrial development should be located within well defined nodes. These nodes are broken into several categories, defined below. New development areas for each category are indicated on Figure 9.1.

Regional Commercial Node: Regional Commercial is the largest scale commercial development that serves as a regional focus of commercial activity. These nodes include the downtown and high quality business parks with design standards encouraging well defined entrances, shared internal circulation, properly spaced common access points, sidewalks and shade trees in parking lots, landscaping and signage. A Regional Commercial Node is proposed at the US 20 and Iowa 13 intersection (Figure 9.1). This node includes some medium density residential to the south.

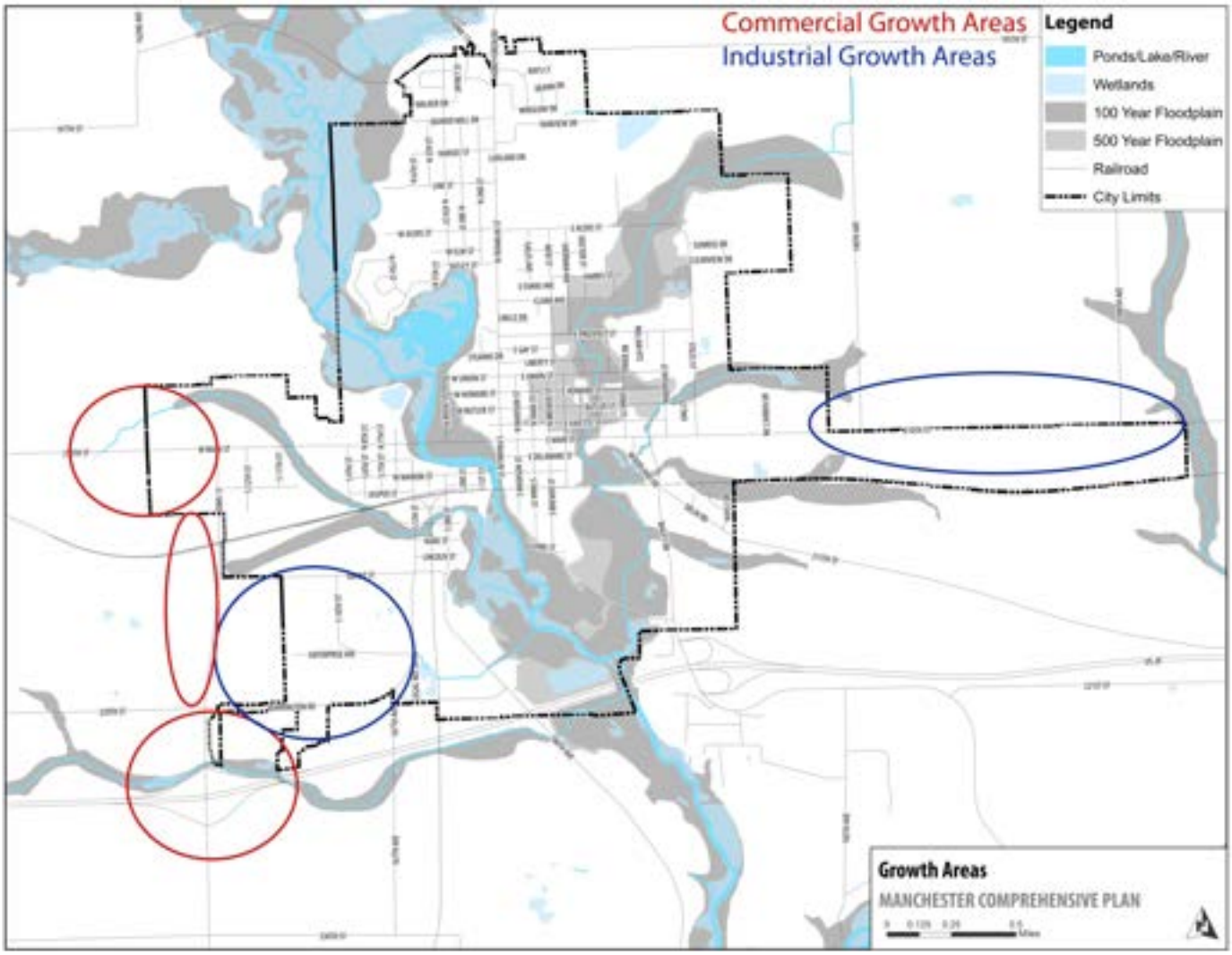

Figure 9.5 - Commercial and Industrial Growth Areas

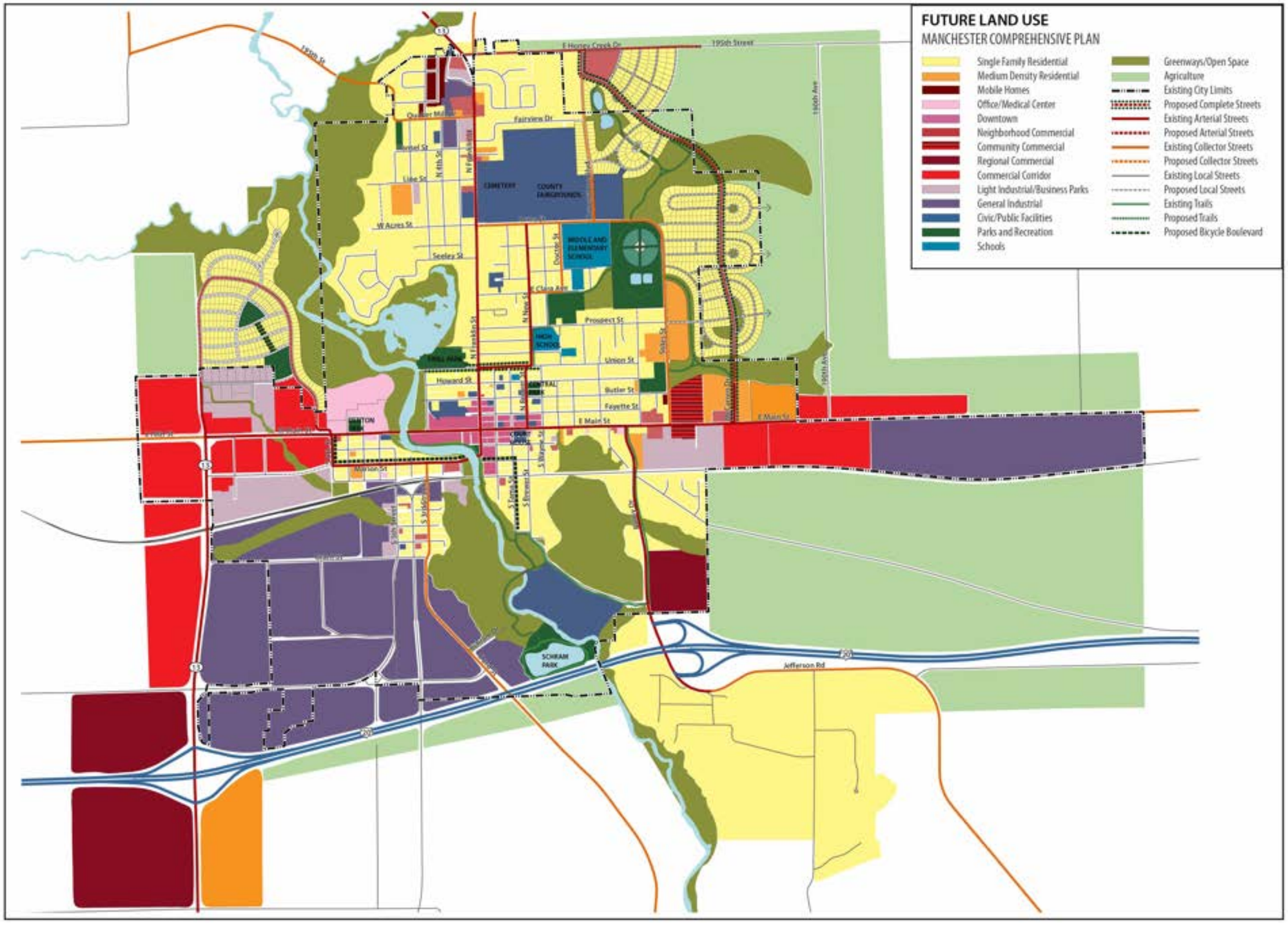

Figure 9.6- Manchester Future Land Use

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Community Commercial Node: Community Commercial Nodes are distributed across the City to serve community commercial functions with free standing commercial uses and small shopping centers on larger lots. This node can include a mix of uses, including residential. Medium to large scale commercial developments along W Main Street and E Main Street fall in this category.

Neighborhood Commercial Node: These commercial nodes are small to moderate-scale and neighborhood oriented. These nodes provide office space, professional services and small retail uses in a pedestrian-oriented manner. Such commercial nodes are intended to provide for daily convenience shopping and service needs of nearby residents. A neighborhood commercial node is proposed at the intersection of E Honey Creek Drive and extended McCarren Drive, to serve the newer residential growth areas. Existing neighborhood commercial nodes are located along Main Street and Franklin Street.

Commercial Corridor Mixed Use: Commercial corridors are auto-oriented areas which contain retail, service or office commercial and high density residential areas and serve the entire city. These corridors typically contain small-scale retail and personal services as well as community uses such as major grocery stores and offices. Commercial corridor development is proposed along the west side of Iowa 13. Manchester should ensure a high level of design quality for its major community corridors, allowing them to serve as an attractive gateway into the town and thus enhance a positive business and community environment. Special attention should be given to the design and appearance of all new commercial and industrial establishments in these gateway areas.

Business Parks/Office: This category combines a variety of general commercial, office and light industrial uses, but excludes high impact industrial establishments. Business parks areas in Manchester are located along Iowa 13, on Main Street west of South 9th Street, and in select sites along East Main Street. High quality building design, site development and landscaping, and sign standards should be implemented to create a business environment that will enhance the perception of community quality.

Industrial: New Industrial areas are designated along Iowa 13 north of Burrington Road, and along the south side of East Main, east of 190th Ave. Industrial areas include high impact establishments such as large office, warehousing, storage, manufacturing and distribution. The comprehensive plan requires controlled access, standard building materials, establishment of specific standards for parking, scale and pedestrian access, adequate buffering and landscaping and signage restrictions in these areas.

FUTURE LAND USE

Figure 9.6 shows the future land use of Manchester, which includes current land use and the development concept above. Table 9.1 defines the characteristics of each of the land use categories specified in the Development Concept and Future Land Use Plan.

Table 9.1: *Land Use Category Characteristics and Location Criteria*

Land Use Category	Use Characteristics	Features and Location Criteria
Agriculture	• Generally in agricultural use • Agriculture uses will remain the principal use during the planning period. • Extension of urban services is unlikely during the foreseeable future, and may not be feasible. • Extremely low residential densities, typically below 1 unit per 20 acres, may be permitted.	• These areas should remain in primary agricultural use. Urban encroachment, including large lot subdivisions, should be discouraged. • Areas may be designated for conservation, including floodplains and steep topography • Primary uses through the planning period will remain agricultural.
Parks and Greenways/ Open Space	• Traditional park and recreation areas including both passive and active recreation uses. • Environmentally sensitive areas and crucial scenic corridors that should be preserved and possibly incorporated into the city's trail system.	• Parks should be centrally located with easy access for both pedestrian and auto users. • Residents should be within approximately a half mile of a neighborhood park. • All parks should be connected through the city's trail and greenway system. • Environmentally sensitive areas, including wetlands, native prairies and drainage channels should be protected and incorporated into the city's greenway network.
Low Density (Single Family) Residential	• Restrictive land uses, emphasizing singlefamily detached development, although innovative singlefamily forms may be permitted with special review. • Civic uses are generally allowed, with special permission for higher intensity uses. • Developments will be provided with full municipal services.	• Primary uses within residential growth centers. • Should be insulated from adverse environmental effects, including noise, smell, air pollution, and light pollution. • Should provide a framework of streets and open spaces. • Typical densities range from 1 to 4 units per acre, although individual attached projects may include densities up to 6 units per acre in small areas.
Medium Density Residential	• Restrictive land uses, emphasizing housing. • May incorporate a mix of housing types, including singlefamily detached, singlefamily attached, and townhouse uses. • Limited multifamily development may be permitted with special review and criteria • Civic uses are generally allowed, with special permission for higher intensity uses.	• Applies to established neighborhoods of the city which have diverse housing types, and in developing areas that incorporate a mix of development. • Developments should generally have articulated scale and maintain identity of individual units. • Tend to locate in clusters, but should include linkages to other aspects of the community. • Typical maximum density is 4 to 12 units per acre, typically in a middle range. • Innovative design should be encouraged in new projects. • Projects at this density may be incorporated in a limited way into singlefamily neighborhoods. • May be incorporated into mixed use projects and planned areas.
Mobile Home Residential (MHR)	• Accommodates mobile homes that are not classified under State law as "manufactured housing." • May include singlefamily, small lot settings within planned mobile home parks. • Manufactured units with HUD certification that comply with other criteria in State statute may be treated as conventional construction.	• Develop in projects with adequate size to provide full services. • Generally locate in complexes, but should include linkages to other aspects of the community. • Typical maximum density is 8 units per acre.

continued >>

Table 9.1: *Land Use Category Characteristics and Location Criteria*

Land Use Category	Use Characteristics	Features and Location Criteria
Neighborhood Commercial	• Includes a range of low impact commercial uses, providing a variety of neighborhood services. • Accommodates service related commercial uses. • Includes low to moderate building and impervious coverage.	• Should be located along major streets and in areas close to residential growth centers. • Should emphasize pedestrian scale and relationships among businesses. • Traffic systems should provide good internal traffic flow. • Negative effects on surrounding residential areas should be limited by location and buffering. • Good landscaping and restrictive signage standards should be maintained. • Good pedestrian/bicycle connections should be provided into surrounding areas. • The dominance of automobiles should be moderated by project design.
Community Commercial Center	• Includes a variety of commercial, office, and highdensity residential uses. • Establishes larger buildings and parking facilities than neighborhood commercial • These serve as local foci of retail activity and are distributed across the City to serve community needs with freestanding commercial uses and shopping centers on larger lots.	• Should be typically located on arterials at major intersections (nodes) or in established commercial areas along arterial. • These should be fairly accessible to transit and should supply an adjacent amount of off street parking. • Traffic systems should provide alternative routes and good internal traffic flow. • Negative effects on surrounding residential areas should be limited by location and buffering • Good landscaping and restrictive signage standards should be maintained. • Good pedestrian/bicycle connections should be provided into surrounding residential service areas.
Downtown Mixed Use	• Traditional downtown district of Manchester. • Includes mix of uses, primarily commercial, office, and limited upper level residential. • Should be the primary focus of major civic uses, including government, cultural services, and other civic facilities. • Developments outside the center of the city should be encouraged to have "downtown" characteristics, including mixed use buildings and an emphasis on pedestrian scale.	• Establishes mixed use pattern in the traditional city center. May also apply to planned mixed use areas. • Recognizes downtown development patterns without permitting undesirable land uses. • District may expand with development of appropriately designed adjacent projects. • New projects should respect pedestrian scale and design patterns and setbacks within the overall district. • Historic preservation is a significant value. • Good pedestrian and bicycle links should be provided, including nonmotorized access to surrounding residential areas.
Commercial Corridor	• Include autooriented, primarily retail/service/office commercial and high density residential areas that serve surrounding neighborhoods as well as citywide consumers. • Typically contains small scale retail and personal services as well as community uses such as major grocery stores and office buildings.	• Typically located along major transportation corridors, lining both sides of the street. • Pedestrian traffic should be encouraged and neighborhood scale retained where applicable. • Signage and site features should respect neighborhood scale. • Commercial and office development in mixeduse areas should minimize impact on housing.

Table 9.1: *Land Use Category Characteristics and Location Criteria*

Land Use Category	Use Characteristics	Features and Location Criteria
Regional Commercial Center	• Includes a variety of commercial, office, and highdensity residential uses, and limited industrial uses that do not generate noticeable external effects. • Intended to serve as the regional foci of commercial activity providing retail commercial services, entertainment and business offices for residents within the city as well as outside the City. • Business parks may combine office and light industrial/research uses. • Could include high intensity employment centers.	• Typically located at intersection nodes along major arterial highways or expressways, or along rapid transfer nodes. • Design standards should be enforced to ensure topquality appearance. • Efforts should be made to ensure minimal negative impact on surrounding land uses. • Strict control over signage, landscaping, and design is necessary for locations nearer to low intensity uses. • Should incorporate welldefined entrances, shared internal circulation, limited curb cuts to arterial streets, sidewalks and shade trees in parking lots, landscaping on planter strips between the parking lot and street, and welldesigned, monumenttype signage.
Office/Business Park	• Business parks may combine office and light industrial/research uses. • Provides for users that do not generate noticeable external effects.	• Strict control over signage, landscaping, and design is necessary for locations nearer to low intensity uses.
Limited Industrial/ Business Park	• Limited industrial provides for uses that do not generate noticeable external effects. • Business parks may combine office and light industrial/research uses.	• Limited industrial uses may be located near office, commercial, and, with appropriate development standards, some residential areas. • Strict control over signage, landscaping, and design is necessary for locations nearer to low intensity uses. • Zoning regulations should encourage business parks, including office and office/distribution uses with good development and signage standards.
General Industry	• Provides for a range of industrial enterprises, including those with significant external effects.	• General industrial sites should be wellbuffered from less intensive use. • Sites should have direct access to major regional transportation facilities, without passing through residential or commercial areas. • Developments with major external effects should be subject to review.
Civic	• Includes schools, churches, libraries, and other public facilities that act as centers of community activity.	• May be permitted in a number of different areas, including residential areas. • Individual review of proposals requires an assessment of operating characteristics, project design, and traffic management.
Public Facilities/ Utilities	• Includes facilities with industrial operating characteristics, including public utilities, maintenance facilities, and public works yards.	• Industrial operating characteristics should be controlled according to same standards as industrial uses. • When possible, should generally be located in industrial areas. • Facilities like the wastewater treatment plant should be well buffered from residential uses.

LAND USE COMPATIBILITY

Some of the most difficult issues in plan implementation arise when more intensive uses are proposed adjacent to less intensive uses. Table 9.2 provides a land use compatibility guide that indicates which land uses are compatible, and which land use combinations will create significant conflict. This chart can be used to assess the relationship between land uses and provide a basis for development proposal review.

Compatibility Rating Key

5: Uses are completely compatible. Development should be designed consistent with good planning practice.

4: The uses are basically compatible. Traffic from higher intensity uses should be directed away from lower intensity uses. Building elements and scale should be consistent with surrounding development.

3: The uses may have potential conflicts that may be resolved or minimized through project design. Traffic and other external effects should be directed away from lower-intensity uses. Landscaping, buffering, and screening should be employed to minimize negative effects. A Planned Unit Development may be advisable.

2: The uses have significant conflict. Major effects must be strongly mitigated to prevent impact on adjacent uses. A Planned Unit Development is required in all cases to assess project impact and define development design.

Table 9.2 - *Land Use Compatibility Matrix*

	Agriculture	Parks, Greenways, Open Space	Low Density Residential	Medium Density Residential	Mobile Home	Neighborhood Commercial	Community Commercial	Downtown Mixed Use	Corridor Commercial	Regional Commercial	Office/Business Park	Limited Industrial/Business Park	General Industry	Civic
Agriculture	-	2	3	3	3	3	3	3	3	2	3	3	3	3
Parks, Greenways, Open Space		-	4	4	3	4	3	4	2	2	2	2	2	5
Low Density Residential			-	4	3	2	2	3	2	1	1	1	1	4
Medium Density Residential				-	4	4	2	4	3	1	2	2	1	4
Mobile Home					-	4	3	3	3	3	2	2	2	4
Neighborhood Commercial						-	5	5	4	3	3	4	3	4
Community Commercial							-	4	4	4	4	4	3	3
Downtown Mixed Use								-	3	3	2	3	2	4
Corridor Commercial									-	3	3	3	3	3
Regional Commercial										-	5	5	3	3
Office/Business Park											-	4	4	3
Limited Industrial/ Business Park												-	4	2
General Industry													-	1

1: The uses are incompatible. Any development proposal requires a Planned Unit Development and extensive documentation to prove that external effects are fully mitigated. In general, proposed uses with this level of conflict will not be permitted.

DOWNTOWN DISTRICT REDEVELOPMENT CONCEPT

Downtowns occupy a special place of importance in any community, and the health of a city is often measured by the health of its traditional downtown. Downtown Manchester has historically been the commercial and civic heart of the City and is characterized by a variety of retail, service, office, civic and residential uses.

Yet many small communities are losing the importance of their traditional downtown areas because of lack of identity or access, small size and/or competition from other commercial developments along highway corridors. In response to this threatening trend, Manchester has been working continuously to maintain its vibrant downtown environment. Virtually all downtown structures are in good basic condition and are occupied. The re-routing of Iowa Highway 13 through the downtown district has provided a continuous traffic flow that has helped maintain the viability of downtown businesses. The county seat status of Manchester and location of county offices in downtown has supported the downtown. Recreational assets such as Gazebo park and a riverside trail have begun to link the downtown to the Maquoketa river, providing a unique natural amenity.

Though downtown Manchester is in good condition, targeted policies and investments are needed to maintain the core's health and vitality as competition rises and development continues at the fringe of the city. Revitalization efforts in the downtown area should support renewed residential development surrounding the historic commercial district and should increase recreational opportunities that utilize the Maquoketa River. With a focused plan, the central district can continue to serve as a strong center for Manchester business, arts and culture, while increasing its presence as a regional destination center.

The development concept below outlines specific policies to support a vibrant downtown, including infill development on vacant sites, parking improvements, traffic safety, redevelopment of underused sites, and neighborhood conservation.

A VISION FOR DOWNTOWN DISTRICT

The Downtown District has potential to grow by serving its local and regional markets in unique ways. For local residents, the district can be a civic, commercial, and activity center surrounded by mixed residential neighborhoods. For the region, the district can provide niche retail, services, and recreation.

The development vision for Downtown Manchester is based on the assumption that property that has indicated an interest in the flood buy-out will eventually participate and these sites will be cleared, leaving them open for redevelopment or conversion to natural areas.

Figure 9.7 - Downtown Development Concept

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The goals of the development vision include the following:

- Create Economic Benefits: The key to downtown planning is to create economic opportunities, address traffic and safety issues, provide ample and convenient parking and resolve aesthetic issues and non-functional features. Beautification and niche projects must have a solid economic and functional benefit in order to come to fruition.
- Highlight the Natural Environment: Manchester presents a special opportunity to combine a quality civic life with the natural environment. The development vision should address how the Maquoketa River can be best integrated into the downtown district.
- Encourage Small Businesses: While a number of areas in Manchester are built for large scale corporate retail and business development, the downtown plan focuses on encouraging small enterprises such as niche retail/boutiques or outdoor recreation businesses. These type of businesses can become destination shopping places and help expand local economic development opportunities.
- Enhance the Regional Pull of Downtown: Significant outdoor spaces, natural areas, river activity, recreation opportunities and unique shopping experiences help bring visitors from surrounding areas and enhance tourism. Thus, a strong development vision must include dynamic strategies for encouraging economic and recreational opportunities within the core by establishing a unified area with a distinct sense of place.

During the Downtown District planning process, the district was defined by Butler Street as the northern border, Marion Street bordering on the South, the river on the west and Madison Street on the eastern edge. The development concept plan for the downtown district is depicted in Figure 9.7. The concept incorporates a number of significant proposals, as detailed below.

1. Connect the River to Main Street. The River is currently hidden from Main Street by commercial buildings fronting the corridor, thus limiting its ability to serve as a downtown amenity for residents and visitors.

The concept above assumes that Bob Stephen Motors will eventually move to a larger space, thus opening part of its former lot for redevelopment. This move would also allow Smitty's Tire to move parking next to its building, which would open their current parking lot to development.

Under these assumptions, concepts for connecting the river to Main Street include the following:

- Create a grand lawn for public activities connecting the Main Street to the river. This space could provide a location for community theater and/or public art.
- Develop an amphitheater along the river, as proposed by the Consultants for the Whitewater River Project. The amphitheater would be ideally located south of the great lawn, and would create an outdoor performing and/or viewing area with terraced stone steps leading down to river. The amphitheater could be

particularly popular for viewing whitewater rafting, if the proposed project is completed. The existing trail would need to be slightly realigned to go around the amphitheater.

- Create a green space between the parking lot to the east of the Grand Lawn and the river. This area represents a manufactured wetlands or rain garden that would reduce the amount of runoff from the parking lot. This facility could be aesthetically appealing, while providing environmental education as a prominent demonstration of mitigating the impact of stormwater into the river.

2. Calm Main Street Traffic. There is no interruption or control of traffic speeds for the segment of Main Street stretching from 13th Street to Franklin Street. Traffic should slow down as it approaches downtown, particularly as it approaches Franklin Street, where Highway 13 turns north. Slowing traffic would make the downtown safer for both pedestrians and motorists. Recommendations to "calm traffic" in this section of Main Street include:

- Consider adding a traffic signal or other calming device to the River Street and Main Street intersection. The concept illustrates medians in this street segment, which would control left turns off the corridor.
- Conduct a parking analysis to see if the proposed redevelopment would provide enough off-street parking to allow the elimination of on-street spaces. Eliminating on-street parking would allow a widening of the area between the curb and the sidewalk, and create room to plant trees along the street. Adding trees and widening the curb will allow pedestrians the feel safer, and will enhance the look of the downtown entrance corridor.

3. Support the River Experience. While the riverfront area south of Main Street would provide great opportunities for viewing river activities, the steep river bank makes access to the river difficult. By contrast, the riverfront north of Main Street allows for direct access and engagement with the river. The riverfront development concept for this area includes the following components:

- Where possible, use flood program buyout properties in a way that enhances the riverfront experience. Pathways with flower gardens or natural areas, ornamental grasses, places to sit and watch the river, and even an interactive spray for kids could be developed in this area.
- Connect St. Mary's School with the River. A trail crossing River street can connect the proposed open space on the riverfront with St. Mary's front door.
- Connect this section of the Riverfront Trail to Tirrill Park. The citywide development concept, covered in the previous section, shows a connection that runs from the River, through Tirrill park, and on to the Northeast Growth Area.

4. Improve Parking and Linkages. The area north of Main Street between River Street and North Franklin suffers from a confusing circulation system. The Downtown Development Concept shows how the area could be reorganized to improve circulation for both vehicles and pedestrians. The concept also shows potential park-

ing lot re-configurations that would increase efficiency. The plan includes the following components:

- Improved connectivity in the parking area that includes City and St Mary's lots.
- Better linkage between St Mary's and Main Street. The Fayette Street connection becomes a smoother option when paired with the parking reconfiguration.
- A new parking area to serve the Commercial Village (see next Section).
- Increased green areas in parking lots for aesthetics and storm water management.

The pedestrian system, shown in white on the diagram, is described separately in Section 6 below.

5. Develop New Village Commercial Center. As indicated in the introduction to this section, investments to improve the aesthetics and public amenities in the downtown riverfront area must be justified by economic benefits and development opportunities. One such development opportunity exists in the area north of Main Street. This opportunity for what is being called "village commercial" is detailed in Figure 9.8. The inspiration for this retail space comes in part from the existing "Bushel and a Peck" produce building adjacent to the redevelopment site.

The proposed Village Commercial development would be multiple 60 square foot buildings that could each be subdivided into four 900 sq. ft. spaces. This commercial village would be well suited for outdoor-themed businesses due to its location near the river. The development site is located in the floodway and would therefore need to be elevated consistent with FEMA regulations.

The concept shows a terrace that encircles the sides of the elevated commercial buildings. A series of terraces lead down to grade level, where a pond features in the center of the site.

The elevated north parking lot would provide a grade level entrance to the village. Other entrances would feature ramps and steps to reach the elevated building entrances.

Figure 9.8 - Detail: Village Commercial

6. Enhance Trail/Pedestrian Connections. The Development Concept illustrates a comprehensive trail/pedestrian system that links the Riverfront Trail, the areas north and south of Main Street, and the Franklin Street storefront area to each other. Specific components of this pedestrian system include:

- A continuous walkway that starts on Fayette Street, extends west to the River and then loops back past the Village Commercial area to Franklin Street.
- The Riverfront trail extends under the Main Street bridge and continues north to Tirrill Park. The main multi-purpose trail would be a 10-foot concrete path that could serve both bicyclists and pedestrians. Various side trails, as shown on the map, could provide more informal options such as a stone garden path lined with flower beds and ornamental grass.
- A series of bump-outs with pergolas, seating or terraced shelters could provide trail users the opportunity to watch river activity.
- A canoe embarkation area with parking on a city owned lot would allow easy access for canoeists.
- A low/screened wall with benches and soft surface landscaping is proposed for the area along the river behind Burger King on West Main Street.
- The city parking lot below the Gazebo park could be used as a "convertible parking lot" that could be used for parking at certain times, but converted to a public space for community events and festivals.

7. Improve South Franklin and Marion Intersection. The Marion/Franklin intersection is an important link between the downtown area and the community west of the river. This subarea of Downtown includes high quality buildings that should be maintained. This is a potential area of focus for city incentives for building facades upgrades, including awnings, quality signage, and improved pedestrian areas in front of entrances.

- The Design Concept includes recommended improvements for lane configuration and pedestrian accommodation, such as:
- Changing the center lane to a left turn lane that allows access into the alley or onto Franklin Street to continue south.
- Reconfiguring and defining pedestrian crossing areas for the Fareway Parking lot. The goal is to encourage pedestrians accessing Fareway from the north to use the sidewalk on the west side of Franklin, rather than crossing through the center of the parking lot. The Franklin sidewalk meets up with a path that runs east to the Fareway front door. This will reduce the hazard of pedestrians crossing the parking lot area during busy times.
- Creating a walkway leading from the southwest edge of the city parking lot (South Franklin Street) that will connect to stairs leading to the trail and river below. The Riverfront Trail will continue south to Schram Park.

8. Develop South First Street. There is an interesting development opportunity on South 1st Street. The city owns the corner site and the remainder of the block to the south may be a potential acquisition/redevelopment opportunity. The Development Concept illustrates how this site could become a cohesive mixed-use development with an impressive view of the River. The components of this concept are:

- A restaurant could be built overlooking Marion Street Bridge and the river.
- A riverside condominium building with 21 units over parking, just south of the restaurant.
- Two commercial buildings west of the proposed condominiums, with parking on 1st street, ending in a standard cul-de-sac.
- A Public Promenade adjacent to these uses on the east, providing public access and visibility to the river.

9. New Development Opportunity – River Street Townhomes. A townhouse project is proposed at Butler and River street as illustrated on Figure 9.15. The units would be built over parking/garages to comply with flood elevation concerns, and would feature west-facing porches looking out to the river and park improvements.

FLOODPLAIN CONSIDERATIONS

Any riverfront redevelopment project will need to consider the possibility of flooding from the Maquoketa River. As shown in Figure 9.9, a large portion of the downtown development concept is in the floodplain (gray area on the map). FEMA regulations stipulate that properties that are acquired with government funding after a flooding event ("buyouts") are subject to strict building restrictions in the future. While some uses in the downtown concept are consistent with FEMA buyout limitations, others (such as the village commercial area) are not. The City should further investigate federal buyout options and restrictions for downtown properties before pursuing any redevelopment project.

Figure 9.9 - The figure at left shows the floodplain boundaries for the area covered in the downtown redevelopment concept (right)

10 Future Parks and Recreation

The City should identify the Manchester Park and Recreation system as a signature feature for the community. The proposed land use plan should offer neighborhood park services within a comfortable walking distance of approximately one-quarter to one-half mile for all Manchester residents.

PARKS AND RECREATION

RECREATION AMENITIES

An essential component of Manchester's future quality of life will be development of a strong parks and trails system. The City should identify the Manchester Park and Recreation system as a signature feature for the community. The proposed land use plan should offer neighborhood park services within a comfortable walking distance of approximately one-quarter to one-half mile for all Manchester residents. Manchester's residential neighborhoods, activity centers, commercial areas, schools, parks and open spaces should be linked by a comprehensive and continuous greenway and trail system serving both transportation and recreational purposes. Greenways include natural areas and greenbelts that provide open space within developed areas, separate incompatible uses, buffer busy roadways and accommodate natural drainage. They also provide important non-motorized linkages between neighborhoods, schools, and parks creating safe pedestrian environment.

The Development Concept map shows an expanded trail network that connects schools, parks, downtown, commercial centers and residential areas. A key part of this expansion is a trail that connects existing and new residential neighborhoods to the downtown and Schram Park. New parks are proposed to accommodate new residential neighborhoods in the northeast and western portions of the city. The existing park, trails and open spaces system is shown in chapter 5. Figure 10.1 shows the proposed expansions. These expansions are also described in chapter 9.

PARK FINANCING

The City Parks and Recreation Department shall identify all available funding sources for facilities, operations and recreational opportunities to supplement traditional funding sources. The City Parks and Recreation Department shall seek available grant funding from local, state and federal agencies and from non-profit foundations.

Manchester should implement a mechanism for park acquisition and ensure reservation of well-located and appropriately sized open spaces. Park acquisition may take place through dedication of appropriate parcels by developers. Some Iowa cities also allow payment of cash in lieu of dedication of land by developers. While the law is clear that a city cannot mandate a payment in lieu of dedication, cities such as Ankeny, Johnson and Iowa City have provisions in their dedication ordinance that allow payment of cash in lieu of dedication, only at the request of the developer. Other cities, such as West Des Moines and Clive, prohibit such dedication. The payment in lieu of dedication approach to park financing requires local processes to track expenditures to the direct benefit of those areas that pay the fee. Manchester park officials should consult with the Manchester city attorney to determine their approach on this issue.

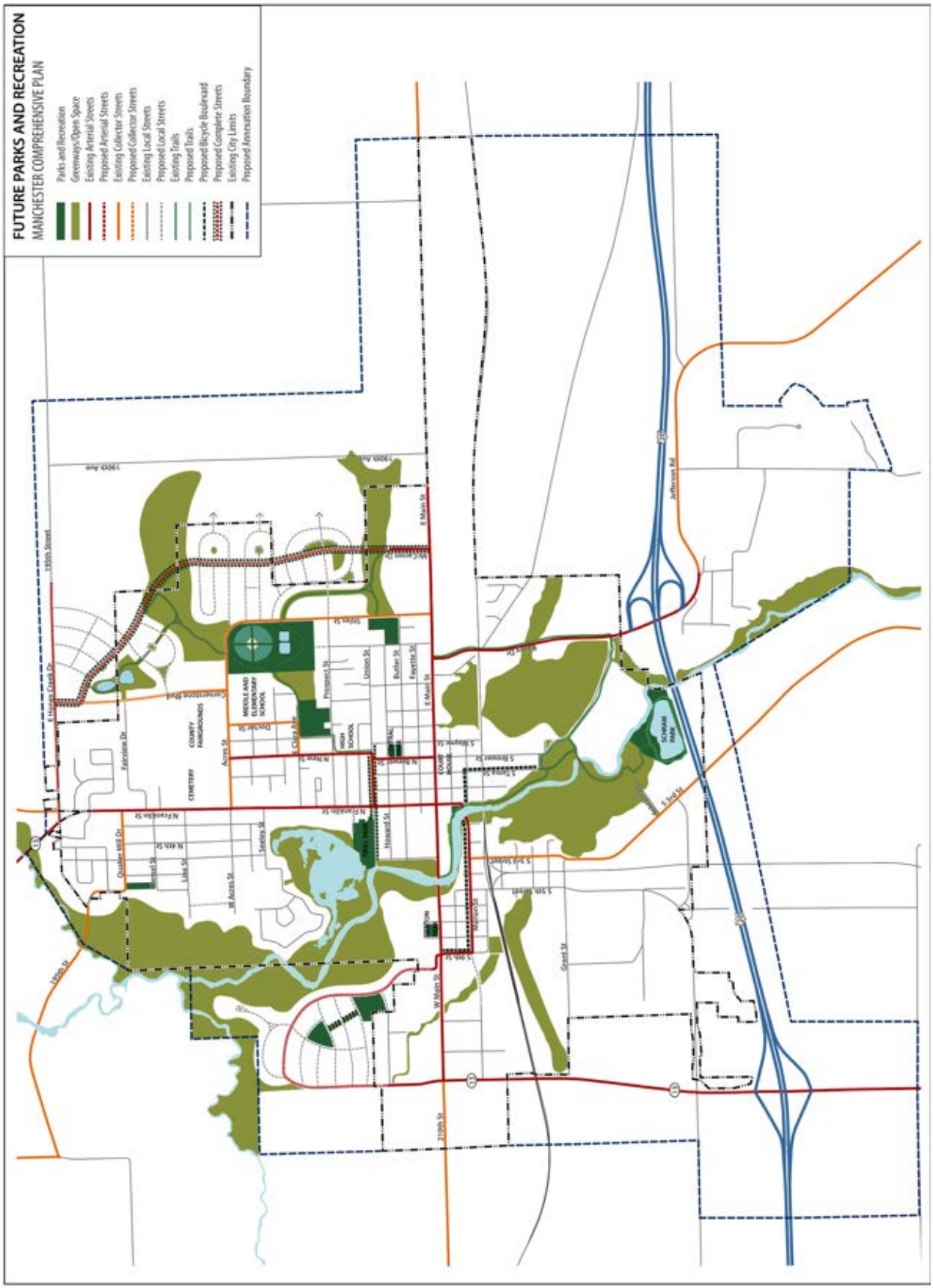

Figure 10.1 - Proposed Parks, Trails, and Open Space System

To require dedication of land by developers, Manchester should establish a park land dedication policy for all new developments. This policy should be implemented through the City's land development ordinances. The obligation for land dedication (or payment in lieu of dedication) are typically a function of:

- Acres in the development
- Development density established by the development's zoning
- Number of people per housing unit in Manchester, differentiating between single and multi-family residences
- The City's desirable level of service standard for acres of neighborhood parkland per 1,000 residents (based on data presented in chapter 1.5 of this plan)

Due to the piecemeal nature of development, the required amount of land dedication for any single development may be smaller than the ideal neighborhood park size. One strategy to assemble larger pieces of land is to request that developers locate dedicated land at the edges and corners of the development, so that adjacent developments can combine several small parcels of dedicated land to form one larger parcel.

11 Transportation

The Manchester transportation system provides a basic structure on which the city grows. Proper street development should move traffic efficiently, provide multiple routes to destinations and accommodate multiple modes of transportation, including cars, bikes and walking. The proposed street extensions will prevent overloading the existing streets and will provide multiple access routes to all areas.

TRANSPORTATION

INTERCONNECTED STREET SYSTEM

Figure 11.2 shows the proposed system (refer to chapter 4 for an existing street map). Streets are proposed to maintain overall connectivity and accessibility between existing development and proposed growth centers. In addition to accommodating cars and trucks, future streets should have multi-modal features including sidewalks, trails, and bike lanes as appropriate to the street design. This method of multi-modal street design is known as "complete streets." The extension of McCarren Drive is proposed as a complete street, which would feature street-side landscaping and trails or side paths within the right of way. The development concept also shows potential locations for bicycle boulevards, which are streets that accommodate cars while providing a bicycle-friendly environment through pavement markings, signage, and traffic calming. "Sharrows," pavement markings that alert drivers to share the road with bicyclists, are one example of a bicycle boulevard feature. New multi-use trails are proposed for non-automotive transportation and recreation purposes.

Future streets should be designated before development begins and dedicated as growth occurs. Each development project should be evaluated in relation to the broader land use plan and transportation system to ensure the project can be well connected to existing streets, neighborhoods, and civic and commercial areas. New developments should provide connections to the collector and arterial system but also to adjoining developments along local streets, avoiding isolated enclaves.

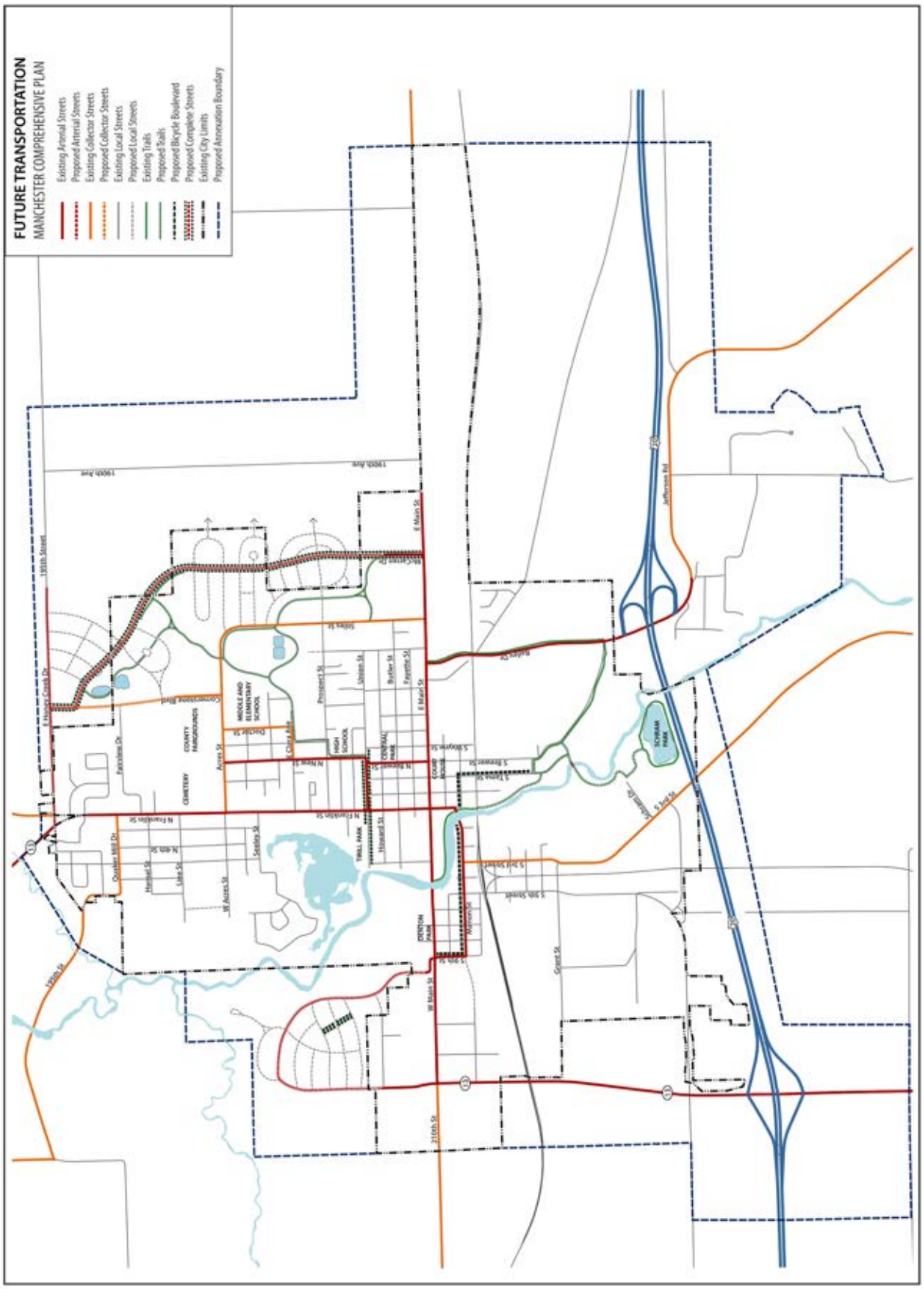

Figure 11.1 - Future Transportation

12

Infrastructure

The locations of the growth areas in the development concept (Chapter 9) are largely driven by infrastructure expansion capabilities. Changing topography and other natural features can make infrastructure extension more difficult or costly in some areas as compared to others.

INFRASTRUCTURE

The locations of the growth areas in the development concept (chapter 9) are largely driven by infrastructure expansion capabilities. Changing topography and other natural features can make infrastructure extension more difficult or costly in some areas as compared to others. The growth areas in the development concept are focused on land where the extension of infrastructure is most feasible and efficient. In addition, the concept encourages infill development, particularly in the downtown, which lessens the needs for infrastructure expansion. By focusing on strategic growth areas and infill development, the concept minimizes potential expense to taxpayers and keeps new developments more affordable for prospective property owners. Attention to infrastructure efficiency results in growth that is adjacent to or within existing development, which carries the benefits of minimizing travel distances and reducing intrusion into natural areas. Careful consideration of our infrastructure expansions is therefore crucial to a prosperous, attractive, and enduring community. The growth considerations for Manchester's water, sanitary sewer and stormwater systems are listed below. For more detailed information regarding existing systems, including maps, refer back to chapter 6.

WATER SYSTEM

GROWTH CONSIDERATIONS

General

- As the distribution system expands, elevations must be examined to determine if system pressure will be adequate in growth areas.

Site Specific

- The northwest growth area outlined in the development concept may require additional water pressure as the area develops.
- Water pressure around the proposed commercial node at the interchange will be a challenge. Strategies for meeting this challenge will depend on the needs of the proposed development.
- The annexation study area (golf course area, see chapter 14) would require a pump station for water service, which would increase the expense of infrastructure extension in this area.

SANITARY SEWER SYSTEM

GROWTH CONSIDERATIONS

General

- Gravity service may be challenging in some growth locations due to topography.
- Existing main and trunk line capacities should be reviewed for large developments or new industrial users.
- New industries, especially "wet" processes, may require sanitary sewer plant expansion.

Site Specific

- Sanitary sewer is designed and ready to go for the north-side of the proposed commercial node at the interchange of Highway 20 and Highway 13. The south side is not currently designed for sewer service, and would require a pump with a force main to run under Highway 20.
- The area northwest of Manchester is not a designated growth area due in part to the difficulty of getting sewer past Honey Creek. Future development should focus on areas on the near side of the creek.
- The annexation study area (golf course area) would require a lift station for sewer service south of US 20.
- In the north growth area (between the county fairgrounds and 195th St), the lift station at the end of Fairview Drive was built to serve a large area, and should be able to support proposed development in that area.
- Extending sewer service farther north along the west side of Honey Creek Road would present a problem. This is therefore not a logical growth area. The city's interests should focus east of Honey Creek Road.

STORMWATER COLLECTION SYSTEM

GROWTH CONSIDERATIONS

General

- Capacity of existing facilities should be reviewed prior to connection to new facilities, even after meeting detention requirements
- Discharge of detention facilities directly to open drainage channels will help prevent overload for existing facilities
- To mitigate capacity issues, encourage new detention and retention facilities to exceed performance requirements by increasing detention and lowering release rates.

Site Specific

- Additional detention facilities north of the railroad (west of 9th street) would be helpful for managing stormwater, but available land in that area is considered prime commercial real estate and thus may be difficult to obtain at a reasonable price.

13 *Economic Development*

Economic Development involves every facet of the community, from parks and trails, to technology infrastructure, to strong leadership. Manchester must attend to all these facets in order to support existing businesses, maintain a quality workforce, and foster new economic ventures.

ECONOMIC DEVELOPMENT

Economic Development involves every facet of the community, from parks and trails, to technology infrastructure, to strong leadership. Manchester must attend to all these facets in order to support existing businesses, maintain a quality workforce, and foster new economic ventures. The previous chapters of this plan have outlined strategies for preserving natural resources, maintaining a diverse transportation network, providing quality recreational opportunities and public facilities, supporting a reliable infrastructure system, revitalizing existing neighborhoods, and developing land efficiently, profitably, and responsibly. All of these pieces fit together to form a strategy that will support a vibrant, enduring economy. This chapter collects and comments on the economic implications of the strategies outlined earlier in the plan. These strategies contribute to the declared economic development goals of Manchester, which are outlined below.

MANCHESTER'S ECONOMIC GOALS

The 2009 "Good to Great Plan" outlines goals for economic development, to be executed in partnership with the Manchester Chamber of Commerce and Delaware County Economic Development. These goals include:

Branding and Marketing

Implement an integrated Manchester Branding and Marketing Campaign aimed at improving the community image internally and externally.

Business Growth and Entrepreneurship

Establish the Manchester Area Business and Entrepreneurial Growth Initiative (MGI) that will implement a targeted, proactive effort to support and attract new business and company start-ups.

Retention and Expansion

Maintain regular dialogue between existing business decision-makers and Manchester Enterprises to improve methods for identifying the expansion and retention needs.

Work Force Education

Assure a quality future workforce by achieving "Educational Excellence" in Manchester, as evidenced by improved K-12 academic performance and increased post-secondary education opportunities in the Manchester area.

Community Improvement

Create a focused effort to improve the visual attractiveness of the Manchester area through a community-wide beautification program.

These goals and others are supported by the development concept detailed earlier in the plan. Economic implications of the development concept are discussed below, grouped by issue area:

PRESERVING NATURAL AMENITIES: GREENWAYS AND PARKS

The Manchester development concept is centered around the preservation of natural areas, and the stewardship of critical resources such as water. Greenways are preserved to avoid development in wetlands or floodplains, and to allow for more natural management of stormwater. A new proposed sub-regional stormwater management facility in the northeast area of the development concept would further support the stormwater conveyance system. These provisions carry important economic benefits for Manchester.

A prominent economic benefit of natural resource protection is the reduction of property damage due to floods. Greenways and stormwater management facilities give excess water a place to go, thus reducing the likelihood of flooding. Development in a floodplain, floodway, or wetland areas, particularly that which involves high proportions of impervious surfaces, has the potential to both hinder floodplain functions and suffer water damage in years of high rainfall. The development concept avoids potentially costly damage by directing development out of the floodplain areas.

Greenway preservation also helps to maintain a cleaner water supply, by providing a natural filtration system for stormwater runoff, thus reducing groundwater contamination. A clean, reliable water supply is important for attracting residents, recreational tourists, and certain types of industry.

reenway planning contributes to an extensive open space and park system, a valuable community amenity that attracts residents - particularly young adults, families with children, and retirees. Proximity to natural areas makes land more attractive and more valuable. The west growth area concept, for example, provides river-view homes along the bluff which can provide Manchester an upscale housing alternative to rural estate developments. Greenways contribute to small town community character, which helps reinforce the branding and marketing of Manchester.

PROVIDING QUALITY NEIGHBORHOODS

Quality neighborhoods attract new residents and help keep existing residents, ensuring a steady workforce and patronage for local businesses. Good neighborhoods require certain amenities, such as accessibility to parks, schools, and jobs, protection from flooding or other damages, and a diverse range of affordable housing options. The paragraphs below describe how the development concept allows for the provision of these amenities, thereby securing a critical piece of Manchester's economic development.

The development concept aims to fulfill the accessibility need in two ways. First, the concept outlines an interconnected multi-modal transportation network, including trails, well connected roads, and bikeways. Secondly, residential growth areas are located adjacent to existing development, with access to community facilities. The northeast growth area, for example, has easy access by road or trail to Lambert Elementary School, West Delaware High School and Beckman Sports complex. In both the northeast and western growth areas, homes are clustered around parks and green spaces.

As mentioned above, the development concept reduces the potential for flooding

by preserving greenways and avoiding development in floodplains or wetlands. In some neighborhoods, greenways also buffer houses from the sights and sounds of neighboring industrial areas.

To support the provision of diverse, affordable housing, the development concept provides space for both single family residential and medium density multi-family homes. The northeast area concept provides space to expand existing senior housing, and the western concept suggests adding bi-attached houses north of Howard. The downtown concept shows a potential location for river-front townhomes. As mentioned above, all new housing types can be kept more affordable by expanding in areas where infrastructure provision is cost efficient. A range of affordable housing is critical to supporting a diverse workforce for Manchester businesses and industry.

COMMERCIAL AND INDUSTRIAL GROWTH

The development concept provides diverse sites for commercial development, including a neighborhood commercial node in northeast area, community nodes in infill areas downtown, commercial corridors along Iowa 13, and a regional commercial node at interchange of US 20 and Iowa 13.

Providing diverse spaces for commercial and industrial businesses is an important step in encouraging new employment and shopping opportunities for Manchester residents. New businesses translate to increased property taxes, which allow Manchester to maintain high quality public amenities, which in turn attract more businesses and residents. New commercial and industrial growth can help existing businesses by providing new mutually beneficial business partnerships. For example, a local farmer could sell fresh vegetables to a new restaurant in a growing commercial node, or a downtown insurance agent may add staff to accommodate the needs of expanding industries on the east edge of town.

Infill and neighborhood commercial areas can strengthen the economic vitality of downtown and existing neighborhoods by providing focal points of activity and easily accessible shopping for daily needs. The interchange development can raise the profile of Manchester by drawing travelers off the highway. Commercial diversity keeps citizens happy by providing a range of shopping and service options, whether they're looking for small stores walking distance from home, or regionally-sized stores a short drive away.

DOWNTOWN REDEVELOPMENT

Ensuring that downtown remains vital is critical to Manchester's commercial health and its community character and branding. The development concept proposes multiple ways to improve access to the river and trails in order to attract more visitors and enhance commercial activity. The concept shows redevelopment of underused parcels, including the addition of a new village center, and provides provisions for parking and pedestrian-friendly streets. Active, pedestrian oriented downtowns are critical for community character, tourism, and diverse shopping and entertainment opportunities that are particularly crucial for retaining young-adult residents.

EFFICIENT INFRASTRUCTURE: STREETS, WATER AND SEWER

Proposed street extensions for new residential areas promote interconnectivity, while street enhancements encourage multi-use, "complete" streets. These strategies prevent overloading existing streets with traffic, which can be a deterrent to businesses and the workforce.

The development concept give careful consideration to the topography, and avoids development in areas with steep slopes or other topographical barriers. Development in areas with less extreme topography will often be more economically efficient in terms of the cost of extending infrastructure such as water and sewer. Infill development, also encouraged in the development concept, is typically the most cost effective development solution in terms of infrastructure, since it makes use of existing systems. Lower cost infrastructure minimizes expense to taxpayers and frees up government funds for services which benefit both citizens and businesses, such as schools to educate the future workforce, parks to attract residents and visitors, and hi-tech infrastructure that can support local entrepreneurs. Lowered development costs also lead to properties that are more affordable for prospective businesses or home-owners.

14 *Annexation*

Manchester should implement an annexation policy incorporating areas that are experiencing development or have potential for future development, meeting state statutory requirements for submittal of voluntary annexations.

ANNEXATION

ANNEXATION POLICY

Manchester should implement an annexation policy incorporating areas that are experiencing development or have potential for future development, meeting state statutory requirements for submittal of voluntary annexations. While Delaware County currently does not have zoning regulations, the City should work with the County to ensure consistent development standards for areas that are currently outside of Manchester's jurisdiction, but are incorporated by this document into the planning area for the next twenty years. Figure 14.1 below summarizes the Manchester growth areas adjacent to the current city boundaries. Figure 14.2 translates these rough areas into specific annexation areas for the short-term and long-term. These areas represent priority areas where development will benefit from the provision of full city services and infrastructure.

It is in the city's interest to ensure that these priority annexation areas are not developed in an inappropriate land use prior to annexation by the city. Premature development often precludes the ability of the city to extend infrastructure into contiguous areas and creates opposition to the future voluntary annexation of logical city growth areas. For example, development of acreage homes in a potential regional commercial area is not appropriate and can thwart the long-term economic growth potential of the city. A limited number of tools are available to cities to protect future annexation areas from inappropriate interim development while the areas are unincorporated. These tools are summarized below:

- **Annexation.** Iowa law provides for both voluntary and involuntary annexations. Because of the difficulty and time required for the approval of an involuntary annexation, it is recommended that only voluntary annexations be pursued by the City of Manchester. Annexation law prohibits the annexation of land by a community in advance of specific plans for the provision of services and infrastructure to the area. Therefore, early annexation of land as a "holding strategy" to protect it from inappropriate development is not possible.

  Although voluntary annexation is always preferable, the law allows some flexibility in cases where a small number of owners refuse consent for annexation. Properties with non-consenting owners can comprise up to 20% of a single annexation area, and the annexation will still be considered voluntary. This provision allows communities to avoid the creation of unincorporated "islands" and to establish practical community boundaries for the provision of urban services. It is recommended that this "20% provision" be considered whenever voluntary annexations are pursued.

- **Extra-territorial Zoning.** Iowa law provides for the extension of municipal zoning up to two miles into adjacent unincorporated areas where the county does not have zoning regulations. This is the case for Manchester, as Delaware County does not currently have zoning. It is recommended that extra-territorial zoning be Manchester's primary tool to ensure that inappropriate interim development does not occur in future city growth areas.

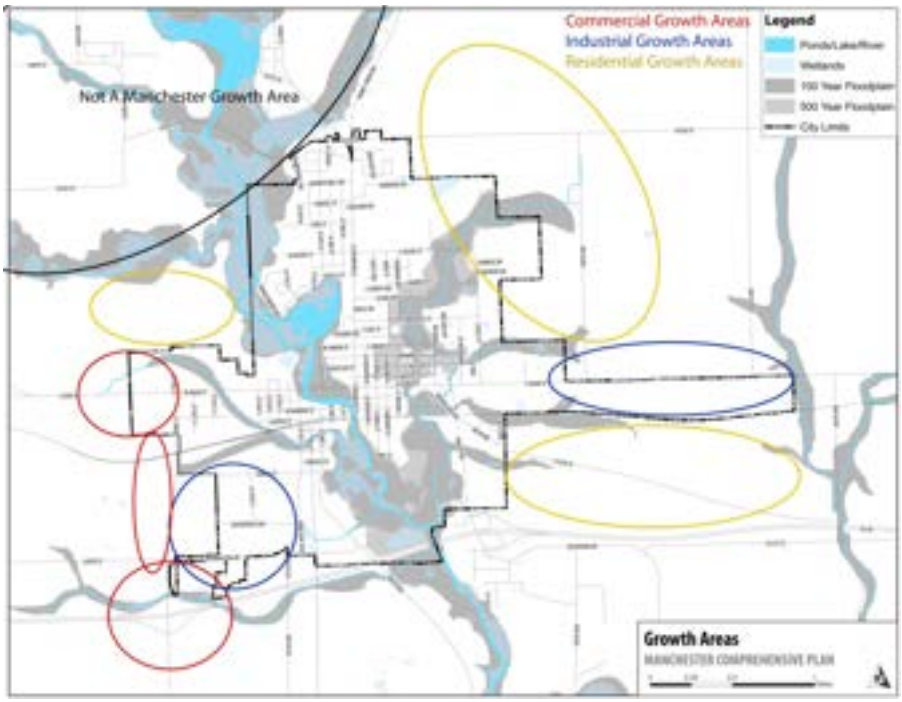

Figure 14.1 - Manchester Growth Areas

The Manchester comprehensive plan identifies the proposed land uses for the adjacent unincorporated areas identified for development in the next twenty years. Other "Growth Areas" identified are longer term and likely won't develop within this plan's time frame. Nonetheless, they still represent Manchester's future growth areas and should be protected from inappropriate interim development.

The current use of these areas is mostly agriculture. The Manchester zoning ordinance will include an "Agriculture" zoning district that limits uses in these identified areas to agricultural uses. Specifically, as the most likely inappropriate use is one-acre lot homes, the agriculture zoning district should include a requirement that any new single-family home have a minimum lot size of ten acres. This will effectively prohibit the interim development of homes in an area designated as a Manchester "Growth Area" and therefore identified as a future annexation area for the provision of city infrastructure. The Agricultural zoning district should prohibit commercial and industrial uses prior to annexation.

- **Subdivision Review.** Under Iowa law, the city and the county have joint subdivision review authority in the two-mile area adjacent to the city's boundaries. However, subdivision review is primarily concerned with the configuration of development and its impact on environmental resources. It is not an effective tool for communities wishing to protect adjacent areas from inappropriate development. This is particularly true for counties with zoning regulations. Where a specific development has been granted zoning approval by the county, a city would be hard-pressed to prevail in trying to stop that development by withholding subdivision approval.

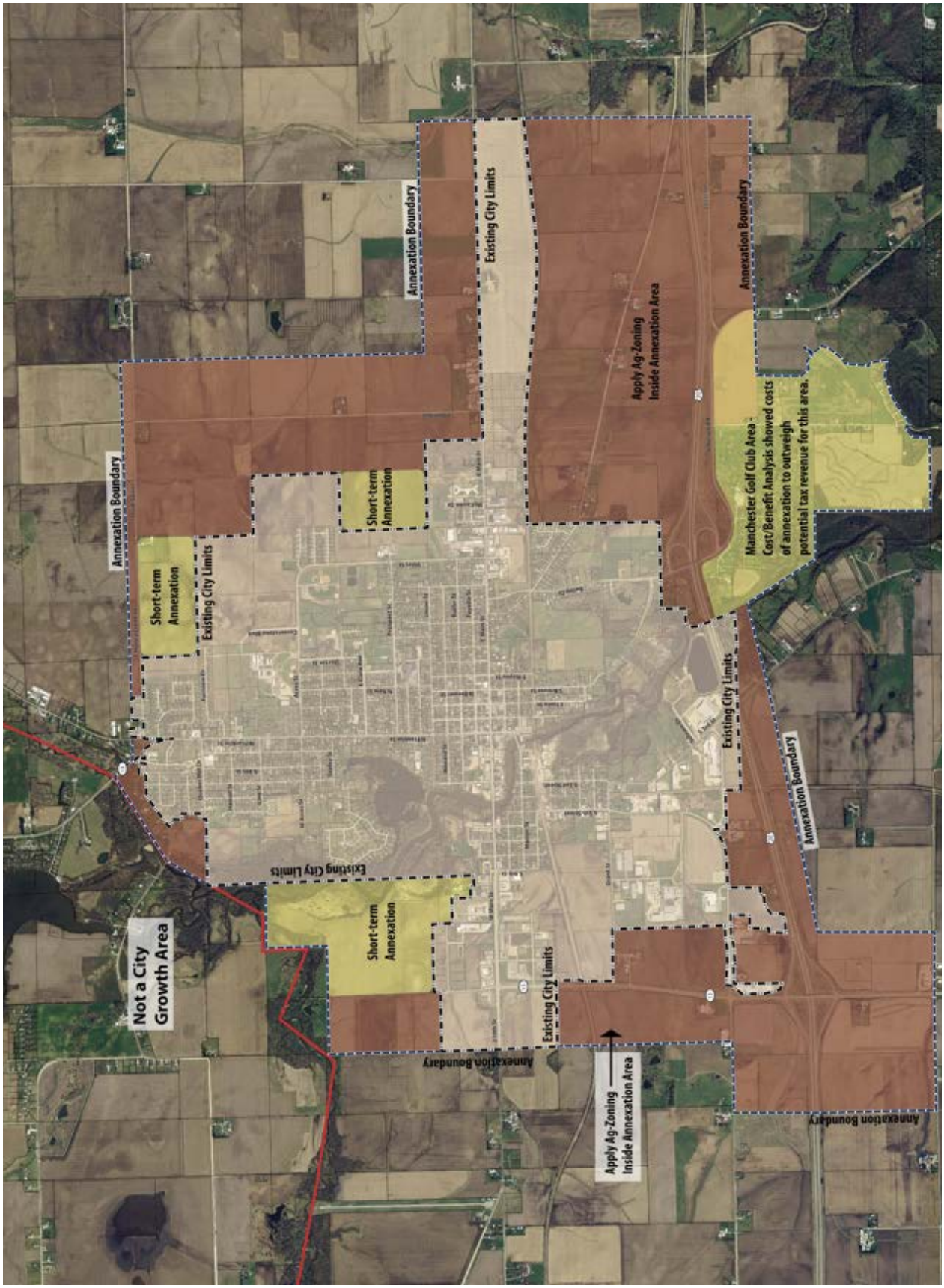

Figure 14.2. - Manchester Annexation Areas

15 Implementation

Manchester should implement the visions and actions presented in this plan through a realistic program that is in step with the resources of the community. The previous fourteen chapters are the core of the Manchester Plan. This section addresses the scheduling of plan implementation by both public agencies and private decision-makers.

IMPLEMENTING THE MANCHESTER PLAN

REALIZING THE VISION

Manchester should implement the visions and actions presented in this plan through a realistic program that is in step with the resources of the community. The previous fourteen chapters are the core of the Manchester Plan. This section addresses the scheduling of plan implementation by both public agencies and private decision-makers. Key areas include:

- **Development Policies and Actions.** This section summarizes the policies and actions proposed in the Manchester Plan, and presents projected time frames for the implementation of these recommendations.
- **Plan Maintenance.** This section outlines a process for maintaining the plan and evaluating progress in meeting the plan's goals.
- **Plan Support.** This section identifies possible funding sources that can assist in implementation of the plan.

DEVELOPMENT POLICIES AND ACTIONS

Table 15.1 presents a concise summary of the recommendations of the Manchester Plan. These recommendations include various types of efforts:

- **Policies,** which indicate continuing efforts over a long period to implement the plan. In some cases, policies include specific regulatory or administrative actions.
- **Action Items,** which include specific efforts or accomplishments by the community.
- **Capital Investments,** which include public capital projects that will implement features of the Manchester Plan.

Recommendations are classified according to their time frame: on-going, short term, medium term, or long term. Short-term indicates implementation within five years, medium-term within five to ten years, and long-term within ten to twenty years. Ongoing recommendations do not have a clear completion date, but should be practiced on an ongoing basis (these recommendations may be new practices, or a continuation of existing practices). Recommendations are categorized by their place in the plan.

The City of Manchester is responsible for coordinating the actions in Table 15.1, and will coordinate assistance from other agencies where necessary.

Table 15.1: *Implementation Schedule*

	Type	On-going	Short	Medium	Long
Transportation and Connectivity Priorities					
Practice multi-modal street design, to accommodate sidewalks, trails and bike lanes as appropriate; aka, "complete streets."	Policy	X			
Provide trail connections that link residential areas with existing neighborhood, parks, and other community facilities.	Capital			X	
Enhance trail and pedestrian connections in the downtown area.	Capital		X		
Extend McCarren Drive as a "complete street" connection between Main Street and East Honey Creek Drive	Capital	X			
Extend Cornerstone Blvd north to E Honey Creek Drive	Capital	X			
Extend North 13th street as a collector loop for new residential development	Capital	X			
Build a multi-use trail that runs from Tirrill Park to the downtown.	Capital		X		
Extend aforementioned multi-use trail from Tirrill Park to McCarren Drive.	Capital			X	
Extend aforementioned multi-use trail from the downtown to Schram Park.	Capital			X	
Housing Priorities					
Support a variety of housing options for a range of incomes and ages.	Policy	X			
Encourage the expansion of existing senior housing to the east along East Main Street	Policy			X	
Land Use Priorities					
Preserve an interconnected system of greenways and natural areas that will provide natural stormwater management and enhance the park system.	Policy	X			
Guide residential growth to northeast and west areas of city	Policy	X			
Ensure that new residential developments connect well to existing neighborhoods and are not isolated.	Policy	X			
Reserve land for open space as residential areas grow.	Action	X			
Allow cluster development that centers housing around public open space	Policy	X			
Consider land use compatibility when approving future development.	Policy	X			
Parks and Recreation Priorities					
Identify all available funding sources for facilities, operations and recreation opportunities to supplement traditional funding sources	Policy	X			
Establish a policy for parkland acquisition and dedication to ensure reservation of well-located and appropriately sized open spaces.	Policy		X		
Commercial Development Priorities					
Support neighborhood-oriented commercial development in residential areas	Policy	X			
Provide attractive, contemporary sites for commercial and industrial development that take advantage of the city's transportation, location, and environmental assets.	Action	X			
Focus commercial development in the downtown, at major intersections, in key neighborhood nodes, and in mixed use settings.	Policy	X			
Promote corridor commercial development on Iowa 13, near Highway 20.	Action		X		
Promote varying scales of commercial development, ranging from neighborhood shops to regional commercial centers.	Policy	X			

continued >>

Table 15.1*: Implementation Schedule*

	Type	On-going	Short	Medium	Long
Downtown Priorities					
Revitalize the downtown area by integrating the Maquoketa River, encouraging small enterprises, and enhancing a distinct sense of place.	Action			X	
Connect the River to the downtown.	Capital		X		
Calm Main Street Traffic.	Capital		X		
Improve downtown parking and linkages.	Capital		X		
Encourage development of New Village Commercial Center at Main and River Streets.	Action			X	
Improve South Franklin and Marion St Intersection.	Capital		X		
Develop South First Street	Capital			X	
Encourage development of River Street townhomes facing the River	Action			X	
Infrastructure Priorities					
Examine additional water pressure needs for northwest residential growth area and proposed commercial node at interchange	Action		X		
Review sanitary sewer main and trunk line capacities when approving large developments or new industrial users.	Policy	X			
Create sub-regional stormwater management facility in existing wetland area east of Fairview Drive	Capital		X		
Annexation Priorities					
Pursue annexation in areas marked for short-term annexation in figure 14.2.	Action		X		
Apply Agricultural zoning in future growth areas as marked in figure 14.2, through the use of extra-territorial zoning.	Action		X		
Hazard Priorities					
Priorities related to hazard mitigation are included as part of the above categories and are also collected in the appendix for reference.					
Continue to implement public safety improvements as recommended by the Manchester Hazard Mitigation Plan including: improve protocol for response to ice storms; publicize locations for storm shelters, and improve outdoor warning system.					

PLAN MAINTENANCE AND SUPPORT

The scope of the Manchester Plan is both ambitious and long-range, and many of its recommendations will require funding and other continuous support. The City should implement an ongoing process that uses the Plan to develop annual improvement programs. This process should include the following features:

ANNUAL ACTION AND CAPITAL IMPROVEMENT PROGRAM

The Planning and Zoning Commission and City Council should define an annual action and capital improvement program that implements the recommendations in this plan (Table 15.1). This program should be coordinated with Manchester's existing capital improvement planning and budgeting process, even though many of the Plan's recommendations are not capital items. This annual process should be completed before the beginning of each budget year and should include:

- A work program for the upcoming year that is specific and related to the City's financial resources. The work program will establish which plan recommendations the City will accomplish during that year.
- A three year strategic program. This component provides for a multi-year perspective, aiding the preparation of the annual work program. It provides a middle-term implementation plan for the City.
- A six year capital improvement program. This is merged into Manchester's current capital improvement program.

ANNUAL EVALUATION

An annual evaluation of the comprehensive plan should occur at the end of each calendar year. This evaluation should include a written report that:

- Summarizes key land use developments and decisions during the past year and relates them to the Comprehensive Plan.
- Reviews actions taken by the City during the past year to implement Plan recommendations.
- Defines any changes that should be made in the Comprehensive Plan.

The Plan should be viewed as a dynamic changing document that is used actively by the City.

PLAN SUPPORT

In order to implement many of the objectives described in the Plan, the City will need to consider outside funding sources. Table 15.2 presents possible funding sources available to the City of Manchester for projects recommended in the Comprehensive Plan. This should not be viewed as a final list, but should be reviewed and modified each fiscal year.

Table 15.2 uses the following acronyms:

- Department of Natural Resources - DNR
- East Central Intergovernmental Association - ECIA
- Federal Department of Housing and Economic Development - HUD
- Iowa Department of Economic Development - IDED
- Iowa Department of Transportation - IDOT

Table 15.2 *Potential Funding Sources*

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Community Attraction and Tourism Program; Vision Iowa, IDED	Funding for the development and creation of multiple purpose attraction or tourism facilities.	Creation of a major recreation facility in the city.	Quarterly; Jan 15, April 15, July 15, Oct 15	$5 million expected to be available for 2013	Encouraged
Community Development Block Grant (CDBG); HUD & State of Iowa	Federal funding for housing, public facilities, and economic development to benefit low-and moderate income residents.	Rehabilitation and infill projects, directed to projects that benefit low-and-moderate-income households or eliminate blighted areas.	Varies by funding area	Varies by funding area and population	No
DOT/DNR Fund; IDOT, DNR	Roadside beautification of primary system corridors with plant materials.	Landscaping improvements along key corridors in the city.	Open	$300,000 Annually; Maximum of $100,000 per application per year	Encouraged
Federal Transportation Enhancement Program; IDOT through ECIA	Funding for enhancement or preservation activities of transportation related projects.	The following projects are funde: facilities for pedestrians and bicyclists; safety and educational activities for pedestrians and bicyclists; scenic or historic highway programs; acquisition of scenic or historic sites; landscaping and scenic beautification; historic preservation; rehabilitation and operation of historic transportation facilities; preservation of abandoned railway corridors; control and removal or outdoor advertising; archaeological planning and research; mitigation of water pollution due to highway runoff; or transportation museums.	October 1 for statewide applications; Check with East Central Intergovernmental Association (Dubuque) for regional deadlines	$4,500,000 each for all statewide and regional projects annually; $180,000 annually for Manchester region	Varies by region; Contact the ECIA
Recreational Trails Program (Federal); IDOT	Funding for creation and maintenance of motorized and non-motorized recreational trails and trail related projects.	Recreational trail extension	Oct 1	$1.25 million	20%
Recreational Trails Program (State); IDOT	Funding for public recreational trails.	Trail projects that are part of a local, area-wide, regional, or statewide trail plan.	July 1 and Jan 2 (most years do not have a Jan 2 round - check with DOT)	$2 million	25%
Highway Bridge Program; IDOT	Funds for replacement or rehabilitation of structurally deficient or functionally obsolete public roadway bridges.	Bridge rehabilitation or replacement	Oct 1	$ 1 Million per bridge (one bridge per city per year)	20%

continued >>

Table 15.2 *Potential Funding Sources*

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Housing Fund (HOME); IDED	Funds to develop and support affordable housing	Rehabilitation of rental and owner-occupied homes; new construction of rental housing; assistance to homebuyers; assistance to tenants; administrative costs. HOME funds may be used in conjunction with Section 42 Low Income Housing Tax Credits. They may also be used for innovative project approaches, such as rent-to-own development.	Varies - Usually January	$15 million annually state-wide	NA
Iowa Clean Air Attainment Program (ICAAP); IDOT	Funding for highway/ street, transit, bicycle/ pedestrian or freight projects or programs which help maintain Iowa's clean air quality by reducing transportation related emissions.	Projects which will reduce vehicle miles traveled or single-occupant vehicle trips; Transportation improvements to improve air quality	Oct 1	$4.5 million; Minimum $20,000 per project	20%
Land and Water Conservation Fund; Iowa DNR	Federal funding for outdoor recreation area development and acquisition.	Improvements to existing recreation facilities and development of new facilities.	March 15, or closest working day	TBD	50%
Living Roadway Trust Fund; IDOT	Implement integrated Roadside Vegetation Management programs (IRVM) on city, county, or state rights-of-way or areas adjacent to traveled roads.	Roadside inventories, gateways, education, research, roadside enhancement, seed propagation, and special equipment.	June 1	TBD	No
Pedestrian Curb Ramp Construction; IDOT	To assist cities in complying with the Americans with Disabilities Action primary roads.	Construct curb ramps to ADA standards.	Accepted all year	Maximum of $250,000 per city per year	45%
Public Facilities Set-Aside Program (PFSA); IDED	Financial assistance to cities and counties to provide infrastructure improvements for businesses which require such improvements in order to create new job opportunities.	Provision or improvement to sanitary sewer systems, water systems, streets, storm sewers, rail lines, and airports. For Iowa Cities under 50,000 populations. 51% of persons benefitting must be low or moderate income.	Accepted all year	NA	50%; Additional points for higher percentage

continued >>

Table 15.2 *Potential Funding Sources*

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Resource Enhancement and Protection (REAP); Iowa DNR	Funding for projects that enhance and protect natural and cultural resources. Grants available in categories such as: City Parks and Open Space, County Conservation and Roadside Vegetation	Parkland expansion, multi-purpose recreation developments, management of roadside vegetation	Varies by grant category	Varies; approximately $20 million annually for all REAP programs	Varies by grant category; many require no match
Revitalize Iowa's Sound Economy (RISE); IDOT	Funding to promote economic development through construction or improvement of roads and streets.	Construction or improvement of roadways that will facilitate job creation or retention, such as a street system for additional business or industrial development.	Feb 1 & Sept 1 for local projects; Immediate opportunities accepted all year	$11 million for cities and $5.5 million for counties (annually)	Local: 50% Immediate: 20%
Safe Routes to Schools; IDOT	Funding for infrastructure and non-infrastructure improvements that will result in more students walking or bicycling to school	Sidewalk installation and improvements, pedestrian safety improvements.	Oct 1	$1.5 million annually	No
Section 42 Low Income Housing Tax Credit; HUD	Tax credits for affordable housing developers through the State. Developments can utilize either a 4% or 9% credit, depending on the mix of low-income residents.	Multi-family housing development for low and moderate-income families.	NA	NA	NA
Self-Supported Business Improvement District; Local Business Association	Contributions by business owners used for various business district enhancements.	Physical improvements to business district, upper-story restoration of downtown buildings.	NA	NA	NA
Surface Transportation Program (STP); ECIA	Funding for road or bridge projects on the federal aid system.	Road or bridge projects. Trails improvements. Bicycle facilities.	Check with ECIA	Approximately $2,100,000 anuually	Check with ECIA
Tax Abatement; City of Manchester	Reduction or elimination of property taxes for set period of time on new improvements to property granted as an incentive to do such projects.	Available for commercial, industrial, or residential developments.	NA	NA	NA

continued >>

Table 15.2 *Potential Funding Sources*

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Tax Increment Financing (TIF); City of Manchester	Use added property tax revenues created by growth and development to finance improvements within the boundaries of a redevelopment district.	New residential, commercial, or industrial developments, including public improvement, land acquisition, and some development costs.	NA	NA	NA
Traffic Safety Improvement Program (TSIP); IDOT	Traffic safety improvements or studies on any public road.	Traffic safety and operations at specific site with an accident history. New traffic control devices. Research, studies or public information initiatives.	June 15	$500,000 maximum per project	No
Transportation and Community and System Preservation Program; IDOT	Funding for planning and implementing strategies that improve the efficiency of the transportation system, reduce the environmental impacts of transportation, reduce the need for costly future public infrastructure investments, ensure efficient access to jobs, services and centers of trade, and examine private sector development patterns and investments that support these goals.	Innovative transportation improvements that address stated goals.	Established yearly	$61,250,000 (annually)	No
Federal Transportation Bill (when adopted) Federal Highway Administration, through RPA/ MPO	Federal transportation funding, including matching grants for major street improvements, enhancements funding for corridor design, streetscape, trail development, and transit.	Improvements to arterial and major collector streets and trail development.	TBD	TBD	TBD
Urban-State Traffic Engineering Program (U-STEP); IDOT	Funding to solve traffic operation and safety problems on primary roads.	Extension of a primary road; spot improvements or linear improvements.	Accepted all year	$200,000 for spot improvements $400,000 for linear improvements	45%

APPENDIX

Iowa Smart Planning Matrix

Hazard Mitigation

Smart Planning Matrix: The table below shows the compliance of this document with Iowa Smart Planning Guidelines.

		----------Smart Planning Principles----------				
Comprehensive Plan Elements	Chapter Number(s)	Collaboration	Efficiency, Transparency & Consistency	Clean, Renewable & Efficient Energy	Occupational Diversity	Revitalization
Public Participation	2.8	2.8	2.8			
Issues and Opportunities	1.1 - 1.7	2.8	Intro		1.1 (Economic); 3.13	1.1 (Housing)
Land Use	1.2, 3.9, 3.14	3.9 (CP Principles); 3.15	3.9 (CP Principles); 3.15	3.9 (CP Principles; Future Land Use)	3.9 (CP Principles; Commercial Growth)	3.9 (CP Principles; Downtown)
Housing	1.1, 1.2, 3.9			3.9 (Residential Growth)	3.9 (Res. Growth; Commercial Growth)	3.9 (Downtown)
Public Infrastructure and Utilities	1.6, 3.12	1.6 (Regional Strmwtr)	3.9 (Principles); 3.12; 3.14	3.12		3.9 (Principles)
Transportation	1.4, 3.11		3.11	3.11	3.11, 3.13 (Efficient Infrastructure)	3.9 (Downtown)
Economic Development	1.1, 3.9, 3.13	3.13 (Economic Goals)	3.13 (Efficient Infrastructure)		1.1, 3.9 (Comrcl/Ind Growth); 3.13 (Comrcl & Ind Growth)	3.9 (Downtown)
Agricultural and Natural Resources	1.3, 1.5, 3.9, 3.10					
Community Facilities	1.7	1.7 (Fire Department)				
Community Character	Intro, 1.3, 1.5, 2.8, 3.9, 3.10, throughout					3.9 (Downtown)
Hazards	1.3, 1.7, 3.9, 3.12, 3.13; Appendix	Appendix	Appendix			3.9 (Downtown)
Intergovernmental Collaboration	1.6, 1.7, 3,13, 3.14	1.6 (Reg. Det.), 1.7 (Pub. Sfty), 3,13 (Good to Great), 3.14	3.13; 3.14		3.13 (Existing Econ Dev)	3.13 (Existing Econ Dev)
Implementation	3.15	3.15 (Plan Support)	3.15 (Plan Maintenance)	3.15	3.15	3.15

- Smart Planning Matrix Continued

---Continued	----------Smart Planning Principles----------				
Comprehensive Plan Elements	Housing Diversity	Community Character	Natural Resources & Agricultural Protection	Sustainable Design	Transportation Diversity
Public Participation					
Issues and Opportunities	1.1 (Housing); 1.2 (Res Land Needs)	Intro, 1.5	1.3, 1.5		1.4
Land Use	3.9 (CP Principles, Residential Growth)	3.9 (CP Principles; Preservation; Downtown); 3.10	3.9 (CP Principles; Ntrl Envrnmnt); 3.10	3.9 (All Sections)	3.9 (CP Principles; Residential Growth; Future Land Use
Housing	1.2 (Res. Land Needs); 3.9 (Res. Growth)	3.9 (Residential Growth; Downtown); 1.1 (Housing)		3.9 (Residential Growth)	3.9 (Residential Growth)
Public Infrastructure and Utilities			1.3 (Waterways and Floodplains); 1.6 (Stormwater)	1.6 (Strmwtr); 3.9(Principles); 3.12; 3.14 (Annexation)	
Transportation		3.10 (Trails)	3.10 (Trails)	3.11	1.4; 3.11
Economic Development	1.2 (Res Land Needs); 3.13 (Providing Quality Nbhds)	3.10, 3.13 (Preserving Nat Amenities)	3.13 (Preserving Nat Amenities)	3.9 (Comrcl/ Ind Grwoth), 3.13 (Preserving Nat Amenities, Efficient Infrastructure)	
Agricultural and Natural Resources		1.5, 3.10	1.3, 1.5, 3.9 (Preservation, Future Land Use), 3.10	3.9 (Preservation, Future Land Use)	
Community Facilities		1.7 (Public Library, Beckman, etc.)			
Community Character	3.9 (Residential Growth; Downtown)	Intro	3.9 (Preservation); 1.5, 3.10	3.9 (Preservation); 3.10	3.10 (Trails); 3.11 (Complete Streets)
Hazards		3.9 (Preservation); 3.10 (Greenways)	1.3 (Waterways), 3.9 (Preservation, Future Land Use); 3.13 (Preserving Natural)	3.9 (Future Land Use); 3.10 (Greenways)	Appendix
Intergovernmental Collaboration			1.6 (Regional Detention)		
Implementation	3.14 (Implementation Schedule	3.14 (Implementation Schedule	3.14 (Implementation Schedule	3.14 (Implementation Schedule	3.14 (Implementation Schedule

HAZARD MITIGATION

Hazard Mitigation is crucial to the comprehensive planning process, and hazard concerns are integrated throughout the preceding document. In order to facilitate review of this plan for compliance with Iowa's smart planning grant expectations, this section uses the "safe growth audit questions" from the FEMA publication *Hazard Mitigation: Integrating Best Practices into Planning* as a framework to collect and present the hazard mitigation elements of this plan. The Manchester comprehensive plan focuses on flooding issues for its hazard mitigation recommendations, as this is the hazard most likely to be affected by the decisions of the comprehensive plan (namely, land use and environmental decisions.)

SAFE GROWTH AUDIT QUESTIONS FROM "*HAZARD MITIGATION: INTEGRATING BEST PRACTICES INTO PLANNING*"

Land Use

- Does the future land-use map clearly identify natural-hazard areas?

  Yes. The future land use map (Figure 9.6) shows "greenway" areas that include floodplains. Figures 9.2 and 9.5 show the growth areas superimposed on a floodplain map. All undeveloped parcels that are in the floodplain are shown as "greenway" in the future land use map.

- Do the land-use policies discourage development or redevelopment within natural-hazard areas?

  Yes. As described above, natural hazard (floodplain) areas are planned as "greenway." New development is not planned for flood hazard areas. The downtown plan in chapter 9 encourages the acquisition of some flood-damaged properties for conversion to low-impact public open space.

- Does the plan provide adequate space for expected future growth in areas located outside of natural-hazard areas?

  Yes. The future land use map shows more than enough land for future growth in non-hazard areas in the planning time frame (through 2030). Approximately 200 acres of new development is needed to accommodate new residential development and 75 acres is needed to accommodate new commercial and industrial development by 2030, according to the projections in chapter 2. The future land use map shows more than double this amount of developable land that is outside of natural hazard areas (Figure 9.6). The plan also includes a strategy for annexation of land that increases the non-hazard land area available for development in the west, to accommodate the geographic trends in the market (Figure 14.2).

Transportation

- Does the transportation plan limit access to hazard areas?

  The transportation plan does not encourage access to hazardous areas. For example, the new roads proposed for the northwest residential growth area do not enter the floodplain, but loop around on higher ground. Similarly, in the eastern residential growth area, proposed local streets avoid floodplain areas.

- Is transportation policy used to guide growth to safe locations?

  Yes. Proposed new roads connect to areas of town that have areas of non-hazard land available for development (Figure 9.6 and Figure 11.1). Providing access to these areas will encourage development in safe areas. The Manchester floodplain ordinance stipulates that subdivisions should have means of access during flood.

- Are movement systems designed to function under disaster conditions (e.g., evacuation)?

  Yes. One of the primary features of the set of proposed transportation changes (chapter 11) is the provision of multiple access routes to all developed areas, and accommodation of multiple modes of transportation, including auto, bike and pedestrian. By limiting single access developments (such as dead-end cul-de-sacs), the proposed system allows for greater evacuation possibilities. Most new growth areas have multiple street outlets and all new growth areas have at least one proposed street connection to the existing street network that does not cross a floodplain. A more connected system also makes safety services such as ambulance/fire service more efficient. Providing multiple mode choices improves safety by allowing options for evacuation and mobility during disaster conditions, particularly for those without vehicles. Proposed street extensions also reduce the load on existing streets, which increases mobility for safety purposes such as ambulance/fire service and other emergency services.

Environmental Management

- Are environmental systems that protect development from hazards identified and mapped?

  Yes. Figure 3.1 shows floodplains and wetlands, and Figure 3.2 shows hydric soils. These areas contribute to the natural drainage system that can help prevent flooding in developed areas by conveying stormwater properly.

- Do environmental policies maintain and restore protective ecosystems?

  Yes. The Future Land Use Map (Figure 9.6) preserves a network of greenways in the floodplain areas to allow natural storm-water conveyance.

- Do environmental policies provide incentives to development that is located outside of protective ecosystems?

Yes. The future land use map (Figure 9.6) locates new development in areas outside of protective ecosystems and shows areas inside those ecosystems as non-developable (greenways). This map is presented as a guide for the planning and zoning commission and city council in deciding where new development should be allowed. Additionally, the City of Manchester floodplain ordinance places restrictions on development in the floodplain.

Public Safety

- Are the goals and policies of the comprehensive plan related to those of the FEMA Hazard Mitigation Plan?

  Yes. The goals and policies of the comprehensive plan are in agreement with the 2009 Manchester Hazard Mitigation Plan (HMP). As mentioned above, the comprehensive plan primarily addresses floodplain issues, as this is the hazard most likely to be affected by the decisions of the comprehensive plan (namely, land use and environmental decisions). The land use plan and stormwater plans in this document help realize two high priority goals of the HMP to "continue to monitor development of land surrounding the City and potential for the creation of hazards to the city" and "maintain storm sewer system including the dry runs that serve as open channel drainage ditches." The HMP also recommends that Manchester continue to enforce their floodplain ordinance, which has recommendations similar to those in the comprehensive plan, including: minimizing flood damage in subdivisions by having adequate drainage and means of access in a flood. Chapter 7 of the plan addresses the existing capacity and the needs of safety systems including police and fire, and references the recommendations of the HMP as part of this discussion. Chapters 6 and 12 address improvements to the storm-sewer and sanitary-sewer systems, recommended as a high priority in the HMP.

- Is safety explicitly included in the plan's growth and development policies?

  Yes, safety concerns regarding hazards are referenced as part of the "Comprehensive Planning Principles" and "Preservation of Natural Areas" sections in chapter 9. Public Safety facility development (fire and police) is covered in chapter 7.

- Does the monitoring and implementation section of the plan cover safe-growth objectives?

  Chapter 15 (Implementation) summarizes, categorizes, and creates a rough timeline for the safe-growth/hazard objectives of the plan, including: Ensure that new residential developments connect well to existing neighborhoods and are not isolated; 'Preserve an interconnected system of greenways that will provide natural stormwater management,' and 'Guide growth to northeast and west areas of city' (not hazard/greenway areas) (Table 15.1). The Implementation chapter also provides a list of potential sources for financial support for many of these safe-growth objectives (Table 15.2).

SPECIFIC ACTION STEPS FOR HAZARD MITIGATION INCLUDED IN THE COMPREHENSIVE PLAN (ALSO IN CHAPTER 15):

1. Preserve an interconnected system of greenways and natural areas that will provide natural storm-water management and enhance the park system.

   Hazards Effect: Keeps new development out of the path of flooding and maintains natural flood control through storm-water management.

   Responsible Party: City Staff, Planning and Zoning Commission, City Council

2. Ensure that new residential development connect well to existing neighborhoods and are not isolated.

   Hazards Effect: Allows more efficient provision of emergency services. Allows increased options for evacuation in case of emergency.

   Responsible Party: City Staff, Planning and Zoning Commission, City Council

3. Guide residential growth to northeast and west areas of city.

   Hazards Effect: Guides growth to non-hazard areas outside the floodplain.

   Responsible Party: City Staff, Planning and Zoning Commission, City Council

4. Practice multi-modal street design .

   Hazards Effect: Provides mobility options in case of disaster, particularly for vulnerable populations

   Responsible Party: City Staff – Engineering

5. Transportation Connectivity recommendations such as: Extend McCarren Drive; Extend Cornerstone Blvd; Extend North 13th street.

   Hazards Effect: Provides greater connectivity in the transportation system, allowing for better emergency services, snow clearing and evacuation options.

   Responsible Party: City Staff – Engineering

6. Continue to implement public safety improvements as recommended by the Manchester Hazard Mitigation Plan including: improve protocol for response to ice storms; publicize locations for storm shelters, and improve outdoor warning system.

   Responsible Party: City Staff, Fire Department