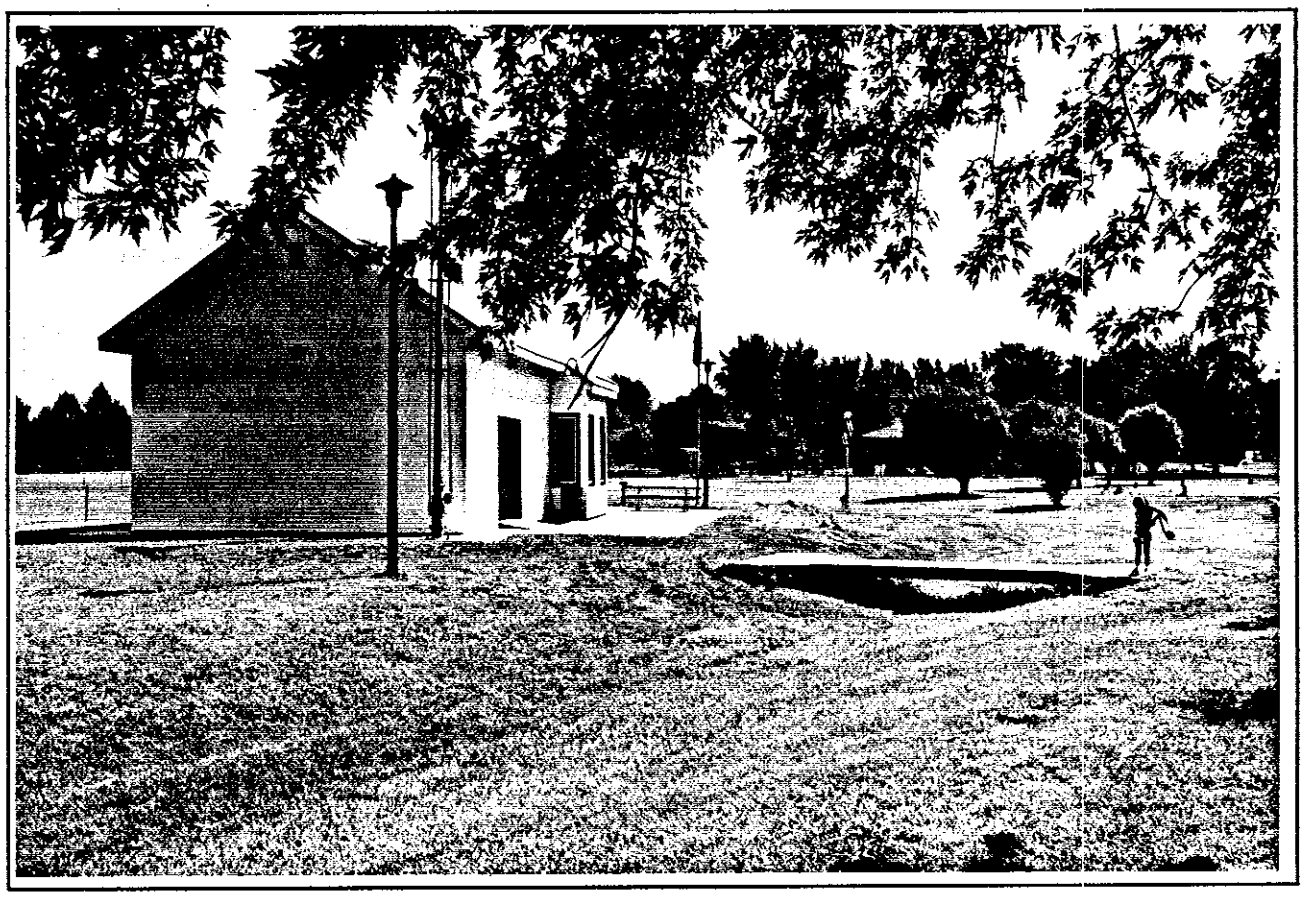


■ The Comprehensive Development Plan for the City of Waverly

The Waverly Plan

Prepared by
RDG Martin Shukert Inc.
and the
Citizens of the City of Waverly

July, 1994

The authors gratefully acknowledge the friendship, support, and commitment of the citizens of Waverly. We dedicate this plan to them. We would like to express special thanks to Planning Commission Chairman Scott Nelson , Mayor Curt Georgeson, and City Clerk Shirley Bruhl for their support, leadership, and assistance during the preparation of this plan. We also appreciate the efforts of the Waverly Plan Coordinating Committee, the Planning Commission, and the City Council for the many hours that they spent in reviewing and improving this document. We appreciate the efforts of these people and others, and are enthusiastic about the future of this fine community.

The City of Waverly, Nebraska

■ Mayor

Curt Georgeson

■ City Council

David Daiker
Ron Melbye
Bruce Forbes
Marilyn Larson

■ Planning Commission

Scott Nelson, Chairman
Mary Deubler
Gene Friesen
Carmel Furrer
Roger Olson
Ralph Stutheit
Allan Warner

■ City Clerk

Shirley Bruhl

■ City Attorney

Donald Dunn

■ City Superintendent

William Niemeyer

■ Waverly Plan Coordinating Committee

Larry Brainard
Mary Deubler
Mike Dietze
Bruce Forbes
Gene Friesen
Carmel Furrer
Christie Furrer
Donald Golightly
Mike Jeffers
Brian Johnson
Alan Keetle
Dan Lovegrove
Bernie Lyons
Bill Malone
Michael May
Bob Meyers
Sam Nelson
Scott A. Nelson
Roger Olson
Steve Rees
William Schneider
Dennis Seawall
Rose Sheary
Ralph Statheit
Tom Stubbendeck
Dr. Allan Warner
Shirley Wilkinson
Daniel Wolff

Table of Contents

■ **Important Dates in the History of Waverly** i

■ **An Introduction to the Waverly Plan** 1

■ **Theme One: A Share of Growth in the Region** 9

Goals 10

Facts and Analysis 12
- Population 12
- Population Projections 19
- Economic Factors
  - Employment 22
  - Income 24
  - Regional Transportation 24

Policies and Actions 27
- Economic Development 27
- Transportation 31
- Housing 32
- Public Facilities 34

■ **Theme Two: An Expanded Housing Supply** 37

Goals 38

Facts and Analysis 40
- Existing Housing: Market Characteristics 40
- Housing Demand Projections 46

Policies and Actions 49
- Organizational Framework 49
- Community Development 51
- Land Use and Zoning 53

■ **Theme Three: A Quality Environment for Growth** 57

Goals 58

Facts and Analysis 63
- Early Development Patterns 63
- Urban Form: Barriers, Features and Transportation Patterns 63
- Existing Land Use 66
- Land Use Trends 70
- Land Use Projections 72

■ Table of Contents

Policies and Actions 77
- Urban Form 77
- Land Use 79
- Transportation 85
- Public Facilities 86
- Annexation 86

Maps:
Existing Land Use Patterns 69
Places for Future Growth 81
Development Concept 89

■ Theme Four: Quality Public Services and Facilities **91**

Goals **92**

Facts and Analysis **95**
- Functional Street System 95
- Street and Sidewalk Conditions 100
- Public Facility Inventory and Analysis 107
- Infrastructure Analysis 113
- Parks and Recreation System Analysis 133
- Growth Centers and Airport 144

Policies and Actions **151**
- Transportation 151
- Public Facilities 156
- Infrastructure 159
- Parks and Recreation 164

Maps:
Existing Street Classifications 97
Street Paving Status 103
Streets with Repair Needs 104
Sidewalk Conditions 105
Sanitary Sewer System 117
Floodways and Floodplains 121
Storm Sewer System 122
Water Distribution System 127
Street Classification and Transportation Plan 157
Infrastructure for Quality Development 163
Parks and Trails System Plan 169

■ Table of Contents

■ **Theme Five: A City of Strong Neighborhoods** **171**

Goals **174**

Facts and Analysis **177**
- Neighborhood Planning Districts: A Rationale 177
- Housing Characteristics 179
- Housing Conditions 180

The Neighborhoods
- North Waverly 184
- Midtown Waverly 188
- South Waverly 192

Policies and Actions **197**

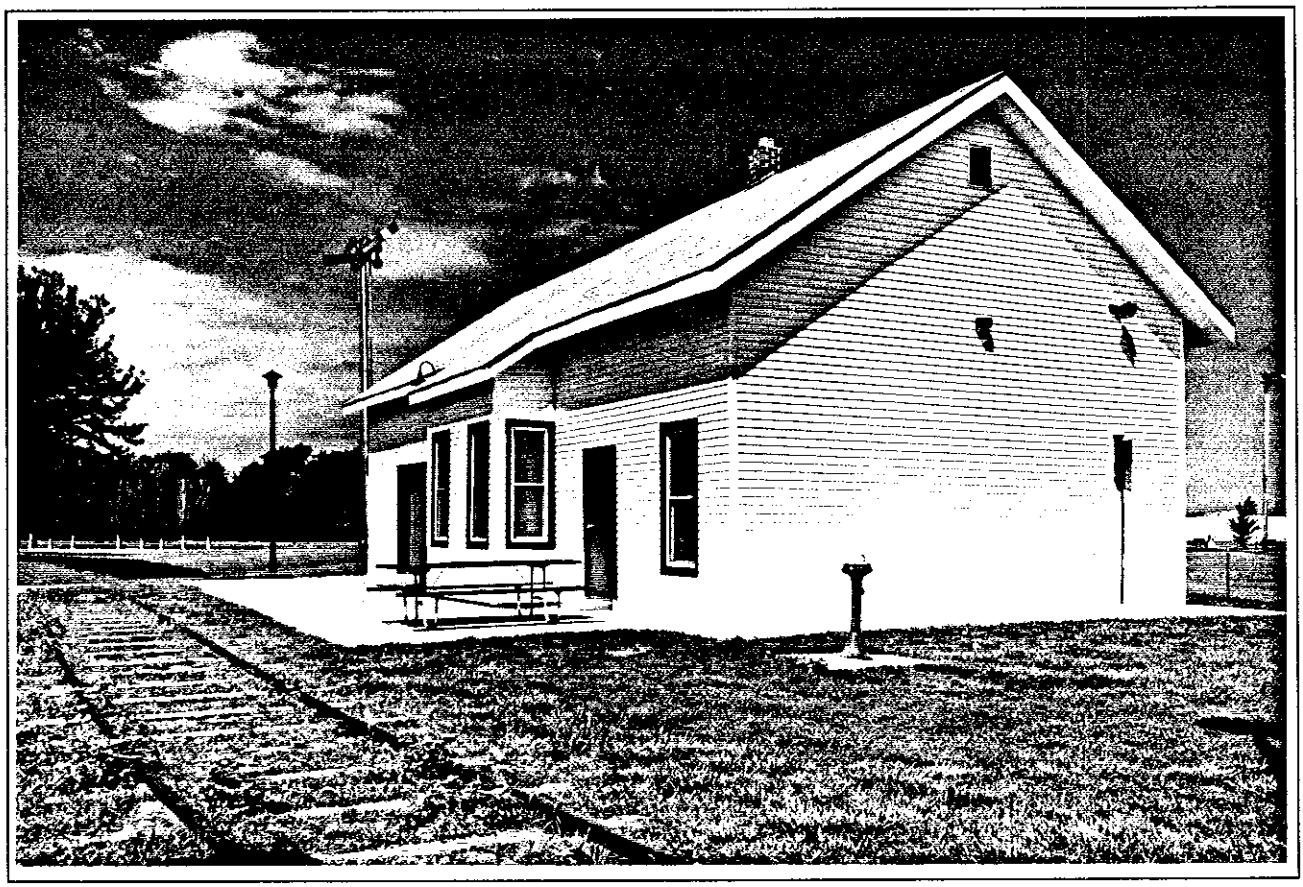
The Neighborhoods
- North Waverly 197
- Midtown Waverly 199
- South Waverly 200

Maps:
Neighborhood Planning Districts 178
Residential Rehabilitation Needs 183
A City of Strong Neighborhoods: Summary Map 205

■ **How the Five Themes Work Together** **207**

Land Use **207**
Short Term Work Program **210**
Implementation Schedule **217**

Maps:
Future Land Use 208 ff.
Policies Map 213



• *Waverly's historic Burligton Depot, relocated to Wayne Park.*

Important Dates in the History of Waverly

1854 Nebraska Territory is established

1857 J. Dee and D. Harrington take claims in the Northeast part of Lancaster County, near the present site of Waverly.

1867 Nebraska becomes a state.

1869 The rail bed is graded and rail laid for the Burlington and Missouri Railroad lines through the present site of Waverly.

1870 Waverly is surveyed and platted. John Green becomes the first settler.

The new community receives its name from Sir Walter Scott's novel, Waverley. Names for the east-west streets are also inspired by Scott's novels. From south to north, the streets were named Mannering, Durward, Kenilworth, Robroy,and Ivanhoe. North-south streets were named for trees. From east to west they were Poplar, Cottonwood, Larch, Mulberry, Elm, and Ash.

1871 The depot is built after the railroad line reaches Lincoln. The depot quickly becomes the social center of the community with dances and other events held there.

The Waverly School District is established.

1872 The first business is established by a blacksmith, John Berg.

1874 The state census records a population of 299 in the 33 square mile Waverly precinct.

New businesses established include a store, elevator, lumber yard, and hotel.

1876 A meat market is established.

1878 Waverly consists of 24 buildings, including residences and businesses.

1880 During its first decade, the population in the precinct rises to 652, while the village grows to 132.

Waverly ships 600 cars of grain and 50 cars of livestock.

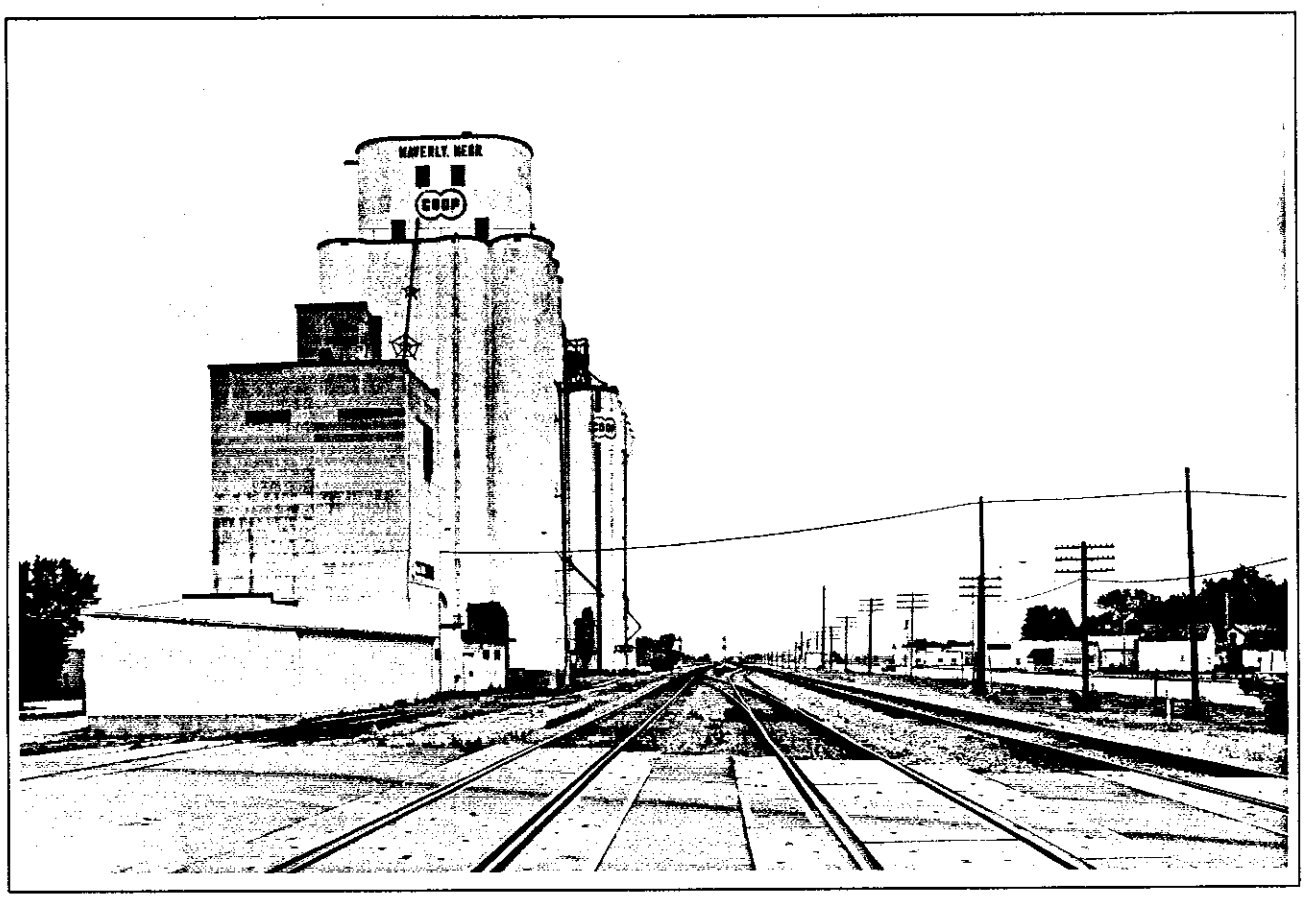
1882 The Methodist Episcopal Church is organized and begins work on its first building

1882	In his book " A History of the State of Nebraska," A.T. Andreas writes that "about 12 miles northeast of Lincoln is the town of Waverly with its 225 people. Not withstanding its proximity to the capital it does a good general business for a place of its size."
Mid 1880's	Waverly's businesses consist of 5 general stores, 3 blacksmith shops, 3 elevators, a hardware store, a drug store, a shoe shop, a harness shop, a bakery, a butcher shop, a hotel, a steam elevator, and a lumber yard.
1885	A petition to the county commission requests that Waverly be incorporated as a village.
	A brass band is established for the community's entertainment.
1886	The earliest social lodge, the Modern Woodmen of America, is established as an insurance social group.
1887	A fire destroys buildings east and north of the current site of the Lancaster County Bank.
1888	The Mitchell Post #38, Department of Nebraska, Grand Army of the Republic is established.
	The first telephone booth is installed in Waverly.
1890	Waverly is incorporated as a village. The Nebraska State Gazetter and Business Directory lists Waverly's population at 450.
Early 1890's	The village faces difficult times. Heat destroys crops, while the area suffers an economic recession.
	A newspaper, the Waverly Watchman, begins publication.
	The village's water supply is from an elevated wood tank.
1892	The first private telephone is installed.
1900	After a decade of economic difficulties, the population of Waverly declines to 266.
	During his presidential campaign, William Jennings Bryan rides in the first car seen in Waverly.
1901	The village has a large Fourth of July celebration.
1909	A fire destroys the grain elevator.
1910	The population of Waverly increases to 297.
	The Havelock Electric Light and Power Company is granted a franchise to light the streets of Waverly.
	The east side of Main Street is damaged by fire.

1915	The Methodist Episcopal Church replaces its original structure with a brick building.
1916	John Munn begins weekly horse and mule sales in Waverly that attract buyers from throughout the midwest.
1918	The Waverly Consolidated Schools, District 145, is formed with the merger of the Waverly, Prairie Home, Walton, Eagle, and Alvo school districts.
1910's	A series of Lyceum Courses, similar to the Chautauqua movement, offers speakers and touring entertainers that perform at the old Town Hall.
1920	Waverly ends another decade of growth with its population increasing to 334.
	The Detroit-Lincoln-Denver Highway is moved from north to south of the railroad tracks. The D-L-D highway later becomes US Highway 6 through Waverly.
1921	The Waverly Consolidated Schools moves to a new brick building.
1922-26	With a constant flooding problem in the Salt Creek valley, a large dredge is used to straighten and deepen Salt Creek.
1923	The D.L.D. highway through Waverly is gravelled.
1929	The D.L.D highway is paved from Havelock to Camp Creek.
1930	Waverly's population declines slightly to 315.
1933	The Waverly Grange #369 is organized at the school. Grange lecture programs offer entertaining and educational programs. Grange activities boost morale during the depression years.
1930's	Dial Telephones are installed in Waverly.
	Natural gas distribution lines are installed through the area.
	Many local businesses close during the difficult depression years.
1940	Waverly's population declines slightly to 306.
1941	American Legion Post #204 is chartered along with the American Legion Auxiliary Unit.
1944	Brownie Manufacturing begins operation.
1950	Waverly's population declines slightly to 310.

1950	Burg Manufacturing begins operation. Later the company becomes National Crane Company.
1954	The Waverly Rural Fire District is formed to protect land in the Waverly, Stevens Creek, Lancaster, North Bluff, Rock Creek, and Mill Precincts. By 1993, the fire district covers 85 square miles.
1955	Beason Construction begins business.
	A new coop elevator is completed.
1956	Burg Manufacturing (later National Crane) manufactures its first crane. The firm constructs "The News" building.
1957	Waverly Feed, later to become B&B Grain, begins business.
1960	Waverly ends a period of growth as its population increases to 511.
1960-61	Interstate 80 is built between Gretna to the northeast and the Lincoln Airport to the southwest. With the construction of the interstate highway, Waverly becomes more accessible to Lincoln and begins a period of rapid growth.
1960's	A series of additions are made to the Waverly School.
1962	National Crane begins operation in its new plant.
1963	The United Methodist Church moves into a new stone building in South Waverly.
1968	A municipal building is constructed to serve the Waverly Fire Department and Waverly City Council.
	Hamilton International Inc. begins operation.
	Prairie Home Coop merges with Farmers Coop Co. of Waverly.
1969	The Peace Lutheran Church begins services.
1970	After a decade of rapid growth, Waverly has more than doubled its population to 1,152.
	A large celebration to note the town's centennial attracts many people to view the festivities.
Early 1970's	A new park (later named Wayne Park) is built on the west edge of Waverly with a lighted baseball diamond.
	The Camp Creek Threshers becomes an annual celebration that includes an antique machine show.
1971	A new grain elevator is built east of the city.

1972	Waverly changes its classification from a village to a city.
1973	Peace Lutheran Church moves to a new building in South Waverly.
	The Waverly Plaza Shopping Center is built on the west edge of the city.
1974	Hamlow Elementary school is built in South Waverly.
	A new city well is completed, expanding water supply service to accommodate the new growth in Waverly's subdivisions.
1975	The city swimming pool opens.
1976	The Waverly Bicentennial Commission celebrates the nation's 200th birthday. One of the group's projects is the restoration of the depot, which is moved to the city park. The relocated depot becomes the site of Independence Day activities.
	Trees are planted, playground equipment is installed, and the parking area is paved in the new city park.
	A second railroad line is built through the city adjacent to the existing tracks.
1980	Waverly ends another decade of significant growth by reaching a population of 1,726.
1980's	A viaduct is built over Highway 6 south of Waverly.
	Waverly Fest becomes an annual community celebration for the Fourth of July.
	New industries in Waverly include Lenco Manufacturing and Lincoln Welding. New businesses in the city include the Gas & Shop and a True Value hardware store.
1987	Waverly residents work together to attract a new nursing home.
1990	Waverly's population increases nearly 8% during the 1980's to a population of 1,869.
	Jaycee Park is completed.
	The Waverly Community Chamber of Commerce is established.
1994	Waverly completes a new comprehensive plan.



• *The Co-op grain elevator and the Burlington Northern tracks, symbols of Waverly's origins as a n agricultural community.*

An Introduction to the Waverly Plan

Waverly is a city of enterprise located along transportation routes of national importance. It has secured major businesses and employment, while maintaining the best traditions of small town living.

The Waverly Plan is designed to provide a comprehensive vision of the city's future. It is a future based on taking action that will improve the lives of the city's residents and make the city uniquely attractive for potential growth.

Nebraska's cities live in a changing social and economic environment. The City of Waverly has successfully transitioned from an economy based primarily on agriculture to a more diversified, industrial economic structure. Waverly faces important opportunities as it positions itself for additional residential and industrial growth in the next century.

Waverly offers an excellent quality of life, offering the best of residential settings in a small community. The city offers the intimacy of a small town, yet enjoys the employment opportunities and conveniences of metropolitan living. Waverly is also strategically located along major regional and national transportation routes. The community has pulled together to execute such community improvement projects as Wayne Park and Jaycee Park, both outstanding recreational facilities. Now, a new vision of Waverly can further unify the city and assure its continued strength.

This comprehensive development plan for Waverly has two fundamental purposes. The first provides an essential legal basis for land use regulation such as zoning and subdivision control. Secondly, a modern comprehensive plan presents a unified and compelling vision for a community, derived from the aspirations of its citizens, and establishes the specific actions necessary to fulfill that vision.

Roles of a Comprehensive Plan

• *The Legal Role*

Communities prepare and adopt comprehensive plans for legal purposes. Cities adopt zoning and subdivision ordinances to promote the "health, safety, morals, or general welfare of the community." Land use regulations such as zoning ordinances recognize that people in a community live cooperatively and have certain responsibilities to one another. These regulations establish rules that govern how land is developed within a municipality and its extra-territorial jurisdiction.

However, cities may not adopt land use ordinances without first adopting a comprehensive development plan. This requirement derives from the premise that land use decisions should not be arbitrary, but should follow an accepted and reasonable concept of how the city should grow. The Waverly Plan, then, provides the ongoing legal basis for the city's continuing power to regulate land use and development.

In using this plan, it is important to recognize that the policies and recommendations contained here are guidelines and targets for community development. As such, implementation is shaped and phased by many factors over time. Thus, the plan is not meant to be a rigid blueprint, but is an initial, comprehensive policy statement which will be embellished and shaped by future events. This plan, then, should be a flexible, living tool, adapted and modified over time to remain vital and relevant.

• *The Community Building Role*

A comprehensive development plan has an even more significant role in the growth of a community. The plan establishes a picture of Waverly's future, based on the participation of residents in planning their community. This vision is particularly crucial at this time in the community's history. Beyond defining a vision, the plan presents a unified action program that will implement the city's goals. Indeed, the plan is designed as a working document - a document that both defines the future and provides a working program for realizing the city's great potential.

■ The Planning Process

The Waverly Plan culminates a planning process that involved citizens of the city to define its future. This process was coordinated by a Planning Coordinating Committee, representing a wide variety of interests in the community. The first part of the process involved a three-part strategic planning program, designed to assess the city's current position; establish visions and goals for Waverly's twenty-year future; and consider an action program necessary to achieve that vision. Members of the community were invited to participate in the strategic planning process through a series of community workshops.

• *Assessment*

In assessing the city's situation, participants defined the most important issues that would face Waverly within the next five to ten years. Participants identified the following issue areas as most crucial to the city:

- Industrial attraction, economic development and job creation.

- Housing, including directions for residential growth, development of apartments and townhomes, as well as opportunities for upper and middle income households to find move-up housing in Waverly.

- Education and the youth, including improvements to the community's junior/senior high school building.

- Business growth and retail development.

- Continuing to meet the financial needs of the community, including needs for improvements to education facilities.

In addressing these vital issues, participants in the planning process identified the following as key community strengths:

- Outstanding location along US 6 and I-80, with easy access to the Lincoln metropolitan area.
- Excellent community schools and civic organizations.
- Strong community cohesiveness within a friendly town with opportunities and a good quality of life.

■ The Planning Process

- A broad industrial base with good local small businesses.

On the other hand, participants identified the following issues as important liabilities or problems:

- Lack of affordable housing, and new quality housing.
- Division of the city by the railroad/highway corridor.
- Proximity to Lincoln.
- Lack of support for building improvements for secondary education; a large district with a comparatively small revenue base.
- Inability to provide facilities and opportunities for youth.
- High Taxes.

The community assessment and visioning process led to the completion of an interim report. This report summarized the results of the strategic planning program. It identified six specific issue areas, including:

- Housing and Development
- Community Image
- Economic and Retail Development
- Land Use and Urban Form
- Transportation and Infrastructure
- Quality of Life

The plan also developed specific priorities, goals, and actions for each of these broad issue areas. The strategic plan provided the foundation for this detailed comprehensive plan document.

■ Approach and Format

■ The Comprehensive Plan: Approach and Format

The comprehensive plan takes a thematic and goal-oriented approach to the future development of Waverly. The plan establishes five development themes for the city, corresponding to its most important strategic issues. The traditional sections of a comprehensive plan, such as land use, housing, infrastructure, and transportation, are organized as components to these inter-disciplinary themes. This enables the plan to tell the story of the city's future development and presents an integrated program for the city's growth.

Each development theme for Waverly makes up one chapter of the comprehensive plan. The five themes are:

Approach and Format

1. A Share of Growth in the Region

This theme considers Waverly's role in its region and its unique role in the metropolitan economy. Important issues discussed here include economic development, retailing and regional transportation.

2. An Expanded Housing Supply

This theme considers one of Waverly's most critical issues - its supply of housing. It examines the city's housing markets in detail and presents a comprehensive strategy to improve housing production and affordability in the community.

3. A Quality Environment for Growth

This theme analyzes the urban form of Waverly and presents a city development concept that accommodates growth while respecting the traditional development patterns of the city. It further examines demands for residential, commercial, and industrial land during the next twenty years and presents a detailed land use strategy designed to maximize development potential in Waverly.

4. Quality Public Services and Infrastructure

This theme examines the quality of infrastructure, public facilities, and parks within Waverly. These facilities are vital to the city's ability to support growth and serve present and future residents.A detailed assessment of each public facility and park is presented, along with a specific program for facility development.

5. A City of Strong Neighborhoods

This theme examines the housing and neighborhood conditions of each part of Waverly and presents strategies to assure that each area maintains a state of health.

6. How the Five Themes Work Together

This chapter unifies the previous themes and establishes Future Land Use patterns that the Plan will shape over time. A Future Land Use Map, a Policies Map, a Short-Term Work Program, and an Implementation Schedule are provided to guide the City in working toward the realization of the Plan.

Approach and Format

Each chapter is presented in a uniform, easy-to-follow way. The four sections contained in each chapter include:

- **An Introduction** to the theme.

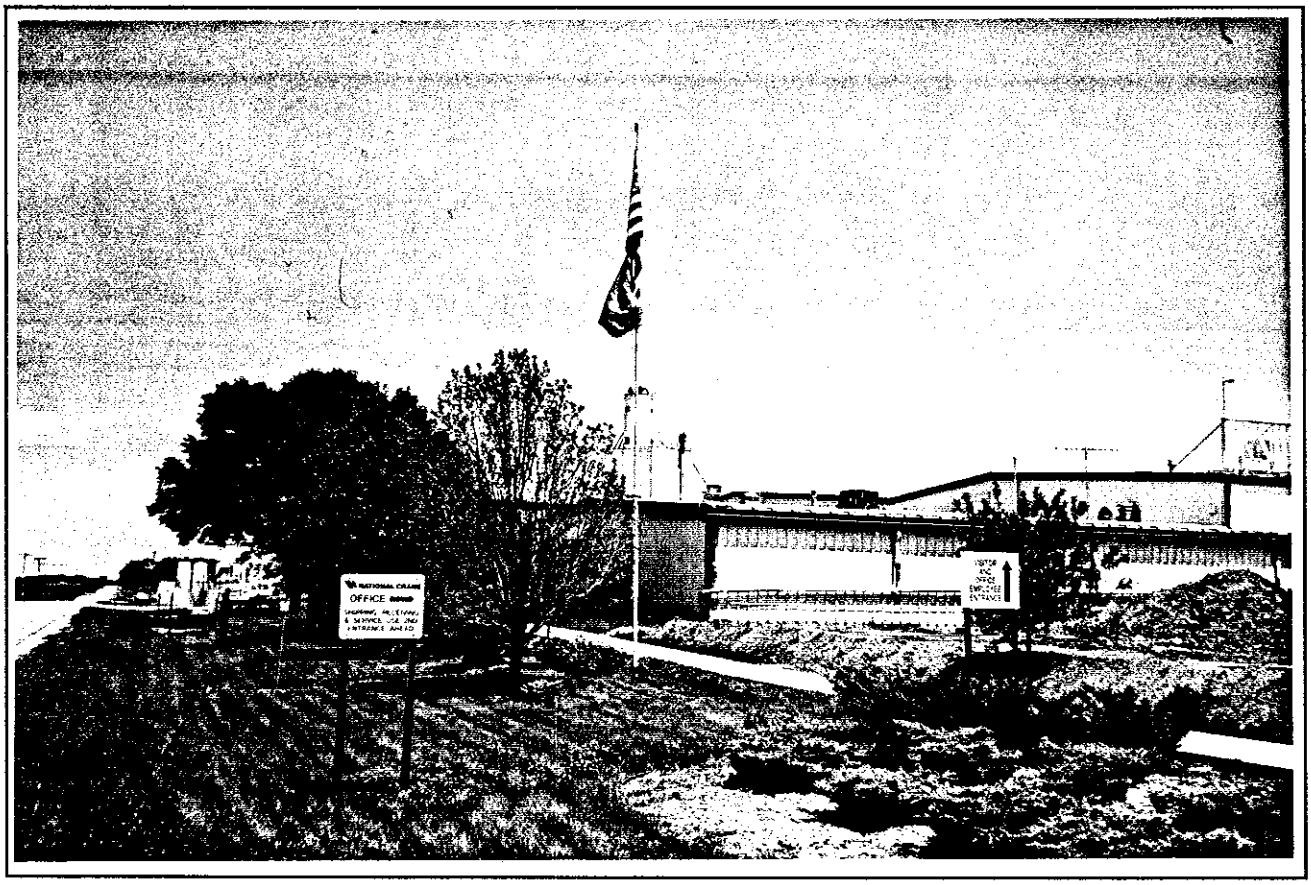
- **Goals.** This section sets forth the general goals for community building that the theme will address.

- **Facts and Analysis.** This section provides a detailed analysis of the facts, issues, and trends that affect the fulfillment of each theme. The Facts and Analysis section provides extensive information and statistics that provide a useful basis for decisions and policy development.

- **Policies and Actions.** This section presents the program of detailed actions necessary to fulfill the theme and its goals. A final chapter discusses how the seven themes work together and provides an implementation and phasing program for the overall plan. Our hope in developing this plan is that it will provide Waverly with the planning tool that it needs to realize its exciting and distinctive future.

• *Waverly's water tower on the south eadge of town.*

• *A Midtown Waverly neighborhood.*



• *National Crane, one of Waverly's major industrial employers.*

1

A Share of Regional Growth

Waverly will increase its share of population and commercial growth and development in the Lincoln metropolitan region.

Waverly's location on the edge of the Lincoln metropolitan region is a significant community asset. The city enjoys the quality of life advantages of a small, intimate town while also enjoying access to the resources and opportunities of a large city. The Lincoln area has experienced historic population and housing growth, creating major opportunities for further development in other regional communities such as Waverly.

Waverly enjoys other benefits from its regional location. The city is located along the busy Omaha to Lincoln transportation corridor and is served by the Burlington Northern Railroad mainline, Cornhusker Highway (US 6), and a nearby interchange on Interstate 80. These transportation arterials have helped Waverly become a center for major industry, complementing its otherwise residential character. Future plans by Lincoln to develop an east beltway as part of its transportation system could also benefit Waverly. In addition, the city's location at the northeastern part of the Lincoln metro area places the city close to job centers in Southwest Omaha and to regional recreational facilities such as Mahoney and Platte River State Parks.

However, Waverly has not participated proportionately in metropolitan growth over the last two decades. The city grew rapidly through 1980. Yet, its population change since then has been very small. As a result, housing development has emerged as a key priority for the city. This section, then, addresses the issue of community growth and proposes a program that will give Waverly a significant share of ongoing development in the Lincoln area.

■ Goals

In working to meet challenges and opportunities created by its regional context, the city should:

■ Accelerate the rate of housing development in Waverly.

Waverly's last significant period of housing development occurred during the 1970's. Yet, residential growth in the eastern part of Lincoln has continued at a relatively rapid rate. Waverly's favorable location and transportation access has made the city a significant employment center. Yet, the community has not successfully encouraged people who work in and around Waverly to live in the city. In addition, Waverly appears to be perceived by residential developers as a more uncertain market than growing parts of Lincoln.

As a result, most residential development encouraged by growing industries and employment centers in the eastern part of the metropolitan area is captured by Lincoln rather than Waverly. Providing support for residential growth and effectively marketing the community to builders and new residents will become important future community strategies.

■ Increase the amount of retail and service development in Waverly.

Waverly's traditional town center is the center of a village and has not grown along with other community development. More contemporary commercial development has largely been limited to a site along East Cornhusker Highway (US 6) and consists of a small commercial center and associated development. Waverly's commercial development has been slowed by its adjacency to Lincoln. Yet, commercial growth presents a significant development opportunity, particularly if the town is able to take advantage of its growth potential.

■ Provide additional opportunities for industrial and small business growth.

Waverly and its surrounding area have successfully attracted significant industrial development. These major projects provide the city with the opportunity to grow residentially and commercially as well. The city should parlay these

■ Goals

important employment resources into additional jobs and businesses. The city may use its convenient location to become an attractive, balanced center for both working and living.

Waverly's land use policy provide adequate opportunities for further industrial development. In addition, it should work to providing both regional and internal transportation systems that support business development without having an adverse effect on residential life.

■ Improve supportive regional transportation facilities.

Transportation is a distinctive community asset for Waverly. The city's location along key road and rail corridors provides an important precondition for significant industrial and business development. Two other significant regional projects could further strengthen Waverly's status as a potential business and residential setting - the development of a regional general aviation airport and the development of improved, more adjacent access of Interstate 80.

■ Improve the quality and attraction of Waverly as a living environment.

Waverly's quality of life is a distinctive asset. Its small town character, excellent park system, and attractive neighborhoods are an important base on which to build future development. The city competes with other areas for growth; it must make a distinctive case for itself in this competition for both new residents and businesses.

As a result, overall policies should work to continue to enhance the quality of residential living in the city. As Waverly grows, new development should maintain the attractiveness and character of the smaller community. The city can succeed by positioning itself as a more desirable place to live for a significant number of the metropolitan area residents. Development of major community projects should be seen as investments that ultimately will produce more growth, a larger tax base, and lower taxes on individual property owners.

Facts and Analysis

This section examines key demographic and economic trends that will affect Waverly as the city moves toward its future. In general, these trends indicate that Waverly is a family-oriented community that faces the prospect of significant growth. They provide an accurate and realistic picture of the community that will help define major challenges for the next century.

Population

Population and population characteristics are among the most important indicators of the state of a community. This discussion will present key findings resulting from an analysis of the dynamics of the city's population during the 1980s. It will also present probable future population trends and options for the community.

■ Waverly has experienced substantial growth in population during the last 50 years.

Waverly has evolved from its status as a small village in northeastern Lancaster County immediately after World War II to a small city, both independent of and linked to the City of Lincoln. This transition was most evident between 1960 and 1980, when the city nearly tripled its population. More recent growth has been significantly slower, as the city grew by 8.2% or 162 people between 1980 and 1990. Table 1-1 displays historic population change in Waverly and compares this to change in Lancaster County.

TABLE 1-1: Population Change: Waverly and Lancaster County, 1940-1990

	1940	1950	1960	1970	1980	1990
Total County	100,585	119,742	155,272	167,972	192,884	213,641
Waverly	306	310	511	1,152	1,726	1,869
Waverly as a % of Lancaster County	~~0.03~~ 0.003	~~0.25~~ 0.0025	~~0.33~~ 0.0033	0.69	0.89	0.87

Source: U.S. Bureau of the Census
RDG Martin Shukert Inc., 1994

Facts and Analysis

■ Waverly has grown by 62% over the last two decades. However, the largest share of that growth occurred during the 1970's.

Waverly's population grew by about 50% between 1970 and 1980, making it one of Nebraska's fastest growing communities during that period. However, the growth rate declined to about 8.2% between 1980 and 1990. Much of this growth was accounted for by natural population increases, rather than in-migration. During the last ten years, the city has averaged construction of slightly under six housing units annually.

It is important to analyze the recent dynamics of this growth. Population change in a community is explained by two basic factors:

• *A comparison of births and deaths.* If more people are born in a community than die, the population of that community will tend to increase. Generally, a city with more population in younger age groups (particularly with people in child-bearing or family formation years) will experience a higher overall birth rate.

• *Migration Patterns.* Some of a community's residents choose to move out of that community; other people move into it. If more people come to the city than leave, its population will tend to increase.

In order to assess what happened to Waverly's population during the 1980's, the city's expected population based solely on changes in births and deaths is calculated and compared with the actual outcome of the 1990 census. These projections are based on the following assumptions:

- The use of a cohort-survival method to develop projections. This method "ages" a five-year age range of people by computing how many of them will survive into the next five year period. Cohort survival rates used were developed by the U.S. Bureau of the Census and published in the Bureau of Business Research at the University of Nebraska at Lincoln's publication, *Nebraska Population Projections, 1985-2020.*

- Actual birth rates in Waverly appear to resemble the "low" series of birth rate projections for people of child-bearing age published by the Bureau of Business Research.

■ Facts and Analysis

Table 1-2 below summarizes the results of this analysis.

TABLE 1-2: Predicted and Actual Population Change: High Birth

	1980	1990	Change	%
Predicted Population (based on survival and birth rates)	1,726	1,851	+125	+7.24
Actual Population	1,726	1,868	+142	+8.23
Predicted Male Population	864	912	+48	+5.56
Actual Male Population	864	917	+53	+6.13
Predicted Female Population	862	938	+76	+8.82
Actual Female Population	862	952	+90	+10.44

Sources: U.S. Bureau of the Census, *Current Population Reports.*
UNL Bureau of Business Research, *Nebraska Population Projections, 1985-2020.*
RDG Martin Shukert Inc., 1994.

Projections are approximations and are not fully accurate representations of real behavior. However, it is possible to draw some important conclusions from this analysis. Actual population change during the 1980s for Waverly closely resembles changes predicted by an excess of births over deaths. This indicates that the city experienced very little net migration during the 1980s. In contrast to the previous two decades, which had high rates of in-migration, the number of people moving into town was approximately equal to the number moving out between 1980 and 1990.

■ In spite of the lack of overall net migration, population changes vary significantly for different age groups.

Continuing the analysis further can help discover which age groups are moving in and out of the city. This helps to predict what the city's population will look like if current trends continue into the future.

Table 1-3 compares predicted and actual population change for each age group in the city. The predicted population projects how many people should be in each age group in 1990 if no one had either moved into or out of the city. The variance percentage shows how well this prediction agrees with reality - in other words, whether people in a given group

■ Facts and Analysis

tended to move in or out of Waverly. This adds dimension to the overall pattern exhibited by the city's population change.

TABLE 1-3: Predicted and Actual Age Cohort Changes All Residents, 1980-1990

Age Group	1980 actual	1990 pred.	1990 actual	(Actual) - (Pred)	% variance: actual/pred.
Under 5	143	129	119	-10	-7.75
5-9	190	122	176	+54	+44.26
10-14	206	142	186	+44	+30.99
15-19	174	189	153	-36	-19.05
20-24	102	204	103	-101	-49.51
25-29	140	172	128	-44	-25.58
30-34	178	101	152	+51	+50.50
35-39	149	138	157	+19	+13.77
40-44	91	174	174	0	0
45-49	81	144	136	-8	-5.56
50-54	61	87	83	-4	-4.60
55-59	43	75	70	-5	-6.67
60-64	34	54	53	-1	-1.85
65-69	32	36	53	+17	+47.22
70-74	35	26	38	+12	+46.15
75-79	28	22	27	+5	+22.73
Over 80	39	36	61	+25	+69.44
Total	1,726	1,851	1,869	+18	+0.97

Sources: U.S. Bureau of the Census, *Current Population Reports.*
UNL Bureau of Business Research, *Nebraska Population Projections, 1985-2020.*
RDG Martin Shukert Inc., 1994.

■ Facts and Analysis

Table 1-3 shows that the number of people in the key family formation age groups from 30 to 39 are significantly greater than predicted through normal population change. This suggests that people in family formation age cohorts (from 20 to 30 in 1980) were far more likely to move into Waverly than out of it. This trend is further reflected by the greater than predicted number of children between ages 5 and 14 in the community. At the same time, the number of elderly residents is also significantly above the number predicted by normal aging of the population. Middle age groups exhibit significant population stability. Only the age group between 15 and 24 indicates substantial out-migration. However, significant movement out of the city by these groups, who were of ages 5 to 14 in 1980, is predictable and accounted for by college attendance and moves outside of Waverly to find jobs and begin careers.

These data suggest that Waverly maintains significant attraction to families and to elderly residents. It is more successful at attracting or retaining more mature families than at retaining young adults. The comparison of projections and actual 1990 census results, then, suggest areas of strength as Waverly plans to attract a larger share of regional growth.

■ The population of Waverly has aged significantly during the last ten years, but still remains relatively young for a Nebraska community.

In common with many communities across the state, the median age of Waverly's residents has increased with the aging of the large "baby boom" cohort and the in-migration of some older residents. As a result of this evolution, percentage of residents of ages 30 to 44 has grown from about 24% in 1980 to about 26% in 1990. The proportion of the city's population over age 65 has also increased significantly, from 7.76% in 1980 to 9.57% in 1990. The median age of Waverly has increased from 26.71 to 32.28 during the last ten years, a significant change in the community's population profile.

The population profile of Waverly also indicates some decline in the proportion of the town accounted for by very young people. In 1990, 25.74% of the population was under age 14, compared to 31.24% in 1980. This suggests a need to continue to enhance the city's attractiveness for young families.

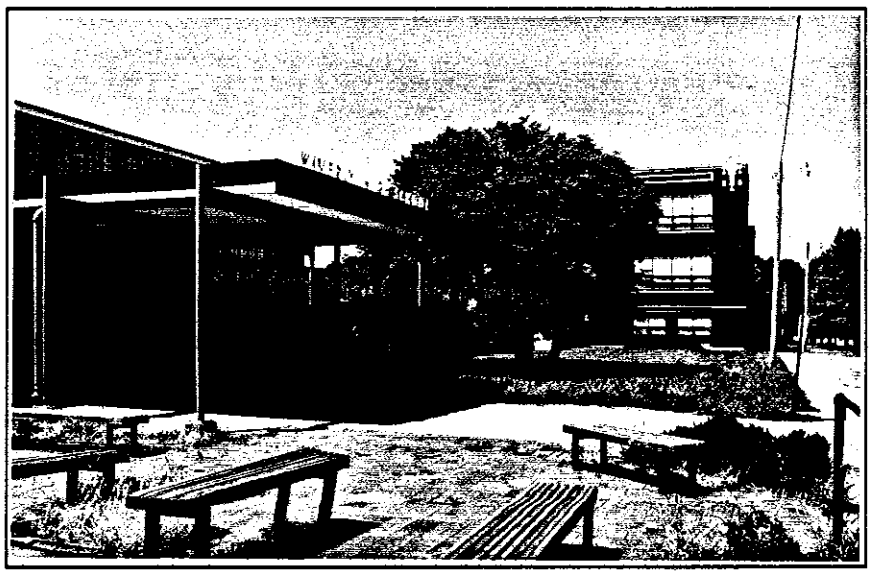
■ Facts and Analysis

TABLE 1-4: Age Composition as Percent of Total Population, 1980-1990

Age Group	1980 All	1980 % of Pop	1980 Female	1990 % of Pop
Under 5	143	8.29	119	6.37
5-9	190	11.01	176	9.42
10-14	206	11.94	186	9.95
15-19	174	10.08	153	8.19
20-24	102	5.91	103	5.51
25-29	140	8.11	128	6.85
30-34	178	10.31	152	8.13
35-39	149	8.63	157	8.40
40-44	91	5.27	174	9.31
45-49	81	4.69	136	7.28
50-54	61	3.53	83	4.44
55-59	43	2.49	70	3.75
60-64	34	1.97	53	2.84
65-69	32	1.85	53	2.84
70-74	35	2.03	38	2.03
75-79	28	1.62	27	1.44
Over 80	39	2.26	61	3.26
Median Age		26.71		32.28

Sources: U.S. Bureau of the Census.
RDG Martin Shukert, 1994.

• *Waverly High School and Middle School campus.*



■ Facts and Analysis

■ The size of Waverly's households has declined over the last ten years.

Waverly's average household size of 3.17 in 1980 dropped to an average of 2.92 in 1990. Projections to 1995 suggest that this reduction in average household size will continue at a moderate rate. This population per household remains relatively high in comparison with other Nebraska communities and suggest the city's continuing emphasis on family households.

Waverly experienced an increase of 81 households during the 1980's, an increase of 14.9%. This outstripped the city's population growth of 8.2% during the same period. This suggests that demand for additional housing in the town is higher than that predicted by population trends.

■ Waverly's population trends during the 1980's suggest very important opportunities and policy directions.

The 1980's signified a leveling in Waverly's previous history of strong post-World War II growth. After several decades of evolution from a village to a small city approaching a population of 2,000, Waverly reached a steady state, marked by a lack of significant residential development during the last decade. In general, the town experienced no net migration. However, within this envelope of relative stability, the city showed an ability to attract younger families and elderly residents; and less of an ability to retain families as they matured, along with young people.

These positive trends suggest specific policy directions which can help to strengthen the city's ability to account for a significant share of regional growth. These include:

• Carrying out economic development programs that continue to provide sites for industries and encourage the location and development of local small business.

• Assuring an adequate supply of new housing in good environments, aimed at broad segments of the Lincoln metropolitan area population. A particularly important target are workers and families who work in and around Waverly.

• Providing productive recreational, academic, and community involvement programs for young people, creating

positive identifications with the city and helping to channel the considerable energy of the young into community enhancement.

• Making necessary investments in the programs and physical facilities of the city's school system as growth occurs.

• Providing public investments that maintain a high quality of life for people of all ages.

• Involving senior citizens in the community and with young people through intergenerational programming.

Population Projections

The size of Waverly's future population is very important for suggesting future community directions. The impact of future population changes on the nature of community growth is considered in detail under the theme "A Quality Environment for Growth" in the third chapter of The Waverly Plan. However, it is important here to examine the city's population futures, given its experience of the last ten years.

The basis for population forecasts is 1990 Census statistics for age distribution. As before, the cohort survival method is used to project population and have made the following assumptions:

- U.S. Census Five Year Survival Rates are utilized for projections. These survival rates were published in the Bureau of Business Research's 1982 publication, *Nebraska Population Projections, 1985-2020*. As before, we developed the computer model and completed the projections.

- Two birth rate scenarios are used: a low and a moderate rate, corresponding to the Bureau of Business Research's Series I and II scenarios. These rates correspond most closely to the actual birth rate experienced in the community.

- Five migration models have been utilized. These correspond to ten-year migration rates of 0%, + 2.0%, +4.0%, +6.0%, and +10.0%. As noted above, Waverly's net migration between 1980 and 1990 was virtually zero. Probable population behavior without significant public action is

■ Facts and Analysis

bracketed in the range between 0 and +2%. The higher in-migration rates may result from concerted public policies designed to accelerate housing development rates in the city. Tables 1-5 and 1-6 display population projections for these five migration scenarios in Waverly.

TABLE 1-5: Waverly Population Projections, 1990-2010 Low Birth

Migration Scenario	1990	1995	2000	2005	2010	Change 1990-2010
No net migration	1,869	1,903	1,939	1,990	2,039	+9.10
+2.0% migration	1,869	1,922	1,978	2,050	2,121	+13.48
+4.0% migration	1,869	1,941	2,018	2,111	2,207	+18.08
+6.0% migration	1,869	1,960	2,057	2,174	2,294	+22.74
+10.0% migration	1,869	1,998	2,138	2,303	2,478	+32.58

Sources: U.S. Bureau of the Census, *Current Population Reports.*
UNL Bureau of Business Research, *Nebraska Population Projections, 1985-2020.*
RDG Martin Shukert, 1994.

TABLE 1-6: Waverly Population Projections, 1990-2010 Moderate Birth

Migration Scenario	1990	1995	2000	2005	2010	Change 1990-2010
No net migration	1,869	1,943	2,023	2,122	2,219	+18.73
+2.0% migration	1,869	1,963	2,064	2,186	2,310	+23.60
+4.0% migration	1,869	1,982	2,105	2,252	2,402	+28.52
+6.0% migration	1,869	2,002	2,147	2,319	2,498	+33.65
+10.0% migration	1,869	2,040	2,231	2,456	2,698	+44.36

Sources: U.S. Bureau of the Census, *Current Population Reports.*
UNL Bureau of Business Research, *Nebraska Population Projections, 1985-2020.*
RDG Martin Shukert, 1994.

Facts and Analysis

Based on the most likely growth scenario, Waverly's population will increase between about 9% and 18% during the twenty year planning period, at or slightly below the growth rate experienced during the last ten years. This scenario, based on no net migration, will produce a population in the year 2010 that will range from 2,039 to 2,219.

However, a concerted public policy aimed at aggressively creating opportunities for new residential growth can affect this outcome. If the city is able to achieve a typical decennial in-migration rate of 6%, the city's population in 2010 will range from about 2,300 to 2,500. A 10% in-migration rate will generate a population range from about 2,500 to 2,700 people within twenty years.

The Waverly Plan is based on achieving one of these higher in-migration rates, thereby achieving growth beyond that produced by internal population growth. Waverly then must assure that growth occurs in places that will provide the greatest benefits to the city and its residents.

A key premise of this plan is creating a framework for planned growth. This means that development areas are designated that relate to the amount of growth that the city can realistically expect. This approach assures that transportation and utility systems are designed and built in an orderly and cost-effective way, and that the city ultimately gains full economic advantage from its expansion. The opposite approach, in which development is unmanaged, will result in expensive initial development costs and overextended public services. As a result, the public cost of supporting new growth is increased, also increasing the burdens placed on the city's taxpayers.

Population projection is an inexact science to be sure. However, projections can help a city set out its priorities. A clear future challenge for Waverly understand the implications and requirements for residential growth, allowing the city to encourage development and accommodate it within a cost-effective, economical, and high quality community development structure.

■ Facts and Analysis

Economic Factors: Employment

Waverly's excellent location and transportation service have helped it become a rich center for employment. The city and its immediate surroundings include three employers (Dorsey-Sandoz, LENCO, and National Crane) that each employ over 300 people. In addition, the city hosts a variety of small businesses. Table 1-7 inventories major industrial employers within Waverly.

TABLE 1-7: Major Industrial Employers in Waverly, 1994

Employer	Employees
Dorsey-Sandoz	430
LENCO	350
National Crane	300
Brownie Manufacturing	80
Farmers Co-op	38
Central Nebraska Tubing	35
Linweld	20
Capital Implement	17
Morton Building	10
May Custom Homes and Cabinets	8
B&B Grain	6
Loan Oak Cabinetry	5
Witt Rock Sandblasting	4
Worldwide Equine	4

Sourcess: Waverly Community Chamber of Commerce; RDG Martin Shukert, 1994.

■ Manufacturing is the largest employment sector for Waverly's residents.

This strong manufacturing base suggests that this sector may account for the largest share of employment for Waverly's citizens. Just over 25% of Waverly's workforce is employed in manufacturing, equally split between durable and non-durable goods. Other large employment sectors include retail trade (13.26%) and education (11.74%). Table 1-8 displays the distribution of employment by industry for Waverly's residents.

■ Facts and Analysis

TABLE 1-8: Waverly Employment by Industry, 1990

Industry	1990	%
Total Employed	988	100.0
Agriculture	14	1.42
Construction	64	6.48
Manufacturing	253	25.61
Transportation, Communication and Utilities	81	8.20
Retail Trade	131	13.26
Finance, Insurance and Real Estate	73	7.39
Business and Repair Services	28	2.83
Personal and Entertainment Services	13	1.32
Health Services	66	6.68
Education	116	11.74
Other Professional Services	44	4.49
Public Administration	57	5.77

Sources: U.S. Bureau of the Census
RDG Martin Shukert, 1994.

■ Most Waverly residents live within an easy commute of local employers, as well as the City of Lincoln.

The average resident of Waverly works within 17.7 minutes of home. This suggests that a substantial number of residents work in Lincoln as well as locally. About 78% of all workers drive to work alone; 12.8% drive in carpools; and about 8% walk to work. The easy mobility into and out of the community produces a substantial amount of cross-commuting as residents from outside the city are equally able to work within Waverly.

■ More of Waverly's residents fall in middle-income ranges than statewide or national averages.

Residents of Waverly are far more likely to have family incomes in middle ranges than their counterparts nationally. This is indicative of a population with high proportions of manufacturing and professional employment. Table 1-9 compares the distribution of incomes for the city with that of the state and the nation. About 10% of the city's households have incomes below $15,000, far below the state and national

■ Facts and Analysis

TABLE 1-11: 1990 Income Distribution as a Percent of Total Households

	Under $10,000	10,000-14,999	15,000-24,999	25,000-34,999	35,000-49,999	50,000-74,999	Over $75,000
Waverly	4.7	5.3	18.2	23.4	26.7	18.4	3.3
Nebraska	15.9	10.7	21.3	18.0	17.8	11.4	5.0
USA	15.5	8.8	17.5	15.8	17.9	14.9	9.5

Source: U.S. Bureau of the Census, 1990.

averages of between 25% and 30%. In contrast, almost 60% of the city's residents have middle-range incomes, between $25,000 and $75,000, compared to under 50% for the state and 54% for the nation. Waverly has a smaller number of very high income people than the nation (an estimated 3.3% of the households, compared to 7% nationally) and a moderately smaller proportion than the state.

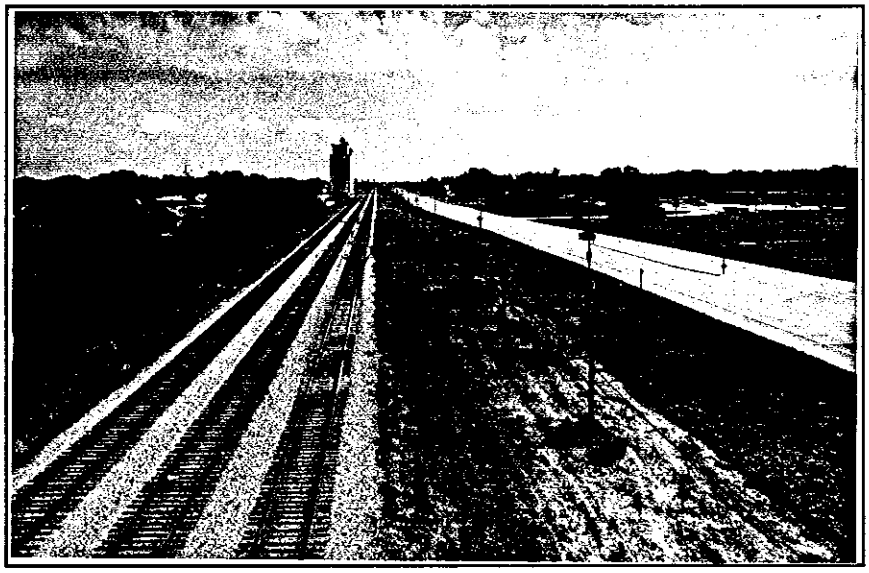
Regional Transportation

Waverly enjoys an excellent location along the Omaha-Lincoln corridor, contributing to its industrial strength. The city is located on the main line of the Burlington Northern Railroad, connecting west to the extensive BN system extending to the Pacific Coast and east to Omaha and Chicago. Amtrak utilizes the BN, but does not stop in the city.

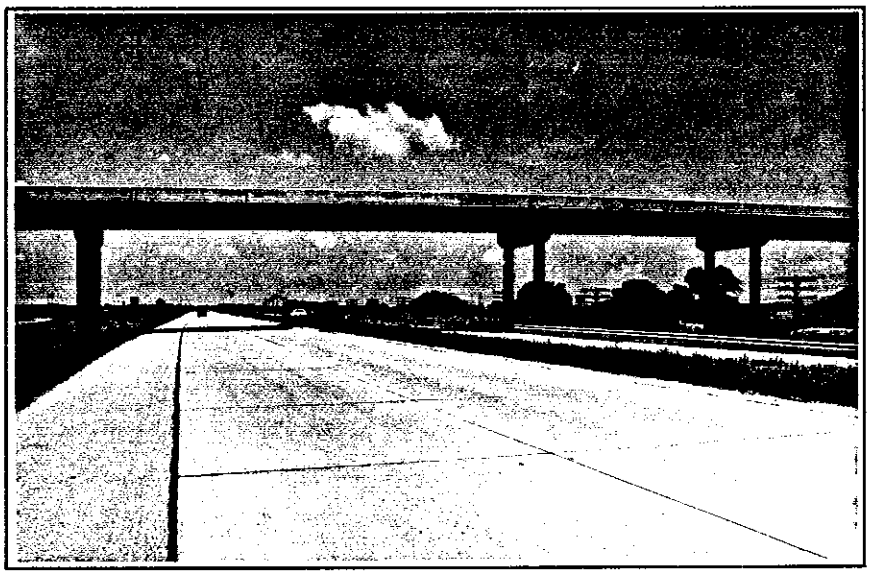
Waverly also enjoys very good road transportation. The city is served by East Cornhusker Highway (US 6), a four-lane divided roadway from the city into Lincoln. The highway has an interchange with Interstate 80 four miles southwest of the city. To the northeast, the highway reduces to two lanes with surfaced shoulders north to Ashland.

The city is currently in the planning process for developing an airport. The facility would serve east Lincoln and eastern Lancaster County and would provide a reliever for general aviation traffic otherwise bound for Lincoln Municipal Airport. As of January, 1993, the Airport Planning Project has defined six potential sites. The current planning schedule calls for selection of a site by and preparation of final documents for the Nebraska Department of Aeronautics and the Federal Aviation Administration during 1993.

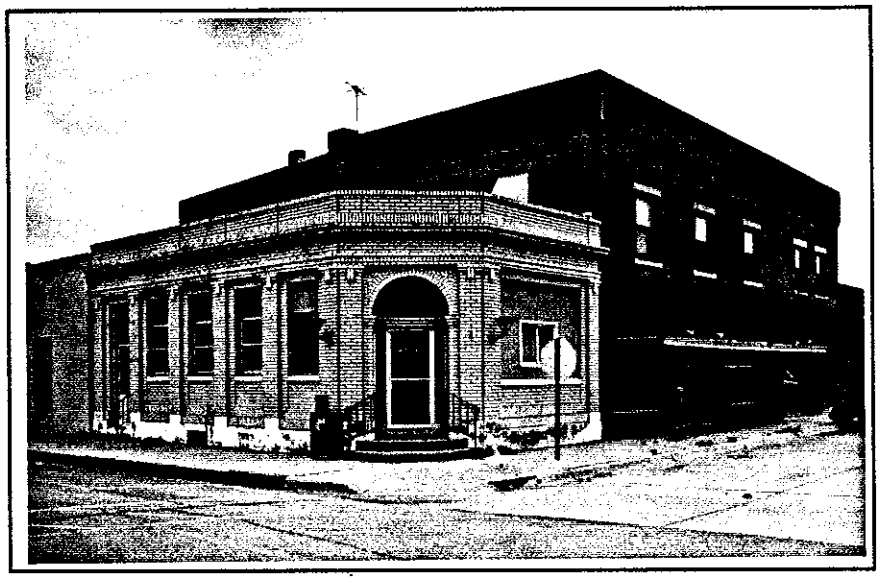
• *Waverly's transportation corridor, including the Burlington Northern and East Cornhusker Highway.*



• *The 134th Street viaduct. This viaduct should be integrated into the city's circulation system.*



• *Downtown Waverly.*



• *Contemporary retailing in Waverly, off 141st Street.*

■ Policies and Actions

This section presents the policies and actions that will enable Waverly to increase its share of growth in the Lincoln metropolitan area. The analysis in the first part of this section paints a portrait of a healthy, attractive community whose growth appears to have plateaued. During the next twenty years, Waverly will be challenged to:

• Build on a strong industrial base of both large and small businesses.

• Increase the city's population at a moderate rate by encouraging new housing development and targeting residential retention strategies toward people who are already working in the area.

• Take advantage of the city's excellent infrastructure systems and assure that the transportation and circulation framework accommodates growth and provide good regional links.

• Establish itself as a distinctive place that attracts new residents and offers its citizens a high quality of life.

ECONOMIC DEVELOPMENT

■ Land for Industrial Use

■ Small Business Development Program

■ Retail Development

■ Economic Development

In order to maintain and strengthen its industrial and business base, Waverly should complete these policies and actions:

1. Land for Industrial Use

Waverly has been a successful industrial location in part because it has successfully designated and reserved land for industrial use. Land use planning for the city should assure a continued supply of industrial land which is separate from and minimizes impact on residential properties.

Historically, industrial uses were concentrated along the East Cornhusker Highway (US 6)/ Burlington Northern corridor. The landmark Farmers' Co-op elevator is the most visible example of this pattern. More contemporary industrial development has occurred on the southwestern and northeastern sides of town. These industrial sites are generally west of Wayne Park and the drainage channel in the southwestern quadrant of the town; and northeast of 148th Street

■ Policies and Actions

Industrial Park and Redevelopment Finance

Industrial park financing may pursue several options. Within the city's limits, redevelopment financing tools, such as tax increment financing, may be used to assist project development with the same impact of minimizing property taxes for eventual businesses. Tax increment financing allows the use of added taxes created by a redevelopment project to finance land acquisition and improvements related to the project. A tax increment scenario may work as follows:

1. The city declares the industrial site "blighted," pursuant to the Nebraska Community Development Law and issues bonds to finance acquisition and public improvements.

2. These bonds are purchased by local companies and individuals interested in further economic growth. The investments are viewed as "patient" loans, to be paid back as development occurs.

3. When a business prepares to develop a site in the industrial area, the city creates a tax increment district. The business acquires the property at its fair market value, paying back the bondholders for their investment in this portion of the industrial park. The payment for the land is considered a loan to the city.

4. The loan is paid back to the business over a period of fifteen

and East Cornhusker Highway (US 6) in the city's northeast corner.

New industrial development should continue these contemporary trends. Thus, development should be concentrated in:

• Southwest Waverly west of the drainage channel and between East Cornhusker Highway (US 6) and Amberly Road. If additional demand occurs, industrial development may extend south of Amberly and west of 134th Street.

• Northeast Waverly, generally north of East Cornhusker Highway (US 6) and east of 148th Street. This extends the industrial precedent established by National Crane's installation.

The city's circulation system should evolve to provide regional access to these sites without passing through residential areas.

In addition, lands that are currently used for industrial purposes that affect residential development should not be expanded and should gradually be phased out. This includes property used for industry on the south side of Oldfield Road west of 141st Street. Long-term policies should promote the gradual reuse of these sites for residential purposes.

Waverly should consider a more active industrial park development policy to promote development in the area more aggressively. The sidebar describes methods by which industrial park development and improvements may be financed.

2. Small Business Development Program

A small business development program will help to continue Waverly's tradition of hosting small as well as large businesses. The status of the town as a center for enterprise can enhance both its local economy and its share of residential growth. A small business program can attract entrepreneurs to the city. In addition, a comprehensive small business program improves the probability that a new business will survive its early years and ultimately succeed.

■ Policies and Actions

years or less by repaying the added property taxes created by the new project to the business.

Economic Development Financing and LB 840

In 1990, the voters of the State approved a constitutional amendment allowing municipalities to loan general revenues to private enterprises for economic development projects with the approval of its electorate. In essence, this amendment allows voters to waive the constitutional restriction against lending the "faith and credit" of a city to a private agent. The Unicameral implemented this amendment in 1991 with the passage of LB 840.

The most probable use of LB 840 will be to provide publicly financed loans at favorable terms to businesses considering a location in the city. A thorough evaluation of the proposal will be necessary to be certain that public funds are being spent prudently. Issues to consider are:

• The importance of the loan to the business. Generally, projects should demonstrate that they will not proceed without city assistance.

• Overall benefits to the city. Often, projects that generate employment produce benefits to a community by "multiplier" effects - houses bought and goods purchased by new or upgraded employees. Columbus, in evaluating proposals, should demonstrate

A comprehensive business development program includes advisory services that support and counsel new businesses; and capitalization to help increase their chances for success.

The program can begin most readily with advisory services. An advisory program should orchestrate resources offered by the Chamber of Commerce, active and retired businesspeople, and Southeast Community College to assist with the development of business plans, financing packages, and marketing advice. These advisory services should be marketed widely through the area to alert potential entrepreneurs to their availability in Waverly.

The second element of a small business development program is access to capital. The Nebraska Research and Development Authority offers a source of venture capital to new businesses. Its programs should be marketed in Waverly. The city and the Chamber should also work with lenders active in the town to assure a reasonable flow of capital for bankable small businesses.

3. Retail Development

Waverly has a relatively small retail base for a community of its size. This is largely the result of the city's adjacency to major retail facilities in Lincoln. As a result, principal markets have included local convenience commercial, including a food store and pharmacy, located in the city's strip shopping center at 140th Street and East Cornhusker Highway (US 6); and services and civic uses, located in the town center.

The adjacency to Lincoln's growing retail base makes major retail development in Waverly unlikely. However, as the city continues to grow, its expanded residential base will be able to support additional retail services. Specific elements of a retail development strategy include:

• *A Downtown Development Program.*

Waverly's town center is a focus for civic business, offices, and some retail services. The town center is located on the north side of the East Cornhusker Highway (US 6)/ BN corridor, dividing it from the more populous southern part of the city. While the area will not increase in size, a modest development program can improve the district's business

■ Policies and Actions

that the benefits of assistance are substantially higher than its costs.

• Structure of the assistance package. In structuring an assistance package, the city should view public participation as an "equity" investment rather than a grant. In investing funds as equity, the city can profit financially if the enterprise succeeds. Indeed, the city should be rewarded like any investor for the risk that it takes through participation in profits.

The LB 840 tool should be used sparingly and strategically. If used wisely, however, it can be a valuable part of the city's economic development strategy.

climate. Elements of this program include:

- Reinforcement of a community circulation network, linking Jaycee and Wayne Park through the town center and retail center south of East Cornhusker Highway (US 6). An element of this network, discussed more fully in the next chapter of the plan, is an improved crossing at 141st Street.

- A street landscaping and beautification program, utilizing graphics, trees, and park improvements to create an improved business environment and provide a better linkage from the highway to the town center.

- A building rehabilitation and facade improvement program.

• *Full Development of 140th Street Commercial Center*

Available commercial sites along the extension of Guilford Street adjacent to the existing Waverly Plaza shopping center should be marketed by the city and Chamber of Commerce for additional commercial development.

• *Neighborhood Convenience Sites*

Land planning and approvals for development in new residential growth areas should designate small sites for neighborhood convenience development. Such sites provide opportunities for small business and service enterprises and increase the vitality of new neighborhoods without producing objectionable traffic. Pedestrian and bicycle access to these convenience centers should be maximized.

• *Highway Commercial Development*

In the long term, Waverly should capitalize on its adjacency to Interstate 80 by providing an area for highway service development if additional access to I-80 is provided. This additional access would be furnished by an extension of the 134th Street Viaduct route to the south to I-80, and would provide a link to the proposed Waverly General Aviation Airport.

■ Policies and Actions

TRANSPORTATION

■ Airport Development

■ New Waverly Interchange

■ East Beltway

■ Commuter Rail Service

■ Transportation

In order to improve regional transportation service to Waverly, the city should complete the following actions:

1. Airport Development

The development of a general aviation airport near Waverly would provide an important reliever to Lincoln Municipal Airport and would serve expanding development in the eastern part of the metropolitan area. For Waverly, an adjacent airport would enhance the city's attractiveness as a location for major industry.

The 1992-1993 Airport Planning Study evaluated six potential airport sites. Of these, two sites (Site B and Site F) were recommended for further evaluation. Site B is located north of East Cornhusker Highway (US 6) and east of 148th Street, roughly adjacent to National Crane Company. Site F is located north of East Cornhusker Highway (US 6) and west of 134th Street. Of the two locations, the plan favors Site F. This site benefits from a nearby road that has a grade separated crossing over the East Cornhusker Highway (US 6)/BN corridor; and is adjacent to major industry without blocking future industrial growth.

2. A New Waverly Interchange

Industry and residential access would benefit from the development of an extension of the 134th Street viaduct route with an eventual interchange at Interstate 80. This is a long-term project, predicated on additional major industrial development and construction of a new airport. The western airport site (Site F) tends to support interchange construction. In addition to responding to industrial and airport development, an interchange would have a powerful role in encouraging additional industrial locations.

3. East Beltway

The draft comprehensive plan for Lincoln and Lancaster County calls for the development of south and east beltways. These planned roads would complete a circumferential roadway system, complementing two other legs formed by I-80 and the West Bypass (US 77). The plan designates a three-mile wide study corridor for an East Beltway, from 98th to 134th Streets. Waverly should be an active

■ Policies and Actions

participant in the corridor planning and selection process, and should work to integrate the beltway into its development plans.

4. Commuter Rail Service

Waverly is located on the most direct rail route between Omaha and Lincoln. This route accommodates Amtrak's *California Zephyr*, although the train does not stop in Waverly. Discussions about establishing some form of rail or fixed guideway service between the state's two largest cities occur periodically. If serious discussions occur regarding the establishment of passenger rail or high-speed, fixed guideway service in the Lincoln-Omaha corridor, Waverly should be an active participant. Such a service would strengthen the community's role as a residential setting for commuters in the two metropolitan areas.

HOUSING

■ A Population of 2,500

■ A Housing Development Strategy

■ Places for Multi-Family Housing

■ Housing

In order to encourage housing development to improve the city's ability to attract new residents, Waverly should implement these policies:

1. A Population of 2,500

Waverly is in the unusual position of being able to select a target population that will in turn help to determine future public policy. Without major action or development, natural population change will bring the city's population to between 2,000 and 2,200 by the year 2010. This "steady state" population, though, will generate little additional housing or commercial development.

The goals identified during Waverly's strategic planning process suggest that moderate growth is in fact an important priority for the city. Therefore, the plan recommends that the city work to achieve a 10% net in-migration rate per decade as a desirable goals. Combined with natural population increase, this will generate a target population ranging from 2,500 to 2,700 by the year 2010. The growth and land use implications of this target are discussed in detail in the next chapter.

■ Policies and Actions

Affordable Housing Finance Programs

A variety of programs exist to help provide affordable housing in Columbus. Applicable programs include:

Owner-Occupied Housing

• Tax Increment Financing to install utilities and public improvements in new additions. This can reduce the price of a new home by up to $10,000 if savings are conveyed to buyers.

• Low-interest loans for first-time, moderate income homebuyers, through the Nebraska Investment Finance Authority.

• Deferred second mortgage loans, which can be blended with private funds to reduce monthly payments. Sources of such loan funds include the Federal Home Loan Bank; and the use of Community Development Block Grants.

• Innovative development design and standards, which can reduce the per unit cost of public improvements.

• Hope 1 and Hope 2 programs, which can convert public housing or low-income, privately owned developments to owner occupancy.

Renter-Occupied Housing

• Tax Increment Financing, to finance public improvements, acquisition, or rehabilitation of specific projects.

• HOME funds, administered

2. A Housing Development Strategy

In order to achieve its population target, Waverly will have to encourage housing development through a coordinated strategy. Elements of this strategy include:

• *Community Marketing and Amenities.* Waverly must establish a high quality community design framework to support residential development. This framework, including open spaces, community facilities, amenities, and linkages, should create a town that is superior to competitive environments in the Lincoln metro area. The framework should then be publicized and marketed to developers and prospective residents. The comprehensive plan should be viewed as an important tool for this marketing effort.

• *A Construction Loan Pool.* Lincoln area and eastern Nebraska builders tend to perceive Waverly as an untested and somewhat risky market for significant housing development. The community, its bank, and major industries should consider capitalizing a construction loan pool. This pool would make construction period loans to homebuilders, to be repaid upon sale of houses. This transfers the risk of carrying unsold houses from the builder to the community, creating a no-lose scenario for the builder. Ultimately, this pool will prove unnecessary, allowing initial capital and interest to be repaid to the original contributors. However, in the short to medium-term, the pool can be a powerful incentive to convince builders to become active in the Waverly market.

A construction loan pool requires either no or a relatively shallow subsidy. Housing markets are such that deeper production or buyer subsidies are not necessary to encourage development.

• *Development Areas.* Public policy in Waverly should provide sufficient development areas to accommodate present and future housing demand. In order to provide adequate residential choices, areas designated for housing development should equal about twice the hard demand for land. These development areas should be located at sites that can be efficiently served by short extensions of existing sewer and utility lines. Development areas should be controlled enough to assure economical, managed growth; and large enough to prevent artificially high land costs cost by scarcity of available residential sites. An optimum mix of efficient

■ Policies and Actions

by the State to provide leveraged financing for new or rehabilitated rental development.

• Historic tax credits, offering a 20% first-year investment tax credit to investors in the certified rehabilitation of a structure eligible for listing on the National Register of Historic Places. This program may be most applicable to adaptive reuse projects in and around Downtown.

• Section 42 low-income tax credits, administered by the Nebraska Investment Finance Authority. This program provides ten-year Federal income tax credits to investors in projects that reserve specified numbers of their units for low-income occupants. The Equity Fund of Nebraska (EFN) administers a pool of equity funds invested by corporations and other parties to complete tax credit projects.

extensions of utility lines and a good supply of land will produce the most affordable housing opportunities. The concept of Development Areas is considered in detail in Chapters Two and Three.

• *Public Development Financing*. In some situations, it may be necessary for the city to assist with infrastructure financing or negotiation of extraordinary development costs. The city generally pre-annexes developing areas and finances infrastructure and streets through improvement districts. This technique works best for desirable development contiguous to the city and served by incremental line extensions. Growth to the east of the city will require resolution of a problem posed by the alignment of a large natural gas pipeline. These issues and constraints are considered in detail in the next chapter.

3. Places for Multi-Family Housing

Waverly has a relative lack of available multi-family housing. This type of development provides housing opportunities for workers in area industries who are not yet ready to become homeowners. Development may create an initial tie to the community, which later adds to the potential market for single family development. Land use and zoning policy for Waverly should designate appropriate sites for multi-family development. These sites should be properly zoned and minimize risks to potential developers that they will be unable to secure proper approvals.

■ Public Facilities

Waverly should provide an excellent quality of life and vital support services to its residents by implementing the following policies:

1. Educational Facilities

The city's school district is universally perceived as a major community asset. Its schools, while in good condition, are experiencing signs of stress and crowding. In addition, projected growth will create demand for expanded school facilities. enjoy good physical facilities. A strong school system, including adequate facilities, will be vital to establishing Waverly as a competitively superior residential setting for

■ Policies and Actions

PUBLIC FACILITIES

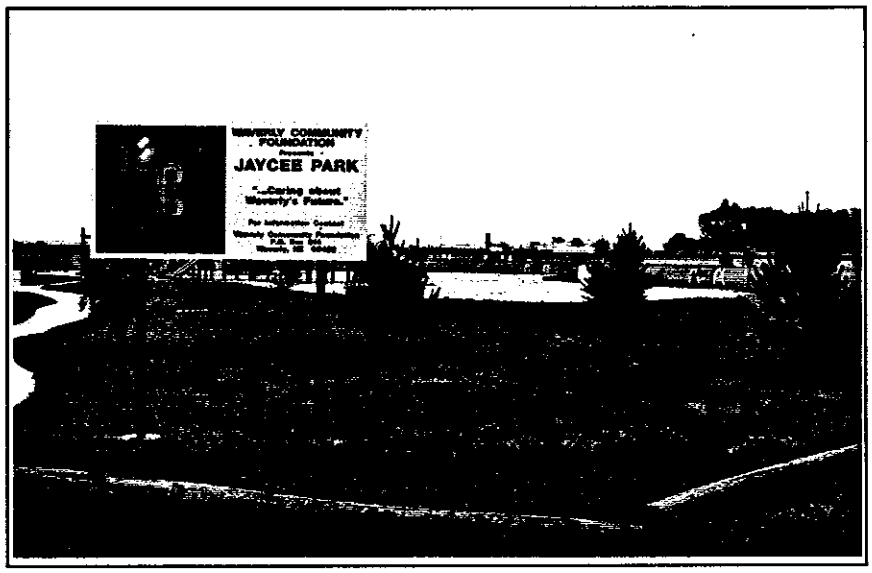
■ Educational Facilities

■ Community Center for All Ages

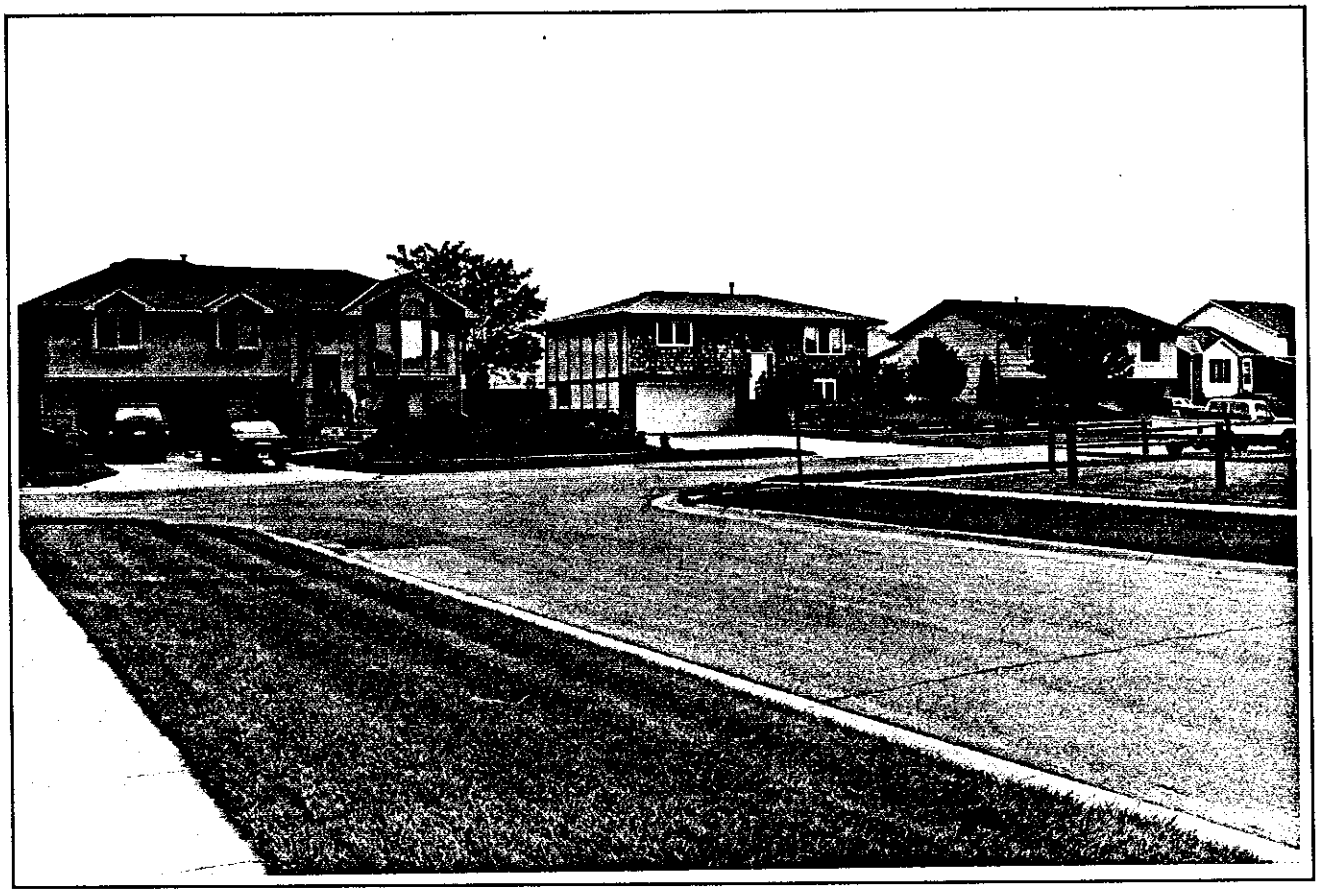
young and mature families.

2. Community Center for All Ages

The development of a community center, providing recreational opportunities for young people, old people, and families will provide a significant improvement in the city's quality of life and an aid to Waverly's competitive environment. A community center should provide the facilities most needed by the community. Further, it should be located at a site that is relatively accessible from all parts of the community and may be safely reached on foot and by bicycle.



• *Jaycee Park in North Waverly. This park could serve as the site of a community center.*



• *Homes in North Waverly.*

2

An Expanded Supply of Housing

Waverly will institute programs to expand its housing supply, designed to meet its population potential.

The growth of major industries and employment opportunities in Waverly and its surrounding area could generate a significant demand for new housing. However, the city has not experienced development activity sufficient to capture this potential demand. One result of this is a vanishingly small vacancy rate, only 1.6% in 1990. In reality, this rate means that the city has no available housing. In the absence of new development, the community will be unable to market itself to potential new residents.

Development of new housing stock is critical to Waverly's ability to grow. The city's strategic planning process has highlighted residential development as a top community priority. A twofold strategy becomes necessary, one that is directed to both producers and consumers. Homebuilders and developers must be persuaded to consider Waverly as a potential market, resulting in a building of supply. On the other hand, the attractions of living in Waverly must be marketed to consumers, in order to absorb newly developed housing and encourage continued residential development.

This chapter focuses on the housing component of regional growth, analyzing the current situation and projecting future housing development targets for the community. It then proposes strategies which, if implemented, will relieve the city's housing shortages and encourage the development of an expanded housing supply.

■ Goals

In working to meet challenges and opportunities created by its housing demands and market characteristics, Waverly should:

■ Expand the city's supply of new housing.

The growth of industry in Waverly creates a significant potential demand that the city's extremely tight housing supply cannot absorb. As a result, prospective new residents are unable to find housing. This limits the city's potential for population growth and directs possible residents and workers in the area to more available housing in eastern Lincoln neighborhoods. Waverly has developed the infrastructure necessary to accommodate expanded housing development. It must, however, achieve marketplace acceptance as a potential residential location.

An element in the production of housing is affordability. However, Waverly's primary problem does not require subsidies in a depressed residential market. Rather, it must encourage participation in a potentially strong housing environment. Thus, programs that shift or cushion risks may be more useful than deep subsidy programs.

■ Promote a variety of housing types to meet residential demand.

Meeting housing demands in Waverly will require a variety of housing types. In 1990, about 79% of the city's housing was owner occupied. The city provides only 123 renter occupied units, many of which are located in only two developments. The lack of availability of rental housing closes an opportunity for young singles or households to form an association with Waverly which may later result in their permanent investment in the community through home purchase.

Waverly, then, should encourage a competitive range of housing forms, including rental and owner-occupied housing. It may also provide unique settings and larger lots, forms that are generally not available in competitive environments.

■ Goals

■ Assure that new residential areas provide residents with good services and a high quality of life.

Many communities, faced with high housing demand at a specific point in time, have either relaxed standards or acted from a short-term, crisis perspective. Waverly should maintain its reputation as a distinctive town with a high quality of life for its residents. Ultimately, this special quality is one of the community's greatest resources as it markets itself in a competitive environment. It is important that new housing development be placed within the context of the city's environmental quality. This means that growth should be encouraged within the structure of the city's overall development plan.

In addition, newly developing areas must provide the long-term improvements and facilities necessary to make them good neighborhoods far into the future. Thus, good utility services, park facilities, transportation systems, and support resources are vital elements of building future communities.

■ Provide the maximum possible benefit for each dollar of public investment.

Waverly has demonstrated a willingness to make significant public investments to encourage community growth through the development of excellent infrastructure systems. This spirit has built the foundation for new growth. In the future, it is essential that precious public dollars be invested for maximum return. Thus, new residential development should make use of existing systems through incremental extensions. A compact pattern of development helps to assure more cost-effective public investments, as well as longer term savings in providing continuing public services. In addition, the city will need to work toward removing obstacles that block community growth.

■ Facts and Analysis

This section examines important housing market issues that will affect policy development for Waverly. This analysis will lead to conclusions about current housing issues and future challenges for the city.

Existing Housing Market Characteristics

This discussion will examine features of the city's present housing supply. Factors that relate to housing conditions and the markets within specific neighborhoods are considered in Chapter Five, addressing the theme "A City of Strong Neighborhoods."

■ Waverly added housing at the rate of about 23 units annually during the 1970's. This rate dropped dramatically during the 1980's.

Table 2-1 summarizes housing supply and occupancy changes in Waverly between 1970 and 1990. The city experienced its greatest increase in total housing supply during the 1970's, a decade that also experienced a large proportionate increase in total population. In spite of this active housing construction market, vacancy decreased in Waverly between 1970 and 1980, indicating healthy overall growth in households and suggesting a continuing strong demand for housing in the town.

During the 1980's, on the other hand, growth in total housing declined to about a third of its 1970's level. During this decade, the city added a net total of 72 units, compared with an increase of 228 households during the 1970's. The result was a decline in an already low vacancy rate, from 2.8% in 1980 to 1.6% in 1990.

■ The rate of single-family construction has increased slightly in Waverly since 1990. The majority of this development falls within moderate price ranges.

Table 2-2 summarizes the recent experience of single-family housing development in Waverly. Construction activity has increased significantly since 1990. Between 1990, the city has experienced 27 single-family housing starts, over half of those experienced during the last ten years. The average value of a single-family permit has varied generally from $55,000 to $60,000 during the last three years, an increase from earlier years generally consistent with a modest rate of

■ Facts and Analysis

TABLE 2-1: Housing Occupancy and Supply Characteristics, 1970-1990

	1970	1980	1990	Change, 1970-1980	Change, 1980-1990
Total Units	335	563	635	+300	+72
Owner Occupied	269	438	502	+233	+64
% Owner	80.3	77.8	79.1		
Renter Occupied	52	109	123	+71	+14
% Renter	15.5	19.9	19.4		
Vacant	14	16	10	-4	-6
% Vacant	4.2	2.8	1.6		

Source: U.S. Bureau of the Census.

inflation. It is important to note that the value of a building permit is significantly less than the final purchase price of the home. This experience suggests that while single-family development has grown in the city, it tends to be focused on moderately priced single-family development.

■ Multi-family development is proceeding at a very low rate and primarily in very small projects.

Table 2-3 summarizes multi-family development in Waverly since 1982. Only eight multi-family housing units received permits since 1982, accounting for only 13.8% of all new units built during the last ten years.

■ Housing values and rents in Waverly are comparable to those in Lincoln and have increased at a rate commensurate with those of similarly located communities.

Housing value increased moderately in Waverly during the 1980's. In 1990, owner-occupied housing in the community had a median value of $59,100, representing an increase of 28.2% from average 1980 values. This median value is slightly below that of Lincoln. Generally, values in Lincoln appreciated at a slightly higher rate than those of Waverly. In addition, a comparison between Waverly and other communities near metropolitan cities suggests that values increased at a lower rate in Waverly during the 1980's, but remain significantly higher. Table 2-4 compares changes in the value of housing for Waverly, Lincoln, and other

■ Facts and Analysis

TABLE 2-2: Single-Family Permits for Waverly 1982-1992

Year	# Permits Single Family	$ Total Value	$ Mean Value
1992	9	533,420	59,268
1991	10	565,700	56,570
1990	8	518,000	64,750
1989	3	170,000	56,667
1988	5	264,000	52,800
1987	0	0	---
1986	3	164,000	54,667
1985	3	156,500	52,167
1984	1	53,000	53,000
1983	2	97,000	48,500
1982	6	377,000	62,833
	50	**2,898,620**	**57,972**

Source: City of Waverly.

TABLE 2-3: Multi-Family Permits for Waverly, 1982-1992

Year	# MF Units	Total $ Value	Mean Value $ per Unit
1992	0	NA	NA
1991	0	NA	NA
1990	0	NA	NA
1989	0	NA	NA
1988	4	65,000	16,250
1987	0	NA	NA
1986	0	NA	NA
1985	0	NA	NA
1984	0	NA	NA
1983	0	NA	NA
1982	4	135,000	33,750
Total	**8**	**200,000**	**25,000**

Source: City of Waverly.

towns on the edge of the Omaha and Lincoln metropolitan areas.

Rents in Waverly, on the other hand, increased at very high rates compared to those of comparable towns. Median rents of $173 in 1980 grew to $320 in 1990, an increase of about

■ Facts and Analysis

85%. This increase results in rent levels that are comparable to Lincoln. Market rents in Waverly are challenged only by those in Gretna, a very similar community on the southwestern edge of the Omaha metropolitan region; and are far above those exhibited by other communities such as Wahoo, Ashland, and Seward. This substantial increase in rents is indicative of a community with a very low vacancy rate, experiencing significant unmet demands for rental housing. Generally, Waverly exhibits housing price trends that are more like those of metropolitan areas than non-metropolitan communities.

TABLE 2-4: Comparative Housing Value Trends, Waverly and Other Communities

	Median Home Value			Median Contract Rent		
	1980	1990	% change	1980	1990	% change
Waverly	**46,100**	**59,100**	**28.2**			
Lincoln	46,700	61,700	32.1	173	320	85.0
Wahoo	32,400	43,500	34.3	192	323	68.2
Ashland	30,700	41,800	36.1	135	223	65.2
Gretna	35,800	54,400	52.0	128	211	64.8
Seward	43,000	54,100	25.8	182	313	72.0

Source: U.S. Bureau of the Census.

Table 2-5 examines the distribution of values for housing in the same six communities. The lower quartile is the value or rent below which only 25% of all units in the city fall; the upper quartile is a value or rent that is higher than that of 75% of the city's housing units. Half of all units fall above or below the median.

An analysis of single family housing reveals that of these comparable communities in the region, Seward have the widest distribution of housing values around their respective means. In contrast, single family housing in Waverly exhibits a very tight distribution of housing values around its mean value. Indeed, only 25% of all Waverly's owner-occupied housing has a value below $50,600. This underscores the general homogeneity and good quality of the city's single-family housing.

In contrast, Waverly exhibits a comparatively wide distribution of rents. In this area, Waverly exhibits the

■ Facts and Analysis

TABLE 2-5: Housing Value Distribution, Waverly and Other Communities, 1990.

	Home Value			Contract Rent		
	Low Quart	Median	High Quart	Low Quart	Median	High Quart
Waverly	**50,600**	**59,100**	**71,000**	**220**	**320**	**395**
Lincoln	48,000	61,700	80,400	257	323	397
Wahoo	31,700	43,500	57,500	166	223	283
Ashland	29,100	41,800	55,500	150	211	265
Gretna	45,800	54,400	64,000	256	313	394
Seward	40,300	54,100	71,300	192	273	331

Source: U.S. Bureau of the Census.

largest differences between the most expensive and the least expensive multi-family units. In addition, average rent levels in Waverly are higher than all others in the sample with the exception of Lincoln.

The rent distributions suggest that rental housing is a hybrid market in Waverly. At the low end, rents resemble those in "stand-alone" non-metropolitan communities. At the high end, they are very similar to metropolitan rent levels. This, in turn, suggests opportunities that make new, unassisted rental construction economically feasible on a large scale. A quarter of the city's rental housing supply has rents in excess of $395. Generally, rent levels in the range of $400-$450 are necessary to support unassisted development.

■ Generally, most owner occupied housing in Waverly tends to cluster in upper-middle price ranges. On the other hand, rental housing most frequently priced in lower-middle ranges.

Tables 2-6 and 2-7 display the 1990 distribution of values and contract rents for housing in Waverly. About 60% of the city's single-family housing was clustered in the narrow band of values between $50,000 and $75,000 in 1990. Housing in these ranges is affordable to people earning from $25,000 to $40,000 per year. Similarly, rental housing tends to cluster in middle ranges. About half of the city's rental housing is priced between $300 and $450 per month. This is generally affordable to households earning between $12,000 and $22,000 annually.

■ Facts and Analysis

TABLE 2-6: Owner Occupied Housing Values, Waverly, 1990.

Value Range	Number of Units	% of Total
Under $15,000	0	0.0
$15,000-19,999	4	0.8
$20,000-29,999	8	1.6
$30,000-34,999	3	0.6
$35,000-39,999	8	1.7
$40,000-44,999	31	6.5
$45,000-49,999	52	10.8
$50,000-59,999	141	29.4
$60,000-74,999	146	30.4
$75,000-99,999	72	15.0
$100,000-124,999	7	1.5
$125,000-149,999	0	0.0
Over $150,000	2	0.4

Source: Bureau of the Census.

TABLE 2-6: Renter Occupied Units, Distribution of Contact Rents, Waverly, 1990

Rent Range	Number of Units	% of Total
Under $100	11	8.9
$100-149	5	4.1
$150-199	8	6.5
$200-249	14	11.4
$250-299	11	8.9
$300-349	25	20.3
$350-399	16	13.0
$400-449	22	17.9
$450-499	2	1.6
Over $500	4	3.2
No Cash Rent	5	4.1

Source: Bureau of the Census.

■ Facts and Analysis

Housing Demand Projections

Population forecasts and scenarios for Waverly appear in Chapter One under the theme, "A Share of Regional Growth," and are summarized for several migration options in Table 1-7. The table indicates that Waverly's population will increase slightly during the next twenty years merely as the result of natural population change, an excess of births over deaths. However, the city can achieve specific population targets by generating specific levels of in-migration through housing development and marketing policies. Scenarios proposing 6% and 10% in-migration rates per decade and a moderate birth rate produces populations of 2,147 and 2,231 respectively within ten years.

Tables 2-9 and 2-10 present projected ten year housing demands for these scenarios. Year One represents the 1990 base census year. These projections are based on the following methods and assumptions:

• The basic method used in projecting annual demands are to compare the number of units needed in a given year (number of households + projected vacancy rate) with the number of units available during that year (housing supply during the year less the units that leave the housing supply and must be replaced. Twenty-year demands are based on multiples of the ten year demand computed in this section.

• Household size in Waverly is expected to decline slightly through the year 2000. The 1990 proportion of 2.92 people per household is projected to decline to 2.84 within ten years.

• The city's non-household population (people in institutions, group quarters, or nursing homes) does not produce a demand for conventional housing. These forecasts project that the non-household population will remain at its 1990 proportion for the next ten years.

• Waverly's current vacancy rate of 1.6% represents full occupancy of all available housing. In order to provide enough housing to create a serious, competitive market, vacancy rates of 6% within ten years are factored into the forecast model.

• Between 1980 and 1990, Waverly experienced virtually no

■ Facts and Analysis

losses of housing units. The projections forecast that two units will leave the housing supply annually during each of the next ten years.

These projections indicate a ten-year requirement ranging from 170 to 200 units, an annual rate of about 20 units. This is about three times higher than Waverly's average of six units annually during the last ten years and about two times the level since 1990. However, this development level is slightly less than that experienced by the city during the 1970's. Based on rental housing needs, about 30% of these units should be multi-family.

Summary

The analysis of the Waverly housing market indicates that:

• The city's housing production is not keeping up with current demands, making the housing market steadily tighter.

• Waverly's lack of housing production has resulted in full housing occupancy, making it virtually impossible for prospective residents to find a home in the community.

• The city has experiences higher housing values and rents

TABLE 2-9: Projected Ten Year Housing Development Plan 6% Migration Growth Scenario

	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Population	1869	1896	1922	1949	1975	2002	2031	2060	2089	2118	2147
Household Pop	1824	1850	1876	1902	1928	1954	1982	2010	2039	2067	2095
People/household	2.92	2.91	2.90	2.89	2.88	2.87	2.86	2.85	2.85	2.84	2.84
Household demand	625	636	647	658	669	681	693	705	715	728	738
Vacancy rate	1.6	2.0	3.0	3.5	4.0	4.5	5.0	5.0	5.5	5.5	6.0
Total unit needs	635	649	667	682	697	713	730	743	757	770	785
Available from previous year	Base	635	649	667	682	697	713	730	743	757	770
Lost Units	---	2	2	2	2	2	2	2	2	2	2
Total Units Available	635	633	647	665	680	695	711	728	741	755	768
Annual Need	Base	16	20	17	17	18	19	15	16	15	17
Cumulative Need	---	16	36	53	70	88	107	122	138	153	170

■ Facts and Analysis

than most other similarly situated communities and most closely resembles the pricing behavior of Lincoln. Housing values and costs are more like those of metropolitan areas than stand-alone, non-metropolitan communities.

• During the next ten years, the city will need to produce housing at the rate of 17 to 20 units per year to take advantage of its potential for population growth. This required rate will range from to 15 to 20 units annually for the next ten years. The slight change reflects building the city's vacancy rate up to about 6% by the year 2000.

TABLE 2-9: Projected Ten Year Housing Development Plan 10% Migration Growth Scenario

	Base	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Population	1869	1903	1937	1972	2006	2040	2078	2116	2155	2193	2231
Household Pop	1824	1857	1891	1924	1957	1991	2028	2065	2103	2140	2177
People/household	2.92	2.91	2.90	2.89	2.88	2.87	2.86	2.85	2.85	2.84	2.84
Household demand	625	638	652	666	680	694	709	725	738	754	767
Vacancy rate	1.6	2.0	3.0	3.5	4.0	4.5	5.0	5.0	5.5	5.5	6.0
Total unit needs	635	651	672	690	708	726	746	763	781	797	816
Available from previous year	Base	635	651	672	690	708	726	746	763	781	797
Lost Units	---	2	2	2	2	2	2	2	2	2	2
Total Units Available	635	633	649	670	688	706	724	744	761	779	795
Annual Need	Base	18	23	20	20	20	22	19	20	18	21
Cumulative Need	---	18	41	61	81	101	123	142	162	180	201

■ Policies and Actions

This section establishes a strategy designed to address Waverly's housing challenges and opportunities. Elements of this strategy include:

• Creation of an organizational structure to encourage private development of affordable housing in Waverly.

• Reservation of adequate land and locations to assure competitive pricing of developable parcels.

• Implementation of land use and zoning policies which encourage the development of moderately priced housing.

ORGANIZATIONAL FRAMEWORK

■ Waverly Housing Partnership

■ Housing Development Goals: Twenty Units Annually

■ Organizational Framework

In order to create the agencies necessary to promote the development of affordable housing, Waverly should implement the following policies:

1. Waverly Housing Partnership

Chapter One of the Waverly Plan recommended a housing development strategy aimed at capturing a proportionate share of the regional growth market for the community. This strategy will best be executed through the creation of a public/private Housing Partnership. The Partnership's highest priority should be accelerating the production of new housing in the community by private developers and builders; and the marketing of the community to potential new residents. The Partnership should be incorporated as a 501c)3 corporation, enabling it to accept tax-deductible charitable contributions.

Organizationally, the Partnership should have the following attributes:

- A broadly-based board of directors, including the bank and other institutions active in Waverly, major corporations and employers, city government, and housing and real estate industry representatives in the Lincoln metropolitan area.

- A part-time staff member dedicated to the implementation of the Partnership's programs.

■ Policies and Actions

- Close working relationships and shared offices and support staffs with the Chamber of Commerce and/or city government.

• *The Partnership as a Catalyst*

In its capacity as a catalyst for private development, the Partnership should:

- Capitalize and administer the construction loan pool proposed in Chapter One. This loan pool would reduce the risk for private builders by providing a source of front-end capital. The pool would be repaid upon the sale of houses by builders, shifting the risk away from the contractor and toward the community. The need for the loan pool will diminish over time. However, in the short-term, it will help builders in the area become involved with a market that they perceive is essentially untested.

- Utilize existing external programs, such as the Federal Home Loan Bank affordable housing program, special subsidy programs of the Nebraska Investment Finance Authority,, or the Community Investment Program of the Federal National Mortgage Administration. These programs provide low-interest loans for first-time homebuyers, second deferred payment mortgages to lower housing payments, and relaxation of downpayment requirements for mortgage loans purchased by the FNMA.

- Create a loan committee to administer the construction financing pool.

- Market the community and its programs to builders, realtors, and housing consumers. Each of these marketing targets are crucial to the success of an accelerated housing development program for Waverly.

2. Housing Development Goals: Twenty Units Annually

Through these techniques, the Waverly Housing Partnership should promote the annual development of 17 to 20 units annually over the next ten years, and 350 to 400 units cumulatively over the next twenty years. Generally, about 70% of this housing should be single-family and about 30% multifamily to build an adequate range of housing choices.

■ Policies and Actions

To the maximum degree possible, new housing development areas should integrate single-family and multi-family housing, locating apartments at desirable sites that are consistent with community structure and facilities.

COMMUNITY DEVELOPMENT

■ Public Improvement Financing

■ Neighborhood Conservation

■ Community Development

In order to minimize the cost of public improvements to targeted housing developments, Waverly should implement the following policies:

1. Public Improvement Financing

Waverly has built an excellent public infrastructure system, capable of accommodating the community growth proposed in this section. However, the city will occasionally be involved in the financing and development of supporting public improvements. This may be important in providing exceptional environments for living, that in turn help give the city an edge in competing for regional growth.

Potential financing tools include:

• *Tax Increment Financing*. This technique should be used in situations where a relatively "deep" subsidy is required for public improvements. TIF districts may be created within areas that are designated by the city as "blighted" under Nebraska state law. Within a TIF district, the tax basis of a site is frozen at pre-development levels. The added taxes created by development are then used to repay publicly-issued revenue bonds that financed public improvements and land acquisition. Thus, the future taxes created by a residential development pay for improvements, allow a pass-through of the savings directly to homeowners or indirectly to renters.

TIF diverts taxes that would go to all jurisdictions, including the school system, to help finance a specific project. Therefore, the technique should be used in a carefully targeted way. TIF is most appropriate for projects that would not otherwise occur without the assistance program. Potential projects include residential development in the north part of the city that may require a transition from industrial to residential land use, multi-family development, and some single-family development on small sites.

Policies and Actions

• *Special Assessment Districts.* Special assessment districts should remain the primary method for public improvement financing for subdivisions in Waverly. Districts lend the front-end financing ability of the city to individual subdivisions. Under the special assessment technique:

- The city pre-annexes an area currently outside of the city limits that is about to undergo development.

- Public improvements are financed through a revenue bond issued by the city.

- These revenue bonds are then repaid by special assessments levied against each lot in the subdivision.

Assessment district financing is particularly appropriate in Waverly because of the city's good infrastructure network. As a result, most extensions or hook-ups are incremental and provide special benefits to the specific subdivision.

• *Public Funding.* In some situations, direct public financing of infrastructure and improvements may be required or desirable. This device will be necessary in projects that require significant subsidy, but in which the use of TIF is either unacceptable or unfeasible, or when the benefit of a public improvement flows to the general community rather than to a specific development. Examples of such projects include parks or open space systems that improve the amenities offered to a specific development area, but also have demonstrable and substantial general benefits to the public.

Public funding tools include general obligation bonds or appropriations of general funds; Community Development Block Grants, targeted to benefit projects that have a direct benefit to low and moderate income families; and the use of various state grant programs.

• *Negotiations and Relocation of Gas Lines.* Development to the east of the limit of current urbanization at 148th Street is limited by a Northern Natural Gas pipeline. Urban development in this desirable or buildable area may require the upgrading or relocation of this line. This action, potentially important to community growth patterns, will require negotiation between the pipeline company, the city, and potential developers. The details of this issue are discussed in Chapter Three of the Waverly Plan.

■ Policies and Actions

2. Neighborhood Conservation

The preservation of existing neighborhoods and housing stock become especially important under conditions of housing shortages. Most of Waverly's housing stock is already in place. Indeed, its rehabilitation or preventive maintenance is the city's most cost-effective way of assuring a continued supply of good housing.

Waverly provides its residents with a number of excellent residential areas. The implementation of policies tailored to their specific needs will be important to their continued quality. Chapter Five, "A City of Strong Neighborhoods," examines neighborhoods and their housing in detail and proposes such policies for each part of the city.

LAND USE AND ZONING

■ Compact Development Pattern

■ An Established Urban Structure

■ An Adequate Residential Land Supply

■ Zoning Techniques

■ Land Use and Zoning

In order to provide opportunities for the development of affordable housing and assure that investments in projects are cost-effective, Waverly should implement the following policies:

1. Compact Development Pattern

Waverly has benefitted as a community from a relatively compact development pattern. This has helped the city grow as a unified community, has maintained convenient access to public facilities and features for most residents, and strengthened city government by allowing efficient, orderly provision of public services. Maintaining this sense of economy and compactness should be a key element of future land use policies. In addition, it will allow the city to take best advantage of existing infrastructure systems.

A compact development pattern will encourage development in areas that are served by incremental, relatively lower cost extensions of communities, and assure continued economies in the provision of city services.

2. An Established Urban Structure

Generally, subdivisions in Waverly will be built in relatively small increments, consistent with market demand and prudent risk taking by both the public and private sectors.

■ Policies and Actions

While this strategy is logical economically, it requires careful coordination to be certain that the resulting development pattern makes sense and works together to create a physically unified community. Therefore, planning for growth in Waverly should define a physical structure of streets, open spaces, parks, and community facilities. This structure provides a framework that new development fits into, as well as an attractive overall vision of the Waverly of the future. Therefore, the community should approve development generally consistent with the growth vision established in the next chapter of this plan. It will help to assure the evolution of a beautiful and exemplary community, one which, over the long-term, will maintain its distinctiveness and edge in a competitive housing market.

3. An Adequate Residential Land Supply

Land costs can be a significant factor in determining housing costs. In Waverly, flood plains, gas lines, and the Interstate corridor tend to limit and direct the growth of the community. Within the principal of compact development, land use policy must designate about twice the projected land need for residential development during the next twenty years. These specific land demands are discussed in Chapter Three, "Growth in a Quality Environment."

To the degree feasible, land use policy should designate several growth centers that provide alternative housing locations. These options, within the context of a compact pattern, provide competition and help to prevent land prices in any one corridor from becoming excessively high.

4. Zoning Techniques

Zoning regulations for Waverly should be modified to create development options that can promote affordable housing or other distinctive housing types. These options include:

• *Cluster Subdivisions.* In clusters, the overall density of a single-family project, including open space, must comply with the maximum density requirement of the zoning district. However, individual lots have smaller area and setback requirements. Clusters are useful when infrastructure costs should be minimized or environmental features exist which should be protected.

Policies and Actions

• *Single-Family Attached Development.* Here, single-family units comply with the minimum lot sizes of the zoning district, but have a common wall. The opposite side yard is ordinarily larger than normal. This housing type provides construction economies and more useful side yards.

• *Townhouses.* Townhouses, which are three or more attached units, can be developed as owner-occupied or rental housing. They provide construction and land use efficiencies, while continuing the sense of a single-family neighborhood.

In addition, Waverly should continue to monitor its subdivision regulations to examine areas in which it can modify design requirements without compromising neighborhood quality.

• *An historic neighborhood in Midtown Waverly.*

3

A Quality Environment for Growth

Waverly will provide opportunities for growth within the context of an attractive and unified community environment.

Like many other communities in Nebraska, the original town of Waverly was laid out as a grid along a railroad main line. This major rail line and the highway that paralleled it became the most important physical fact of life in the early community - a corridor that linked Waverly to the major cities of Lincoln and Omaha; a center for community industries such as the Co-op; and a barrier that divided residential areas from one another.

The subsequent development of Waverly extended out from this original 20 square block grid, and included neighborhoods built with the more curvilinear street patterns characteristic of post-World War II residential development. The majority of this growth took place to the south of the tracks, opposite from the traditional center of town but more related to the new transportation main line on Interstate 80. Now, as Waverly plans for another period of significant development, it should work to preserve those qualities of community and civic life that are major assets of small towns. The city will be challenged to provide opportunities for new development in ways that are uniquely attractive to a potential regional market.

This chapter examines characteristics of community growth and presents a development concept that helps to ensure that established and new urban development work together as a unified whole. The chapter examines probable demands and needs for development, based on the city's target population for the year 2010. In this development concept, the older part of town should not become a subject for nostalgia only, but rather a living, breathing community focus. On the other hand, new development must strengthen and reflect existing systems and patterns within Waverly. This overall concept of unifying existing and new development will make Waverly an exemplary urban environment - a place that can grow while strengthening its community character.

■ Goals

This section presents the goals that Waverly should achieve through the creation of a quality urban environment that promotes growth. These goals and the concepts that can fulfill them are based on an analysis of the structure of the city's environment and the principal that the town's strong sense of form and design has produced a better functioning, more satisfying community. This will help Waverly maintain its sense of order and unity, even when growth occurs in relatively small increments. In order to enhance a quality urban environment, the city's goals will be to:

■ Provide adequate land for projected and potential growth.

This chapter will provide specific areas for phased residential growth, consistent with Waverly's potential for new housing. It will also designate ample land for industrial development and define the demand and location for future commercial development. Such designations must permit a reasonable amount of flexibility, to accommodate possible changes in trends and to provide adequate choice to the private sector as it makes wise and efficient development decisions.

■ Assure that new development creates the greatest advantages for building the community.

Development should help form the community. The energy that it creates is much too important and precious to dissipate. Because of this, new growth areas should be established which will provide maximum advantages to all parts of the city. New growth should create excellent residential environments and help improve the city's existing residential, commercial, and industrial neighborhoods. Development directions should enhance positive features of the city and provide incentives for improvement, rather than create new patterns which turn away from the existing fabric of the city. Indeed, the city development concept for Waverly is designed to do just that, by defining positive community patterns and assuring that new growth builds on this strong foundation.

■ Goals

■ Encourage economical extensions of infrastructure and services.

It makes sense to conserve scarce public funds by striving for efficient growth patterns. This includes addressing development of areas that are vacant but enjoy a full array of public services. A more compact urban form which takes advantage of existing public facilities will help Waverly accomplish this goal. Projects which are served by taking advantage of gravity flows and incremental extensions of public utilities allow more development to take place at a lower marginal cost and reduce long-term maintenance and capital costs.

In Waverly, most development will be financed privately and through the use of special assessment districts. These financing techniques reward incremental extensions of utilities that build on existing public investments.

■ Promote quality new development that have distinctive public improvements and services and create special environments.

When development takes place incrementally, on a relatively small scale as it does in Waverly, systems which benefit a number of individual projects are sometimes difficult to develop. Examples of these systems include collector street grids and neighborhood parks. Collector streets must be preplanned, in order to assure that new subdivisions accommodate their alignments. The lack of such a system channels more traffic on a few major streets and increases their traffic load significantly. Similarly, each new subdivisions cannot afford to develop its own park, nor can the city afford to maintain a number of very small open spaces. Yet, resources should be pooled to assure effective park facilities for new areas.

The quality and distinctiveness of the built environment will be particularly important to Waverly. The city's drive to compete more successfully for new development requires it to create an attractive and compelling growth environment. As such, Waverly can create what its competitors cannot - an integral and intimate small community with the conveniences and economic opportunities of a metropolitan area.

■ Goals

■ Maintain Waverly as a functionally unified city.

Waverly has historically had to battle a tendency toward physical division. From its initial plat, this basically compact town was divided diagonally by the railroad and highway corridor, separating the town center and north residential neighborhoods from the much larger southern parts of the city.

As additional growth occurs, this tendency to grow apart will continue. A framework must be developed to assure that the city does not grow apart into separate sections. It must assure that the sense of civic space and public life that are so attractive in a small community can be enhanced within Waverly.

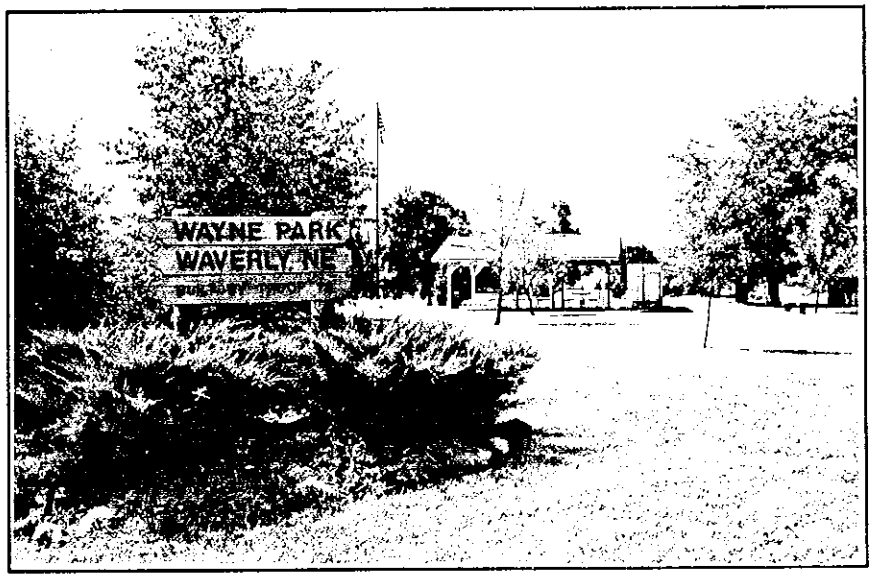
■ Improve the quality of the urban environment and establish a framework for growth.

The appearance of a community has an important effect on residents' satisfaction with it. Environmental quality is both subjective, making people happier and more comfortable with the harmony of their community; and a long-term investment, increasing the growth and investment potential of the city.

Waverly has built an attractive community from its roots as a railroad related village. The city's public environment has been important to this success. In the future, public features such as recreation systems will be even more important, given the popularity of such recreational pursuits as bicycling, walking , and running. The appearance and quality of the city's parks and streets also reinforces neighborhood improvement efforts. In contrast, Waverly's core on the linear transportation corridor is largely industrial and commercial. The upgrading of this highly visible corridor and the strengthening of links across it will become significant to the image of the community as it seeks new residential markets.

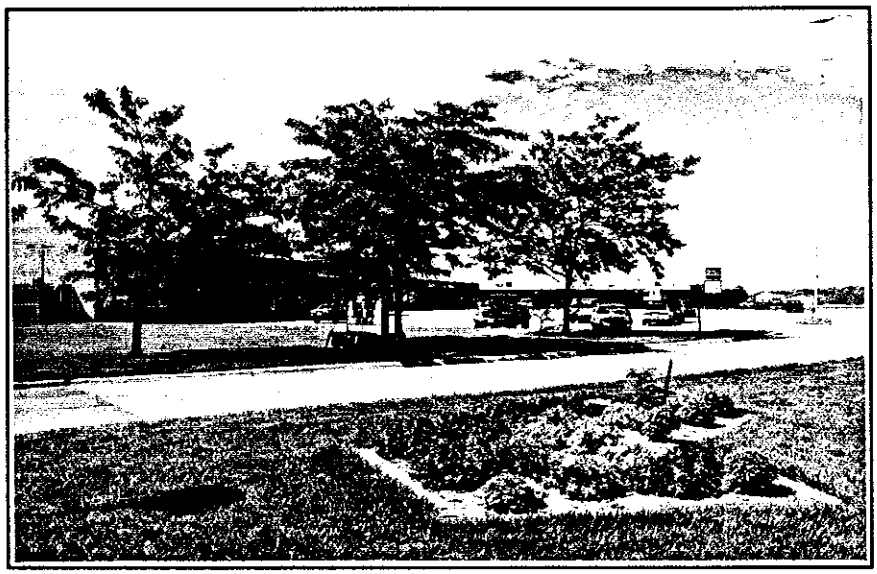
Finally, Waverly's growth can either take place in an ordered way, reinforcing the fabric of the town; or can occur randomly, reducing its uniqueness and harmony. A future development concept should be ordered, but open-ended, able to accommodate the growth of the city well into the future.

• *Wayne Park, a superb facility that provides residents with multtiple recreational facilities.*

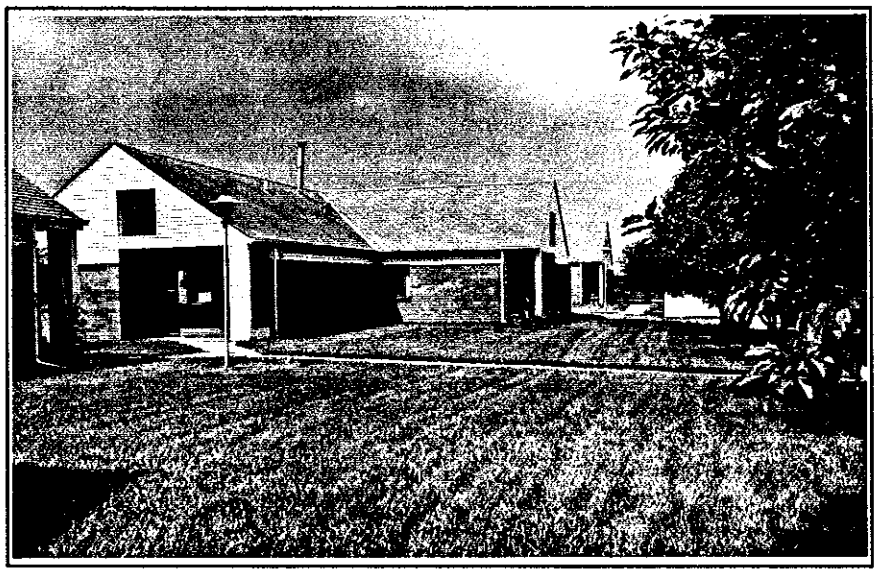


• *A greenway connecting the elementary and high schools.*

• *Attractive landscaping at Waverly Plaza.*



• *Well-designed housing for seniors in North Waverly.*



Facts and Analysis

This section describes development patterns, physical characteristics and constraints, and land use characteristics and trends that will help to form a growth and development concept for Waverly. This concept is based on probable needs for residential, commercial, and industrial land over the next twenty years.

Development Patterns

Waverly's original plat consisted of twenty square blocks bounded by the current 140th, 144th, Heywood, and Mansfield Streets and roughly bisected by the Chicago, Burlington & Quincy (now Burlington Northern) Railroad. The town center was located north of the tracks, which formed an industrial corridor through the center of the original village. The town initially grew to the east, generally along Jamestown Street toward what is now 148th Street (or Prairie Home Road).

The town's first major postwar growth epoch developed the area south of Heywood Street (Bluff Road) to Amberly Road and between 143rd and 148th Streets. This southeastern neighborhood has grown to maturity and includes major community facilities such as the elementary and secondary schools and, to the west, Wayne Park. Growth farther to the south and east was limited by the Interstate 80 corridor to the south and the Northern Natural gas pipeline and a tributary floodplain on the east. During the 1970's, single-family residential growth grew to the northwest, between 134th and 140th Streets. During this period and into the 1980's, additional contemporary commercial development developed west of 140th Street along Guildford Street.

Industrial development, traditionally centered along the BN/East Cornhusker Highway (US 6) corridor, extended into larger tracts to the southwest and northeast. The availability of industrial land in these areas has been significant in encouraging Waverly's large scale industrial development.

Givers of Urban Form: Barriers, Features, and Transportation Patterns

Community and physical characteristics have had a major impact on the direction and nature of urban development in Waverly. This section will discuss major issues created by

■ Facts and Analysis

the relationship of these major community features on development patterns in the town. These issues establish both constraints and opportunities that affect the planning of an expanded community.

■ Railroads and Major Arterials

The most visible and influential physical feature in the community continues to be the transportation corridor created by East Cornhusker Highway (US 6) and the double tracked main line of the Burlington Northern. The corridor also includes sidings and service roads serving the Farmers' Co-op. East Cornhusker Highway (US 6) is a four-lane undivided highway through the community. It is upgraded to a four-lane divided section west of Waverly and provides an interchange with I-80 four miles to the southwest of town.

The corridor is crossed at grade by North 141st Street, the principal entrance into Waverly's town center; and North 148th Street, a section line road that acts as a regional traffic route and now forms the eastern limit of Waverly's urban development. North 148th Street includes a grade separated crossing over Interstate 80. During the 1980s, a grade separated crossing was developed over the transportation corridor by shifting the alignment of section line road North 134th Street on the western edge of the town.

North 148th Street, a section line road serving the high school and surrounding rural communities provides continuous access over I-80, and carries high-speed traffic in spite of lower, posted speed limits. Other streets that have important collector functions include North 143rd Street, a north-south collector for the southern part of the town; North 141st Street, connecting the highway to the town center and continuing north as a county road; Heywood Street, which continues as a county road east of North 148th; Amberly Road at the southern edge of the town; and Jamestown Street.

■ Waterways and Floodplains

Three drainageways and their floodplains affect development in Waverly. These include Salt Creek to the west of the city; Ash Hollow Ditch, cutting southeasterly through the city; and an unnamed drainage tributary to the east of the town.

■ Facts and Analysis

Salt Creek is the area's largest waterway and will have a significant effect upon future development patterns to the northwest. The creek and its wide floodway run through the western and northwestern parts of the planning jurisdiction. The Salt Creek floodplain effectively prevents development west of North 134th Street and defines a developable triangle north of the current corporate limits at Oldfield Road.

Ash Hollow Ditch is Salt Creek's principal tributary through the town. East of the 134th Street viaduct, the creek is channelized as it runs to the southeast and south through Wayne Park. South of Amberly Road, the channel broadens, crossing I-80 in a culvert. The ditch in its current form has little impact on development patterns, although it has helped to define a significant part of the town's open space system.

A tributary of Salt Creek roughly parallels and runs east of North 148th Street north of the BN corridor, crossing that street just north of the tracks. Its route and relatively narrow floodplain angle gradually to the east from North 148th Street, crossing Bluff Road (Heywood Street) about 0.4 miles east of North 148th Street.

The Ash Hollow and eastern tributaries both affect open space development in the city. In addition, the Salt Creek floodplain to the north and west significantly defines the amount of growth that Waverly can direct north of its current limits.

■ Open Spaces and Community Linkages

Links between important community features provide structuring elements for Waverly that can be enhanced by future development planning. These existing and potential linkages include:

• A link that connects Waverly's two major open spaces, Jaycee Park on the north and Wayne Park on the south, together through the city's two major commercial focuses, its town center and shopping center south of the BN corridor. North 141st Street is the center of this connection; the crossing over East Cornhusker Highway (US 6)/BN is the "weak link" in the chain.

• A mid-block pedestrian connection between the elementary school at North 148th and Amberly and the high

school/middle school campus at 148th and Heywood. These features may be incorporated into a pedestrian and open space network that can help to unify new and existing neighborhoods and development.

Existing Land Use

The Existing Land Use Patterns map and Table 3-1 summarize current land uses in Waverly and its jurisdiction based on a detailed field survey. In addition to providing acreage and percentage breakdowns by general land use categories, the survey provides detailed information on specific uses.

■ Residential Uses

Residential use makes up the largest proportion of developed land within Waverly's corporate limits. Most of this residential land is in single-family use. Only 1% of the city's total developed land area is devoted to non-senior multi-family use, mostly adjacent to the northwestern corner of Wayne Park.

■ Commercial Uses

About 7% of developed land in Waverly is used for commercial and office purposes. Outside of the approximately 1.33 acre town center, most of this land is located within the East Cornhusker Highway (US 6) corridor, generally southwest of 141st Street. The city's mall and adjacent commercial areas make up the largest share of the total.

■ Industrial Uses

About 8% of developed land within Waverly is used for industrial purposes, with the largest concentrations in modern industrial sites on the northeast and southwest edges of the town. in developed land is in industrial use. The balance of industrial land is located along the East Cornhusker Highway (US 6)/Burlington Northern corridor.

■ Other Patterns

Outside of the town center, major civic uses are generally located in the eastern and central sectors of the community. The city's elementary and secondary schools and its cemetery are located on the east edge of the city, bordering North 148th Street. Its two major open spaces, Wayne Park and

■ Facts and Analysis

Jaycee Park are located in the central sector, south and north of the railroad corridor respectively. Wayne Park's location is related to the alignment of the Ash Hollow Ditch.

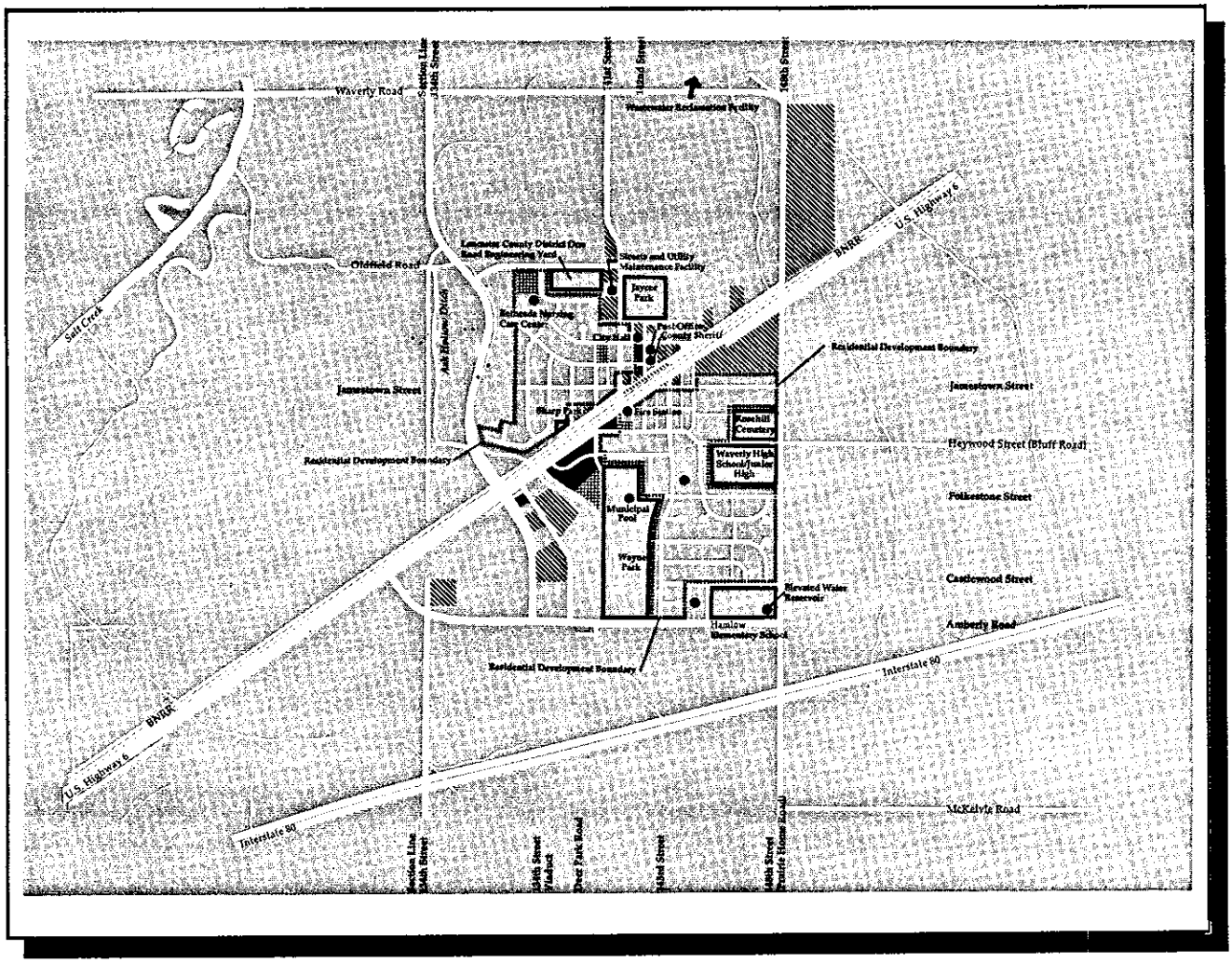
TABLE 3-1: Land Use Distribution: Waverly and Extra-Territorial Jurisdiction, 1992

Land Use Category	Acres	% of Developed Land
Residential	**186.15**	**45.61**
Single-Family/ Duplex	174.09	42.66
Multi-Family	4.10	1.00
Mobile Home	0.64	0.16
Rural Residential	---	---
Senior Housing	5.35	1.31
Office/Commercial	**29.12**	**7.14**
Office	.41	0.10
Commercial	27.38	6.71
Town Center	1.33	0.33
Civic	**70.21**	**17.20**
Park,Recreation,Open Space	51.03	12.50
Other Civic	3.03	0.74
Public Works	9.34	2.29
Cemetery	6.81	1.67
Industrial	**32.11**	**7.87**
Transportation	**90.5**	**22.17**
Street ROW	82.16	20.13
Railroad ROW and Other	8.34	2.04
Agriculture/ Open	**100.50**	---
Total	**508.59**	---
Total Developed Area	**408.09**	**100.00**

• The traditional town center can become an important center for civic and commercial life.

• A multifamily adaptive reuse project on 141st Street, just south of East Cornhusker Highway.

Existing Land Use Patterns



Existing Land Use Patterns

- Commercial Development
- Industrial Land Uses
- Urban Residential Boundary
- Major Public/ Semipublic Sites
- Other Public/ Semipublic Sites

0 800 2400

■ Facts and Analysis

Land Use Trends

Land use surveys for the city were completed during a previous comprehensive planning process, completed in 1979 by Bucher & Willis. While differences in categories and tabulation methods make direct comparisons with the 1993 survey difficult, it is possible to draw some general conclusions about changes in city land use patterns and distributions over the last 14 years. Table 3-2 summarizes the evolution of land use in Waverly during this period.

The most significant changes during this period include:

• A slight increase in the overall residential density of the city. Residential acreage per 100 people has decreased slightly, from 10.54 to 9.96.

• Stability of most other forms of development since 1979, reinforcing the general lack of community growth since 1980.

TABLE 3-2: Comparative Land Use in Waverly City Limits, 1979-1993

	Acres		% Developed Area		% of Total City Area		Acres/100 people	
	1979	1993	1979	1993	1979	1993	1979	1993
Residential	182.0	186.2	48.4	45.6	36.0	36.6	10.54	9.96
Commercial	28.0	29.1	6.9	7.1	5.5	5.7	1.62	1.56
Industrial	30.0	32.1	7.4	7.9	5.9	6.3	1.74	1.72
Public/ Semipublic	18.0	19.2	4.4	4.7	3.6	3.8	1.04	1.03
Parks/ Rec	32.0	51.0	7.8	12.5	6.3	10.0	1.85	2.73
Railroad	9.0	9.0	2.2	2.1	1.8	1.8	0.52	0.48
Streets/ Alleys	77.0	82.2	18.9	20.1	15.3	16.2	4.46	4.40
Total Developed Area	376.0	408.1	100.0	100.0	74.5	80.2	21.78	21.84
Vacant/ Undeveloped	129.0	100.5			25.5	19.8		
Total City Area	505.0	508.6			100.0	100.0		

Source: RDG Martin Shukert, Inc., 1994.

■ Facts and Analysis

• An increase in the amount of land used for public purposes. Park land has increased from 32 to 51 acres, increasing the amount of park land allocated per 100 residents from 1.85 to 2.73 acres.

■ Land Use Absorption

Table 3-3 compares changes in residential, commercial, and industrial land use since 1979. These findings are used to calculate annual average rates of land consumption. These rates, in turn, provide one basis for projecting future requirements for each type of land use.

Between 1979 and 1993, Waverly developed about 2.3 acres of land annually. The largest single amount of this use conversion is represented by the development of Jaycees Park. Of private uses, residential development has accounted for the largest share of this conversion, but this only accounted for 0.3 acres annually.

It is important to note that residential land absorption is much more regular and predictable than industrial absorption. Industrial locations are the result of individual decisions by a limited number of companies, whereas residential absorption represents the dynamic of an entire urban population.

TABLE 3-3: Urban Land Consumption for Principal Uses, 1972-1991

Land Use Type	Area (acres)		Change (acres)	Annual Land Consumption (acres)
	1979	1993	1979-93	City
Residential	182	186	4	0.3
Commercial	28	29	1	0.1
Industrial	30	32	2	0.2
Other	136	161	25	1.79
Total	376	408	32	2.29

Source: RDG Martin Shukert, Inc., 1994.

■ Facts and Analysis

Land Use Projections

■ Required Residential Area

Land use forecasts for Waverly should be based on projections for targeted growth, rather than the city's low growth rate of the last fourteen years.

The residential projections developed in Chapter Two help estimate the amount of land that will be needed to accommodate growth during the next twenty years. On the average, three new single-family units will require one gross acre of land. In addition, the average gross density of multi-family development will be ten units to an acre. As a standard, the plan recommends that land provided for residential development over a twenty year period be equal to twice the area that new growth actually needs. This is necessary to preserve competitive land pricing.

Based on these assumptions, Table 3-4 describes the amount of new area that will be required for additional development. Annual actual absorption of residential land will be in the range of 5 acres. This is a *gross* projection, including streets, parks, and other public and civic facilities. This suggests a total reservation of land for residential development of about 200 acres over the next twenty years.

TABLE 3-4: Required Residential Land, 1990-2010

Years:	1-5	6-10	11-20	Total
Projected Units	101	100	180	381
Single-Family	71	70	126	267
Multi-Family	30	30	54	114
SF Need (acres)	24	23	42	89
MF Need (acres)	3	3	5	11
Total Need	27	26	47	100
Designated SF Area	48	46	84	178
Designated MF Area	6	6	10	22
Total Designated Area (acres)	54	52	94	200

Facts and Analysis

Commercial Development

Table 3-5 indicates that Waverly currently provides 1.56 acres of commercial land per 100 people. While Waverly will not become a major commercial center because of its proximity to Lincoln, it will generate a demand for local and convenience retailing and services. Based on this assumption, two methods of projecting needed commercial space may be utilized:

• A population service relationship. This method relates commercial growth to population projections. It assumes that the absolute amount of commercial land per 100 people will remain relatively constant and that new commercial development will grow in proportion to population growth.

• Residential use proportion. This assumes a constant relationship between the amount of land used for residential and commercial purposes. It relates commercial growth directly to residential development rates.

Table 3-5 compares the results of these two methods. The population and residential proportion methods indicate a need for about 12 to 16 acres of commercial land. In order to provide alternative sites, the land use plan should designate 1.5 times the hard demand for commercial land. This means that 18 to 24 acres of land should be designated for future commercial development.

TABLE 3-5: Required Commercial Land, 1990-2010

	Acres				
	1990	2000	2010	Conversion Need	Designated Land
POPULATION PROPORTION					
Projected Population	1,869	2,184	2,588		
Comm Use/ 100 res.	1.56	1.56	1.56		
Projected Comm Use	29.1	34.1	40.4	11.3	17.0
RESIDENTIAL USE PROPORTION					
Residential Land (A)	186	239	286		
Comm/ Res Ratio	0.16	0.16	0.16		
Projected Comm Use	29.1	38.2	45.7	16.6	24.9

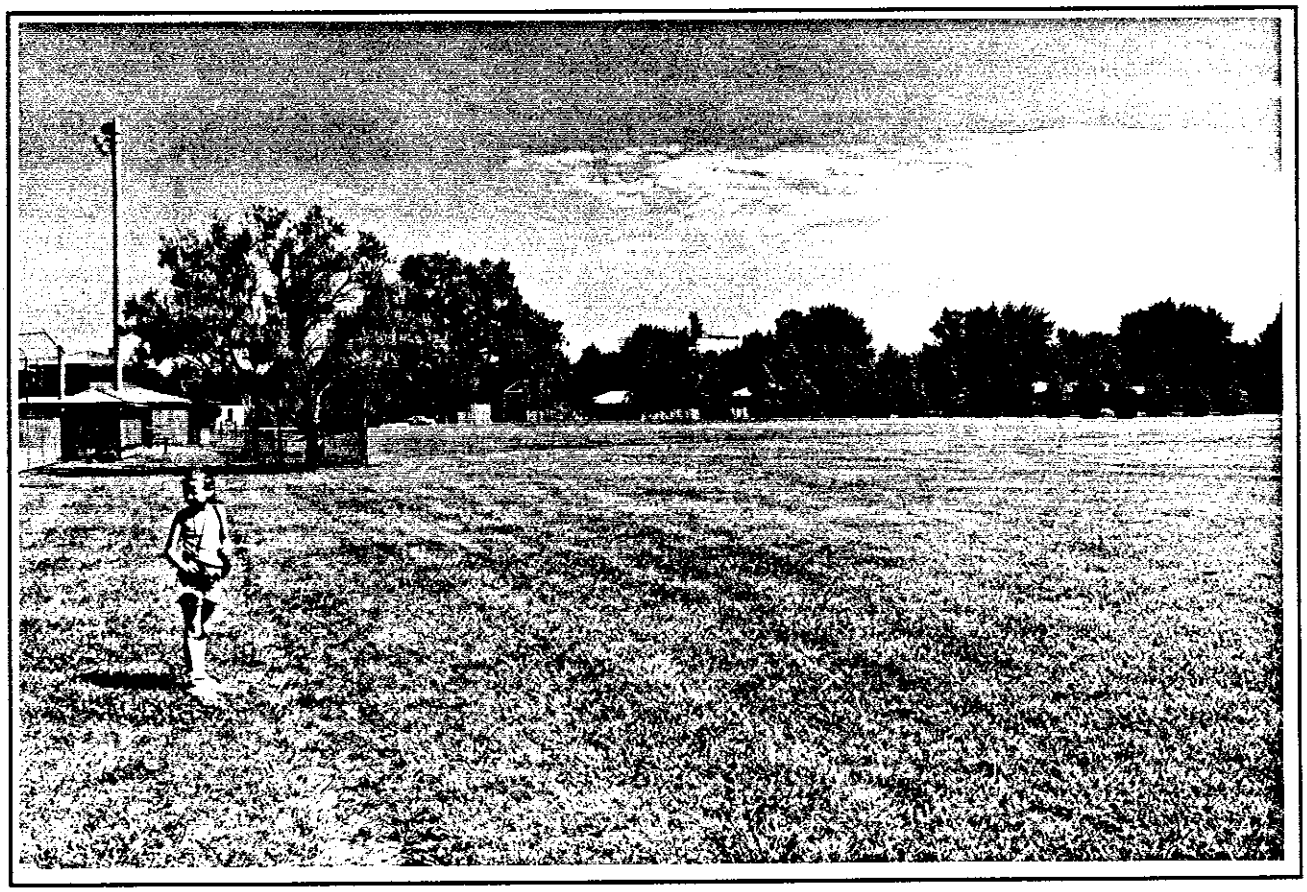
TABLE 5-4: Water Supply System Inventory

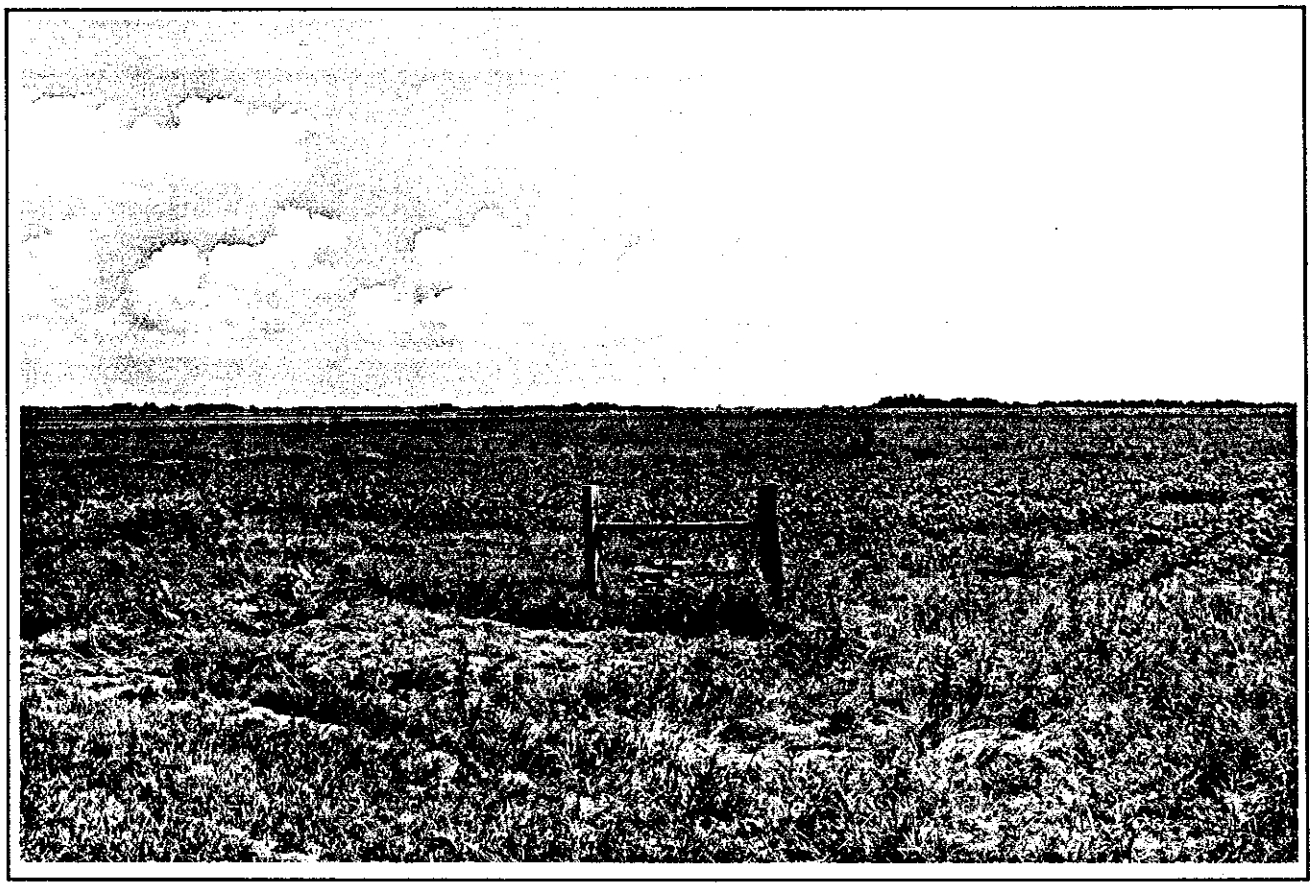
Facility	Description	Evaluation	Modification/Priority	Comments
3. Water Mains	The existing system of water mains ranges from 2 to 12 inches in diameter. Generally, the entire developed area of Waverly is served by the water main system. In recent years, the city has expanded its water service area to include large areas of industrial development southwest of the City.	The overall system is professionally maintained and operated by the City.	The City should systematically replace problem and undersized mains as funding becomes available. High Priority.	Costs will vary with size of main replacement.
		The City has completed an outstanding program creating a computerized data base of hydrants, flow tests, and volumes and pressures.	Continue on-going efforts to add to the data base of the water system. High Priority.	No planned capital costs.
	A study identified several water main projects needed to provide adequate transmission volumes and fire flows throughout the community.	A program of improvements is underway to mitigate insufficient fire flows in several portions of the City.	The City should create and follow a 5 Year Water Capital Improvement Program.	
	Major transmission mains yet to be looped in the City's system include:			
	• 10 inch main along 148th Street, from the High School north to Janestown Street. • 10 inch main along 148th Street, from High School south to Castlewood Street.	These loops areimportant to safeguard the current system from unanticipated interruptions in service.	Construct the 148th Street loop mains. Moderate Priority.	
	• Hydrant installation at 148th Street and the HIghSchool.	Hydrant scheduled to be installed during 1993.	Install hydrant. High Priority.	
	Critical replacement projects include:			
	• Reconstruction of a maze of small, obsolete lines near the former water tower site Downtown.	The near Downtown improvements are left over obsolete lines from the old system. The Woodstock line is in very poor condition.	Rebuild Downtown lines. High Priority.	
	• Replacement of a 2 inch maineast of 143rd Street along Woodstock Blvd.		Rebuild Woodstock line. High Priority.	
	• Replace 2 inch line in East Oak Lane Circle with 4 inch line and hydrant for flush.	The East Oak improvement mirrors other similar project recently completed on circles.	Complete East Oak Lane project. High Priority.	

Facts and Analysis

• Waverly will experience modest demand for new commercial development during the next twenty years. This predicted growth will require the reservation of about 18 acres of commercial land during the next twenty years. These uses will be primarily directed toward neighborhood retailing and services. However, the development of an interchange from I-80 along an extension of the North 134th Street viaduct alignment could generate additional commercial growth potential.

• Industrial expansion will continue to occur at a healthy rate in Waverly because of its transportation and infrastructure assets. However, this growth has little relationship to the population living in Waverly. As a result, the city should continue to provide industrial land, generally contiguous to existing industrial development.





• *A scene of the West Growth Center.*

Policies and Actions

This section presents strategies that will enable Waverly to accommodate development within a quality urban environment. New development will serve the city best if it is managed; that is, channeled to areas that will best fulfill the city's development goals.

The city's growth program calls for a threefold strategy:

• Create a community framework that unifies growth and assures that new and existing development create an integrate and physically linked town.

• Designate growth areas for residential development, designed to provide the appropriate amount of land for urban conversion in places that provide for economical, attractive, and convenient new development.

• Encourage the growth of commercial areas that respond successfully to market needs in Waverly and are supportable by the city's service systems.

• Provide adequate land to support continued industrial growth.

URBAN FORM

■ A Linked Amenity Network

■ Streets which Unite

■ Urban Form

In order to develop a growth concept that provides adequate opportunities for development while maintaining its tradition of a strong, compact urban pattern, Waverly should implement the following policies:

1. A Linked Amenity Network

A major element of the potential urban framework of Waverly is an amenity network that links together key features and elements of the community. The network should connect major commercial areas, residential development districts, and civic facilities. it, in turn, becomes an unusual amenity for the city, one that creates a special sense of distinction.

Elements of the amenity network include:

• Street linkages between Jaycee Park and Wayne Park through the town center and the city's shopping center. The route for this link extends south from Wayne Park through North 142nd Street in the town center; south along North

■ Policies and Actions

141st Street across the BN corridor; past the shopping center along Heywood and North 140th Streets; and into Wayne Park. Reinforcing this link should be done through the following features:

- Graphics, including directional signage and banners.
- Barrier-free sidewalks.
- Special lighting at strategic locations.
- Landscaping.
- An improved crossing for pedestrians and bicycles at North 141st Street.

• Folkestone Street between Wayne Park and the greenway connection from the high school to the elementary school; and Castlewood Street between the East Growth Center and Hamlow Elementary School. These links should be established through the provision of barrier-free sidewalks, landscaping, and directional signage.

• The existing north-south greenway between the high school and elementary school.

• A trail extending along the Lancashire Street drainageway between Jaycees Park and North 134th Street.

• A peripheral trail system, extending east from Jaycees Park and south to Castlewood Street along the Salt Creek tributary east of North 148th Street.

This network provides Waverly with a community framework that unites new and current neighborhoods and community features. Fully developed, it provides a sense of civic and recreational space that can help Waverly achieve distinction as a living environment.

2. Streets which Unify

Some streets in Waverly tend to be dividing influences that prevent the concept of a linked amenity network from emerging. These streets require special attention and include:

• *North 148th Street.* While an important community and regional arterial, this street currently appears to be a highway and tends to encourage drivers to behave accordingly. If development occurs to the east of the street, a revised design

■ Policies and Actions

should include sidewalks with generous greenway setbacks, special lighting, curbs and gutters, pedestrian crossings, and other features which transform the street's character from a high-speed county road to that of an urban street.

• *East Cornhusker Highway (US 6).* The highway will continue to be a major artery for regional traffic and industry. However, special treatments can change its character as it proceeds through the city. These elements include:

- Monument signs with appropriate landscaping at or near the city limits along the highway, providing attractive entrances to the city.

- Landscaping where possible along the highway corridor.

- Use of distinctive banners.

- Upgrading of visibility, safety, and appearance of at-grade street crossings at North 141st and 148th Streets.

• *Jamestown Street.* An extension of Jamestown Street to North 134th Street would provide improved community access to the North 134th Street overpass, as well as commercial and industrial areas south of the railroad corridor.

LAND USE

■ Four Growth Centers

■ Innovative Development Patterns

■ Commercial Land Use Nodes

■ Industrial Land

■ Land Use

In order to maintain Waverly as a compact, attractive community, the city should implement the following strategies:

1. Four Growth Centers

The city should designate four specific growth centers, tied to the amount of development that Waverly will need over the next twenty years to meet its growth targets. These growth centers each should be provided with amenities and transportation access that encourage their successful development. The growth centers include:

• *South.* This area includes up to 50 acres of developable land south of Amberly Road and adjacent to the elementary school. Assets of the area include its adjacency to major community amenities such as Wayne Park and the school; and relatively easy service by existing utilities. Challenges

■ Policies and Actions

on the site include necessary noise screening from the adjacent Interstate 80. Amenities needed to support development include:

- Extension of a residential collector to the south of Amberly Road.

- Extension of Deer Park Road and the North 134th Street viaduct alignment to the south.

- Consideration of neighborhood open space and commercial development.

• *Northwest.* This site provides about 12 acres of developable land east of North 134th Street. It is adjacent to and completes existing residential growth in the north part of the city. Advantages of the area include ease of service by existing utilities and infrastructure and adjacency to an existing residential area. Disadvantages include: the distance from community amenities, topographical challenges to sewer service extensions, and restrictions to outward growth caused by the embankment formed by the North 134th Street viaduct to the west. Amenities needed to support development include:

- Connection of Jamestown Street to North 134th Street.

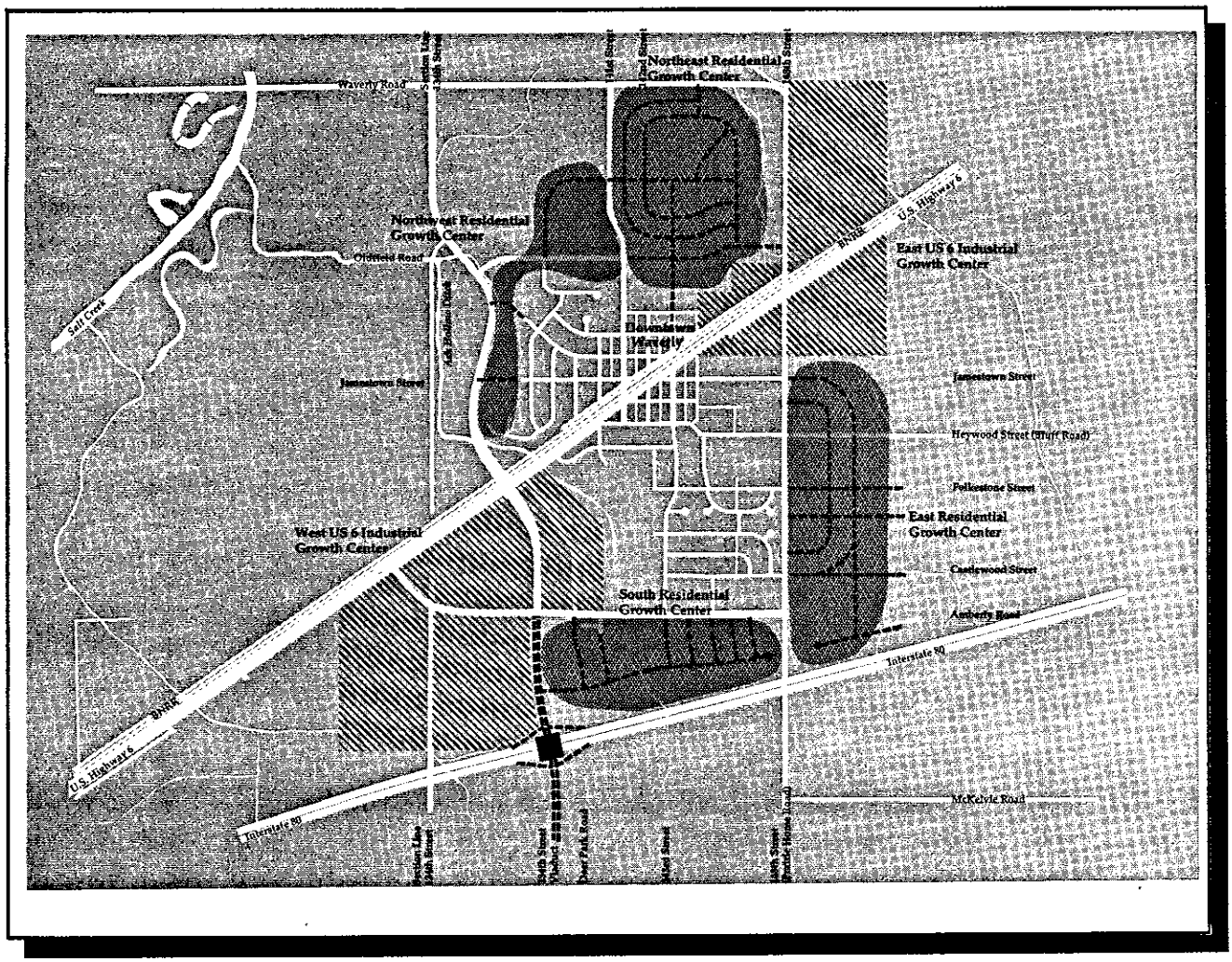
- Development of a greenway trail along the Lancashire Street drainageway.

• *North.* This area would include proposed residential development between North 141st and 148th Streets north to Waverly Road. A large subdivision adequate in itself to accommodate projected twenty-year growth needs was prepared for this quadrant in 1978. Advantages to development include adjacency to Jaycee Park and the town center, and ease of service by incremental utility extensions. Disadvantages include distance from existing schools and a location on the perceived edge of town. Amenities needed to support development in this area include:

- Extension of local streets.

- Gradual relocation of industrial uses along Oldfield Road.

Places for Future Growth



Places for Future Growth
Summary Map

0 800 2400

■ Policies and Actions

- Open space development of drainageways and floodplains and linkages to the citywide amenity network.

• *East.* This site provides about 60 acres of land south of Heywood Street (Bluff Road). The existence of blanket easements on a Northern Natural pipeline about 700 feet east of North 148th Street will likely interfere with the financial feasibility of large scale residential development in that area. In addition, urban development within 660 feet of the pipeline alignment (involving most of the site) will likely require relocation or upgrading of the line. Costs of this alteration will involve negotiations between the city, the pipeline company, and potential developers.

Advantages of the site include its adjacency to community amenities and its location adjacent to the highest value residential section of the town. Disadvantages include development costs relating to sewer extensions and potential lift stations; and the pipeline relocation or upgrade issue. Amenities needed to support development include:

- Extension of the city's street system (particularly Jamestown Street) into the area to promote continuous access.

- Development of a greenway along the drainage tributary to the east.

- Resolution of the pipeline location issue.

- Development of neighborhood open space.

Development in the East Growth Center may incorporate a private golf course, using open space north of Heywood Street and along the drainage tributary to determine course design. Alternatively, higher cost development (such as industrial or commercial uses) may be necessary to provide adequate income to fund the site's infrastructure costs near East Cornhusker Highway (US6) and 148th Street.

Potential street and open space design patterns are indicated in the Development Concept map. Public facility and utility issues are considered in detail in Chapter Four, Quality Public Services and Infrastructure

■ Policies and Actions

2. Innovative Development Patterns

The original town of Waverly and most subsequent development was laid out on a modified grid pattern and uses that pattern to establish an underlying order. Much post-World War II development incorporates a modified grid which also makes use of curvilinear streets, some narrow rights of way, long blocks, and cul-de-sacs.

The plan, with its themes taken together, provides a structure for innovative development patterns in these growing areas. New development and subdivision layout in the city should relate to the traditional patterns of the town and to the urban structure established in the plan. New areas should maintain connected street networks that tie into this community framework. The relationship of streetscape to houses, the setback of sidewalks from curb lines, the location of neighborhood open spaces, and the relationship of housing areas to regional resources such as a recreational trail system are key elements. Innovative plans can provide a superior environment to traditional suburban design and can utilize the elements of public space that make smaller cities special and unique.

3. Commercial Land Use Nodes

The city, through the land use plan, should designate specific land use nodes, each of which will fulfill a specialized function. Together, these nodes should furnish about 18 to 24 acres of new commercial area for the city over the next twenty years. Unlike residential and industrial land uses, commercial strategies are linked less to projected absorption rates than to the function that different commercial areas should fill in the community. The specific commercial nodes envisioned by the plan include:

• *The Town Center*

Waverly's town center will continue to be a center for services, offices, and civic business. Elements of a strategy to improve the center of town include:

- Realization of the amenity network, linking the town center to other neighborhoods and community amenities.

- A district beautification program, including street

■ Policies and Actions

landscaping, benches, and other street furniture.

- Banners designed to direct travellers into the town center from East Cornhusker Highway (US 6) via North 141st Street.

• *The Shopping Center*

The existing commercial center will continue to be the focus of major commercial services. The city should encourage full development of this district south of East Cornhusker Highway (US 6) and west of North 140th Street.

• *Amberly Neighborhood Commercial Cluster*

In the future, residential development in the South and East Growth Centers could create demand for a small, neighborhood commercial development at the southwest corner of North 148th and Amberly. The commercial uses permitted in this area should be specifically limited to low-traffic, low-intensity neighborhood services with easy access for pedestrians and bicycles.

• *Interstate Services*

The future development at an interchange at an extension of the North 134th Street route would open a commercial services opportunity. Any development at this site should be designed to limit external effects on nearby residents.

4. Industrial Land

Industrial development should continue to the northeast and southwestern parts of the city, contiguous to existing, contemporary industrial growth. Other industrial policies should include:

- Industrial or support development of property west of section line North 134th Street adjacent to the site of a new airport, only if this project proceeds.

- Phase-out of industrial uses on the south side of Oldfield Road.

■ Transportation

In order to provide transportation service that will support proposed growth areas, Waverly should execute the following policies:

1. Collector and Local Street Grid

While contemporary development often favors discontinuous local street patterns to discourage traffic through neighborhoods, these preferences make the reservation of continuous local circulation even more important. When this continuity is cut, problems with providing access to new development occur. Thus, Waverly's new development should maintain continuity in the local street system. the development concept suggests directions for continuing the street network.

2. Strategic Street Extensions

Extension of major streets provides a circulation system that will function well for accelerated growth. Key extensions include:

- Jamestown Street to the North 134th Street viaduct.

- Extension of the North 134th viaduct alignment south to I-80 if interchange development occurs.

- Deer Park Road south of Amberly Road to a south circulator loop.

- East-west streets into the east growth center east of North 148th Street.

- Oldfield Road and 134th Street into the North Growth Center north of the Village Center.

■ Policies and Actions

PUBLIC FACILITIES

■ Facilities that Support Growth

■ School and Recreational Facilities

■ Public Facilities

In order to provide public facilities which support and encourage the city's growth concept, Waverly should implement the following policies and actions:

1. Facilities that Support Growth

Waverly should phase the development of public facilities to support its growth objectives. Implementation of the growth plan will require the extension and upgrading of a range of public facilities, including sewer and water line extensions. These are discussed in detail in Chapter Four, detailing the theme "Quality Public Services and Facilities."

2. School and Recreational Facilities

Public facilities will be important to the future development of proposed growth centers in Waverly. The city's schools are undergoing stress, requiring future expansion of the high school. In addition, the implications of growth on elementary attendance must be carefully monitored.

Other key public facility issues will include:

• Development of a library to support increasing resident demands.

• Development of a community center, potentially integrated with a library.

• Development of neighborhood park facilities to serve residential development.

ANNEXATION

■ Evaluation of Areas for Annexation

■ Sequence of Annexation: Improvement District Financing

■ Financial Analysis

■ Annexation Policy

In order to grow as development occurs, Waverly should implement the following measures which constitute an annexation policy :

1. Evaluation of Areas for Annexation

Waverly should utilize the following criteria in evaluating an area for annexation:

■ Policies and Actions

• *Growth Directions.* Under this criterion, annexation will assist development in a growth area defined by this comprehensive development plan.

• *Public Safety.* Improved provision of public services that furthers the health and safety of residents, property owners, or workers may be a valid rationale for annexation.

• *Orderly Growth.* Annexation which follows major commercial, residential, or industrial development will help the city's tax base grow as its surrounding area develops.

2. Sequence of Annexation: Improvement District Financing

Some development in Waverly should grow within and be accommodated by the city itself. Other growth areas may be beyond the existing city limits. As a result, annexation, which opens the use of improvement district financing and municipal service provision, will encourage desirable development. Development should occur according to the following sequence:

- As areas are proposed for growth, the city will enter into agreements for pre-annexation.

- Public improvements will be provided through the use of special assessment districts. The city provides front-end financing for these improvements, which are then repaid by assessments on individual properties.

- The city will provide for extension of interceptor and outfall wastewater sewers and supporting facilities, consistent with the recommendations of this plan and state statute. Systems and facilities local to subdivisions will be financed through special assessments.

- Development should remain outside the city only in exceptional circumstances. These include exigencies or commitments created by major area industries or economic development projects.

3. Financial Analysis

Prior to the annexation of an area, the City should perform annexation studies required by state statute. These

■ Policies and Actions

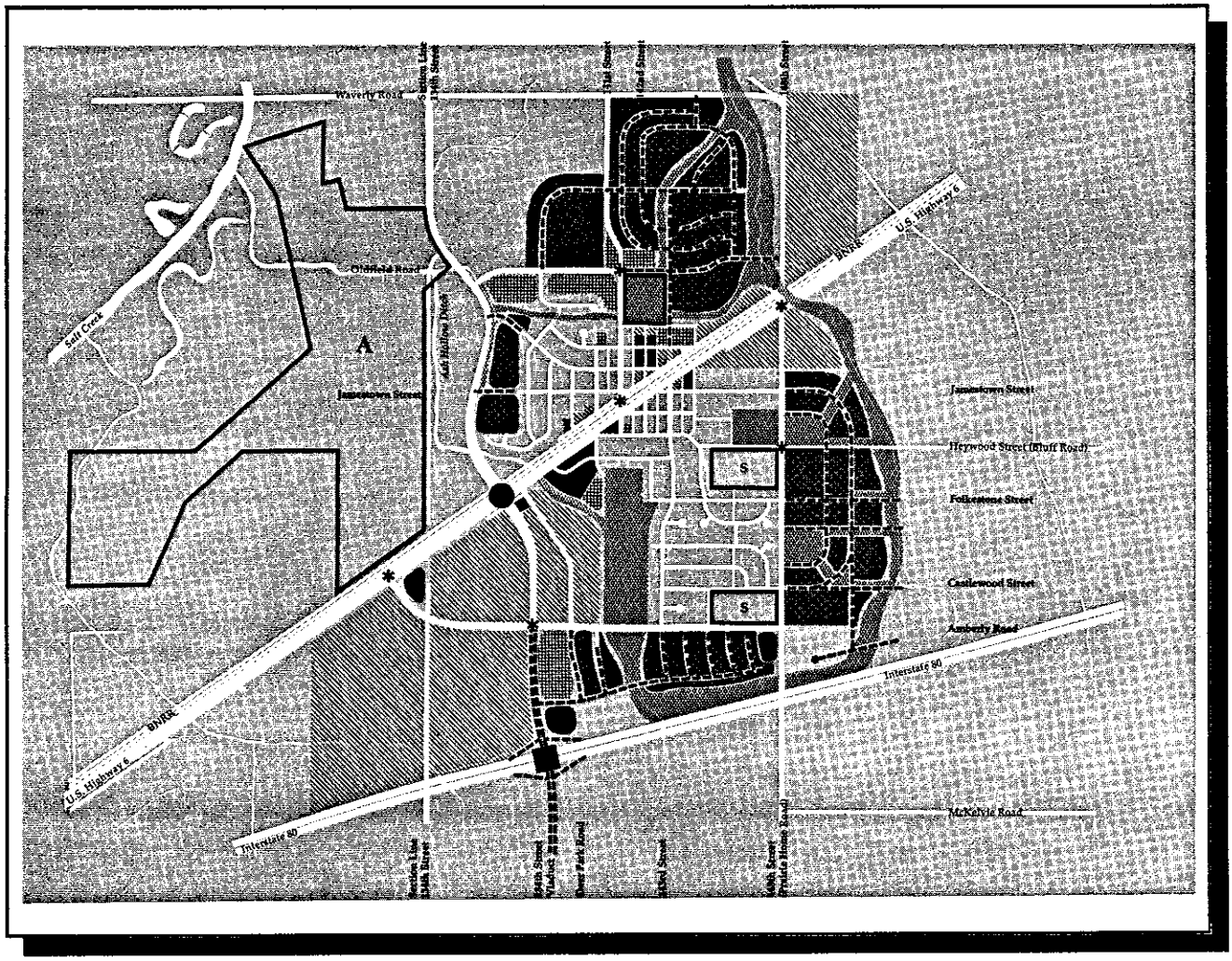
studies include completion of an analysis to show that:

- Adequate infrastructure is in place to serve new development; or

- The development has a feasible financing mechanism to assure funding of required infrastructure.

The study should also examine the long-term financial performance of the subdivision, to prevent the city from assuming unreasonable risks. In the case of new developments, financing arrangements may be formalized through a subdivision agreement between the developer and the city. The agreement should outline the responsibilities of each party.

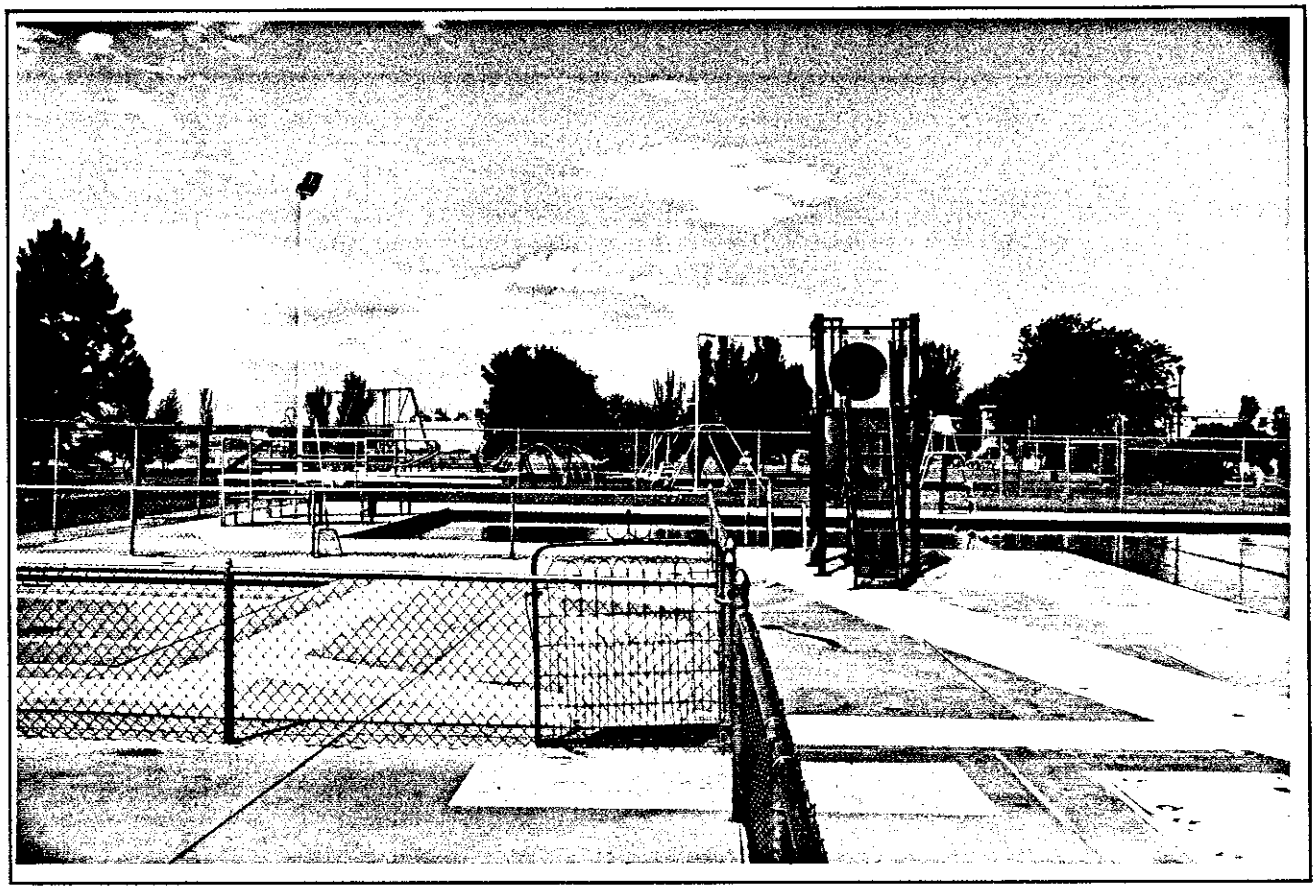
Development Concept



Development Concept
Summary Map

- Proposed I-80 Interchange
- Proposed Business Aviation Site
- Proposed Intersection Improvements
- Industrial Growth Centers
- Commercial Growth Centers
- Residential Growth Centers
- Multi-Family Residential Areas
- Parks and Open Space
- Public Use Sites
- School Sites
- Future Street Extensions

0 800 2400



• *Wayne Park pool.*

4

Quality Public Services and Facilities

Waverly should continue to provide public services and facilities which support the needs of its current residents and encourage new development.

Waverly's public services and infrastructure systems are the framework for the city's basic operation and future growth. These systems operate quietly and provide the basic municipal support for the lives of residents, and for industry and businesses. This section of the plan discusses how to maintain and improve public facilities now and in the future.

Providing public services and infrastructure is primarily the responsibility of local government. The largest single area of local tax expenditure for facilities is the city's public school system. Beyond this, city government must provide for facility development, including the operation and maintenance of major streets, storm sewers, sewage treatment, public safety services, and parks and recreation facilities.

While public facilities and infrastructure are often considered in terms of capital expenditures, the long-term costs of cooperation and maintenance are often more significant. For example, the long-term cost of providing fire protection and rescue services is higher than the initial cost of a building a fire station. Similarly, long-term maintenance of a park system greatly exceeds the cost of acquiring or even developing park land. This section of the Waverly Plan aims to harmonize the long-term public benefits of capital facility development with the significant costs associated with providing these vital community services.

The significant costs associated with public facilities and infrastructure make this part of the comprehensive plan important to Waverly. In addition, residents' level of satisfaction with the city and its government are largely dependent upon how well they feel they are served. In the end, providing high quality public services and infrastructure will greatly affect the desirability and livability of Waverly's neighborhoods. These "silent" areas of investment will have a great impact on the more visible areas of physical and economic growth.

■ Goals

This section presents the basic goals which will be accomplished through the theme of providing quality public services and facilities. In continuing to provide good municipal service to its taxpayers and users, Waverly should:

■ Assure that the local street circulation system is adequate to meet the demands placed upon it.

Waverly is free from many of the traffic problems that affect large cities. People in every community expect good performance from their street and circulation systems. However, the presence of East Cornhusker Highway (US 6) and associated regional commercial and industrial traffic contributes to localized congestion along the highway in the center of the city. Industrial, commercial and residential growth in Waverly, Lincoln and surrounding communities will place stress on some parts of the overall system. The growth concept in this plan is based on substantial development focused on industrial areas southwest and northeast of the city, and balanced growth in residential areas north and southeast of the city.

The transportation system can also create desirable development trends. For example, a street network helps to produce relationships among neighborhoods that can lead to a more unified community. Adequate local service roads can help a business location prosper; on the other hand, too many points of access can make an otherwise well-designed road prone to delays and accidents.

■ Promote improvement and extension of streets in a manner that supports desirable development patterns.

New streets and improvements to existing streets should be made in a manner that reinforces the policies of the growth concept of this plan. Priority should be given to those new projects which provide solutions to existing problems. Additionally, the city must anticipate its growth, and make necessary improvements that will encourage development in areas that provide the greatest benefits to the city.

■ Goals

■ Provide for the safe movement of all residents of Waverly.

The transportation system should provide for safe movement. Roads and intersections which create traffic conflicts and potential collision points should be corrected. Major crossings of railroad tracks should be improved. The traffic circulation system should be easily understood and clearly identified for visitors.

It is also important to recognize that not all people travelling in Waverly are using motorized vehicles. Both young people and old people are likely to be walking or bicycling, especially in areas near schools, parks, and in neighborhoods with young families. The city should be safe for pedestrians who must cross busy intersections as well. Hazards such as pedestrian crossings at arterial streets or at railroad crossings should be addressed to prevent potential safety problems.

■ Maintain the quality of Waverly's public services in the most economical way possible.

This section of the plan provides an inventory and evaluation of the city's major facilities, including:

- City Hall.
- Public safety facilities, such as fire stations.
- Other city-owned buildings.
- Public works, utilities, and park maintenance and storage facilities.
- All park and recreation facilities.
- The city's infrastructure , including sewers, water system, solid waste disposal, and the sewage treatment plant.

These public services facilities are very important to the future of Waverly. The city's ability to support future growth is dependent upon the continued enhancement and successful operation of these facilities.

■ Goals

■ Support new development with adequate, economical infrastructure.

New development areas designated in the comprehensive plan will require some infrastructure extensions and improvements. Requirements will emerge for storm sewers, new and looped water mains, and extensions of other utilities into developing areas. The City should invest in new infrastructure with care; consideration must be given to the total public and private costs of new services. Public dollars must be wisely spent in providing services. The City should also be concerned with the size of private costs, to assure the continuation of orderly growth based on market-related decisions.

■ Provide for the greatest possible efficiencies in the development and operation of facilities.

The cost of providing infrastructure and public services can be minimized in many ways. Cost efficiencies and maintenance savings can be realized through good planning and programming. These savings frequently can occur through such techniques as facility sharing, consolidations, joint-use, the appropriate location of improvements, and budgeting for routine maintenance. Simply stated, the City of Waverly cannot afford redundancies in the development and operation of facilities or the provision of services. By avoiding duplication and encouraging inter-agency cooperation, the City can often enjoy increased quality and reduced costs. The public facilities plan will address these possibilities.

■ Assure the adequate rehabilitation of aging infrastructure to maintain the quality service levels expected by residents.

Waverly is similar to most communities in its need to reconstruct portions of its aging infrastructure. Infrastructure systems in Waverly which need particular attention include streets, sidewalks, selected water distribution lines and storm drainage . The City has already undertaken detailed survey and study work to assess the condition of these support facilities that are too often taken for granted. Waverly plans a comprehensive program to address structural problems with these systems. To implement this program will be one of the City's greatest challenges.

■ Facts and Analysis

All cost estimates contained in this section are in 1993 dollars.

This section examines the current conditions of Waverly's vital infrastructure and public service system. It examines four basic components: the city's streets; its public facilities, those structures and resources which provide the home bases of major municipal operations; its infrastructure systems, including sanitary sewers, stormwater management, water distribution, and solid waste disposal ; and its open space network of parks and recreational facilities.

Streets and Sidewalks

■ Functional Categories

The Street Classification Map shows Waverly's functional classification of major streets and highways. A street segment must be designated as part of the State's federal aid system to be eligible for federal funding assistance for major improvements.

Waverly's street system consists of a local grid configuration in older sections of the city, bisected by the diagonal highway alignment of East Cornhusker Highway (US 6), which creates a distinct north-south separation of the community. The current federal aid primary system consists of major highways that serve Waverly. These include:

• East Cornhusker Highway (US 6), a major 4-lane regional highway which is routed through the center of town,

• North 134th Street (and the jogged North 134th Street viaduct), which border Waverly on the southwest and provides for grade separated crossing of the highway/railroad corridor, and

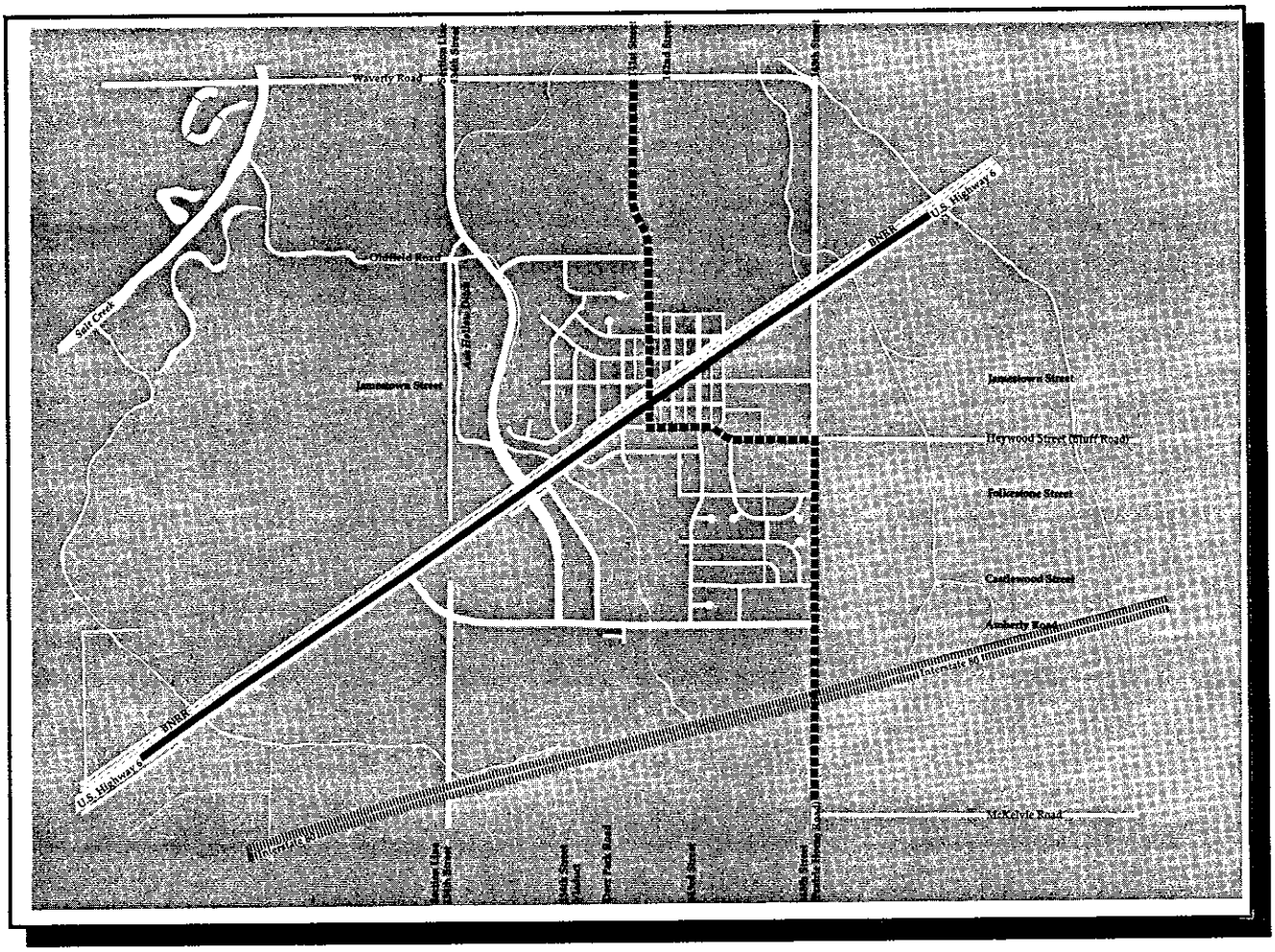
• Prairie Home Road (148th Street), a north-south, cross-county road which presently defines the city's east edge and intersects with East Cornhusker Highway (US 6).

Both highways are on the periphery of the community, but lie in the path of future growth and development. The Federal Aid Urban System also includes other streets designed to circulate traffic through Waverly. The street system's most important interruptions involve north-south traffic movement across the Burlington Northern Railroad. North-south movement in Waverly must cross the busy mainline tracks which bisect the city. Although the railroad serves as

• *A residential street in South Waverly.*

• *Rose Hill Cemetery.*

Existing Street Classifications



Existing Street Classifications

- Expressway
- Major Arterial
- Other Arterial
- Collector

0 800 2400

■ Facts and Analysis

a major barrier to many street movements, trips across the line by vehicles, school children and other pedestrians at 141st Street are fluid and frequent. The railroad becomes a more significant barrier to the northeast and southwest, outside the established city.

The current street classification system categorizes streets by functional role. East Cornhusker Highway (US 6) is designated as an expressway, providing limited access and high-speed regional transportation access. The Nebraska Department of Roads has recently improved US 6 through the community with completion of a major rehabilitation project.

Few arterial streets provide routes into the community from the north, due to the barrier of the broad floodplain of Salt Creek. Similarly, major arterial connections from the south and west are limited by the barrier of Interstate 80, which runs east-west less than one mile south of Waverly. Prairie Home Road (148th Street) and section-line North 134th Street are the only two roads which act as arterials providing major local access from the south of the city. Both these north-south roads link the city to other communities in the county. Amberly Road, an east-west street located on the south edge of Waverly, provides a connection between Prairie Home Road and both the section-line and viaduct portions of North 134th Street. Amberly Road continues west to intersect with US 6 about one-half mile west of the city. To a limited extent, 141st Street also provides arterial access from the north of the city, crossing the railroad to intersect with US 6. South of the highway, 141st Street is subsumed into the local street pattern of residential areas. In the north part of the city, Oldfield Road provides a connection between the 134th Street viaduct and 141st Street.

Collector streets represent routes that collect traffic from individual neighborhoods and transfer it to other parts of the system. These routes include Jamestown Street in the north part of the city; Heywood Street/141st Street in Midtown Waverly; and 143rd Street, Castlewood Street and Folkestone Street in South Waverly. Jamestown and Heywood Street could act as important collectors for new development areas if they were extended east of Prairie Home Road (148th Street).

Taken together, both east-west and north-south movements within Waverly are relatively well-established throughout

■ Facts and Analysis

the core residential areas of the city. The problem in north-south movement of traffic arises from discontinuities in the street system caused by the railroad. Vehicles seek the one or two direct through routes which do exist across the railroad, resulting in localized congestion on 141st Street. In the south part of the city, the extension of Heywood, Folkestone and Jamestown Streets east of Waverly is critical to encourage new development which reinforces existing community patterns. In the past, Waverly successfully maintained community form in new development. Post-war residential areas south of Heywood included the extension of 143rd Street, which provided a consistent framework for the development of new streets. Future extensions of Waverly's Streets to the east, south and northwest to open new areas for development will set a strong basis for sound traffic circulation patterns for this growing part of the city.

The railroad corridor creates special challenges for cross-town traffic movement. Three crossings of these tracks exist along the US 6 corridor, two of which are the at-grade crossings (141st Street and Prairie Home Road). It is unlikely that additional crossings will be granted. Future traffic movements will be more concentrated at those crossing points that exist, creating a need for a further intersection improvements. Those areas most affected will include the North Waverly residential areas, Downtown Waverly, the Coop, and industrial operations located north of the railroad.

The most effective solution is improvement of the geometrics and pavement at existing railroad grade crossings. The North 134th Street viaduct crossing will also become increasingly important; however, local streets are poorly linked to the viaduct. The extension of Jamestown Street west to the viaduct would provide a direct path from 141st Street to the viaduct. In addition, road connections between 141st Street/Downtown Waverly and Prairie Home Road (148th Street) north of the railroad should be paved and improved. This transportation solution includes reconstruction of the Woodstock Boulevard "frontage" industrial road between Downtown and National Crane just north of the railroad. Taken together, these improvements are able to circulate traffic around the railroad corridor, improve traffic safety of crossing movements. The solution has the added benefits of opening access to several vacant parcels for future industrial development, and reinforcing the role of Downtown as an activity center.

■ Facts and Analysis

■ Residential Streets and Sidewalks

The preparation of this plan included a city-wide survey of residential and collector street and sidewalk condition in the Autumn of 1992. Maps addressing street and sidewalk conditions summarize the results of this survey, highlighting significant street condition problems facing the city now and into the planning period.

• *Residential Streets*

The street system in Waverly is a continuous network in the older grid of the original town. Connections are less direct in the northwest part of the city, where the incomplete street pattern contrasts with the grid of older parts of the community. Streets in the southeast part of the City reflect a modified grid pattern, with longer blocks and more curvilinear than angular street patterns. These recent developments in the south part of the city use a collector street pattern that directs traffic toward the major arterials that surround the city. The continued dedication and construction of collector streets is important to the efficient circulation of traffic throughout the community. These links will also unify the community as new residential development occurs farther from its traditional neighborhoods.

Waverly's well-developed network of collector streets moves traffic within neighborhoods. Each neighborhood has several streets that direct travellers to both the perimeter of town and its service corridor. As a result, movement is not unduly concentrated on any one street. The exception is 141st Street, which is the single in-town crossing of the Burlington Northern Railroad. The lack of a through street connection of Jamestown with the North 134th Street viaduct harms the ability of North Waverly to move traffic to perimeter arterial streets as successfully as in other parts of the community. As future development occurs, it is critical that street patterns be consistent, so that movement toward arterial streets can continue to be evenly distributed on several collector routes for each neighborhood. This will be most important in the North and East Growth Centers.

Waverly has relatively few unpaved streets. In 1988, the city completed a major paving effort to improve Ivanhoe Street, including curb, gutter, sidewalks and a new water main, funded by property assessment. In 1993, the city paved

■ Facts and Analysis

146th Street along the west edge of the cemetery, and 140th Street south of Jamestown Street, including sidewalk improvements. The few gravel streets that still exist are on remote, rural edges of the city, and a few in-city streets parallel to and north of the alignment of the railroad, or near the cemetery. The areas of the city that have substandard or unpaved streets include:

- North Waverly: Woodstock Boulevard (Lancashire Street east of Downtown Waverly) between 139th and 148th Street; Mansfield Road east of 141st Street; 142nd Street north of Lancashire Street; Oldfield Road west of 141st Street; and Prairie Home Road (148th Street) north of East Cornhusker Highway (US 6).
- South Waverly: all streets are paved.
- Other County Roads on the edge of the city including: the North 134th Street viaduct north of Amberly Road; and Bluff Road east of Prairie Home Road.

Streets in areas which are expected to experience substantial new development (such as along Oldfield Road in North Waverly) should be brought up to urban paving standards.

Some paved streets in Waverly show signs of deterioration. Pavement deterioration in Waverly is largely the result of the age of the street and the traffic burden that it must bear. In general, neighborhoods that experience the most significant deterioration in pavement surface include:

- North Waverly, along portions of Lancashire Street, 139th and 140th Streets.
- Midtown Waverly, including portions of 144th Street, Jamestown Street, 142nd Street, and Heywood Street near East Cornhusker Highway (US 6) and near the high school.
- South Waverly, including heavily-traveled streets such as Guildford and 143rd Streets. The City completed a major project to improve 143rd Street (among others) in 1993 that repaired street surfaces. Castlewood Street is a similar, heavily trafficked route that needs improvement. Other neighborhood streets which exhibit minor pavement failure include Danvers Street, Eastbourne Street, Folkestone Street west of Oak Lane, Bradford Court, and 146th Street.

Programs aimed at correcting deficiencies must be targeted to specific priority areas, with goals, options, and funding priorities identified. High priority improvements are those that:

■ Facts and Analysis

• Improve traffic congestion problems at intersections and along heavily travelled streets.
• Improve drainage patterns and correct localized flooding.
• Connect newly developing areas to existing collector streets and the schools and parks of the existing community.
• Complete road connections between neighborhood activity areas and the 134th Street viaduct.
• Help to open significant tracts for new residential and industrial development.
• Increase mobility for cross-community trips between residential and employment centers.
• Improve or eliminate safety problems caused by configuration, site distance, or other condition-related problems.
• Are located in key areas critical to the successful implementation of the growth plan.

The city has recognized many of these needs and included appropriate projects in its One and Six Year Highway and Street Improvement Program. Despite funding limits, the city should continue to assign available resources to upgrade older, and heavily travelled streets.

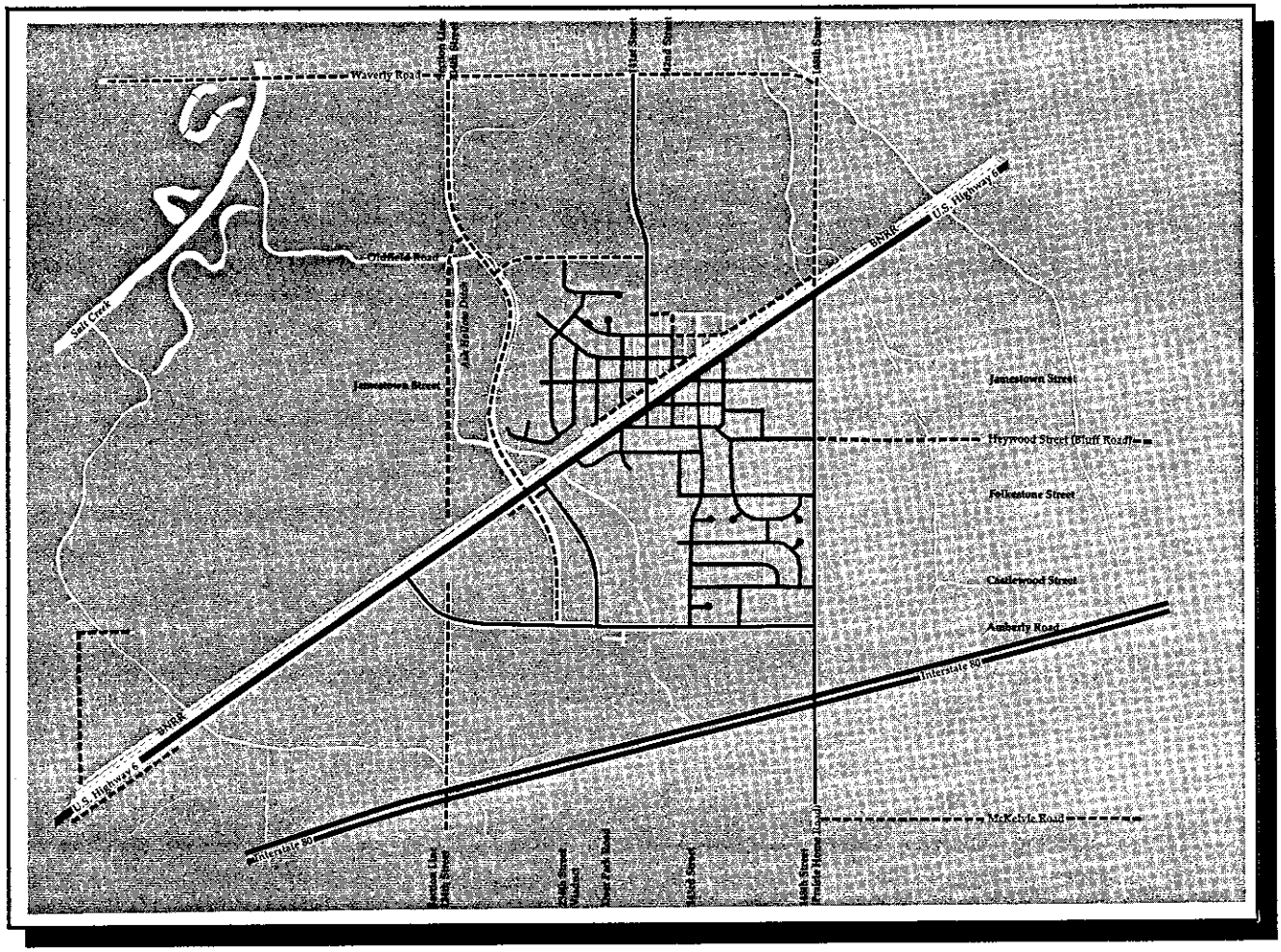
In general, Waverly should invest the largest part of its resources in projects that correct community-wide problems. High priority should be given to neighborhood street improvements that improve and consistently extend outward the city's traffic circulation patterns. Further, it is important to encourage growth in areas that are most beneficial to the city and its existing infrastructure.

• *Sidewalks*

Waverly has a nearly complete network of sidewalks through the city, a factor that contributes to the ease of pedestrian circulation to all parts of town. Neighborhoods in both old and new part of the community are well connected this system.

The City maintains this system by regularly monitoring the condition of sidewalks. Annually, property owners are notified of deficiencies by letter. These conditions are either corrected by the owner or by the City, with assessment of costs to the owner. In some cases, the City has "forced in" missing sidewalks, including Jamestown Street from 144 to 148th Streets, in the Newgate subdivision, and across drainage ditches on 137th Street.

Street Paving Status

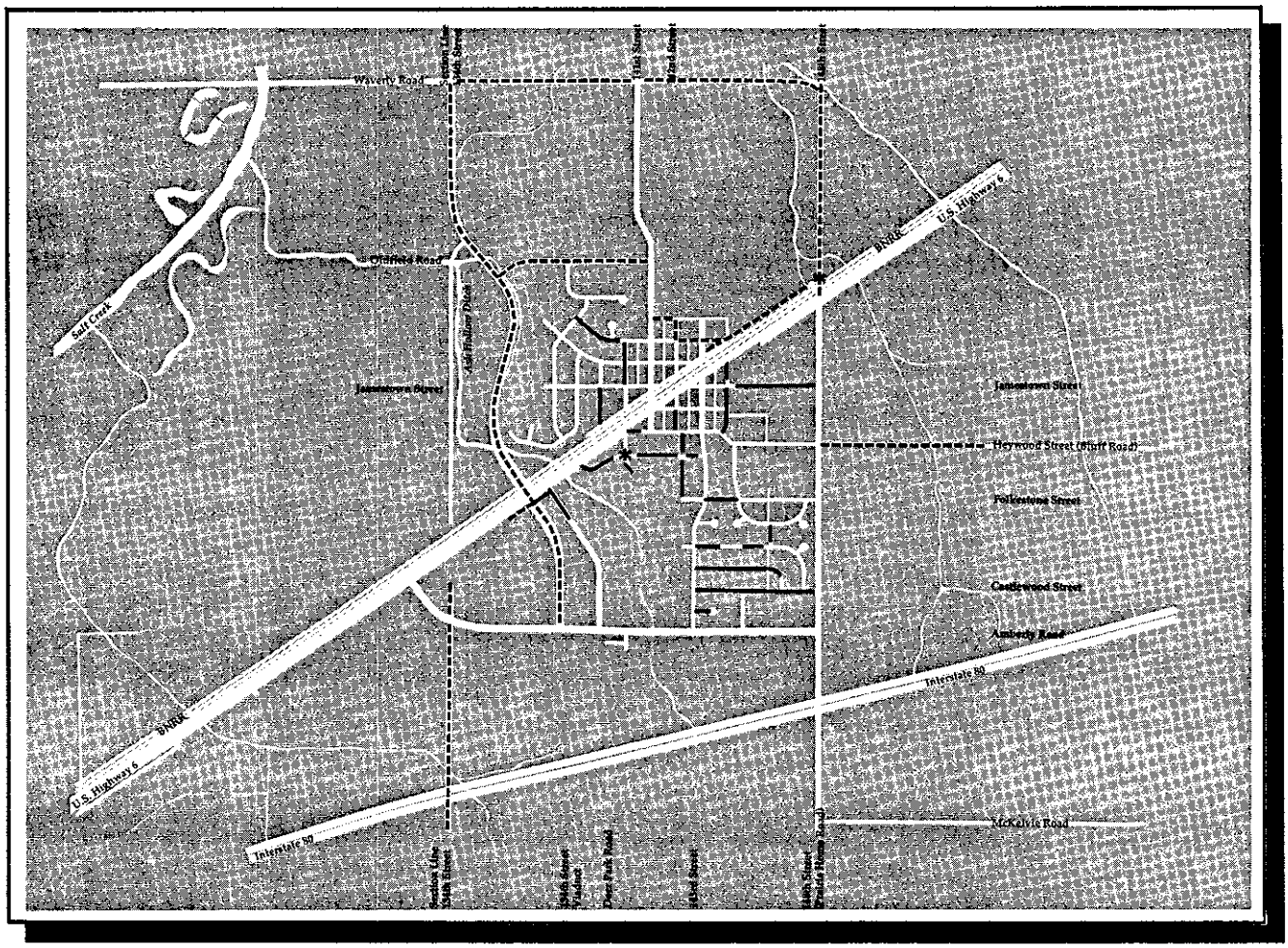


Street Paving Status

- Paved
- Gravel
- Unimproved

0 800 2400

Streets with Repair Needs

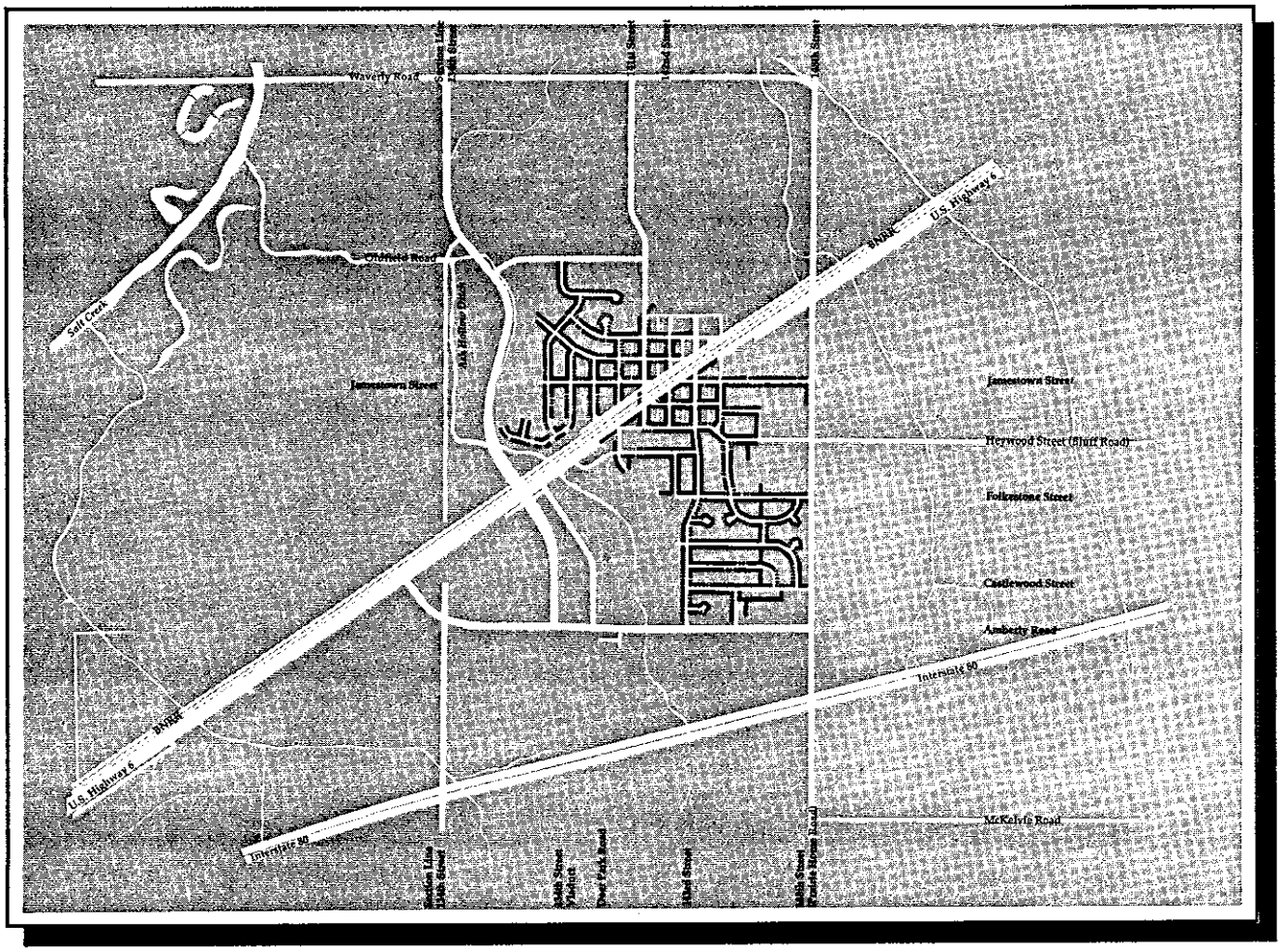


Streets with Repair Needs

- Hard-Surfaced
- Non Hard-Surfaced
- Intersections

0 800 2400

Sidewalk Conditions



Sidewalk Condition

- Sidewalks Present; Good Condition
- Sidewalks Present; Need Repair

0 500 2600

Note: The Waverly Plan report notes specific sidewalk segments that are in greatest need of repair. This map identifies all sidewalk segments that exhibit repair needs, including those which merely show signs of minor cracking and surface deterioration. While these areas do not pose a hazard to pedestrians, they merit identification so that the city may monitor their condition in the future.

Facts and Analysis

Waverly's sidewalk network displays mixed conditions. Many areas of Midtown Waverly which have the community's oldest infrastructure, have benefited from recent sidewalk improvement programs. However, sidewalk repairs are needed on most streets in the community. In some instances, sidewalks in outlying and newer areas of the city show signs of sporadic deterioration or minor cracking, most often at street corners. Sealing or repairing of these segments is advisable. Sections of the older, established neighborhoods in Waverly need substantial repair. Sidewalk repair needs correspond to the need for housing rehabilitation in many of these older areas. Areas of greatest need include:

- North Waverly, along 137th Street, 138th Street, 139th Street, small portions of Newgate Street, Lancashire Street and Lancashire Court.
- Midtown Waverly, along portions of Jamestown Street, Ivanhoe Street east of 144th Street, and small segments along Heywood Street.
- South Waverly: northeast of the elementary school, areas near Oak Circle, 145th Street, several segments along 143rd Street; and the west portion of Guildford Street.

In addition, the city should work with the railroad to provide improved safety for pedestrian crossings of the railroad at 141st Street, including improved signage and lighting.

Sidewalks are absent in a few areas on the periphery of the city. As these areas are incorporated into the growth of Waverly, sidewalk connections become important. The City should continue to require that all new developments provide sidewalks.

The city has a relatively complete network of sidewalks in older areas of the city along major arterial streets, such as East Cornhusker Highway (US 6). These sidewalks have been repaired and replaced as part of the recent highway improvements. Recent development has extended the city outward, to the west and south along this route. By contrast, sidewalk connections along these areas are virtually nonexistent. It is important to note that sidewalks are necessary along highways to provide safe passage for pedestrians between and within commercial and residential developments. The edge of town is continually shifting, requiring sidewalk extensions with it.

■ Facts and Analysis

Public Facility Inventory and Analysis

The City of Waverly owns buildings and structures that provide bases for city operations and public services. The City moved into its current City Hall on the north end of downtown in 1988 following its purchase from a heating and air conditioning business. This location is just north of the City's historical City Hall site, which once occupied the current bank site. City Hall faces Lancashire Street, at the northwest corner of 142nd Street, the city's most important downtown street. The building also contains a community meeting room, available for various civic and social functions. While no Public Library exists, the City is served by a mobile library unit sent to the community from the Lincoln library system. The City contracts for police and patrol services with the Lancaster County Sheriff.

The Waverly volunteer fire district is located in a facility situated on the southeast corner of 141st Street and East Cornhusker Highway (US 6). The structure houses the offices of the fire district, as well as the equipment provided for fire protection by the district itself, the City of Waverly, and Lancaster County. The facility, formerly housing City Hall as well, was dedicated exclusively to fire department use in 1988. Since then, the fire district has completed major a remodeling and addition to the facility.

City maintenance operations are headquartered on the north edge of the city, west of 141st Street. The facility was built in the late 1960s for the joint maintenance operations for streets, sewers, public buildings and parks. Water and sewer operations also maintain structures located throughout the city used for water pumping, storage and distribution, and wastewater treatment. The city's wastewater treatment plant is located north of the city about one-half mile south of Salt Creek. Solid waste is collected by a private contractor and taken to the City of Lincoln landfill.

As discussed in Chapter One, the city is currently planning a general aviation facility. A potential site is north of East Cornhusker Highway (US 6) and west of the Oldfield Road, just south of Salt Creek. The field will be designed to serve the needs of Waverly and businesses in Northeast Lancaster County during the next twenty years.

The city acquired the Rose Hill Cemetery in 1992. The

■ Facts and Analysis

facility is located on the east edge of the city, north of the high school. The cemetery has recently improved a new section for community use, and should provide adequate space for the next twenty years.

Major recreation facilities operated by the city include: Wayne Park, which contains the municipal pool, and Sharp Park, located northwest of 139th Street and the Burlington Northern Railroad. Another major community recreation site is Jaycees Park, located north of Downtown and east of 141st Street, purchased and developed by the Waverly Jaycees. The park is a potential site for a community center to be developed by the Waverly Community Foundation. Despite its ownership by a non-profit organization, this plan considers Jaycee Park as part of Waverly's park and recreation system.

Table 5-1 presents an inventory and evaluation of these and other public facilities. The assessment of each facility is based on existing conditions and potential community needs. Proposed or desirable changes in facilities and services are noted, along with the priority for such actions.

Based on the inventory, Waverly's highest public facility priorities are:

• *Continued rehabilitation of aging infrastructure.* Older sections of Waverly contain capital improvements that are nearing the end of their lifespan. Targeted rehabilitation of deteriorated segments of streets, sewers, sidewalks, and water lines must be scheduled on a rotating basis to prevent unexpected and costly failures.

• *Physical improvements for the disabled.* Handicapped accessibility improvements should be continued until all structures owned by the City and used for recreation and parks programming are barrier-free and in compliance with the Americans with Disabilities Act.

• *Wayne Park improvements.* Projects should continue within this superb community park, with an emphasis on landscape design treatments and pathways. A new landscape plan should be developed to improve definition of road and parking edges, preventing encroachment of motor vehicles into the park. Additional consideration should be given to locating future community facilities within the south edge of the

■ Facts and Analysis

park. A system of trails and paths should be developed in the future through the park to future residential areas south of Amberly Road.

• *Airport Development.* While the need for a general aviation facility may be evident, the regulatory process to gain approval, funding and construction is long and difficult. Waverly is ideally positioned, economically and geographically to provide an excellent site for a business aviation facility. The community should agree on a proposed site west of the City, using it as a determinant for municipal facilities decisions.

• *City Maintenance Facility.* During the period leading to the development of the airport, the City has an excellent opportunity to gain a more functional site for streets maintenance operations as part of airport development. The airport land acquisition and construction process may be able to use federal funding to construct a modern, operations, storage and materiel staging area that to serve aviation and streets maintenance needs efficiently and economically.

• *Waverly Community Center.* The Waverly Community Foundation, has been pursuing the development of a community center in Waverly. Such a facility could contribute to Waverly's attractiveness as a place to live. The location of a community center should serve the largest part of Waverly's population, while also serving new growth areas. A priority area for development of such a facility would be north of downtown in Jaycee Park.

• *Waverly Community Library.* Waverly's residential and industrial growth has created a balanced residential and industrial center. A library building is an expected resource in a prosperous, progressive community. Waverly should move to develop a public library, either independently or as an extension of the Lincoln system. Potential sites include Downtown or north of Downtown area, near other places of civic importance. Jaycees Park site is another desirable location. A library may be incorporated into a community center project.

TABLE 5-1: Public Facilities Inventory

Facility/ Location	Description	Evaluation	Modification/Priority	Comments
1. City Hall 14130 Lancashire Street NW of Lancashire Street and 142nd Street.	Masonry structure originally built as a heating and air conditioning business, was converted to municipal use in 1988. The structure contains city administrative offices, a community meeting room, restrooms accessible to the disabled, and a small kitchen area.	Structure is in excellent condition. The facility is well located to serve important civic and social functions of the community.	Perform routine maintenance of the structure. Moderate Priority.	No planned capital costs.
	A limited number of off street parking spaces exist along the south face of the building.	Additional parking for this facility would be desirable, especially for community room users. Property to the north of the building, currently in use for industrial garages and storage, could be obtained in the future for City purposes.	When adjcent land becomes avilable, the City should make every reasonable attempt to acquire sites for future needs for parking, building and storage . Moderate Priority.	No estimate of capital costs is availble.
2. Fire Station 10530 N. 141st Street Southeast of US 6 and 141st Street.	Masonry structure originally built for use as a City Hall/Fire Station. This City-owned structure was dedicated for sole use by the volunteer fire district when the new City Hall facility was completed in 1988. The fire district serves Waverly and portions of Lancaster County. Major improvements to the structure have been financed and completed by the fire district. The structure contains fire offices and equipment storage for vehicles owned by the district, Lancaster County, and the City of Waverly.	Structure is inexcellent condition, although general maintenance is required.	Perform routine maintenance. Moderate Priority.	No planned capital costs.

TABLE 5-1: Public Facilities Inventory

Facility/ Location	Description	Evaluation	Modification/Priority	Comments
3. **Streets and Utility Maintenance Facility** 11121 N. 141st Street; West of 141st Street and north of Mansfield Ditch.	Metal building built inthe late 1960s for use as a maintenace facility. Structure contains four vehicle bays, offices, restroms and a small amount of storage space. Building exists on a 0.46 ace site located north of a major steel quonset building built in the 1940s and owned by the Coop. The quonset is divided into two interior spaces, and the north half is used by the City for storage of vehicles, picnic tables, park materials and other related City property.	Structure is structurally sound and in good condition.	Perform routine maintenance. Moderate Priority.	
		Overhead doors to the four vehicle bays should be upgraded with insulated replacement doors. The structure could be expanded in the future, with two additional bays, one each to the west and east.	Install insulated steel doors for the four vehicle bays. Continue cooperative arrangement with the Coop to utilize this important storage area.	
		The small size of the site limits some necessary functions. The site is not able to accommodate storage of rock and gravel, salt, cold patch mix and other materials needed in the repair and maintenance of streets and park facilities. Future development of an airport west of Oldfield Road and 134th Street provides an opportunity to relocate maintenance operations. A new site on the edge of the airport property would provide space for stone, salt and materiel storage, as well as possible joint-use storage for airport maintenance and administration functions.	Begin plans to site a new maintenance yard on the edge of the proposed airport. Airport and city maintenance operations should establish joint-use facilities, for equipment staging and storage areas, and rock/gravel/salt storage. Federal aviation funds may assist this effort. High Priority.	

TABLE 5-1: Public Facilities Inventory

Facility/ Location	Description	Evaluation	Modification/Priority	Comments
4. Municipal Pool Wayne Park; North west of Folkestone Street and 142nd Street.	Outdoor swimming pool was built in the northeast part of Wayne Park in the early 1970s. Structures include the pool, a bathhouse with restrooms and a concession area.	Facility is in excellent condition and no repair needs are evident.	Perform routine maintenance. Moderate Priority.	No planned capital costs.
		The City has recently completed path and sidewalk improvements for handicapped access to the facility grounds. In the future, the City should expect to install improvements within the pool, such as a handicapped acccessible chair lift or ramp, to meet federal ADA requirements.	Establish a good faith effort over the next few years which will lead to the eventual compliance of the pool with ADA mandates. The City should begin investigating the cost and design specifics of this project. High Priority.	Costs will depend upon the selected project alternative.
5. Rose Hill Cemetery North west of 148th Street and Heywood Street.	This primary municpal cemetery comprises 6.9 acres and is located north of the High School on the east edge of the community. The City of Waverly assumed maintenance and operations responsibility for the cemtery in December 1992. The property will likely be annexed into the City during 1993.	This excellent facility is highly regarded. The City is continuing work to update records and operations. The cemetery is surrounded existing development.	Continue efforts to improve the operation of the facility. Complete annexation of the site into Waverly.	No planned capital costs.
		A new section of the site has recently been improved, and it appears the facility has adequate capacity for the future needs of the community.	No immediate pressures to expand are evident.	

■ Facts and Analysis

■ Infrastructure Analysis

This section presents an inventory and evaluation of the city's existing infrastructure systems. These include the systems for sanitary sewer, stormwater drainage and storm sewers, water distribution and storage, and operations for the collection, transfer and disposal of solid waste.

■ Sanitary Sewer

Table 5-2 inventories Waverly's sanitary sewer system. The inventory identifies the following major issues:

• The City has computerized a data base describing locations of sanitary facilities, with information such as manhole condition. The televising program (now underway) can provide valuable data that can complete the data base and allow the City to anticipate costly failures.

• Tree roots continue to plague many sewer lines in the community, especially along Lancashire in North Waverly. A maintenance program to remove these obstruction has been funded on an annual basis and should be continued. The use of PVC sewer pipe in newer developments can be expected to alleviate this problem in recently built areas.

• The oldest sewers in the city are located in Downtown Waverly, and older residential areas of North and Midtown Waverly. Instances of sewers deterioration have occurred, and several lines have been replaced. While there are no capacity problems, structural problems will continue to occur, requiring a program of replacement and repair for the older segments of system. The City of Waverly is completing a system-wide evaluation and televising of lines, which should be followed by a comprehensive capital improvement program of maintenance and repair. With continued funding, the program could be complete by the year 2000.

• The sanitary system is accommodating extraneous water as a result of surface inflow in parts of the system. The City has budgeted maintenance funds to identify and eliminate sources of inflow from the system. A regular program to eliminate sources of extra waters should be continued.

• The city's lift station is at best a "necessary evil," which requires ongoing maintenance and replacement. Continuing

TABLE 5-2: Sanitary Sewer Facilities Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
1. Sanitary Sewer System	Waverly's sanitary sewer collection system consists of a network of sewer lines, ranging in size from8 to 15 inches. The largest serwer line runs along US 6 and the railroad corridor, and directs flows along 143rd Street north to the treatment plant. Most of the existing system is vitrified clay pipe, or in some cases concrete pipe. The oldest sewer lines are located within Downtown, and in bordering areas to the west. Other older lines exist in the center of the City south of US 6. All lines are separated sewers. Generally, the entire developed area of the city is served by sanitary sewers. New sewer lines in Waverly are installed using PVC pipe. Recent lines built with PVC include the industrial park line along Deer Park Road, and residential lines inthe Newgate and Coventry subdivisions.	A number of the older sanitary sewer lines in Downtown and bordering areas have been replaced on an as needed basis in response to deterioration. No capacity problems are evident with these older sewer lines. There have been minor instances of infiltration and inflow. Isolated cases of surface inflow have beenidentified. PVC is performing satisfactorily for sewer use in the community. Rehabilitation of sewer lines will be initiated as problems are identified. Replacement of old brick manholes, rings and covers has begun. The City of Waverly began a jetting and televising program in 1989 to assess the condition of all sewers. This televising of the system is expected to be completed in the year 2000.	Replace older sewers in Downtown and other areas as needed. Continue annual televising project, so that all televising work may be completed by the year 2000. Televise older sewer lines first, to locate structurally deficient areas to program replacement. High Priority. Continue to budget maintenance funds to rehabilitate lines and eliminate sources of inflow from the sewage collection system. This is more cost-effective than treating extraneous water. Continue to budget maintenance funds toremove tree root from sewer pipes, by foaming and other methods. Coating or replacement of problem lines in the Lancashire area may be needed in the future. Continue program to complete the televising of all sanitary lines.	Typical reconstruction costs will vary depending upon the size of the line to be replaced. $3200 annually for televising of sewer lines. $1600 annually for foaming and root removal.

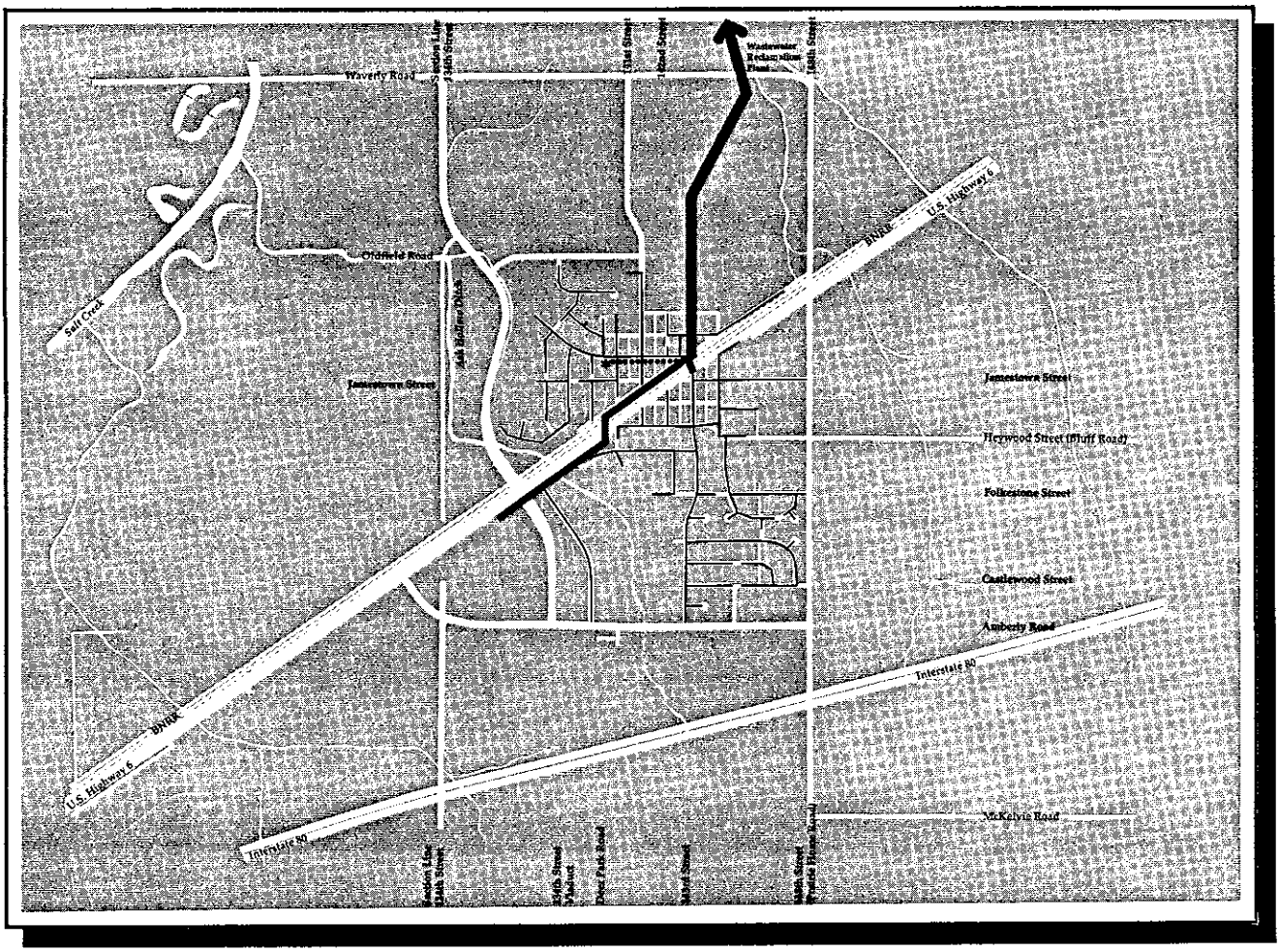
TABLE 5-2 Sanitary Sewer Facilities Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
2. Sanitary Sewer Lift Stations	The City operates and maintains one underground sanitary sewer pumping station at the following location:	Routine maintenance is performed by city staff at periodic intervals.	The City should continue to work todesign future development in such a way as to eliminate the need for future lift stations whenever possible.	
Municipal Lift Stations	1. West of 140th and Kenilworth Streets. This pump connects to a 6 innch force main which runs east along Kenilworth Street to one-half block east of 142nd Street.	The lift station is less than 5 years old and is generally in good operating condition.	Continue regular maintenance program.	No capital costs programmed.
Private Lift Stations	No private lift stations currently exist.	Although the City of Waverly would have no maintenance responsibility for private lift stations, any future proposed installations should be metered and monitored by the City.	If private lift stations are installed, flows should be metered or determined by pump hours to verify that billed treatment cost is commesurate with contributed flow.	No planned capital costs.

TABLE 5-2: Sanitary Sewer Facilities Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
3. Wastewater Treatment Plant North of the City, near Salt Creek.	The wastewater treatment plant is locatedabout one-half mile south of Salt Creek. The site is elevated from the one percent annual chance (100 year) flood by a levee.			
	The modern plant was established inthe 1970s.	Recent improvements in 1990 included installation of fencing around ditches.	Install new pump in 1993. High Priority.	$ 8000 cost estimate.
	The wastewater treatment facility is designed to treat volumes generated by a community of 5000 residents. Plant design capacity is 500,000 gallons per day.	The facility is operating at 50% of design capacity.	The plant has no immediate need for expansion within the 20 year future.	
	In 1992, the facility treated an average flow of 3,56,967 gallons per month. 1992 max. monthly flow was in October at 3,699,700 gallons.	The Waverly Treatment Facility is twenty years old, and has experienced some age-related maintenance needs.	Monitor future development to estimate future expansion needs.	No planned capital costs.
	The treatment process consists of: • Initial screen. • Grinding mechanism. • 1 major pump. • 2 standby pumps. • Lift station. • Aeration chamber. • 2 clarifiers. • Digestor. • Settling basin. • Recycling of water through clarifier. • Sludge is settled in digestor, and is hauled out. • Chlorination equipment.	Replacement of some major pieces of equipment has been completed in the past several years.		
	All solids collected from the wastewater treatment facility are currently applied to farmfields as a soil conditioner.	In addition to routine physical maintenance costs, sludge handing is expected to develop into a significant issue in the future.	Monitor federal and State of Nebraska guidelines relating to sludge handling for effects on Waverly's disposal operations.	No planned capital costs.

Sanitary Sewer System



Sanitary Sewer System

- 8 inches and under
- 10-12 inches
- 15 inches and over
- Sanitary Lift Station
- Sanitary Force Main (6 inches)

0 800 2400

■ Facts and Analysis

preventive maintenance is a significant concern at the one lift station under city supervision.

• The city must ensure that sanitary sewer connections and lift stations which are constructed by private developers are adequately sized to provide for adequate capacity for future adjacent development.

■ Storm Drainage and Flood Prone Areas

Table 5-3 examines the city's stormwater management system. Waverly is in the Salt Creek drainage basin; its extensive stormwater system includes swales, storm sewers, and the Ash Hollow Ditch. Ash Hollow Ditch runs the length of the City from south to the north west of the community, draining an area of about 4.7 square miles, most of which is urbanizing. Mansfield Ditch is a smaller tributary ditch to Ash Hollow Ditch, draining large areas north and west of Downtown. The portion of the drainage system for which the city has direct responsibility is limited to these ditches, as well as a limited number of existing storm sewers. The City maintains these facilities and has completed channel improvements on Ash Hollow Ditch over the last decade. The City's drainage inventory identifies the following issues:

• Because of a relatively level terrain, temporary ponding is often a major problem. Some low-lying areas in floodplains experience ponding after a major storm event. Throughout the city, street surface drainage along curbs and gutters provides the largest part of the City's stormwater drainage. In a few isolated areas, storm sewer pipes have been installed to assist the rapid drainage of developed areas following a major storm event.

• Storm sewer capacity in older parts of the city is not a concern, given the limited number of pipes, their recent construction, and their adequate size. In spite of the existing structures, drainage and localized flooding problems exist in some neighborhoods, especially areas where street connections have not been completed, such as along Jamestown Street in North Waverly. In these areas street curb drainage is interrupted as well, creating drainage problems.

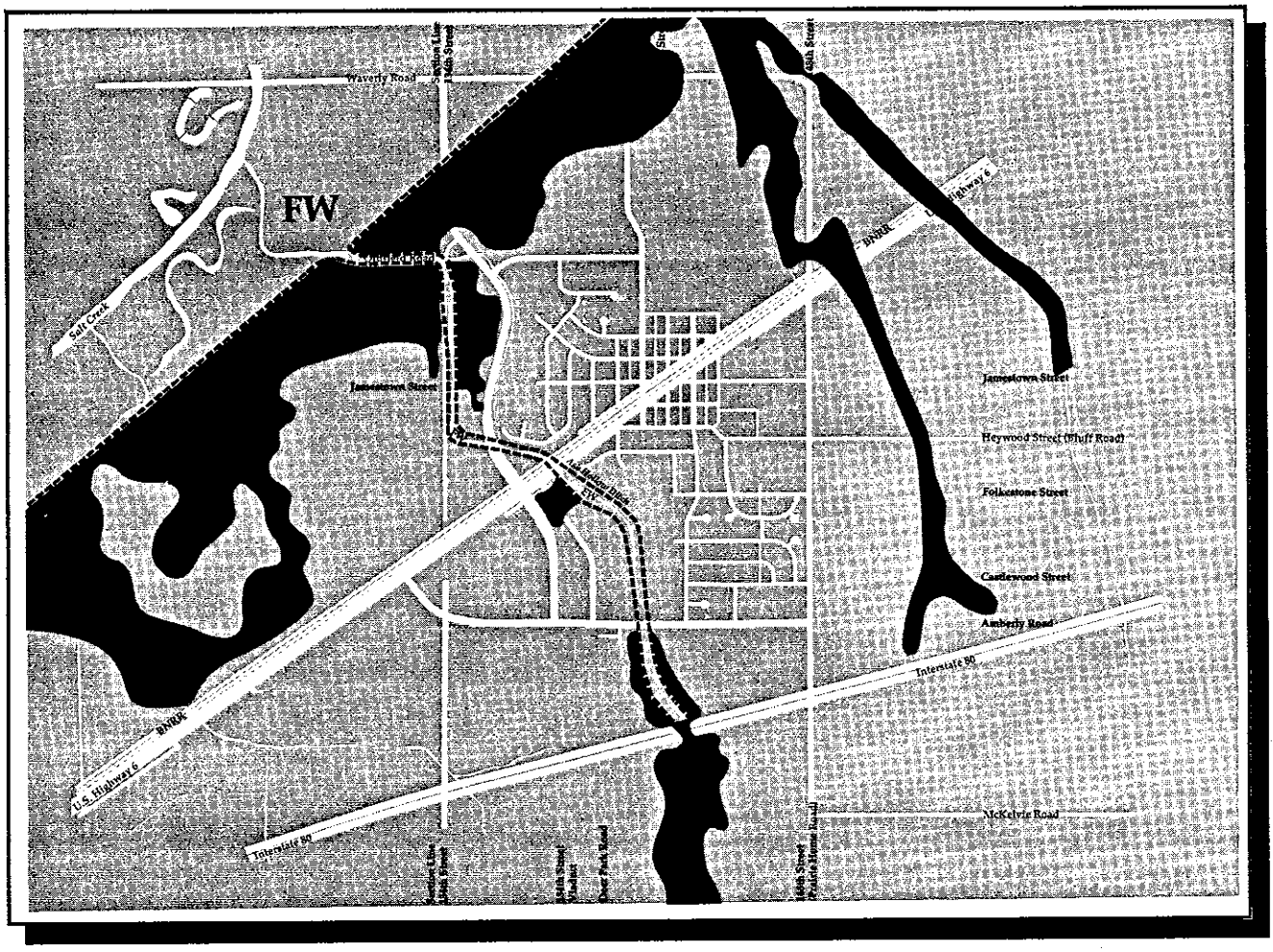
TABLE 5-3: Storm Drainage Facility Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
1. Storm Sewer System	Waverly has few pipe structures to convey stormwater. The largest part of Waverly's stormwater drainage network relies upon surface flows on streets, which outlet into swales, ditches and creeks.	Waverly's topography is flat, with standing water a concern in several low-lying, flood prone areas.	Install missing links of storm sewer network in Waverly.	Cost will vary depending upon project.
	Most of the pipes which exist date from the post-war period, and have bben installed asin conjunction with street extensions and paving projects.	Waverly experiences localized problems with its stormwater conveyance systemin these flat areas, especially near Jamestown Street in North Waverly, where street extensions to the drainge channel are incomplete.	Continue to identify and correct localized problems.	Cost depend upon project details.
	The most important storm sewer lines include:	The City has made a concious effort to rely on surface channels for drainage to reduce future conveyance problems.	The City should continue to favor open channel draingeways as part of all new development.	No planned capital cost.
	• A stormsewer along US 6 Street, beginning near Ivanhoe Street and extending east of the City to 148th Street.	An ever-increasing portion of the Ash Hollow Ditch drainge basin is covered by urban development. While channel projects have eliminated many flooding problems, continued industrial and commercial development will increase flows in the channel.	The City of Waverly should acquire additional land along Ash Hollow Ditch south of Amberly Road.	No planned capital cost.
	• A storm sewer along 141st Street north of the railroad, which drains the area west of Downtown. Flows enter Mansfield Ditch three blocks north of the railroad, and move west through the Meadowdale Addition of North Waverly into Ash Hollow Ditch west of the City.	In areas of future development, water detention ponds should accompany other efforts to increase flow capacity and rate of conveyance.	Dedicate sufficient open channel right-of-way as part of private development, for future conveyance and maintenance needs.	No planned capital cost.
	• A storm sewer along Heywood Street running west from the High School.		Identify future projects in newly developing areas which would delay storm discharges within detention basins. Private developments may include a lake feature for runoff detention.	No planned capital cost.
	• A storm sewer approximately 230 feet in length connecting the surface drainge of Deer Park Road to Ash Hollow Ditch, just south of the US 6 right-of-way.			

TABLE 5-3: Storm Drainage Facility Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
2. Floodplains	Waverly is located on the right bank of Salt Creek, which passes the community about two miles north of US 6. The confluence of Salt Creek with the Platte River occurs near Ashland, more than fourteen miles northeast of the City of Waverly.	The floodplain of Salt Creek is relatively undeveloped with structures, a factor which has reduced property damage during flood events.	Continue to enforce ordinances and regulations dealing with floodplain development.	No planned capital costs.
	Ash Hollow Ditch, a tributary of Salt Creek, has the largest influence on the drainage and hydrology of the city. The Ditch runs fromsouth to northwest along the western edge of the city. The ditch contains the entire 500 year flood volume within the developed City, but a floodplainis designated along the ditch south of Amberly Road and west of 134th Street and north of the railroad.	Waverly has implemented an effective floodplain management program. Waverly should continue to acquire land within the path of major drainageways to reduce potential flooding damage and increase the City's recreational greenbelt along the drainge courses.	Enforce ordinances and regulations requiring sound drainage practices.	No planned capital costs.
	The City of Waverly has undertaken substantial channelization along Ash Hollow Ditch to reduce the risk of flooding. Channelization improvements were completed in 1971 and again in 1981, to accommodate flows beyond the 500 year flood, as measured in 1981.		Monitor obstructions in the drainage channels, and when needed follow a phased schedule of channel maintenance. This should be programmed into an annual maintenance budget.	No planned capital costs.
	A secondary tributary drainage way is located about one-half mile east of 148th Street (Prairie Home Road). This swale constitues a narrow floodplain which runs in a north-south direction to the east of the city.	Future development in the East Growth Center will bring residential development into this drainage area. The City should monitor drainage needs and be prepared to improve the flow of drainage as urbanized development occurs.	Individual private development decisions should coordinated and phased to provide adequate drainage improvements that are concurrent with growth.	No planned capital costs.

Floodways and Floodplains



Floodways and Floodplains

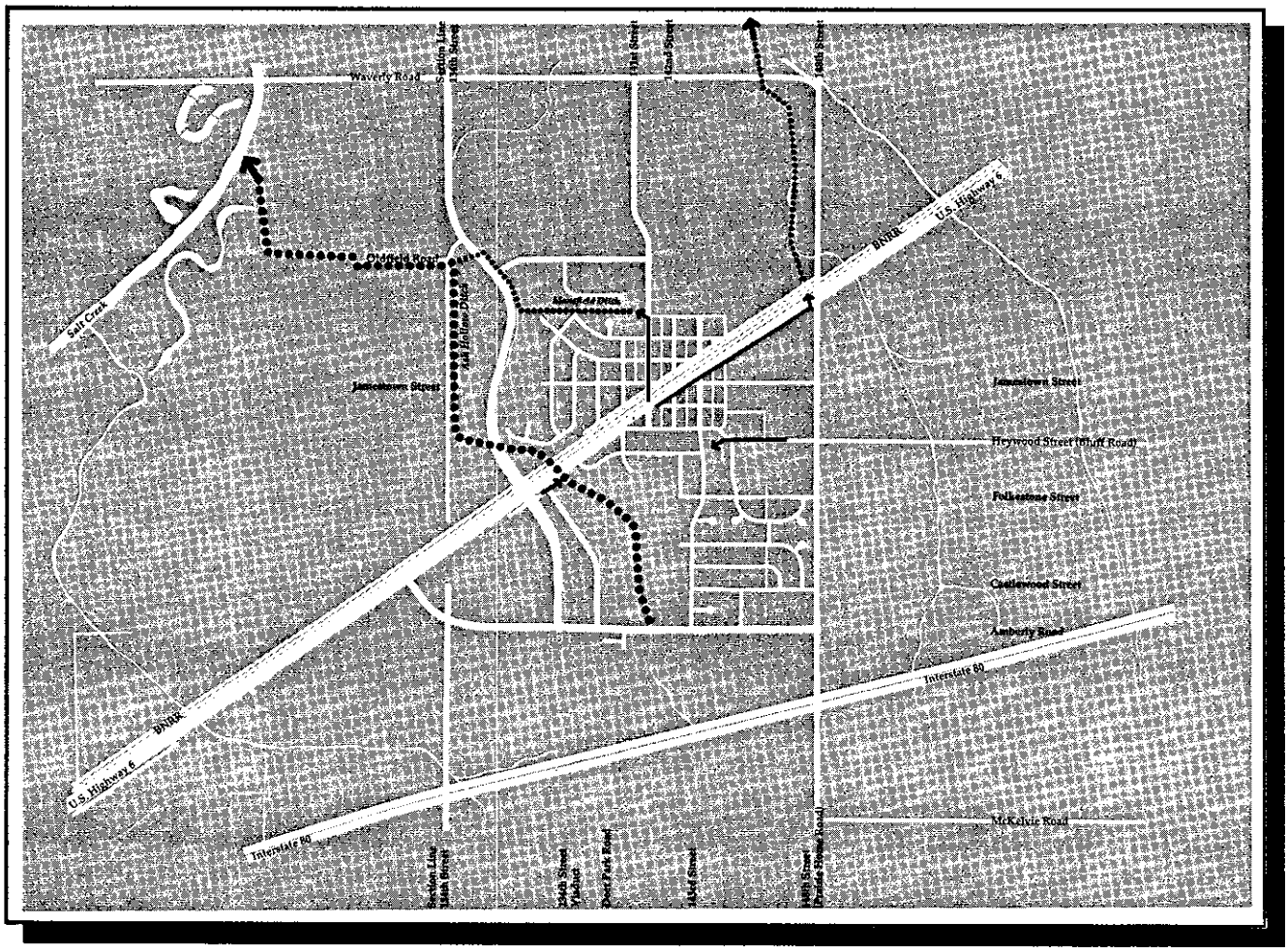
FW Salt Creek/ Ash Hollow Ditch Floodway Boundary

100 Year Floodplain Boundary

0 800 2400

Important Note: This map is included for reference only and approximates the boundaries of floodway and floodplain areas. Users wishing specific floodway and floodplain information should refer to official maps published by the Federal Emergency Management Agency.

Storm Sewer System



Storm Sewer System

- Storm Sewer Lines
- Surface Drainage Channels

0 300 2400

■ Facts and Analysis

• The city should continue to require that all new major drainageways utilize open channels instead of sewer pipes. Drainageway swales have several important features, which include providing efficient flows, filtering pollutants from surface runoff (consistent with forthcoming federal environmental mandates on runoff water quality), and establishing multi-use greenways through newly developing areas of the city. These approaches should be used in drainage projects along Ash Hollow Ditch south of the park, as well as along the drainage basin east of the city in the path of future development.

■ Water Distribution System

Table 5-4 examines the city's water supply system. The city operates an seven wells/pumping stations. A 500,000 gallon elevated water storage reservoir is located southeast of the city, near the intersection of Amberly Road and Prairie Home Road (148th Street). The city's most recent well fields have been developed far south of I-80, in the rural countryside. Waverly's water system has been modernized and expanded, providing an excellent service base for future residents and industry. In addition, the city has a computerized database describing location of water improvements and a continuing program to automate the City's billing and maintenance operations. The city's most important water projects involve:

• Continued routine maintenance of the water mains and the elevated storage reservoir.

• Reconstruction of obsolete and undersized water mains near the site of the former Downtown water tower, as well as in the East Oak Lane Circle.

• Reconstruction of the water main extending east of 142nd Street along Kenilworth Street and Woodstock Boulevard.

• Complete a system of loop water mains along 148th Street between the high school and Castlewood and Jamestown Streets. These improvements should include a new hydrant installation at 148th Street near the high school.

• Complete efforts underway to computerize and inventory the condition of the each element of the City's water system.

TABLE 5-4: Water Supply System Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
1. City Water Supply Wells	The city relies on seven wells for its water source, including the following sites: • Well #1, located north of Downtown along 142nd Street.	No system improvements are needed to maintain adequate volume and pressures for fire flows. Wells #1 and #2 are pumped primarily to benefit fire protection, and were rebuilt since 1989.	Continue routine maintenance of the system's wells. High Priority.	No planned capital costs.
	• Well #2, located near the City street maintenance facility north of the City along 141st Street. • Well #3, located far north of the City along 141st Street. This well is closed. • Well #4, located northwest of 139th Street and the railroad.	Well #3 has been closed, found in vilation of federal standards for Carbon-tetrachloride contamination. Source of the problem has been identified and is being removed. This well will be expected to be able to reopen within15 years. Well #4 was rebuilt in 1988.	When conditions warrant, re-open Well #3. Low Priority.	No planned capital costs.
	• Wells #5 and #6, located one half mile south of I-80 along 134th Street. At full operation, these wells would expect to produce a pumping capacity of 3.18 million gallons per day. In reality, pumps operate less frequently, and in rotation schedules. The system's 1992 average monthly demand was 7,598,000 gallons. The system's 1992 max. monthly demand was in May at 10,605,000 gallons.	Wells #5 and #6 in the rural watershed south of the City have the highest pumping capacity of all City wells.	Maintain these wells to a maximum level of dependability. High Priority.	No planned capital costs.

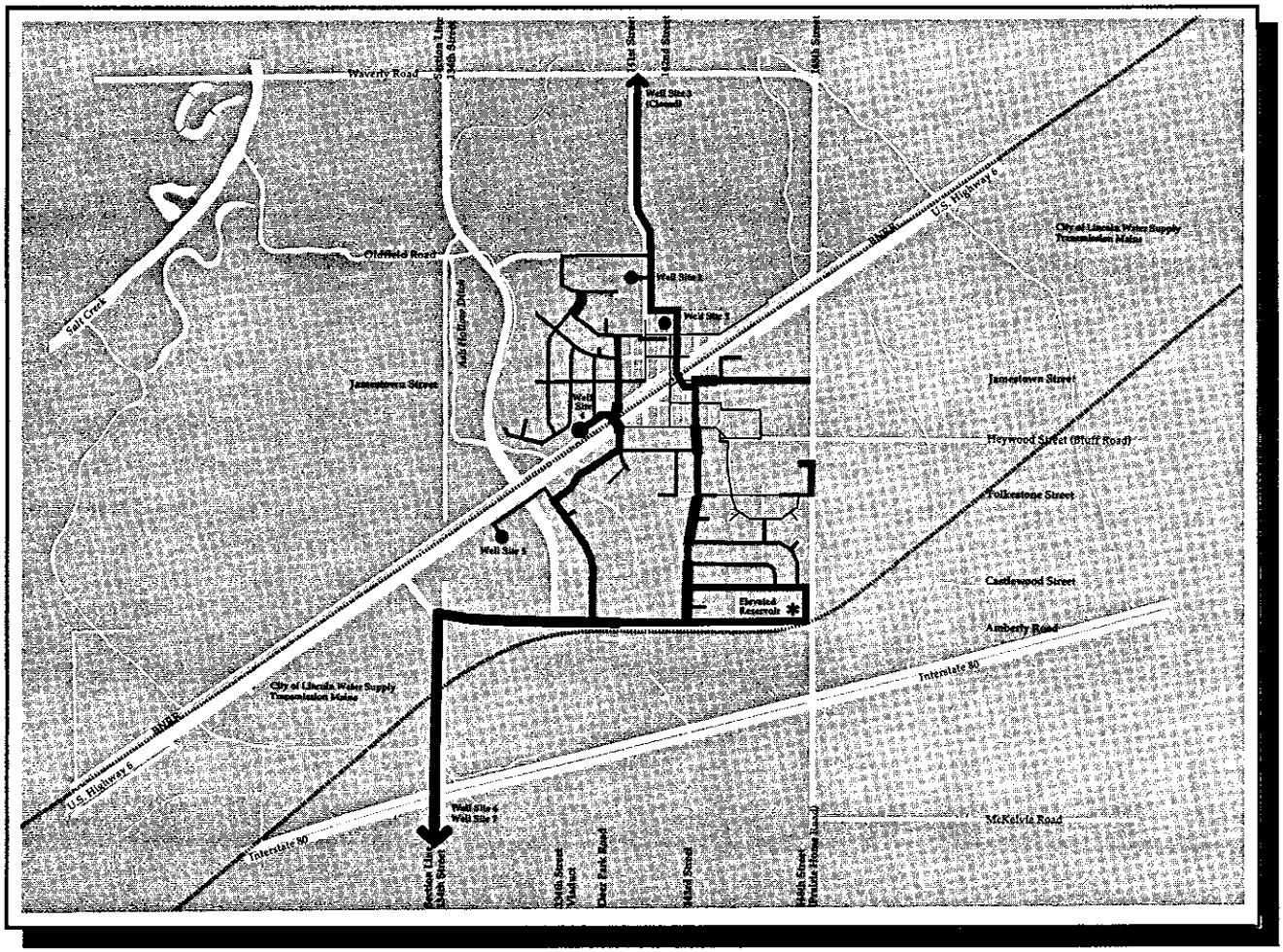
TABLE 5-4: Water Supply System Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
2. Water Storage Reservoirs	A municipal water storage reservoir is maintained at the following locations:			
	• 500,000 gallon elevated storage reservoir northwest of 148th Street (PrairieHome Road) and Amberly Road.	This steel structure was built in the early 1970s, and is in excellent condition. Storage capacity is adequate for the future.	Monitor condition. Continue regular maintenance program.	No capital costs are programmed.
	This facility is built on ground owned by the school district. The City of Waverly has an easement for this structure on the site.	While the easement may be adequate, it may not sufficently protect the City's interest in the facility.	Attempt to obtainCity ownership of the site beneath the reservoir.	Cost of the transaction are negotiable.

TABLE 5-4: Water Supply System Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
3. Water Mains	The existing system of water mains ranges from 2 to 12 inches in diameter. Generally, the entire developed area of Waverly is served by the water main system. In recent years, the city has expanded its water service area to include large areas of industrial development southwest of the City.	The overall system is professionally maintained and operated by the City.	The City should systematically replace problem and undersized mains as funding becomes available. High Priority.	Costs will vary with size of main replacement.
		The City has completed an outstanding program creating a computerized data base of hydrants, flow tests, and volumes and pressures.	Continue on-going efforts to add to the data base of the water system. High Priority.	No planned capital costs.
	A study identified several water main projects needed to provide adequate transmission volumes and fire flows throughout the community.	A program of improvements is underway to mitigate insufficient fire flows in several portions of the City.	The City should create and follow a 5 Year Water Capital Improvement Program.	
	Major transmission mains yet to be looped in the City's system include:			
	• 10 inch main along 148th Street, from the High School north to Janestown Street. • 10 inch main along 148th Street, from High School south to Castlewood Street.	These loops areimportant to safeguard the current system from unanticipated interruptions in service.	Construct the 148th Street loop mains. Moderate Priority.	
	• Hydrant installation at 148th Street and the HIghSchool.	Hydrant scheduled to be installed during 1993.	Install hydrant. High Priority.	
	Critical replacement projects include:			
	• Reconstruction of a maze of small, obsolete lines near the former water tower site Downtown.	The near Downtown improvements are left over obsolete lines from the old system. The Woodstock line is in very poor condition.	Rebuild Downtown lines. High Priority.	
	• Replacement of a 2 inch maineast of 143rd Street along Woodstock Blvd.		Rebuild Woodstock line. High Priority.	
	• Replace 2 inch line in East Oak Lane Circle with 4 inch line and hydrant for flush.	The East Oak improvement mirrors other similar project recently completed on circles.	Complete East Oak Lane project. High Priority.	

Water Distribution System



Water Distribution System

- Mains: 4 inches and under
- Mains: 6-8 inches
- Mains: 10 inches
- Mains: 12 inches and over
- Existing Well Sites
- Existing Elevated Reservoir
- City of Lincoln Water Supply Transmission Mains

0 800 2400

■ Facts and Analysis

• Continue to monitor the ongoing clean-up of Well #3, closed because unacceptable carbon tetrachloride levels. This problem may be caused by adjacent government grain storage activities. While this well is not essential to the City's current supply, and other superior producing wells have been developed, the City should plan for the eventual reopening of this well site.

• Seek to enlarge the property easement beneath the storage reservoir into a condition of municipal ownership of the ground on which the facility is situated.

Completion of these improvements is expected to alleviate the few fire flow capacity problems which exist, and to afford the City an extra measure of protection with needed looped mains in the vicinity of the high school. These improvements play assist in upgrading infrastructure conditions for the future, as the City prepares for additional future residential and industrial development.

■ Solid Waste Collection, Transfer and Disposal

Table 5-5 addresses Waverly's solid waste disposal system. The inventory identifies the following:

• Waverly provides for collection of solid waste within the city through ordinance with a private contractor. Refuse is transported to the City of Lincoln landfill for disposal.

• Yard waste is gathered through a separate collection, and is stockpiled and composted by private operators.

• The Waverly Jaycees operate a community recycling effort, which is comprised of a community drop off site located in the parking lot of the shopping center. Material collected include aluminum, newspapers and plastic milk jugs.

• The city's most appropriate solid waste disposal strategies involve continued efforts to reduce the waste stream which eventually goes to the landfill. This effort can be furthered by instituting a more aggressive, community-wide education and recycling program.

• Because the future availability of landfills cannot be assured, the city should continue its cooperative agreements.

The City of Waverly should join in a cooperative planning effort with the City of Lincoln, Lancaster County and other area communities to monitor existing solid waste practices and facilities. All agencies and municipalities must work together to prepare for the future needs of residents and communities in this area.

• The city should monitor new state and federal environmental mandates which could affect the operation and costs of solid waste disposal.

• *A wellhead protection area north of town.*

• *Ash Hollow Ditch, part of the city's extensive and progressive surface drainage system.*

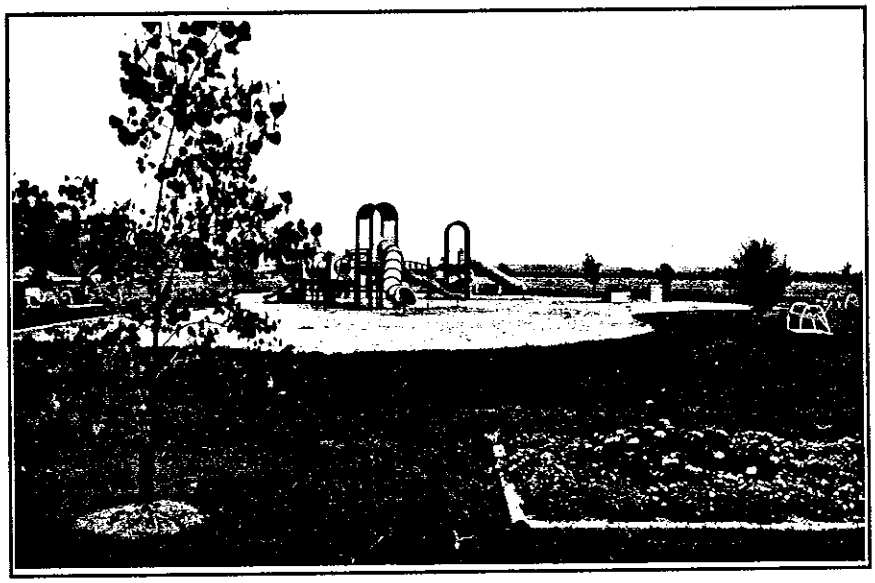
TABLE 5-5: Solid Waste Disposal Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
1. Solid Waste Collection	Collection of solid waste for the entire City is currently provided by private contract with a private hauler: Industrial Services of Lincoln.			
	Collections are made at curbside or alleyside at residences and from refuse containers at businesses.	Nationwide trends are to manage and reduce waste streams to extend the life of landfill facilities.		
	The hauler provides separate collection of yard waste, which is transported to a site for composting. Yard waste is eventually stockpiled and land-applied.	Yard wastes are responsible for a large volume of the waste stream of the community.. Encouraging the separation and composting of yard wastes can reduce refuse costs and extend the lifetime of landfill facilities.	Waverly should use compst as a mulch/soil conditioner inpublic parks.	No planned capital costs.
	All garbage is transported to the Lincoln Municipal Landfill for disposal.			
	Waverly Jaycees operate a recycling drop off center at the shopping center for newspaper, plastic jugs, and aluminum cans.	The City of Waverly and the Jaycees should explore the possibility of staffing for a community-wide recycling of site, or even initiation of curbside recycling .	Waverly should explore ways to further educate its citizens on the importance of recycling. A citywide recycling arrangement should be considered.	No planned capital costs.
		Often, public awareness of solid waste issues is increased by personal, hands-on participation in recycling.	Within 5 years,Waverly should consider instituting a program that requires the sorting and collection of recyclable items.	No planned capital costs.

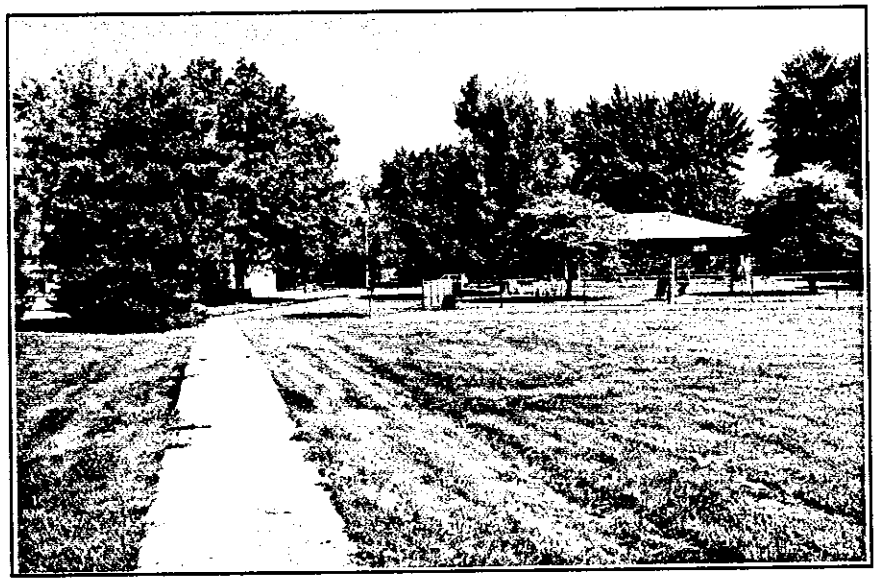
TABLE 5-5: Solid Waste Disposal Inventory

Facility	Description	Evaluation	Modification/Priority	Comments
2. Solid Waste Transfer and Lanfill Operations	Collection of solid waste is currently provided by a local private contractor who transports refuse to a landfill site near Lincoln for further processing and disposal. Yard waste is stockpiled and land-applied. Thelandfill facility is operated by the City of Lincoln. The City of Lincoln is monitoring the capacity of the landfill. Initiation of sorting and recycling programs by Waverly and other communities would extend the useful life of this landfill. Landfill availability is an issue of great concern to communities throughout Nebraska. Many existing facilities in the state will be out of space by the end of the century. The City should not assume that this landfill will always be avilable to meet future needs. Regional pressures by other communities may influence the landfill's capacity and policies. No community may be complacent regarding solid waste issues.	The City of Waverly should monitor the capacity of the Lincoln landfill to meet the community's waste disposal needs. Waverly should participate with Lincoln, Lancaster County and other municipalities in a regional planning effort to study future issues involving solid waste disposal. Should a new facility be needed within the regiona, Waverly should cooperate in a planning effort to foster the design, selection, and construction of a regional landfill to serve the needs of communities in this area.	Consider regional planning efforts with other governmental bodies and public agencies to estimate solid waste needs and evaluate available facilities. High Priority.	No capital cost.

• *Jaycee Park.*



• *Wayne Park and its connection to surrounding residential areas.*



■ Facts and Analysis

Parks and Recreation Facility Analysis

Waverly's park facilities are particularly important to the city's overall quality of life and affect the city's ability to provide quality residential neighborhoods. This section examines the city's park and recreation system and includes all city-owned and operated facilities. Facilities are evaluated in three ways:

• *Overall population service standards.* This analysis relates Waverly's park and recreation facilities to accepted service standards for the city's population.

• *Geographical distribution.* Specific facilities carry with them an effective service radius, determining the size of the area they serve. This analysis examines the distribution and service radius of each facility in the city to identify geographical gaps in service.

• *Park inventory and assessment.* This analysis reviews and evaluates each city-owned park and recommends possible changes and improvement needs.

These assessments provide the basis for the recommended park improvement program established in the Priorities and Actions section of this theme.

Table 5-6 summarizes the parks and facilities included in this evaluation. The accompanying map locates the city's major parks and recreational areas.

■ Facilities in Relation to Population

An evaluation of the community's recreational facilities based on the Nebraska Statewide Comprehensive Outdoor Recreation Plan (SCORP) and other national standards shows that Waverly is very well served by its existing facilities. Table 5-7 relates the city's facilities to its served population. The analysis leads to the following conclusions:

• Waverly far exceeds statewide and national standards for total park ground.

• Waverly exceeds national standards for neighborhood parks, when school playgrounds are included. School

TABLE 5-6 : Major Recreation Facilities in Waverly

Criterion	Support			Recreation Facilities								
Public Parks	Area (Acres)	Restrooms	Picnic Shelters	Baseball Fields	Softball Fields	Soccer Fields	Announcer Concession	Tennis Courts	Basket-ball	Swimming Pool/Area	Wading Pool	Play Areas
Wayne Park	40.5	2	3	1	1	1	1	2	1	1	1	2
Jaycee Park*	10.3	2	0	0	2	0	0	0	0	0	0	1
Sharp Park	0.3	0	1	0	0	0	0	0	0	0	0	1
Totals	**51.1**	**4**	**4**	**1**	**3**	**1**	**1**	**2**	**1**	**1**	**1**	**4**

* Jaycee Park was established as a public recreation site by the Waverly Jaycees, and is supported by the Waverly Community Foundation.

TABLE 5-6 : Major Recreation Facilities in Waverly

Criterion	Support			Recreation Facilities					
Public School Sites	**Areas (Acres)**	**Restrooms**	**Picnic Shelters**	**Ballfield Backstops**	**Basketball**	**Soccer Fields**	**Running Track**	**Tennis Courts**	**Playground Equipment**
Waverly High School and Junior High	13.1	0	0	0	2	1	1	0	0
Hamlow Elementary	11.2	0	0	3	2	1	0	0	1
Totals:	**24.3**	**0**	**0**	**3**	**4**	**2**	**1**	**0**	**1**

Public School Sites: Buildings and parking areas occupy more than 5.6 acres, or 23% of public school sites. Actual open space recreation areas comprise slightly more than 18.7 acres.

Additional Facilities:

Waverly High School:
Athletics whirlpool, locker rooms, basketball, weight room. Hamlow Elementary School has a gymnasium/multi-purpose room.

TABLE 5-7: Park and Recreation Services Related to Population

Criterion	Standard	Existing Facility	Comments
Total Park Land	• 15 acres per 1,000 population. • Based on standard, Waverly requires 28 acres of total parkland.	Total Public Parks: 51.1 acres School Playgrounds: 24.3 acres Total Area: 75.4 acres	Waverly is more than 169% above overall park area standards.
Neighborhood Parks and Playgrounds	• 2 acres per 1,000 population. • Based on standard, Waverly requires 3.7 acres of neighborhood parks.	Public Parks: 0.3 acres. School Playgrounds: 18.7 acres Total Area: 19.0 acres Wayne Park also has neighborhood service characteristics for adjacent residential areas.	Neighborhood parks and playgrounds include Sharp Park (site of Well # 4), in addition to public school playgrounds. Most neighborhood park space in the city is furnished by school properties.
Community Parks	• 3.5 acres per 1,000 population. • Based on standard, Waverly requires 6.5 acres of community parks.	50.8 acres in Communiy Parks, including: 40.5 acres at Wayne Park, and 10.3 acres at Jaycee Park.	Community parks include play areas which provide neighborhood park services. Community parks account for about 67% of the city's total park area. This results in a high proportion of city park land in large community parks, which is an enviable situation. Compared with standards, Waverly has 24.6 acres in community parks in excess of standards, or is 378% above the standard requirements.

TABLE 5-7: Park and Recreation Services Related to Population

Criterion	Standard	Existing Facility	Comments
Swimming Pools	• 1 50-meter pool per 20,000 population. • 1 25-yard pool per 10,000 population.	Municipal Pool: 25 meter outdoor pool.	The number of existing facilities is adequate to satisfy the community's requirements.
Baseball Fields	• 1 diamond per 6,000 population. • Based on standard, Waverly requires 1 diamond.	2 diamonds; 1 at Wayne Park.	Baseball facilities have regulation dimensions and have adequate lighting and support facilities. Waverly is adequately served by baseball fields.
Softball Fields	• 1 diamond per 3,000 population. • Based on standard, Waverly requires 1 diamond.	3 formal diamonds; 1 at Wayne Park. 2 at Jaycee Park . Also: 3 informal diamonds at Hamlow Elementary School.	Waverly is adequately served by softball fields. Hamlow Elementary provides 3 children's ballfields/backstops.
Tennis Courts	• 1 court per 2,000 population. • Based on standard, Waverly requires 1 court.	2 courts at Wayne Park.	Waverly is adequately served by tennis courts.
Golf Courses	• 1 18-hole course per 25,000 population	The nearest golf course facilities are located near Ashland, and in Metropolitan Lincoln.	Waverly would benefit from a local golf course, and any private efforts to establish such a facility should be encouraged. Waverly is relatively distant from golf course recreation. A local facility would be highly accessible togolfers throughout the region. I-80 could provide valuable exposure for such a facility.

Sources:
State Comprehensive Outdoor Recreation Plan, Nebraska Game and Parks Commission, 1973.
Urban Land, Vol. 20, No. 5, Urban Land Institute.
National Park, Recreation, and Open Space Standards, National Recreation and Park Association, 1971

■ Facts and Analysis

properties provide most of this type of park space within the city.

• Waverly far exceeds the statewide and national standards for community parks. These are generally the most important open spaces in a community and provide opportunities for many recreational uses. These park spaces also have symbolic value, representing the image of the community to residents and visitors alike. In Waverly, about 67% of the city's total park area can be considered community parks. Wayne Park is Waverly's city-owned community park, and includes the municipal pool. Jaycee Park is operated by the Waverly Jaycees and the Waverly Community Foundation.

• Waverly is adequately served (on a population basis) by most important recreational facilities, including swimming pools, baseball fields, softball fields, tennis courts. The one exception is golf courses, which are not present near the community.

• Current park spaces would accommodate the doubling of Waverly's population and still remain within state and national standards for park spaces. Residential growth to the east and north in Waverly would be proximate to Wayne and Jaycee Parks, respectively. Future residential growth near the high school, however, would be situated on the east end of the community, an area which is geographically distant from existing parks. As development proceeds east of 148th Street, the city should provide a system of trails to link new subdivisions with the community's existing community parks. The city should also acquire land for new neighborhood parks and recreation facilities on the north and east edges of the town.

■ Facilities by Classification

Waverly's major recreation and open space areas can be classified as follows:

• *Neighborhood Parks:* This category includes parks which contain play areas and community open space, and serve immediately adjacent neighborhoods. School playgrounds serve as neighborhood park facilities. The maximum radius for neighborhood parks is 0.25 to 0.5 miles. This category includes the established park/playground at Sharp Park.

Facts and Analysis

• *Community Parks:* These major, multi-use open spaces accommodate a broad range of activities, including picnic facilities, trails, ballfields, paved courts, play areas, and other facilities. These city-wide parks serve a population within a two-mile radius. The City-owned community park in Waverly is Wayne Park. In addition, the Waverly Jaycees have established a public park north of Downtown, Jaycee Park. Although it has yet to be fully developed for community use, it has characteristics for a future community park.

• *School Playgrounds:* These are school grounds and facilities which function to provide neighborhood play areas.

An analysis of park service areas shows the following deficiencies in neighborhood park service:

• *North Waverly.* The north area contains Sharp Park/ Playground and Jaycee Park. Jaycee Park is vital to meeting the active recreation needs of this part of the City, and additional fields and courts, as well as drinking fountain service should be installed.

• *Midtown Waverly.* While Midtown Waverly is not adequately served by neighborhood park facilities, it is near the city's large community park. Many recreational facilities are located in the north end of Wayne Park, which is adjacent to this Midtown area.

• *South Waverly.* New residential growth projected for east and south Waverly should include a corresponding increase in local park service in these areas. As growth occurs east of Prairie Home Road (148th Street), a future neighborhood park should be developed. As development occurs south of Amberly Road, paths and greenbelt linkages should be extended south to connect future neighborhoods with Wayne Park.

A significant deficiency identified in the inventory is the city's lack of a recreational trail system. The concept of a linked pedestrian system, connecting all city neighborhoods, parks, schools, Downtown Waverly, Ash Hollow Ditch, and, potentially, Salt Creek completes the network of community open spaces. Such a system would provide a facility for such important and increasingly popular recreational pursuits as walking, running, bicycling, and cross-country skiing. The extension of a Greenbelt Trail between the

proposed east residential growth areas and North Waverly will complete the city's outstanding parks facilities.

The City of Waverly should encourage the Natural Resource District and other governmental agencies to complete a recreational trail system along Salt Creek. In addition, the city should undertake trails along drainage corridors in the South and East Growth Centers as residential growth occurs, to link them into the system. Construction of such a regional trail system could further provide Waverly with another unique feature that could strengthen the city's attractiveness as a good place to live and visit.

■ Park Facility Inventory and Evaluation

Table 5-8 presents the Waverly Park Inventory. This inventory provides in-depth information on all of the city parks, their recreational facilities and amenities. Most of Waverly's park facilities are in good condition, with some exceptions. These most immediate needs include:

• *Wayne Park.* This community park is a major facility for active recreation and serves a neighborhood park function for South and Midtown Waverly. This park also forms part of the city's drainageway open space system. It is a heavily used park that needs further development, including trails extensions to the south and east to serve new residential development. Parking areas should be paved and planning should begin for a recreational trail to run the length of the park. A landscape design plan should provide additional plantings and barriers to prevent motor vehicles from leaving drives and parking lots. In addition, the south end of the park should be considered as a future site for community buildings. In areas distant from homes, the City may consider more natural "wilderness" landscape treatments with low-maintenance native grasses and wildflowers. The park could benefit from updated playground equipment.

• *Jaycee Park.* This park in North Waverly is a recent addition to the public's recreation facilities, and is currently under development. This park contains the most modern playground equipment in the City, recently installed by the foundation at a cost of nearly $30,000. When fully developed, the 10.3 acre parksite will provide a valuable neighborhood recreation area serving residents north of the

■ Facts and Analysis

Burlington Northern Railroad. The park can also create a gateway to Downtown Waverly, just south of the site. The most important needs are for appropriate facilities and landscape treatment, including additional active use fields, courts and a drinking fountain. The City should ensure that new housing development on the north and east is designed to complement the park.

• *Sharp Park.* This small park consists of a triangular-shaped open space situated northwest of the Burlington Northern Railroad and 139th Street. It contains a fenced playground, a drinking fountain, and a shelter. The park could benefit from updated playground equipment.

• *Municipal Pool.* The recent Americans with Disabilities Act affects public facilities such as the pool, possibly requiring improvements to provide access to the water for disabled people. Modifications may also be needed to the bathhouse areas.

• *Restrooms* in city parks need improvements for use by handicapped and disabled persons.

• *Playground equipment* in some parks is dated. The City should embark upon a scheduled program to replace these units with new equipment.

• *Drinking fountains* should be provided in all city parks that contain active recreation areas such as ballfields and courts. This city should upgrade existing drinking fountains where they exist.

TABLE 5-8: Park Inventory and Assessment

Park/ Location	Facilities	Evaluation	Recommendation	Comments
Wayne Park Community Park located east of Ash Hollow Ditch, just south of 140th and Guildford Streets.	• 40.5 acre park built inthe late 1960s. • Park extends nearly the entire length of the City south of US6 • Contains historic Waverly Burlington Northern Depot • Electric service from depot area north. • Water service; drinking fountains at the depot and at the ball diamond. • Swimming pool. • 2 tennis courts. • 2 restrooms: depot and concession stand. • 1 regulation little league diamond. • 1 regulation baseball diamond. • 1 softball field. • Informal soccer field. • Basketball court. • 3 picnic shelters with tables, including the VFW Memorial Shelter and Picnic Area, and gazebo shelter near pool area. • Playground equipment.	Heavily used active recreation facility, which is the showcase park for the City of Waverly. In the future, modifications to the pool may be needed to provide access to the water for disabled persons. This can be done by installation of a ramp or chair lift. In 1992, the City completed several projects to improve access for disabled persons, including: installation of armrails inthe bathhouse, ramps on paths leading to pool ara, wheelchair parking, and crosswalk improvements. Ball complex needs to be re-graded and new dirt added. The park would benefit from updated playground equipment. Tennis courts have cracked, split surface. Courts require new concrete base and asphalt overlay. New concessions built in1990. Basketball court is new and in excellent condition. Motor vehicles need to be better restricted from park grounds.	Initiate changes to the pool and bathhouse to make facilities accessible to handicapped persons, as required by the recent federal Amercians with Disabilities Act. Improve pedestrian and bicycle access between this park and existing and future residential areas. Re-grade the ballfield complex. Install upadated playground equipment. Rebuild the tennis courts. The City of Waverly should initiate a landscape design plan for Wayne Park, to balance the site with plantings, active areas, and appropriate barriers to automobile movements. High Priority.	Cost depends upon type of improvement. Cost depends upon type of improvement. No planned capital cost. $25,000 estimate. $25,000 estimate. $20,000 estimate.

TABLE 5-8: Park Inventory and Assessment

Park/ Location	Facilities	Evaluation	Recommendation	Comments
Jaycee Park Neighborhood Park located north of Downtown and east of 141st Street.	• 10.3 acres public recreation site owned by the Waverly Jaycees and supported by the Waverly Community Foundation. • Portable toilets. • 2 softball fields. • Playground equipment.	This is a relatively new park located on the north edge of the City. The City performs set up and maintenance of the ballfields. This park has the most modern playground equipment in the City, installed recently at a cost of nearly $30,000.	Maintain the current service utility levels to serve the park facilities. Provide a drinking fountain (well water) apparatus for the ballfield areas.	
		The park lacks water service, and no drinking fountain is provided to the ballfield area.	Install a tap, meter and water line to serve the park. Install a drinking fountain.	$3,000 estimate.
		The Waverly Community Foundation hopes to construct a recreation center, to include indoor tennis and basketball. While this park is well located to serve future housing, better path linkages are needed to connect the site to Downtown Waverly, to nearby neighborhoods, and to proposed housing to the north.		
Sharp Park Neighborhood Park located northwest of 139th Street and the railroad.	• 0.3 acres donated to City in early 1980s. • Playground equipment enclosed by chain link fence. • Drinking fountain. • Shelter.	This small park was created near a municipal well site to serve as a neighborhood playground. The small lot is fully developed. The site is landlocked and expansion is not possible. The park could benefit from better sidewalk and path linkages to the surrounding neighborhood.	Phased replace of some playground equipment with updated, modern play structures. Add additional play structures as needed.	$10,000

■ Facts and Analysis

Growth Centers

Under the theme "A Quality Environment for Growth," the Waverly Plan presented four principal areas for new platting and residential development during the next fifteen to twenty years. These four areas are the Northwest Growth Center, the South Growth Center, the East Growth Center, and the North Growth Center. A fifth growth center, near the proposed airport, may accelerate development of the other four areas. However, little platting or development will occur adjacent to the airport site because of such constraints as East US 6, the railroad, Salt Creek, and Ash Hollow Ditch. Adequate infrastructure within each of the four primary growth centers is required for their successful development.

The following discussion summarizes the infrastructure and service needs of Waverly's proposed growth centers.

■ Northwest Growth Center

The Northwest Growth Center is relatively well-served by the city's existing water and sanitary sewer systems. It is mostly made up of residential sites west of the Downtown area, extending to the 134th Street viaduct. The existing housing pattern ends just west of 137th Street, with an additional 12 acres available for future development. Sanitary sewer service to existing homes adjacent to this area is near its engineering limit for elevation. Ground elevation of the area will probably require a sanitary sewer lift station or a new sewer line extending north to Oldfield Road and then east to 143rd Street. Sanitary sewer service for some homes in this area presently uses a lift station near 140th and Lancashire Streets. Water service is provided throughout the area, and can be extended incrementally from existing lines.

Stormwater drainage is adequately provided in the developed portions of the neighborhood; however, the extension of Jamestown Street to the North 134th Street viaduct should provide curb and gutter to channel water away from housing areas during storm events.

Stormwater within the area generally drains in two directions, since the area is on a drainage basin divide. North parts of the Growth Center drain in a west to east direction north of Kenilworth Street. Western parts of the Growth Center drain in a west to south direction south of Jamestown

■ Facts and Analysis

Street, into Ash Hollow Ditch, which then passes beneath US 6 and through Wayne Park. The community should protect and increase the capacity of the channels that convey this runoff through the neighborhoods, and wherever possible, incorporate recreational trails along these channels to link neighborhoods to the park sites.

The principal infrastructure projects required in the Northwest Growth Center involve the extension of Jamestown and Kenilworth Streets to the North 134th Street viaduct. These improvements should be completed to keep pace with the community's residential growth and correct flooding concerns of adjacent residents.

East Cornhusker Highway (US 6) and the North 134th Street viaduct influence traffic circulation and the character of development in this development area. The viaduct embankment and the railroad form hard edges to this neighborhood, isolating it from contiguous growth areas to the west or south. For this reason, the Northwest Growth Center should not encourage residential development west of the 134th Street viaduct. The planned airport site northwest of the city suggests that land uses west of 134th Street should include rural, agricultural, or light industrial uses that support the airport operation.

■ South Growth Center

The South Growth Center is generally served by existing infrastructure. This growth center contains nearly 60 acres of farmland that has the potential to develop as a mixed use area, including residential subdivisions. This growth center includes the 16-lot Waverly Heights subdivision, approved by the city in 1993. The South Growth Center could support approximately 35 acres of residential development, including desirable new multi-family sites. These developments would ideally be served by a street pattern including a southward extension of Deer Park Road, and an eastward extension of a road parallel to and south of Amberly Road.

Several public improvement projects are needed in the South Growth Center to support existing and future development. These include street extensions, park extensions and improvements, sanitary sewer extensions, and storm sewer projects. These public service projects can be installed in the normal course of private development, and will create a

■ Facts and Analysis

framework for residential and industrial growth. This framework also reinforces such existing city investments in facilities as Hamlow Elementary School and Wayne Park.

These sites are served by gravity flow sanitary sewers, and adequate water mains, requiring only local extensions by the developer. In addition, new water transmission mains have been recently installed throughout the area, connecting to the new well field south of I-80, and to storage facilities along Amberly Road near Prairie Home Road (148th Street).

Stormwater drainage for this growth center is provided by the Ash Hollow Ditch. The swale drains a large watershed west of the city that includes the city's major industrial park, shopping center and Wayne Park. Additional development will increase the impervious surface coverage of the area, adding considerably to surface runoff over the next twenty years. Fortunately, the open channel configuration of Ash Hollow Ditch is ideal to accommodate any additional modifications or improvements in the future. The City of Waverly should protect this drainage corridor, and use sound engineering and drainage practices to prevent flooding problems within this basin.

The extension of collector and minor streets into this area also ties these newly developing areas into the City and into South Waverly. Extension of Deer Park Road south of Amberly Road is necessary to open these areas for development. This residential road should be continued toward the southeast, extending west toward Prairie Home Road. These improvements create a south circumferential road that will enable traffic to efficiently circulate around these city neighborhoods, and provide convenient connections to Wayne Park and the center of town via 143rd Street, and to Hamlow Elementary School via the extension of 145th Street.

An interchange with I-80 and an extended North 134th Street, this area would make existing industrial areas more desirable, and could create a site for regional commercial development in the future.

■ East Growth Center

The East Growth Center is geographically situated east of the present City, and divided from existing development by Prairie Home Road (148th Street). The East Growth Center

■ Facts and Analysis

is adjacent to Hamlow Elementary School and Waverly High School. The area is entirely located in the rural watershed of an agricultural swale, and contains hundreds of acres of vacant or farmed land. At least 100 acres of this watershed could be expected to develop into residential subdivisions.

The area is generally served by existing infrastructure. Proposed development sites would be served through incremental extensions of existing water mains. New water transmission mains are planned along 148th Street connecting to storage facilities located northwest of 148th Street and Amberly Road, where the City recently completed construction of a new elevated water storage reservoir. The ease of providing sanitary sewer service to the area will depend upon the engineering of the specific site. Generally, sewer service will become more expensive as development continues east, since at some point, gravity flow will be in the reverse direction of existing City lines. While a lift station would resolve the problem, a more desirable (and more costly) solution would involve installation of a new Northeast Interceptor Sewer. This sewer would proceed north across US 6, the railroad, and National Crane, and would continue west into the major line just north of the City. This line would alleviate the need for a lift station, and would pride major utility capacity to potential development sites near the 148th Street/East Cornhusker Highway intersection.

The East Growth Center is crossed by a major gas pipeline owned by Enron/Northern Natural Gas Company. The pipeline, in place for more than half a century, generally runs north and south, parallel to and about 700 feet west of Prairie Home Road (148th Street). This pipeline feeds a Minnegasco delivery site outlet located on the northeast corner of Heywood and 148th Street. The Enron pipeline was installed after the company obtained different types of easements from local land owners. One type, a blanket easement, gives the company broad rights which may include the ability to ask others to bear costs of relocating or upgrading pipes as urban development crowds the area. Property with this type of easement is located north of Bluff Road, and East Cornhusker Highway (US 6). As an example, National Crane, under such a blanket easement, paid and directed Enron to relocate the pipeline to the edge of their site, to allow for more flexible use of their property.

However, a less restrictive easement exists on farm land

■ Facts and Analysis

south of Bluff Road to I-80, where the pipeline rights are narrower. As urban development occurs here, the company will be forced to relocate or upgrade the pipeline. Responsibility for funding this change is a matter of negotiation. Relocation of this pipeline is possible, although residential development can safely occur adjacent to the pipeline if additional land for easements built into the subdivision pattern. The pipeline companies ask that developments reserve a 50-foot easement either side of the pipeline. The primary reason for the easement is to ensure adequate width for access by major equipment, should rebuilding be needed any time in the future. Should residential development occur near the line, regulatory standards would require the pipeline company to reconstruct the pipeline to Level III standards, the safety threshold for an urbanized area. If the land remains in agricultural use, the current older pipe meets Level I, a lower threshold. Regulators will require that the pipeline company upgrade pipe within 660 feet of urbanized development. That is principally the reason the pipeline is located where it is, more than 700 feet east of the current limits of the City of Waverly.

Street extensions are a major infrastructure need for this area, but will be dedicated and built by private developers in the course of subdivision and construction. Extensions of Jamestown, Heywood and Castlewood Streets are vital transportation improvements for East Growth Center development. Another important street project is the improvement of Prairie Home Road(148th Street) and its shoulders, ditches and rural character to good urban standards with storm sewer pipe and sidewalks. Bluff Road, a gravel road that extends east of Prairie Home Road from the end of Heywood Street should be improved to urban standards as residential development occurs in the East Growth Center.

The principal public service need for the East Waverly Growth Center is to provide a unified system of urban infrastructure which is engineered to sustain the growth of the community to the east. Obviously, it will be necessary to ensure safe relocation or reconstruction of the gas pipeline, with the costs of this depending upon the particular property and the particular negotiating position of the developer. In Nebraska, communities such as Ralston, Omaha, LaVista and Papillion have successfully developed residential areas adjacent to pipelines.

■ Facts and Analysis

In addition, the success of the new housing areas depends upon the City's ability to provide recreation opportunities for new residents in this part of the City. The layout and design of these residential projects must address the need to link new areas to the established community, through street patterns, as well as recreational trails.

■ North Growth Center

The North Growth Center has experienced recreation development in recent years, with the creation of Jaycees Park. The primary sites for future residential development are located north of Jaycees Park, extending to areas along Oldfield Road west of 141st Street.

Incremental water system extensions will promote development in the North Growth Center. A major sewer extension from the City's main interceptor near 143rd Street should ideally be constructed along Oldfield Road west to 134th Street at a depth sufficient to benefit vacant sites west of the Bethesda Care Center, and possibly the proposed airport.

Stormwater drainage is currently provided by roadside ditches and swales across farmland running north to Salt Creek. Developments to the far north near Salt Creek will be subject to floodplain regulations. Any such development must be situated and elevated to be above flood hazard elevations.

Street extensions are a major infrastructure need for this area, but will be dedicated and built by private developers in the course of subdivision and construction.

Relocation of the Lancaster County Road District One Engineering highway maintenance yard would be desirable, but may be prohibitively expensive. The City of Waverly and the County should stay alert to unusual funding opportunities, perhaps affiliated with airport site acquisition and construction, which could provide a better location of the yard.

■ Vicinity of the Proposed Airport

The City of Waverly is anticipating construction of an airport on the west edge of the city. The construction of the airport would provide a valuable corporate service facility to area industries and employers.

■ Facts and Analysis

The development schedule of the Waverly Airport is undetermined, but no construction is likely before 1998.

The airport's land use effects are unclear, because of its physical constraints. Most probable influences will occur near I-80 and other industrial areas south of US 6. The limited parcels of vacant land on the perimeter of the airport should be used for small-scale, airport-related light industrial and storage uses. A new I-80.134th Street interchange would provide convenient service to the airport site. In addition, an airport should be factored in to planning for Lincoln's East Beltway.

Major infrastructure improvements are necessary to promote the development of an airport. Sewer and water service extensions, while desirable, may not be necessary if the City can direct businesses to areas with better utility service south of the railroad/East Cornhusker Highway (US 6) corridor. As development warrants, further utility extensions will be made along East Cornhusker Highway and to the west to serve new industry. Waverly can create an ideal industrial park environment, combining access to highways, an airport and utilities, all within the planned community of a traditional small town.

Few street extensions are needed within the area of the proposed airport. Neither the construction of the airport nor the industrial parks south of US 6 would require new major streets, and the viaduct over the railroad exists. The City should coordinate platting to ensure that adequate street connections are provided along the corridor.

Policies and Actions

TRANSPORTATION

- Street Rehabilitation Program
- Street Network Improvement Program
- Collector Street Network
- Sidewalk Network
- Sidewalk Repair
- Improvements at Proposed I-80 Interchange
- New City Streets

This section presents the policies and actions that will enable Waverly to accomplish its overall goals of providing quality public services and infrastructure for existing and future residents of the city.

■ Transportation

In order to provide a better street and sidewalk network for residents and visitors within Waverly, the city should complete these policies and actions:

1. Street Rehabilitation Program

Waverly should expand its annual street rehabilitation program, providing additional funds for ongoing rehabilitation of improved street segments. The street condition map in the plan indicates street segments that need attention. These repairs should be made on a systematic basis, using regular appropriations from general revenues or user fees. Waverly should continue to identify any alternate funding sources that could provide for street rehabilitation.

2. Street Network Improvement Program

Waverly should institute a program to improve the operation and efficiency of the overall street network. Other local street and intersection improvements are needed to maintain Waverly's effective traffic circulation system. Improved safety and efficiency within the local system will result from the completion of these projects. Locations for improvement projects are presented in Chapter Five, " A City of Strong Neighborhoods." Elements of this program include:

• *Targeted Improvement Projects.* Street improvement projects should proceed in certain targeted locations that either involve overall neighborhood revitalization strategies or further the development objectives of the Waverly Plan.

• *Consolidation of Driveways along East Cornhusker Highway (US 6).* One of the most effective, and yet most difficult measures to improve traffic operation along the highway involves changes to the road to reduce the amount of traffic "friction" in the curb lane of the present highway. Reducing the number of driveways onto the highway would improve the operation of the road. The City of Waverly should cooperate with the Nebraska Department of Roads, businesses

■ Policies and Actions

and local property owners to consolidate curb cuts wherever possible to the minimum number necessary to provide safe access.

• *Intersection Improvement at 141st Street and East Cornhusker Highway (US 6).* The City of Waverly and the State of Nebraska have already completed major improvements to the intersection of 141st Street and East Cornhusker Highway (US 6). Remaining work is needed to improve the conditions of the railroad crossing of 141st Street which feeds this important intersection. The needed changes would improve sight lines and safety for residents in vehicles and on foot, as well as for commercial trucks that regularly use this street. This intersection should more sophisticated signalization and improved paving.

• *Future Improvements to Waverly Road.* The City and County should cooperate to make future surfacing improvements to Waverly Road between section-line North 134th Street and 148th Street (Prairie Home Road). This circulator road provides an important alternative access route to the viaduct and East Cornhusker Highway (US 6) for truck traffic from National Crane and other industrial operations north of the railroad. With the potential development of an airport north and west of Waverly, further improvement of this road can assist in directing future traffic around residential areas to major arterials on the west edge of the City.

• *Intersection Improvement of 148th Street (Prairie Home Road) and East Cornhusker Highway (US 6).* The City of Waverly should begin design and engineering for the reconstruction of the 148th Street intersection with the Burlington Northern Railroad and US 6. This project would include paving and a railroad crossing upgrade to improve the safety and effectiveness of this important crossroads.

The City should also work to improve internal streets in concert with developers as growth occurs on residential infill sites. This process may include the creation of street improvement districts to finance local street improvements for development areas within the current city limits.

3. Collector Street Network

Although Waverly has been able to avoid major traffic and intersection congestion problems, additional growth of the

■ Policies and Actions

community, increased highway traffic volumes and additional industrial development may erode this favorable condition. Waverly should continue to provide extensions of collector "through" streets to move traffic, especially between South Waverly and growth centers to the south and east. This condition is also important for North Waverly, where an incomplete street network across the railroad causes nearly all residents to travel 141st Street, whether destined for Downtown, commercial services along the highway, or employment centers west or east of the city.

To maintain good local circulation, Waverly should also complete cross-neighborhood collector streets north of the railroad, providing traffic with the option of moving to the viaduct to cross the track and alleviating potential congestion. The extension of Jamestown Street west to the North 134th Street viaduct is a particularly important priority. With the completion of new development, local streets should be designed so that movement toward arterial streets is distributed along several routes in each neighborhood.

Waverly should continue to coordinate platting and dedication of collector streets parallel to and along Interstate 80, East Cornhusker Highway (US 6), and the railroad corridor. This will ensure that adequate street connections exist to provide access for all developments and frontage parcels.

4. Sidewalk Network

The city should require construction of sidewalks as part of all residential developments and municipal street projects to provide safe pedestrian access to major activity centers and along arterials in the city. Priorities for attention include:

• *Major pedestrian routes to schools or parks.* Gaps in service in the existing network should be closed. In addition, missing sidewalk links along highway corridors in the city limits should be completed. Missing sidewalk segments affect access to residential areas under construction north of the highway/railroad corridor, to residential areas under construction east of 18th Street, and to pool and ballfield areas within Wayne Park. A sidewalk should also be constructed along Oldfield Road between 141st Street and 137th Street, connecting North Waverly residents to Jaycees Park.

■ Policies and Actions

• *Sidewalk access to commercial areas.* This need is most evident along East Cornhusker Highway (US 6) west of 141st Street, where recent commercial retail development did not extend sidewalks. Missing sidewalk segments affect access to the shopping center and most other active businesses in the city's major highway commercial corridor. By contrast, an excellent network of sidewalks exists along East Cornhusker Highway (US 6) between 141st Street and 144th Street. Near Downtown Waverly, sidewalk links are inadequate near the railroad crossing at 141st Street. Improvements should be made to improve the appearance, safety and pedestrian amenities at this crossing.

• *Sidewalks along major arterials.* Continuous sidewalks should be developed along 141st Street north of the Lancashire Street, along Oldfield Road between 141st Street and 134th Street, along Bluff Road (Heywood Street) from the high school east of 148th Street, in conjunction with new development, and along 148th Street from Amberly Road to East Cornhusker Highway (US 6).

• *Sidewalks along new streets.* Streets in all newly developed areas and residential subdivisions should include sidewalks. Sidewalks are needed whenever there are people. The quality of life in a small town should ensure that people can walk safely in their neighborhoods without conflict with automobiles.

5. Sidewalk Conditions

Waverly should use the Sidewalk Condition Map to develop a systematic program to require repair of deteriorated or unsafe sidewalks. Sidewalk conditions in individual areas are discussed in Chapter Five, "A City of Strong Neighborhoods."

6. Improvements along Proposed I-80 Interchange

Waverly should work with the Nebraska Department of Roads to ensure an ideal alignment for an extension of the North 134th Street viaduct to the south toward a possible I-80 interchange. This location would use the existing viaduct to provide access to the community, area industries and the proposed airport. At-grade access for traffic headed toward US 6 would use Amberly Road to reach the intersection about one-half mile west of the viaduct.

■ Policies and Actions

The City of Waverly should identify the preferred interchange location and access road alignment in cooperation with the Nebraska Department of Roads, and secure approvals and a schedule on the state's Capital Improvement Program.

Prior to the long-term development of a interchange, several critical transportation improvements are needed in the vicinity, most importantly completion of paving on North 134th Street.

7. New City Streets.

Several important modifications to existing major streets will help Waverly accommodate its projected residential growth. These improvements will improve traffic flow and access among neighborhoods, Downtown Waverly, and highway industrial and commercial commercial areas, and recreation sites. The specific projects include:

• *New Residential Collector Road to Parallel Interstate 80.* The presence of Amberly Road creates an important link across the south edge of the City between 148th Street (Prairie Home Road) and East Cornhusker Highway (US 6). While this road moves local and rural traffic around the community, it also creates a "hard edge" on the south boundary of Waverly. Future residential development south of Amberly Road will require construction of a more restricted network of local residential streets, including an east-west neighborhood collector street. This new street should be linked to the existing community by extensions of 143rd Street and 145th Street. These improvements will open nearly 100 acres of farmland to residential, recreation and open space uses.

• *Southward Extension of 143rd Street.* To accommodate residential development in the South Growth Center, and provide a balanced network of collector streets to handle traffic, 143rd Street should be extended south of Amberly Road toward frontage land along Interstate 80. This road will serve as a "community street," extending from the heart of town to the south and tying new areas to established neighborhoods and Downtown. While 143rd Street need not be laid out on a straight north and south axis, its intersections should be aligned to create a safe and clear circulation pattern.

■ Policies and Actions

• *Eastward Extension of Heywood Street East of 148th Street.* The City of Waverly should plan improvements to extend the City's residential areas east of 148th Street. An extension of Heywood Street (Bluff Road) would connect new housing developments in the East Growth Center to established neighborhoods. These improvements should be designed as urban streets, with curb and gutter, storm sewers, and sidewalks consistent with city standards. The improvement of this street opens nearly 100 acres of land for future residential development in the East Growth Center.

• *Eastward Extension of Jamestown, Folkestone and Castlewood Streets.* Along with Heywood Street, these three residential streets should be extended east of 148th Street. The extensions will link new housing developments in the East Growth Center with established neighborhoods of the City. Improvements such as curb and gutter, storm sewers, and sidewalks should accompany the street extensions.

• *Westward Extension of Jamestown and Kenilworth Streets West to 134th Street.* These extensions connect important neighborhood collector streets to 134th Street and the viaduct over the railroad. They provide alternative access routes to the 141st Street crossing of the Burlington Northern Railroad.

• *Extension of 143rd Street north of Downtown Waverly.* The City of Waverly should extend the City's residential areas north of Downtown Waverly along an extension of 143rd Street. This extension would run along the east end of Jaycee Park, and turn west toward 141st Street near Oldfield Road. This street will open nearly 30 acres of farmland to housing development in a North Growth Center. These streets should be designed as urban in character, with curb and gutter, storm sewers, and sidewalks.

PUBLIC FACILITIES

■ Accessibility Improvements at Municipal Parks

■ Wayne Park Landscape Plan

■ Airport Development

■ City Maintenance Facility

■ Future Community Center

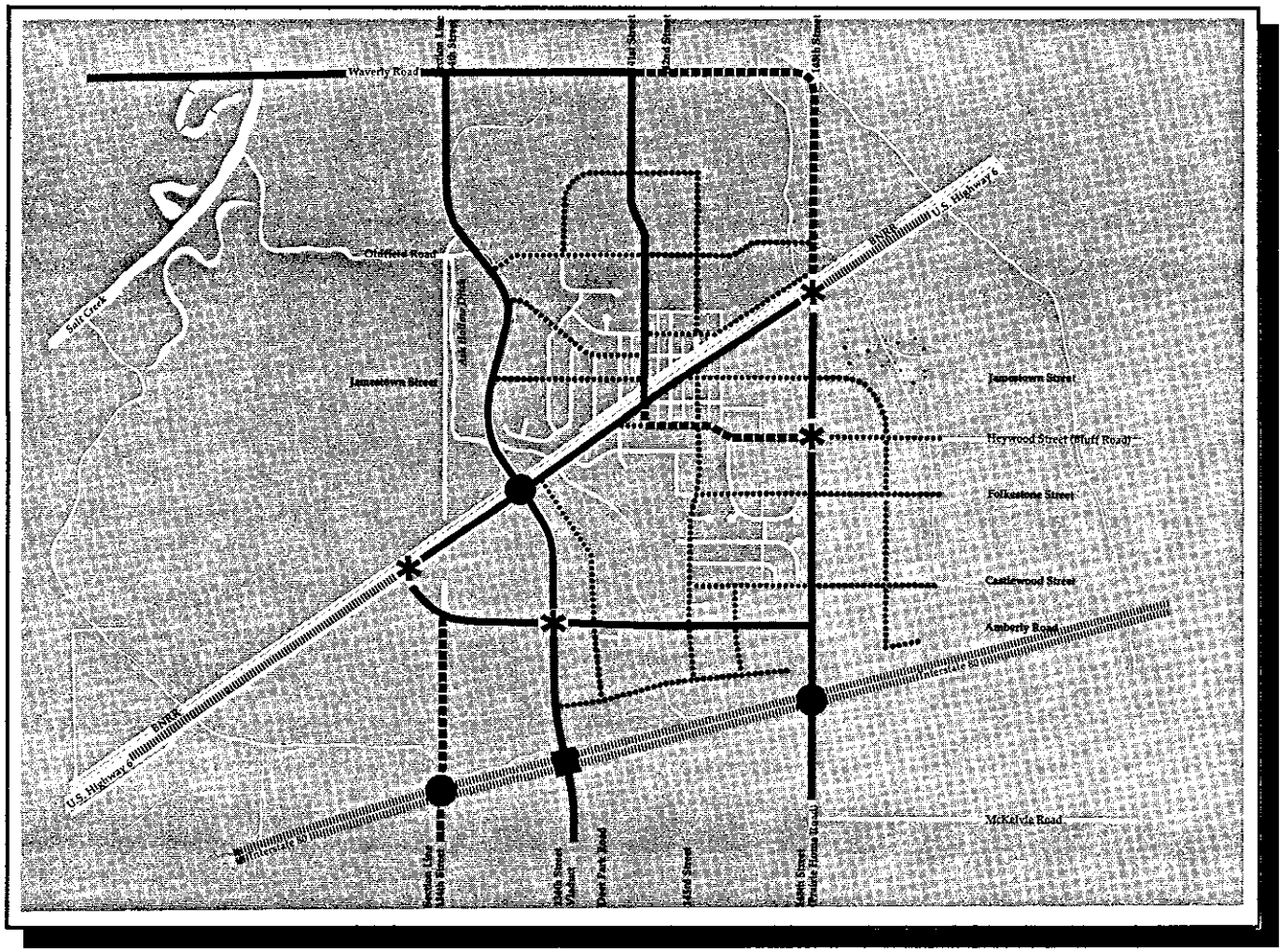
■ Public Facilities

In order to provide a strong facility base for quality public services in a growing community, Waverly should complete these policies and actions:

1. Accessibility Improvements at Municipal Park Facilities.

The recent federal Americans with Disabilities Act mandates the removal of physical barriers to access for disabled

Proposed Street Classification and Transportation Plan



Street Classification and Transportation Plan

- Expressway
- Major Arterials
- Other Arterials
- Collector Streets
- Grade Separated Crossings
- Future Streets
- Intersection Improvements
- Possible Future I-80 Interchange

0 800 2400

■ Policies and Actions

persons. The City of Waverly should adapt the municipal pool and other recreation facilities and structures it owns for accessibility to disabled people.

2. Wayne Park Landscape Plan and Park Improvements

The City of Waverly should develop a new master design plan to coordinate planting and parking areas, paths, trail and future sites for public investment at Wayne Park. The City should use the master plan to guide its continuing maintenance and improvement program for the park.

3. Airport Development

The City of Waverly should accelerate the work of developing a new general aviation facility northwest of the City. The City should use the Waverly Plan to integrate airport planning into all other street, zoning, land use and public improvement decisions.

4. City Maintenance Facility

With the development of the airport, it will be possible and desirable to relocate city maintenance functions to a new site on an outlot of the airport property. This will have functional, cost, storage and geographic benefits for Waverly. Federal funding involved in development of the airport facility may reduce the City's cost of relocation, as well as provide a joint use facility serving both airport and general municipal needs.

5. Future Community Center

The current efforts underway in the community demonstrate widespread support for a center in Waverly. However, a viable funding source has not been identified that would the operational flexibility necessary to maximize community use and revenue production. The Waverly Community Foundation is working to raise needed funding. The Community Center is proposed to be located in Jaycee Park north of downtown, an area that could also accommodate future residential growth.

6. Future Library

The City of Waverly should explore options that would

■ Policies and Actions

result in a dedicated building space as a permanent home for library materials. This may occur as an independent public building with a local materials collection, a shared space within another community facility, or as a satellite branch location of a Lincoln metropolitan collection, if such arrangements can be negotiated. In any case, establishing a local library site is important to the quality of life of the City. The City should influence the location of such a proposed building, ideally located in an area that adds to the level of activity and vitality of civic places in Downtown Waverly.

INFRASTRUCTURE

■ Continued Rehabilitation of Aging Infrastructure

■ Sanitary Sewer System

■ Storm Drainage and Flood-Prone Areas

■ Water System Improvements

■ Solid Waste Disposal and Recycling

■ Infrastructure

In order to assure quality utilities and public services in the future, Waverly should initiate the following policies and actions:

1. Continued Rehabilitation of Aging Infrastructure

The City of Waverly should continue work already begun to assure the longevity of its existing infrastructure. The City should increase street rehabilitation in the areas outlined in the Waverly Plan, replacing or repairing pavement annually as funding is available. The City should not delay in efforts to keep current with these needs. Obsolete infrastructure will only become a greater problem as time passes.

2. Sanitary Sewer System

• *Northeast Interceptor Sanitary Sewer.* The City should consider the design of the proposed Northeast Waverly Sanitary Sewer Interceptor to flow in a south to north direction east of the City. Development in the East Growth Center can initially occur with temporary sanitary lift stations where needed. However, it should eventually use a gravity flow interceptor to collect sewage from the East Growth area, the East Cornhusker Highway (US 6)/148th Street vicinity, National Crane, and direct this flow north to the City's existing treatment system. This project will allow significant residential, commercial and industrial benefits to the City.

• *Northwest Sanitary Sewer Extension.* The City must continue to coordinate sanitary sewer connections and lift stations which are constructed by private developers to assure adequate capacity for future adjacent development. In the

■ Policies and Actions

development areas north of Oldfield Road, the City should ensure that a sanitary sewer line is built at sufficient capacity and elevation design to capture flows from sites west of 137th Street, as well as areas west of the Bethesda Care Center.

3. Storm Drainage and Flood-Prone Areas

Proposed actions affecting Waverly's stormwater drainage system are focused on the relief of localized flooding problems. Both natural swales and man-made structures can convey floodwater away from developed areas. Stormwater management measures must be planned in advance to handle urban runoff from development. These measures should be designed for cost savings wherever possible and should conform to the growth and future land use policies of the Waverly Plan. Cost economies should not compromise the safe and efficient conveyance of stormwater. Waverly should design all measures to the maximum standard needed to ensure public safety. An effective stormwater management program will include the following specific measures:

• *City-wide Storm Sewer Improvements.* The city should implement an ongoing capital program to construct missing links in the storm sewer network and other projects aimed at upgrading the design capacity of the storm sewer system. The City should complete important street extension projects, such as Jamestown Street, supplying missing conveyance improvements such as curbs and gutters.

• *Open Channel Drainageways.* The city should continue to require that all new major drainageways utilize open channels instead of sewer pipes for the main drainage course. Street surface drainage along curbs and gutters will still be used to collect runoff from developed areas and convey it to the major channel. The drainageway swales are preferred because they provide efficient flows, filter pollutants from surface runoff (consistent with forthcoming federal environmental mandates on runoff water quality), and provide multi-use open space corridors. When pipes are used for major drainageways, they must be vastly oversized to account for all possible future upstream developments.

• *Drainage in Growth Centers.* The City of Waverly should initiate open channel drainage improvement projects in areas experiencing new development, including the East, South,

■ Policies and Actions

and North Growth Centers. The easements upon which these channel function can serve as links for future connection of sanitary sewer and water mains, and recreational trails.

4. Water System Improvements

Waverly has implemented an ambitious program to improve its water system, a substantial and quality investment in the future of the community. Computer database and condition inventory activities have been underway for many years. Many projects to upgrade the system have been completed in the last five years. The City must continue to replace the few remaining obsolete lines, continue the high level of routine maintenance, and complete needed water looped mains.

• *Enhancements of the Distribution System.* The City systematically evaluates the water system to identify several localized projects to upgrade segments of water main. The City should proceed with replacement of these segments as part of a schedule of capital improvements.

• *New Transmission Mains.* As part of the maintenance of the water system, the City will construct a new water main along Woodstock Boulevard to connect Downtown Waverly to National Crane and 148th Street. Additional mains will be constructed along Energy Way and Amberly Road to improve water delivery to the industrial sites southwest of the City. When Oldfield Road is extended east to 148th Street, a water main should be constructed to complete a service loop.

• *Water Extensions to Growth Centers.* The City should actively participate and assist the extension of water service within the community's growth centers. The City should also participate in extending water service to the National Crane site. A service loop should be completed along 148th Street, to serve the potential development of the East Growth Center. In addition, the City must continue to play a coordinating role to ensure that water mains which are constructed are adequately sized to provide capacity for future adjacent development.

5. Solid Waste Disposal and Recycling

Waverly is currently utilizing a private hauler to collect

■ Policies and Actions

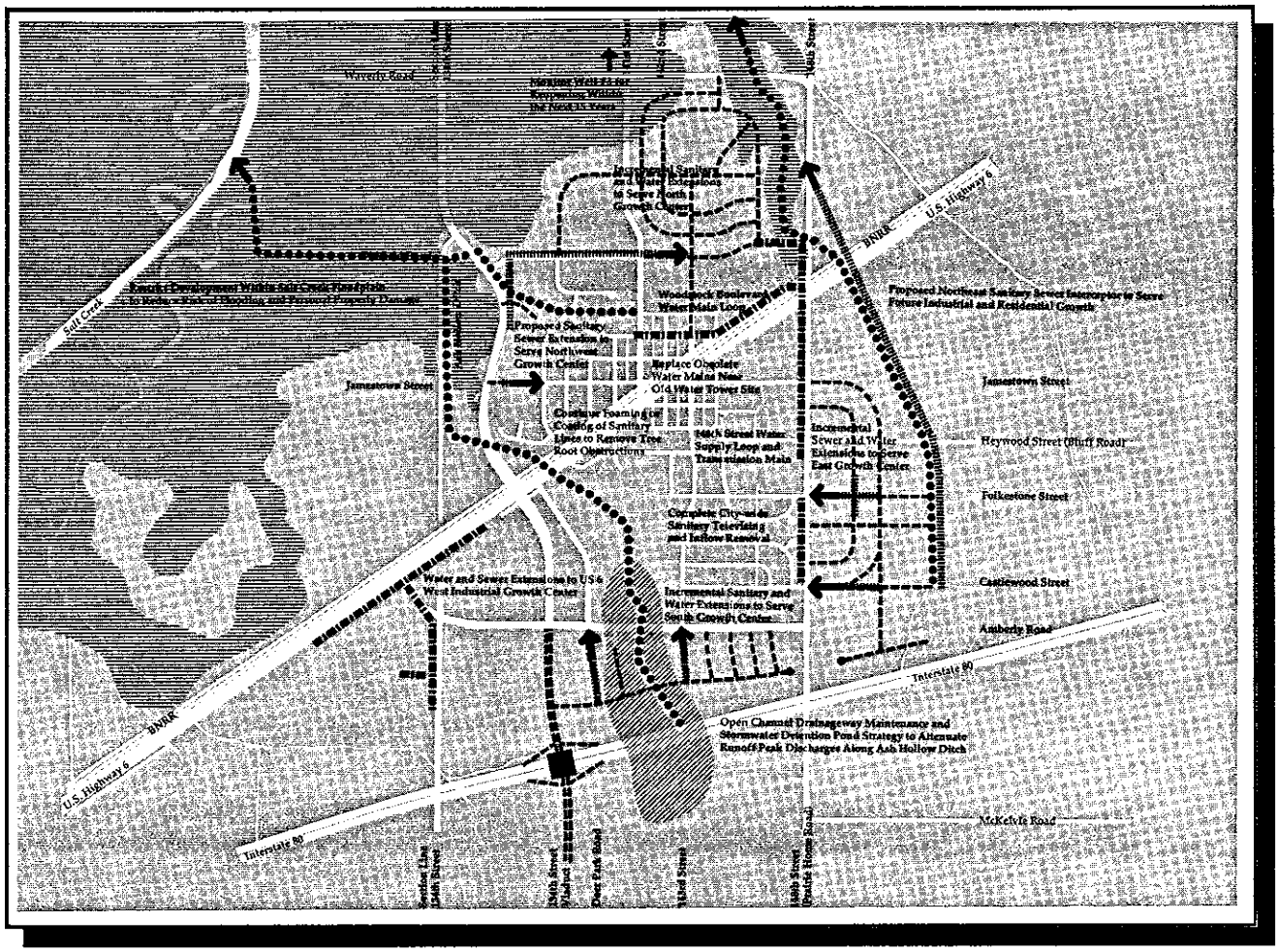
local refuse. Garbage is transported to the City of Lincoln landfill for disposal. The waste hauler performs a separate collection of yard waste, which is transported to a privately operated site for composting and eventual land application. The Waverly Jaycees have established a community drop-off center for recyclable items, collecting and sorting selected items. This arrangement is satisfying for those who participate; however, the long-term outlook for recycling may require an expanded program in the future aimed at a reduction of waste at its source. Two specific strategies are recommended: reduction of the community's waste stream through instituting a community-wide education/awareness program, and efforts to increase residents participation in recycling by staffing the drop-off center, or initiating curb-side pick up of sorted items.

• *Recycling*. Within the next five years, Waverly should implement an aggressive community-wide education/ awareness program. The City may also at that time debate the advantages and disadvantages of citizens sorting recyclables at home as part of a curbside pickup program. The most effective recycling programs involve source separation of recyclables and a collection of those commodities separate from non-recyclable refuse. The disadvantage of such a program is that it may involve an additional public or consumer expense, as well as personal effort. The existing centralized recycling center at the shopping center is a less expensive solution, but also results in lower participation. Long-term solutions to solid waste management require greater public awareness and education of the effects of consumption on the environment.

• *Landfill*. Waverly should monitor the operation and remaining service life of the City of Lincoln landfill facility currently receiving the community's garbage. If the need for a new landfill emerges, Waverly should cooperate with Lincoln and Lancaster County governments and other communities in the region in executing a consensus-driven site selection process. A successful process must:

- Avoid a crisis environment. Adequate lead time must be provided to allow for a fair comparison of alternatives.
- Proceed in public, using clear and generally accepted evaluation criteria.
- Assure neighbors that any public landfill will be developed according to high operational and environmental standards.

Infrastructure for Quality Development



Infrastructure for Quality Development

Summary Map

- Proposed Water System Mains
- Proposed Sanitary System Mains
- Open Channel Drainage System
- Salt Creek Floodplain Strategy
- Ash Hollow Watershed Strategy
- Directional Flow Patterns
- Possible New I-80 Interchange
- Future Road Alignments

0 800 2400

■ Policies and Actions

PARKS AND RECREATION

- Recreational Trail and Bikeway System
- New Park Areas
- Downtown Civic Spaces
- Tree Planting and Park Site Enhancement Program
- Park Development Program

■ Parks and Recreation

In order to develop a park system that makes maximum use of present facilities, serves all parts of Waverly effectively in the future, and provides an excellent quality of life for present and future residents, the city should implement these policies and actions:

1. Recreational Trail and Bikeway System

A recreational trail system should be developed to link major open spaces and community features in Waverly. This trail system would accommodate pedestrians, bicyclists, and other non-motorized users, and is designed to grow incrementally. The City of Waverly has completed several far-sighted efforts to provide pedestrian routes connecting important destinations within the City. These include mid-block pedestrian walks in the Melrose and Buena Vista Additions in South Waverly, as well as the Wayne Park greenbelt.

Trails are extremely popular in communities of all sizes. Many smaller towns are developing trails as a competitive, quality of life amenity attractive to business recruitment, and for the retention of families in the community. Because recreational trails are heavily used and involve only moderate costs to develop and maintain, they are one of the most cost-effective recreational investments the community can make. The City of Waverly, Lincoln-Lancaster County, the Natural Resources District, the Nebraska Department of Economic Development, and private corporate sponsors can each play a role in creating a trails network for Waverly and the Salt Creek/Platte River Valley. Local components of the trail system would include:

• *Wayne Park Recreational Trail.* This trail would connect Wayne Park and the shopping center near East Cornhusker Highway (US 6) to future residential areas south of Amberly Road. The trail would be designed to be extended to the east (along the north side of I-80) as a greenbelt buffer to the Interstate. The trail would connect east of 148th Street to the East Growth Center.

• *Waverly Perimeter Recreational Trail.* A Wayne Park Trail can be linked to a longer, regional recreational trail, providing a major amenity for future housing development in the

■ Policies and Actions

East Growth Center. This trail could begin at trailheads along 148th Street (such as the high school) and run east through new housing developments. On the outside edge of development, near 153rd Street, the trails would converge and form a perimeter greenbelt trail leading north and west to Jaycees Park. A natural alignment for this trail exists along a drainage swale located about one-third of a mile east of 148th Street.

• *Trails through Residential Areas.* The City of Waverly should require trail connections as part of all new subdivision designs. The concept of a linked pedestrian/bikeway system, connecting new neighborhoods with established parks should be an important element of new developments, especially in the South, East and North Growth Centers.

• *Mansfield Ditch Trail to Jaycee Park.* It is important that the City of Waverly complete the community's trail system by constructing a trail to connect the North Meadows and Meadowdale Additions to Jaycee Park. A pedestrian/bicycle trail should be built along Mansfield Ditch between these additions. This link will join the other trail segments in completing a community-wide trail system for Waverly.

2. New Park Areas

Although current park acreage in Waverly can accommodate a population of over 2,700 persons, the main growth direction is away from existing recreation facilities. As the city continues to grow south and east, demand may arise for new neighborhood parks. These needs can be meet by the following actions:

• *Interstate 80 Greenbelt / Potential Golf Course.* The City of Waverly should require future development along I-80 to provide a landscaped buffer to the community's south edge. With residential development expected to occur as far south as I-80, the South Growth Center should provide for future neighborhood recreation needs. This greenbelt buffer could include a private golf course and other recreational uses.

• *148th Street Park and Community Facility Site.* The City should acquire land east of 148th Street east of Rose Hill Cemetery for a new park, as residential growth occurs.
This parksite will be a significant identity feature for Waverly, reshaping the character of the east edge of town into a

■ Policies and Actions

city space. The southeast corner of 148th and Heywood Streets should also be considered for acquisition for a future community facility. A community center, or a future expanded school facility would be a strong landmark along Heywood Street, the City's most important east-west "community street". Such a facility would be ideally located near the existing school facility, reinforcing this area as an activity center for gatherings and community events.

3. Downtown Civic Spaces

The City of Waverly should join with merchants and civic organizations to focus attention on the corner of 142nd and Lancashire Streets in Downtown Waverly. This area is the crossroads of Downtown Waverly, and is flanked by major gathering places and institutions such as the bank, City Hall and the Post Office. This area should include corner nodes with special landscaped treatment, street banners, floral displays, and other improvements. The City should foster this "heart of town" as an appropriate site for future community buildings where people gather, such as a community library.

4. Tree Planting and Park Site Enhancement Program

Waverly should establish an annual tree planting and park-site improvement program. Trees should be planted in order to:

- Replace trees that are dying.
- Improve the appearance and setting of parks.
- Provide shade and climate relief.
- Provide screening of incompatible uses or facilities.

A proposed tree planting program would benefit all city parks. The site enhancement program should also include the installation of attractive, uniform park identification signage. This program should be funded and implemented annually as part of normal park budgets.

The development of a tree nursery on a site within Wayne Park would be an important addition to the Waverly's park development program. For many years the City utilized a site at the wastewater treatment plant to raise seedlings. A larger nursery on the edge of Wayne Park could serve the long-term needs of the schools and city parks. Irrigation should be extended to this site from the adjacent park facilities.

■ Policies and Actions

5. Park Development Program

Waverly should institute an ongoing park rehabilitation program through its capital budgeting process. These projects would be developed on a regular basis, utilizing a variety of funding sources. These include general revenues; parks bond funds; local contributions; and grants from private and public sources. Specific facility needs include:

• *Wayne Park.* The City of Waverly should acquire additional land to the south of Amberly Road to connect with the city's developing south edge. A detailed landscape plan should be created to identify ways to keep motorized vehicles on parking lots and drives, and visualize a landscape program to supplement the existing plantings. The municipal pool should be improved to accommodate the access needs of disabled people. Parking areas within the park should be paved, tennis courts should be rebuilt, and ballfield areas should be reconditioned. Planning should begin for the Wayne Park recreational trail.

• *Jaycee Park.* The community should continue its efforts to develop the park and improve its facilities. Improvements which should be emphasized include additional active fields and courts, landscaping, and providing water service and a drinking fountain. The City should ensure that future residential growth adjacent to the park incorporates a trail system within the subdivision to provide internal pedestrian circulation between residences and the park. The City should work with the Jaycees and adjacent businesses to strengthen the link and improve the appearance of the land that lies between the park and Downtown. Appearance improvements could be coordinated with future facility plans, perhaps for a future library building in this area.

• *Sharp Park.* The City should install additional and updated play structures in the future.

• *Playground Equipment.* The City should update and replace playground equipment in parks throughout the city.

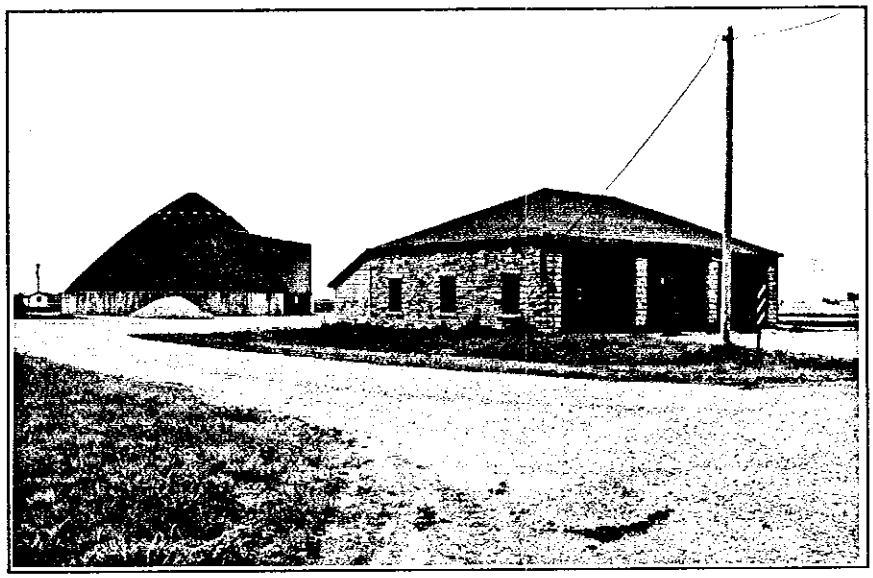
• *Drinking Fountains.* The City should provide drinking fountains in all city parks that contain active recreation areas such as ballfields and courts. The city should upgrade those existing drinking fountains that are present. All city-owned parks have drinking fountains. A drinking fountain is not

■ Policies and Actions

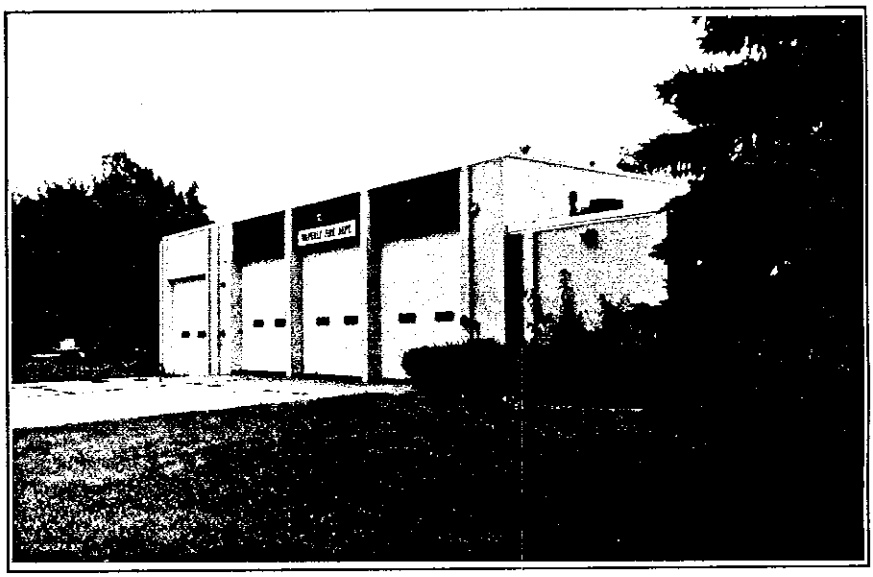
yet present in Jaycee Park, but should be installed.

• *Restrooms.* The City of Waverly does an excellent job of providing restrooms in city parks. In light of the new federal mandates contained in the Americans with Disabilities Act, additional improvements for use by handicapped and disabled persons may be necessary.

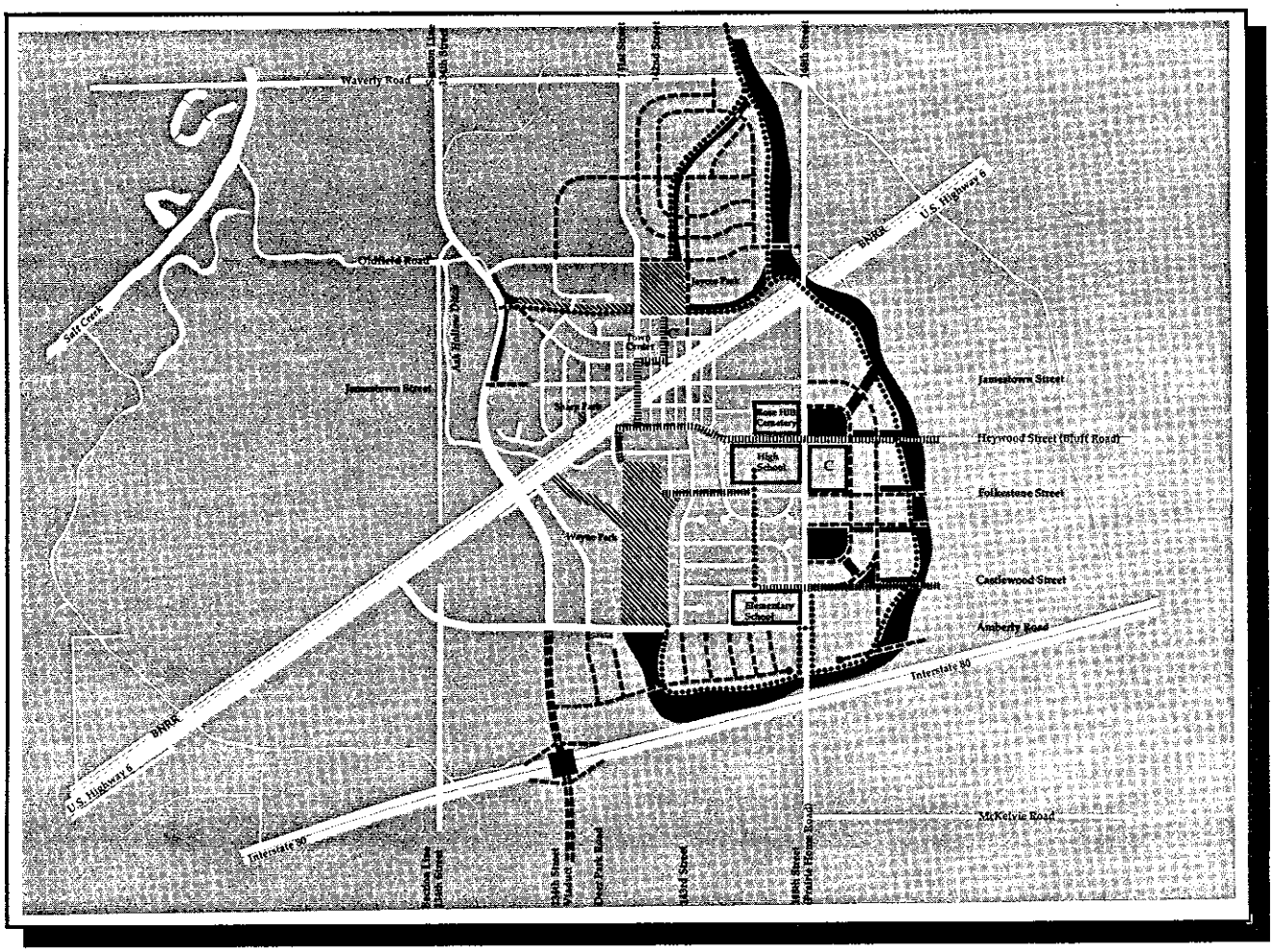
• *Road maintenance yard north of Oldfield Road.*



• *The public safety building.*



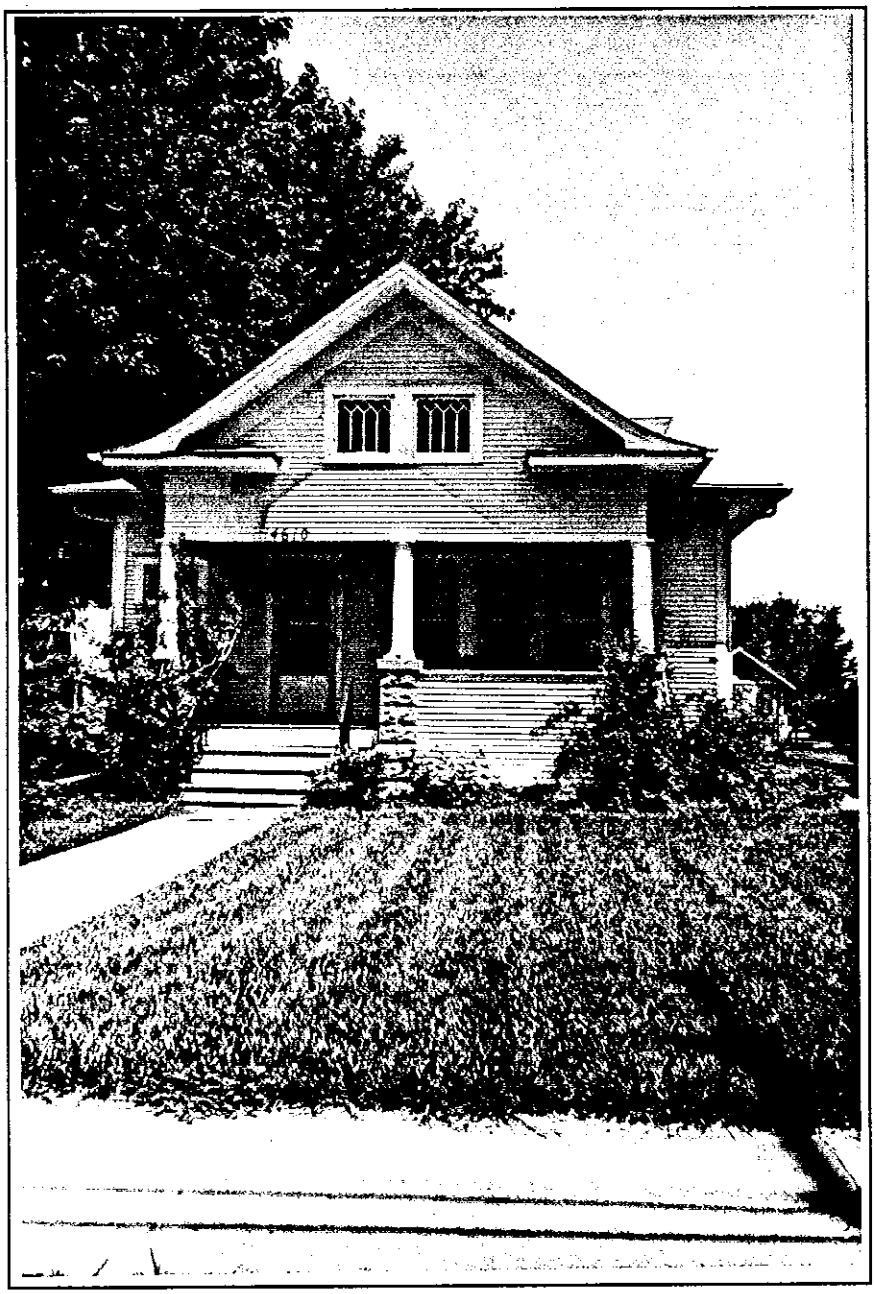
Proposed Parks and Trails System



Proposed Parks and Trails System
Summary Map

- Existing Park Sites
- Existing School Sites
- Future Park and Open Space Uses
- Proposed Recreational Trail System
- "Community Street" Links
- Potential Civic Use Sites

0 800 2400



5

A City of Strong Neighborhoods

Every neighborhood in Waverly should provide a positive living environment for its citizens.

Waverly's residential areas are among its most important resources. The city's single largest capital investment is its housing stock. Also, many residents generally measure their satisfaction with their community by the quality of their neighborhoods. Many families working in metropolitan areas are drawn to communities such as Waverly by their small town environment, safe streets, parks, and schools. While previous chapters of the Waverly Plan have looked at regional and city-wide issues, this chapter addresses neighborhood planning. As Waverly grows, neighborhood planning will play a more important role. The community must recognize the special qualities of each neighborhood, understanding that the whole city is only as healthy as each of its parts. The city must be committed to those development and policy decisions which promote quality neighborhoods that increase the value and quality of life of the community.

Waverly's neighborhoods represent at least three distinct living areas, which are identified here as Neighborhood Districts. Each area is relatively homogeneous in relation to physical characteristics such as age, density, and type of housing. The most varied housing characteristics can be found along the edges of older neighborhoods, abutting Downtown Waverly, or the US 6 commercial and industrial corridor.

Established in 1870 along a major extension of the Burlington and Missouri Railroad (predecessor to the Burlington Northern), Waverly was both started and divided by the railroad. The village center was established north of the railroad, at the base of the grain elevators which continue as important features in the economic and social life of the community. The development of the cross-country Highway 6 parallel to and south of the railroad, encouraged the present pattern of development on both sides of the major transportation corridor. Residential development north of the railroad extended to the west from Downtown. The Salt Creek floodplain was an effective north barrier to northward growth. South of US 6, residential development extended

from 141st Street to the east along Heywood and Jamestown Streets.

Following World War II, several new residential developments extended the community south along 143rd Street. Ash Hollow Ditch's floodplain formed an obstacle to westward housing development. Channelization improvements to the ditch in the 1970s abated the threat of flooding in this area.

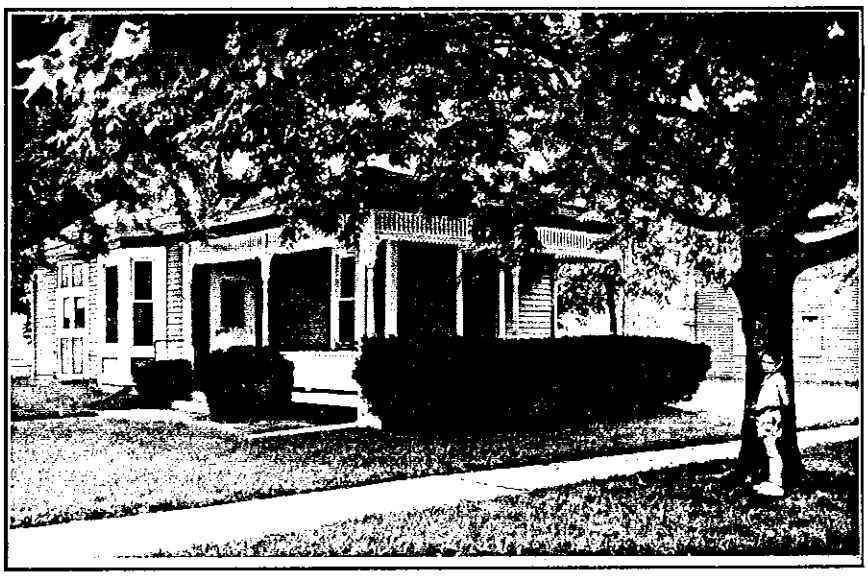
Two major capital improvement projects shaped development in North Waverly during the 1980s. In 1981, the City completed channelization improvements of Ash Hollow Ditch north of the railroad. Also in the 1980s, the State of Nebraska completed construction of the 134th Street viaduct over the railroad and US 6. Both of these projects created changes that removed many sites west of Downtown from the threat of flooding. Corresponding shifts in the uses of land and the pattern of residential investment followed. The viaduct provided a secondary crossing of the railroad/highway corridor, but it also established a barrier to the neighborhoods west of Downtown. Thus, more recent growth was diverted to the north.

The Ash Hollow Ditch floodplain and easier access from US 6 directed much of Waverly's residential development to the south of the railroad. As a result, the traditional Downtown became somewhat isolated from new development. The Buena Vista Additions of the 1960s and 1970s, the Melrose Additions of the 1970s and the Larson Acres development of the 1970s increased the City's population substantially, and set the pace for the rapid growth of South Waverly.

In recent years, new housing developments such as the Coventry Place and North Meadows Additions have again balanced the trends of construction in the community. These developments are smaller than the post-war projects of South Waverly, and are limited by features (such as the viaduct and the roads facility) that restrict large-scale expansion. Waverly has used its most readily developable sites. Future development will need cross section-line roads. In the next century must reach across 148th Street, Amberly Road, and Oldfield Road to develop new sites for housing.

Waverly's existing neighborhoods, streets and urban form are the building blocks for the city's future growth and

development. This chapter examines neighborhood conditions, including housing, streets, sidewalks, neighborhood public facilities, and private amenities. This study leads recommendations for neighborhood improvements and policies which will assure the continuing vitality of each part of the City. This in turn establishes a foundation for the successful integration of new housing areas into the fabric of the community.



■ Goals

The basic goals which neighborhood policy for Waverly should address are presented here. These goals assume that Waverly's neighborhoods have special qualities that demand individualized actions. In achieving the overall status as city of strong neighborhoods, the community should strive to:

■ Assure that each neighborhood in Waverly achieves a state of wholeness.

The success of a community depends upon the ability of its neighborhoods to achieve a state of health that provides a good living environment. A neighborhood's public facilities and services must be available to all sections of the community. In addition, each neighborhood should have access to retail services and other private amenities. Neighborhood policies and strategies must address both public and private sector service issues for the city to provide complete living environments.

■ Build an environment which allows people from all parts of the city to participate in its growth and development.

Planning and city improvement is as much about people participating in decision making as it is about physical improvements. Neighborhoods that are strong usually have a nucleus of residents who understand the importance of citizen participation in making communities work.

■ Assure that each neighborhood provides a good residential environment for its residents.

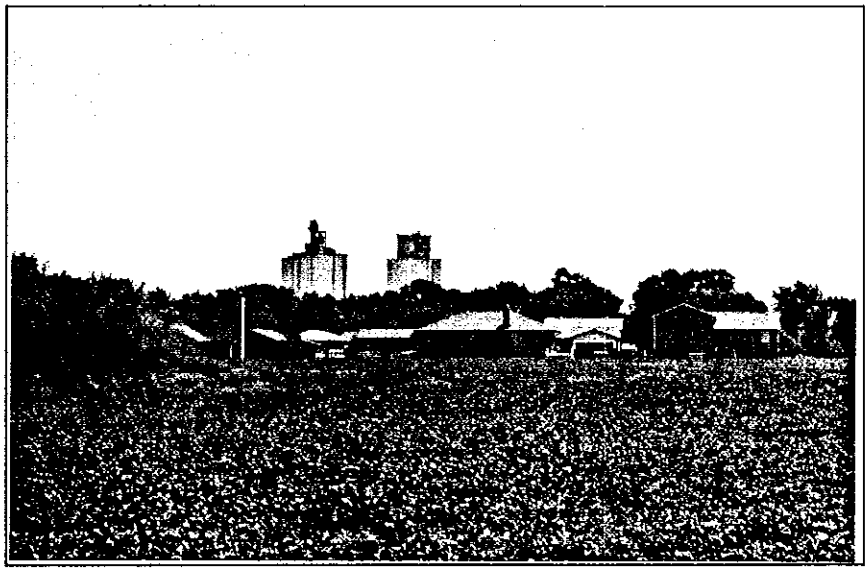
A good residential neighborhood provides high quality schools, churches, day care facilities, parks, and cultural facilities to support the city's living environment. One of the most fundamental services a city can provide is to protect housing areas from major intrusions and hazards. Deteriorated streets, traffic problems, poor property maintenance, poor pedestrian circulation, and code violations diminish the living quality that neighborhoods offer. Thus, neighborhood policies must accentuate the positive aspects of a neighborhood, and seek to reduce negative or deteriorating influences.

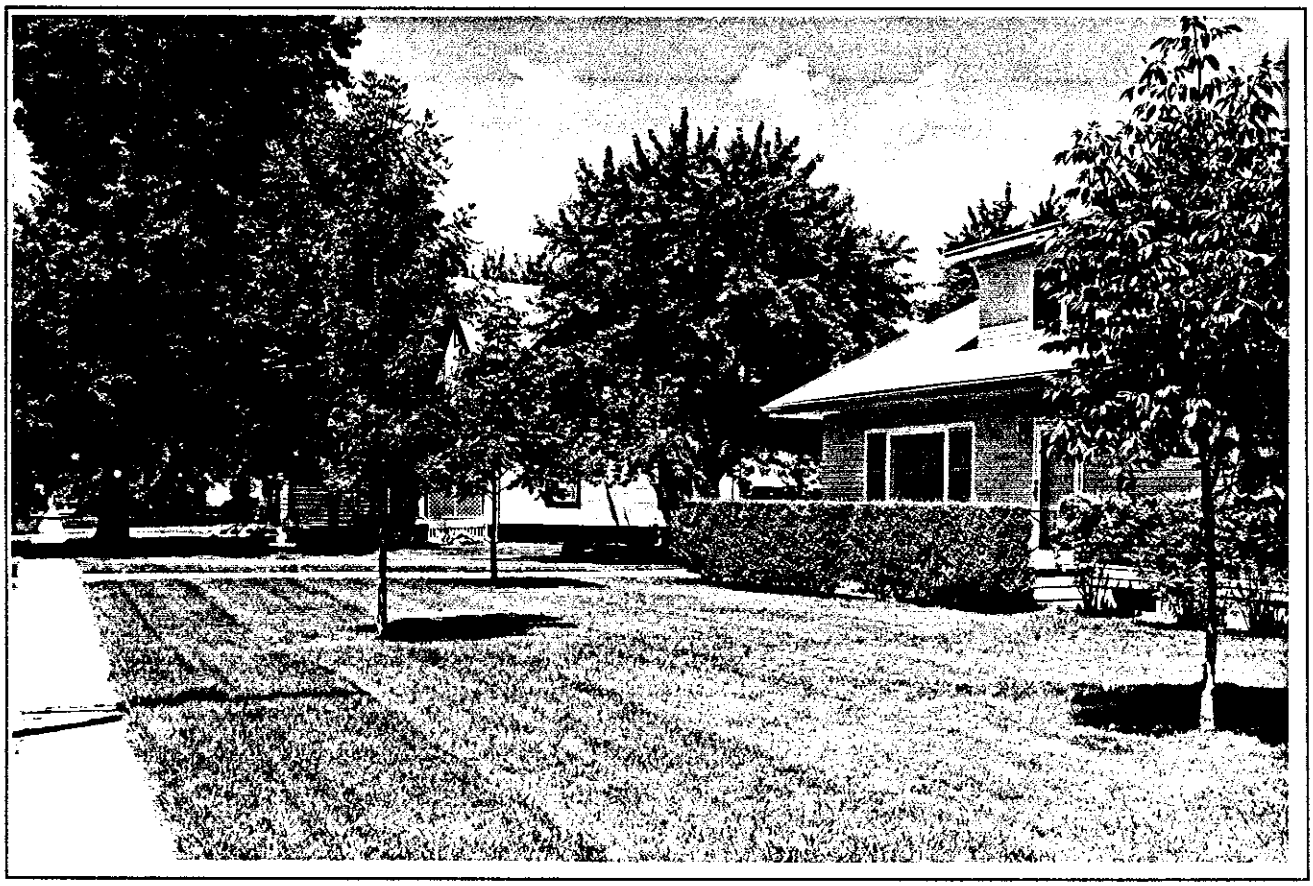
■ Goals

■ Assure that residential growth and development reinforces the strengths and character of the existing neighborhoods.

Waverly is a city that is expecting and promoting additional residential growth and development. Quality growth must extend in harmony with the existing city, uniting new areas with established neighborhoods. The streets, schools, parks, community services and facilities in such areas should follow the standards of the City of Waverly. The visual design of such areas should reflect the best traditions of the community, and contribute to the Waverly's sense of place and community character.

• *View toward new houses in North Waverly.*





Facts and Analysis

This section examines the condition of individual parts of Waverly and and provides the basis for the development of neighborhood conservation and improvement policies. This analysis uses the tool of neighborhood planning districts to understand the city and its dynamics in a more detailed way.

Neighborhood Planning Districts: A Rationale

Each of Waverly's housing additions has its own history. Over time, these areas evolved into neighborhoods, each with a unique identity and special needs, problems and solutions. For this reason, the Waverly Plan establishes three neighborhood planning districts that organize this chapter. These districts help explain the city's housing market and the conditions of neighborhoods. They also aid in the development of strategies and planning principles which are tailored to the needs of each area.

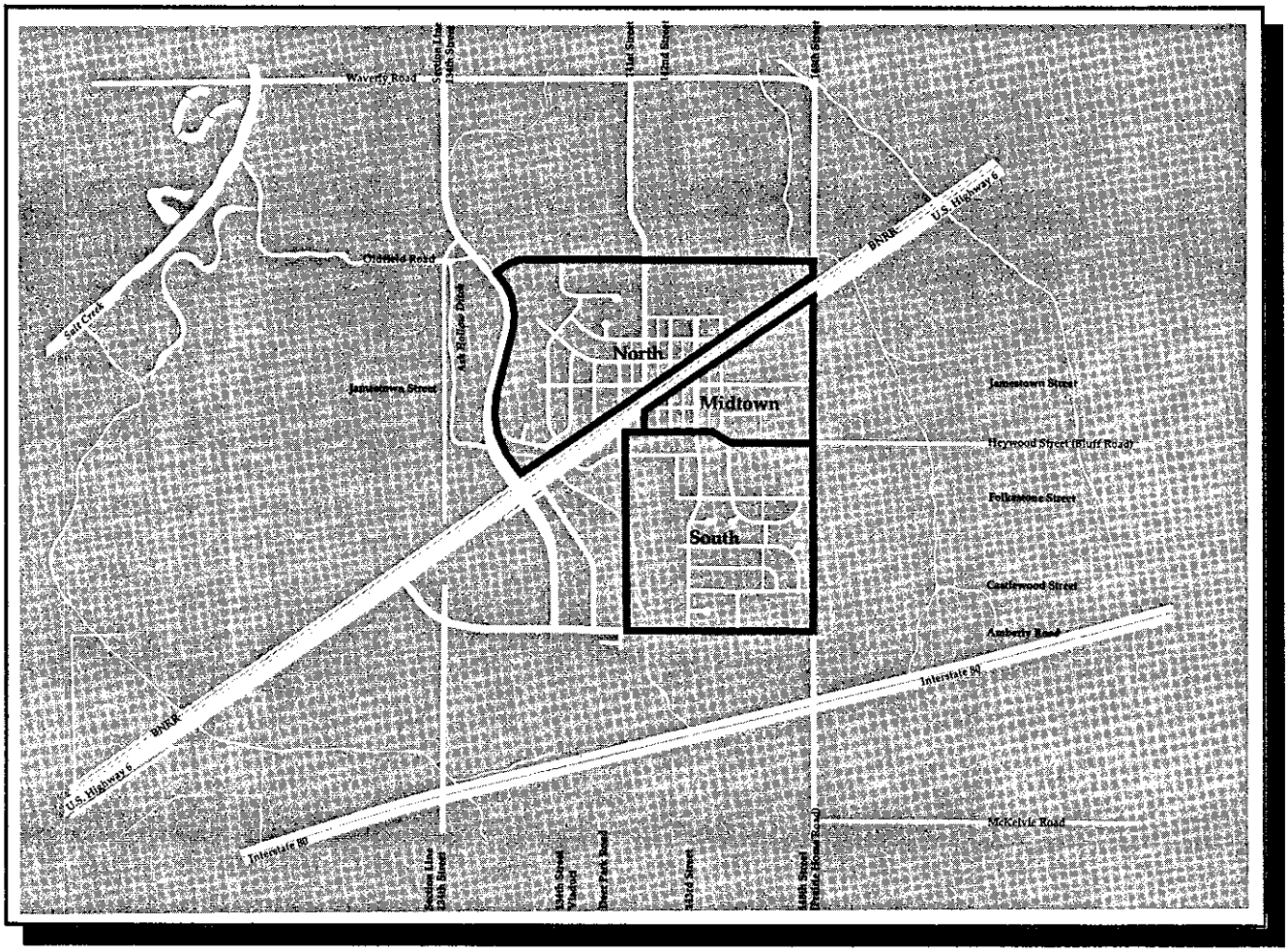
A good city is a network of healthy parts. Therefore, neighborhood planning districts must not be viewed as self-contained or independent. Neighborhood boundaries are extremely fluid as people travel and conduct daily business throughout the community. Still, neighborhood analysis can assist the community and its residents in identifying issues and opportunities, and creating responses and solutions.

■ The Definition of Districts

Neighborhood districts are often defined by features which create edges to housing areas, such as the highway / Burlington Northern Railroad corridor which isolates the north part of town. In other areas, major community features such as Wayne Park, or Heywood Street, and Rose Hill Cemetery and Waverly High School form neighborhood boundaries. Neighborhood boundaries are permeable, and can be unifiers as well as edges.

In addition, more subtle factors also help to define planning districts. These include such characteristics as age of housing, housing types and densities, neighborhood concerns, and accessibility of services. In all cases, boundaries were established to help organize and propose public policy. It is important that the districts be understood as community organizers and not community dividers.

Neighborhood Planning Districts



■ Facts and Analysis

The three Waverly planning districts, their approximate boundaries, and general characteristics are as follows:

■ **North Waverly:** This is one of the city's most diverse and geographically isolated areas. The neighborhood, located west of Downtown, contains a mix of modest pre-war housing, post-war residences and some recent housing built in the 1990s. More than 37% of the districts housing is new, built after 1980. Boundaries are the North 134th Street viaduct on the west, the Salt Creek floodway on the north, 143rd Street on the east, and the major transportation services corridor along the railroad and highway on the south.

■ **Midtown Waverly:** This is one of the city's smallest and oldest residential areas, containing much of the original plat of the city and many of its original housing areas. More than one-half of the housing stock in this area was built before World War I. Housing rehabilitation needs are most evident in the south and west portions of the neighborhood. Some in-fill housing development and re-development has occurred on lots throughout the area. The east part of the district contains Larson Acres, a relatively recent subdivision abutting Rose Hill Cemetery. Boundaries are the East Cornhusker Highway corridor on the north and west, 148th Street (Prairie Home Road), and Heywood Street on the south.

■ **South Waverly:** This district is almost entirely comprised of post-war and contemporary housing. A substantial amount of vacant land borders the area on the east and south, within the growth directions of the city. The south and east boundaries of the district are agricultural lands which may be converted to residential development. The neighborhood is flanked by Wayne Park on the west and Rose Hill Cemetery on the north. The area contains the Waverly High School, and its associated recreational facilities, as well as Hamlow Elementary School, the City's newest public school. Boundaries are Wayne Park on the west, Heywood Street on the north, and 148th Street on the east.

Housing Characteristics of Waverly Neighborhoods

This discussion will examine major characteristics of Waverly's housing stock, focusing on two critical issues. Chapter One, "A Share of Regional Growth" discussed regional

development issues related to housing, including comparative housing values and sales and construction activity in Waverly. These topics were discussed in order to understand trends in the market and comparisons of various nearby communities.

This section of the Waverly Plan considers the overall condition of housing in the community. Housing condition is related to the age of housing in each neighborhood and the level of rehabilitation and repair that has been evident. Newer areas of the City generally have fewer rehabilitation needs, although in Waverly, each neighborhood district includes some older housing.

Housing Condition in Waverly Neighborhoods

Table 6-1 summarizes the results of a city-wide housing condition survey, conducted as part of this plan during late 1992. The survey includes 579 single family units, and 39 multi-family units. The Bethesda Care Center, a nursing home in North Waverly is in excellent condition, but not included in these figures.

The survey indicates that Waverly has a very good overall housing supply. About 10.9% of the city's housing stock exhibits a need for substantial rehabilitation. The largest part of Waverly's housing stock requires no attention, or minor maintenance items. Computation of overall rehabilitation needs assumes that houses in "poor" condition will eventually drop out of the housing supply through demolition; houses in "fair" condition require substantial rehabilitation, estimated at $10,000 to $15,000 per unit; houses in "good" condition require minor repair, estimated on the average to incur a cost of $2,000 per unit; and units in "excellent to good condition" require no further investment beyond routine maintenance. Based on this computation, the capital value of all rehabilitation needs of the community ranges from $804,000 to $1.1 million.

The largest part of Waverly's housing stock was built following World War II. Of the 14.7% of housing stock that is more than 50 years old, 54.1% is in fair or poor condition, requiring substantial rehabilitation. These units are located primarily in two older neighborhoods with a concentration of pre-war housing. These two neighborhoods comprise

87.1% of the pre-war housing stock. Midtown Waverly alone contains 46 such units, or 54.1% of all pre-war housing in need of substantial rehabilitation. North Waverly contains 28 such units, or nearly 32.9% of such units in the city.

Waverly has added approximately 494 new single family units since World War II, representing more than 85.3% of its current housing stock. Less than 1% of the city's post-war housing stock requires substantial rehabilitation.

Other types of housing display various trends. Nearly all duplex and four-unit buildings are in good to excellent condition, as are nearly all larger, apartment structures. The few apartment units that exist are in North and Midtown areas.

Waverly does not have any mobile home parks within the community or its jurisdiction. Mobile home park design standards can become a major housing concern if demand for such housing increases within the community. Failure to address these issues may result in substandard site development, and resulting deterioration of neighborhood quality and housing standards .

■ Summary

A city-wide and regional consideration of Waverly's housing characteristics indicates that:

• Multi-family development is most common in the North and Midtown areas, but absent in South Waverly. Multi-family housing construction will be possible and desirable as part of new developments to the East and South of the City.

• About 10.9% of Waverly's single family supply of housing is in fair or poor condition. These problems are concentrated in the city's pre-World War II housing stock, and exist mainly in portions of North and Midtown Waverly.

TABLE 5-1: Housing Conditions: City of Waverly, 1993

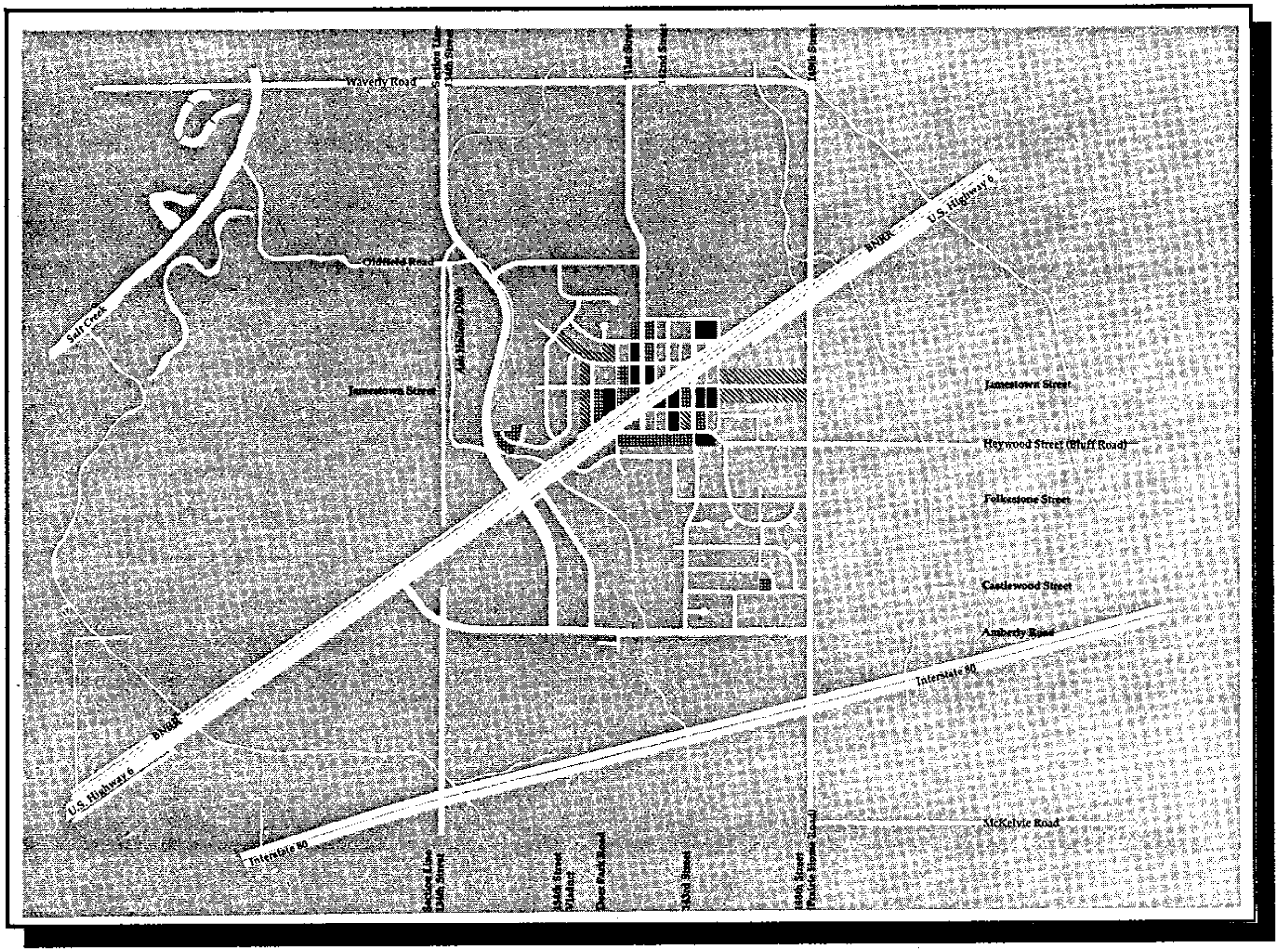
Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	7	8.2	1	0.2	0	0.0	8	1.4
Fair	39	45.9	1	2.7	5	6.2	55	9.5
Good	32	37.6	79	19.1	16	19.8	127	21.9
Excellent	7	8.2	322	78.0	60	74.0	389	67.2
Total	**85**	100.0	**413**	100.0	**81**	100.0	**579**	100.0

Other Residential

Condition Rating	2-4 Family	%	Apartment Units	%	Mobile Home Units	Mobile Home Parks	Housing Authority
Poor	0	0.0	0	0.0	1	0	0
Fair	0	0.0	0	0.0	1	0	0
Good	0	0.0	8	20.5	0	0	0
Excellent	10	100.0	31	79.5	0	0	0
Total	**10**	100.0	**39**	100.0	**2**	0	0

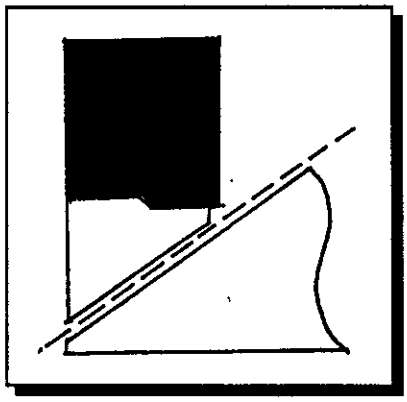
Residential Rehabilitation Needs



Residential Blockfaces with Rehabilitation Needs

- 10%- 20% of Units
- 21%- 50% of Units
- More Than 50% of Units

North Waverly



General Description

The North Waverly District is one of the city's most diverse and geographically isolated areas. Separated from the larger community by East Cornhusker Highway and the Burlington Northern Railroad, this north portion of the city is situated between the floodplain of Salt Creek and the industrial and commercial highway corridor. The neighborhood district contains about 37 percent of its single-family housing. In addition, the district contains the City's only two mobile home units. The area is defined by major facilities and landmarks, including Jaycee Park, the small Sharp Park playground, the Bethesda Care Center, the Lancaster County District Road Engineer's Facility, the City of Waverly Street Maintenance Facility, the Co-op elevator, and Downtown Waverly.

Housing Characteristics and Conditions

The area's housing is split between pre-war, post-war and contemporary housing units, with nearly 87% of units built in the post-war period. A survey of housing condition found that 86% of all units are in good or excellent condition. A number of smaller and older units are showing signs of deterioration, especially along portions of 141st Street, 143rd Street, and 139th Street abutting the railroad corridor.

The neighborhood contains the only two mobile home units, in the city, both in fair to poor condition and located along Woodstock Boulevard northeast of Downtown. This area contains several zoning and land use conflicts, and has unimproved roadways leading east to 148th Street. These conditions are contributing to a substandard environment east of Downtown.

The neighborhood contains a number of site problems, the most important being the degraded Woodstock corridor, and the presence of the truck-dependent road maintenance operations run by the County and City abutting single-family housing areas. These maintenance operations were established before adjacent residential development, but now conflict with neighborhood land uses. During the next decade, the City's industrial and airport development plans will create an opportunity to relocate the County operation to a better accessible site about one quarter mile to the west.

North Waverly

The potential for residential expansion within the North Waverly district is limited by the floodplain of Salt Creek on the far north, and by the 134th Street Viaduct/Ash Hollow Ditch corridor to the west. The most favorable directions for residential growth are to the immediate north toward the County roads site and beyond, as well as to the east of 141st Street surrounding Jaycee Park.

■ Street and Sidewalk Conditions

Streets in North Waverly are generally in good condition. Streets with evident repair needs include Lancashire between 137th and 141st Streets; 137th Street between Jamestown and Lancashire Streets; and 138th and 139th Streets, between Jamestown and Kenilworth Streets. The internal roadways within newer housing areas are in excellent condition, although lack of through street connections to the west is a serious problem to the neighborhood.

Sidewalks exist throughout the most of the district and are in generally good condition. Sidewalk links are missing in areas north and east of Downtown Waverly, along Mansfield Street and Woodstock Boulevard. Sidewalk segment needing repair include the west side of 139th Street, and the east side of 140th Street between Kenilworth and Lancashire.

■ Parks and Public Facilities

The neighborhood has good access to Downtown Waverly and its civic core via Kenilworth, Jamestown and Lancashire Streets.

Jaycees Park, with its softball diamonds and playground is located within the North neighborhood. Sharp Park is also nearby, located north of the railroad. These two parks provide good park service for the neighborhood despite its relative isolation from other recreation facilities and activity centers in the community.

■ North Waverly

■ Neighborhood Issues and Trends

Investment in residential development in North Waverly has been steady throughout the post-war period and into the 1980s. Recent development has occurred almost exclusively in the area west of 140th Street. Other new construction depends on providing street and utility extensions to the few remaining infill sites between the existing neighborhood and the 134th Street viaduct. Rehabilitation or replacement of units in poor or fair condition is a significant issue in the area east of 140th Street, with its concentration of older units.

Housing the North Waverly neighborhood is concentrated west of 141st Street and the Downtown area. The areas east of 141st Street and Downtown primarily contain industrial and office and business uses.

The North Waverly district is almost exclusively single-family residential. The district contains a residential nursing facility on 137th Street. With its accessibility to Downtown, shopping, and recreation facilities at Jaycees Park, North Waverly would be a desirable location for future multi-family units. These multi-family developments can be included in new projects, or constructed as part of a conservation/replacement program for older, substandards units.

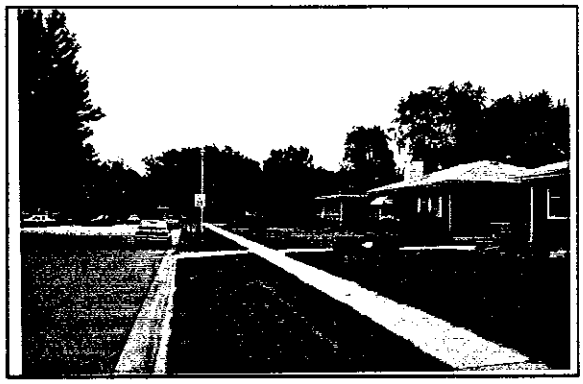


TABLE 5-2: Housing Conditions: North Waverly, 1993

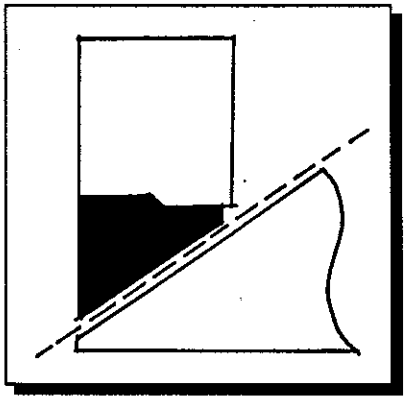
Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	2	7.1	1	0.9	0	0.0	3	1.4
Fair	17	60.7	6	5.7	5	6.3	28	13.1
Good	7	25.0	40	37.7	16	20.0	63	29.4
Excellent	2	7.1	59	55.7	59	73.7	120	56.1
Total	**28**	100.0	**106**	100.0	**80**	100.0	**214**	100.0 **37% of city total**

Other Residential

Condition Rating	2-4 Family	%	Apartment Units	%	Mobile Home Units	%
Poor	0	0.0	0	0.0	1	50.0
Fair	0	0.0	0	0.0	1	50.0
Good	0	0.0	8	24.2	0	0.0
Excellent	2	100.0	25	75.8	0	0.0
Total	**2**	100.0 **20% of city total**	**33**	100.0 **84.6% of city total**	**2**	100.0 **100% of city total**

Midtown Waverly



General Description

Midtown Waverly extends south and east of the downtown core toward US 6 on the north and Heywood Street on the south. This district accounts for 15% of all single-family housing units. Unlike the suburban character of the developments on the north and south sides of the city, Midtown Waverly is organized upon the original grid of the early town. The residents in the district are close to many community amenities; however, the highway is a significant barrier in the neighborhood. The district is defined by its adjacency to the highway, with its major commercial facilities. Industrial and manufacturing uses border the district on the east up to 148th Street (Prairie Home Road). Major community institutions in Midtown include Rose Hill Cemetery, the Lincoln Telephone Utility Building, the Fire Station, and the nearby high school/junior high complex.

Housing Characteristics and Conditions

The Midtown neighborhood is one of Waverly's oldest, with over 52% of all housing units built before World War II. The district contains the largest number of multi-family housing units in the city, comprising slightly more than 40% of all units.

Many of the older houses in the neighborhood need rehabilitation. Of the 46 housing units built before World World II, nearly one-half are in fair or poor condition. Overall, more than 24% of the district's housing stock is in fair or poor condition, indicating an important need for residential rehabilitation.

Midtown is the only neighborhood in the city to have experienced some new in-fill multi-family development activity. These projects include the adaptive reuse of a former school on the northeast corner of 141st Street and Heywood Street and a new condominium project along 144th Street north of Heywood Street. Only one house has been constructed within this district since 1980.

Street and Sidewalk Conditions

Streets in the platted grid of the neighborhood are entirely paved and in good to fair condition. This is the result of a recent paving initiative by the City of Waverly, including

new concrete pavement and sidewalks where several streets had been gravel. Only a few remaining streets are in need of repair, including: 144th Street, between Heywood and East Cornhusker Highway, East Jamestown Street, and 142nd Street between Heywood and Ivanhoe.

Sidewalks are present throughout most of the district. Missing links in the sidewalk system occur along Heywood east of 146th Street and along 144th Street between Jamestown and US 6. Several sidewalk segments along Jamestown Street in need of repair.

■ Parks and Public Facilities

Midtown Waverly has excellent access to the city's commercial services. The neighborhood is bounded on the south by the Waverly High School and Junior High, and Wayne Park. Major public facilities located in this district include the Waverly Volunteer Fire Station and Rose Hill Cemetery.

Although the neighborhood lacks a designated neighborhood park, the city's largest community park, Wayne Park, is located immediately to the south of the district. This park contains the city swimming pool, ballfields, and tennis courts. While Wayne Park is not centrally located to the residents of the Midtown neighborhood, it is fully accessible via sidewalks along Heywood, 143rd Street, 140th and 142nd Streets. The recreational facilities of the nearby High School provide public open space for the neighborhood as well.

■ Neighborhood Issues and Trends

Amenities such as the convenience to commercial businesses, accessibility to US 6, and the proximity of the area to Waverly High School contribute to the desirability of the neighborhood. These factors also apply to farmland east of 148th Street, a logical site for future housing development. Significant issues for Midtown Waverly include the maintenance and rehabilitation of older housing, streets and sidewalks, especially in the western portions of the district. In addition, the traffic congestion and turning movements associated with traffic along 141st Street will be a continued concern.

One of the special characteristics of this district is the preponderance of large older homes on large city lots along

Midtown Waverly

Jamestown Street east of 144th Street. The city should support efforts to improve and renovate these structures. In the future, pressure may exist to subdivide some of these lots to construct additional in-fill homes, or to replace some modest structures with new larger homes. When these pressures arise, the City of Waverly should conserve those features most worthy of protection, including generous and deep sidewalk setbacks, mature street trees, and deep building setbacks-- all of which make this part of Jamestown a classic traditional "boulevard." New development should be required to follow and reinforce these patterns.

Midtown is one of two city districts lacking a well-located neighborhood park. A neighborhood park should be developed in conjunction with new residential growth east of 148th Street, preferably located along 148th Street for maximum accessibility and visibility.

TABLE 5-3: Housing Conditions: Midtown Waverly, 1993

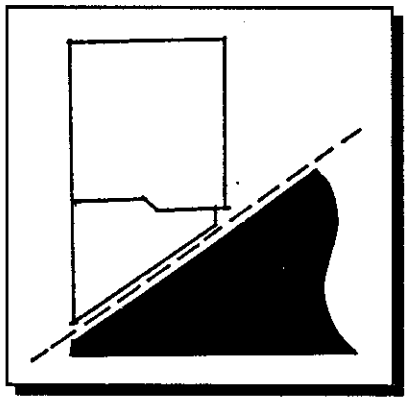
Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	4	8.7	0	0.0	0	0.0	4	4.5
Fair	17	36.9	0	0.0	0	0.0	17	19.3
Good	20	43.5	11	26.2	0	0.0	31	35.2
Excellent	5	10.9	31	73.8	1	100.0	37	42.0
Total	**46**	100.0	**42**	100.0	**1**	100.0	89	100.0 **15.4% of city total**

Other Residential

Condition Rating	2-4 Family	%	Apartment Units	%
Poor	0	0.0	0	0.0
Fair	0	0.0	0	0.0
Good	0	0.0	0	0.0
Excellent	4	100.0	6	100.0
Total	**4**	100.0 **40% of city total**	**6**	100.0 **42% of city total**

South Waverly



General Description

The South Waverly district is the strongest market-driven residential development area in the city. The district contains the high school/junior high school complex (and the community stadium), and the Hamlow Elementary School. In addition, South Waverly contains the city's largest park, Wayne Park, with its major recreation facilities. South Waverly is home to First United Methodist and Peace Lutheran Churches.

Housing Characteristics and Conditions

South Waverly boasts a relatively recent housing stock, with than 84% of its units built since World War II (or over 265 units). However, since 1980, new housing construction has been concentrated in North Waverly. The district contains nearly 48% of all single-family units in the city. More than 96% of those units are in good to excellent condition.

The district contains four 2-4 unit dwellings, but otherwise has no multi-family housing. Although the neighborhood is bordered by such amenities as schools and recreation facilities, and is close to shopping and employment centers, South Waverly has fewer multi-family units than any other district in the city.

Streets and Sidewalk Conditions

Streets in the South district are relatively recent in construction, and yet many street segments are in need of repair. Segments needing repair include 142nd, 143rd, Guilford and Danvers Streets, as well as Castlewood Street east of 145th Street.

Sidewalks exist throughout most of the district and are generally in excellent condition. A few sidewalks along 143rd and 147th Streets, and along Oak Lane are showing signs of deterioration. There are many instances of cracking and separation near sidewalk curb ramps in this district. Sidewalk connections extend from the neighborhood to the elementary and high school/junior high complex. The South neighborhood contains a good network of mid-block sidewalk connections, linking important community activity centers. This feature improves pedestrian accessibility throughout this part of the city.

■ South Waverly

■ Parks and Public Facilities

The neighborhood has good access to Waverly's highway commercial corridor along US 6 via 143rd Street and Heywood Street. In contrast, South Waverly is relatively distant from Downtown Waverly and its civic core and services.

The neighborhood contains Wayne Park, a 40-acre community park established along Ash Hollow Ditch. The park is located on the west edge of the neighborhood, one block west of 143rd Street along Folkestone Street. Wayne Park is the city's showcase recreation facility, and contains the municipal pool and many ballfields and active play areas.

An athletic field with a running track and a gymnasium are located at the high school/junior high campus. The district is also served by playfields and a playground located at the Hamlow Elementary School at 145th and Castlewood Streets.

■ Neighborhood Issues and Trends

The South Waverly neighborhood will be experience significant pressures for annexation and new subdivision development. The area is well-located to provide the city with land for needed housing development for the future. Multi-family housing, now absent from the neighborhood, will seek appropriate locations to expand into South Waverly, since its location is convenient to employment centers and shopping, recreation and schools.

Residential development south of Amberly Road can be served with incremental utility extensions. I-80 limits growth to the south. While residential development could be possible south of I-80, the costs of utility extensions would be prohibitive. In addition, development in this direction would be isolated from the rest of the community, destroying its compact form.

Street extensions and additional parkland are also important issues for the area as development continues. The effective functioning and appearance of 143rd Street and Amberly Road are important to the neighborhood. The streets are the neighborhood's connections to the larger community, and its most unifying features. Completion of cross-neighborhood

South Waverly

collector streets, to link new subdivisions with 143rd Street and Amberly Road, and 145th Street will be a critical need for this area. In addition, the greenbelt along Ash Hollow Ditch should be extended south of Amberly Road, to create a unifying open space pattern to connect future housing areas to the city's outstanding community park.

The City of Waverly must ensure that future development plans accommodate growth while reinforcing the best existing traditions and development patterns of Waverly.

TABLE 5-4: Housing Conditions: South Waverly, 1993

Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	1	9.0	0	0.0	0	0.0	1	0.4
Fair	5	4.5	5	1.9	0	0.0	10	3.6
Good	5	4.5	28	10.6	0	0.0	33	12.0
Excellent	0	0.0	232	87.5	0	0.0	232	84.0
Total	**11**	100.0	**265**	100.0	**0**	0.0	**276**	100.0 **47.7 % of city total**

Other Residential

Condition Rating	2-4 Family	%	Apartment Units	%
Poor	0	0.0	0	0.0
Fair	0	0.0	0	0.0
Good	0	0.0	0	0.0
Excellent	4	100.0	0	0.0
Total	**4**	100.0 **40% of city total**	**0**	0.0

Policies and Actions

This section contains a program of strategies for each neighborhood planning district. The consideration of each neighborhood includes two sets of policies: those related to neighborhood development , and those concerned with public facility and park investments.

North Waverly

■ Neighborhood Policies and Actions

• Limit the expansion of urban residential, commercial or industrial development to those properties that well above the flood hazard elevation of Salt Creek. The city should establish a growth policy that clearly discourages development in the flood hazard area, and consciously limit any public investment in utility services to such an area.

• Establish a redevelopment area in the neighborhood east of 139th Street and south of the Mansfield Ditch. This would include designated areas for targeted residential conservation/rehabilitation of 20 units of single-family housing. In addition, the city should seek the demolition/removal of several substandard units along Woodstock Boulevard east of Downtown Waverly. Land use policy should be used to identify appropriate areas for redevelopment with multi-family construction. These areas are most appropriately designated east of 141st Street, on the north and northeast side of Downtown, as well as along the first block west of 141st Street between Mansfield Ditch and Jamestown Street.

• Identify through land use policy appropriate areas for small business and industrial expansion. These areas are most appropriately designated east of Downtown Waverly. In addition, with the completion of the proposed airport west of 134th and Oldfield Streets, some light industrial and street maintenance sites will be appropriate on the west side of 134th Street.

• Reconstruct and pave Woodstock Boulevard east of Downtown Waverly along the railroad right-of-way as an industrial collector street to connect to the intersection of 148th Street and East Cornhusker Highway (US 6). This link would provide an important link to an alternate railroad crossing, and assist in improving standards for access and property maintenance in this area. In addition, it will open additional land for industrial development. The new road would benefit

■ Policies and Actions

• North Waverly

North Waverly and South Waverly residents, since it would ease circulation patterns from Downtown, and direct industrial truck traffic and growth toward the highway.

• Improve landscaping and buffering between commercial and residential uses. Revise the zoning ordinance to increase commercial and industrial landscaping standards to provide a transition into the established landscape of the neighborhood. This is especially important in areas north of Downtown, where new housing is projected to occur.

• Improve landscaping along edges and at major entrances to the North Waverly neighborhood, especially along 141st and Oldfield Road.

• Repair and replace deteriorating, older segments of sidewalks on the west side of 139th Street, and along the east side of 140th Street between Kenilworth and Lancashire. Construct missing sidewalk links in the area north and east of Downtown, along Mansfield Street and Woodstock Boulevard.

• Repair pavement deterioration on several street segments including: Lancashire between 137th and 141st Streets, 137th Street between Jamestown and Lancashire Streets, and 138th and 139th Streets between Jamestown Kenilworth Streets.

• Improve streetscaping/landscaping along the collector streets of the neighborhood, including Jamestown and 141st Streets.

■ Public Facilities and Parks Policies

• Enhance the Mansfield Ditch greenway with a trail leading to Jaycees Park. To the east of the park, extend this greenbelt by constructing a Waverly Perimeter Recreational Trail to link Jaycees Park and Downtown Waverly to the proposed future residential areas in the North and East residential growth centers.

• Continue to improve and develop the facilities of Jaycees Park, which serves as a neighborhood park for this part of the city.

• Support the siting of major public facilities on land north of Downtown. Such facilities may include a future library or

community center. The corner of 142nd and Lancashire is a major civic corner, anchored on three corners by the bank, the post office and city hall. The city should encourage a civic use of the vacant, northeast corner of that intersection that reinforces this as the heart of Waverly's daily civic life.

Midtown Waverly

■ Neighborhood Policies and Actions

• Establish a long-range program aimed at an overall upgrade of the neighborhood's housing and infrastructure conditions. This program should include improved zoning and code enforcement, housing rehabilitation of more than 15 units throughout the neighborhood, and street and sidewalk rehabilitation.

• Encourage the expansion of urban residential and commercial development to those properties that lie east of 148th Street (Prairie Home Road). The city should establish a growth policy that encourage the future eastward extension of Jamestown Street to serve new development in this area.

• Identify through sound land use policy areas appropriate for small business and industrial development. These areas are most appropriately designated on the southeast corner of the intersection of US 6 and 148th Street (Prairie Home Road).

• Repair and replace deteriorating, older segments of sidewalks along streets in the eastern and western portion of the district, especially areas along Jamestown. Install missing sidewalk links along Heywood east of 146th Street, as well as along 144th Street between Jamestown and US 6.

• Repair pavement deterioration on a few remaining streets in the neighborhood which exhibit repair needs. These include 144th Street, between Heywood and US 6, Jamestown Street, and 142nd Street between Heywood and Ivanhoe Streets.

• Improve landscaping and buffering between commercial and residential uses, especially along the highway commercial corridor. Revise the zoning ordinance to increase

commercial and industrial landscaping standards to provide a transition into the established landscape of the neighborhood.

• Improve streetscaping/landscaping along the collector streets of the neighborhood, including 141st Street and Heywood Street.

• Support efforts to retain the best features of the Jamestown Street character and replicate these qualities in new development areas east of 148th Street. Through the subdivision regulations, encourage new housing along the extension of Jamestown Street to provide generous and deep sidewalk setbacks, mature street trees, and deep building setbacks--all of which make this part of Jamestown a classic traditional "boulevard."

■ Public Facilities and Parks Policies

• Continue to improve the facilities of Wayne Park, which serves as a neighborhood park for the Midtown district.

• In conjunction with new residential development in the East Growth Center to the east of 148th Street (Prairie Home Road), the City should require the dedication of additional park space to serve this neighborhood's needs. A neighborhood park should be developed in conjunction with new residential growth east of 148th Street, preferably located along 148th Street for maximum accessibility and visibility.

• Construct a Waverly Perimeter Recreational Trail to link Jaycees Park to the East Growth Center along 148th Street.

South Waverly

■ Neighborhood Policies and Actions

• Continue to support platting activity and new development on vacant land located south of Amberly Road and east of 148th Street (Prairie Home Road). These areas are well-suited to residential expansion and require only incremental infrastructure improvements and utility extensions.

• Limit the expansion of urban residential development to

those properties that lie north of Interstate 80. The city should establish a growth policy that clearly discourages expensive and heroic utility extensions south of I-80 for residential properties. The city should consciously limit public investment in utility services to such an area.

• As development proceeds, complete the grid of cross-neighborhood collector streets to connect newly developing areas to the existing city. This includes the construction and extension of east-west links for Castlewood and Folkestone Streets, as well north-south links for 143rd and 145th Streets.

• Repair several sidewalk segments, including segments along 143rd and 147th Streets, and along Oak Lane. Also repair instances of cracking and separation near sidewalk curb ramps in the district.

• Repair pavement deterioration on 142nd, 143rd, Guilford and Danvers Streets, as well as Castlewood Street east of 145th Street.

• Improve landscaping along edges and at major entrances to the South Waverly neighborhood, especially along 143rd Street, Folkestone and Castlewood Streets. As new streets are extended south of Amberly Road and east of 148th Street, these new entrances should be landscaped in a complementary manner, unifying the neighborhood.

• Improve streetscaping/landscaping along the collector streets of the neighborhood, including 143rd Street.

• Begin streetscape, paving and shoulder improvements along 148th Street and Amberly Road, near the proposed streets extensions to the east and south. In these locations, the city and county must make the cross-sections of 148th Street and Amberly Road appear less like a country highway, and more like a pedestrian-friendly, in-city neighborhood street.

■ Public Facilities and Parks Policies

• The City of Waverly should require future developments to extend the greenbelt along Ash Hollow Ditch to the south of Amberly Road, in order to create a unifying open space pattern to connect future housing areas to the city's outstanding community park.

■ Policies and Actions

• South Waverly

• Continue to improve the facilities of Wayne Park, which serves as a neighborhood park for the South Waverly district.

• Enhance and upgrade the appearance and landscaping along Amberly Road and Prairie Home Road as a grand promenade. Community efforts may include floral displays, tree plantings, monuments, special lighting, community signs, and similar improvements.

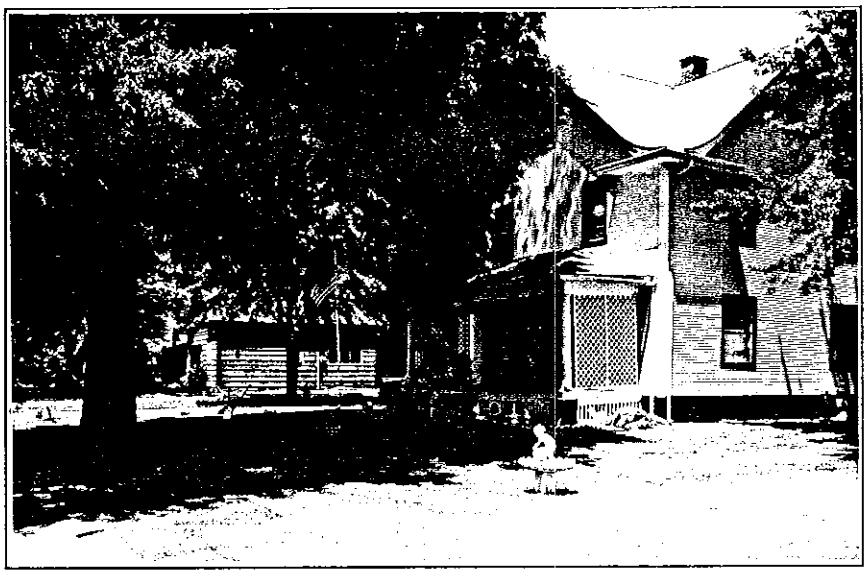
•Continue the existing system of mid-block pedestrian routes through the new housing areas proposed in the South and East Growth Centers, connecting various activity centers further complements accessibility to local parks.

• Begin the planning and design work to develop a new open space and park feature on the southeast and northeast corner of Heywood Street (Bluff Road) and 148th Street. Link this new park to the community by completing street, sidewalk and trails connections.

• As residential growth occurs east of 148th Street, acquire and develop a new neighborhood greenbelt park in far Southeast Waverly. The park should extend between the future extensions of Heywood Street and Castlewood Street, and link new housing areas to the recreation facilities of the schools via a neighborhood bikeway trail. This trail should extend west to connect with Wayne Park.

• Extend the Waverly Perimeter Recreational Trail to link the East Growth Center to Jaycees Park to the north, along 148th Street.

• *Jamestown Street in Midtown Waverly.*



• *Midtown residntial street.*

■ North Waverly

1 • Residential Growth Area to Extend to Areas Not Affected by the Salt Creek Floodplain/Floodway
2 • Street Extensions to Open New Sites for Residential Growth
3 • Residential Rehabilitation Area
4 • Encourage Construction of Community Facilities Adjacent to Downtown, including Possible Library or Community Center.
5 • Enhance Landscape Buffering between Industrial and Residential Areas
6 • Reconstruct and Pave Woodstock Boulevard
7 • Encourage New Multi-Family Housing
8 • Encourage Appropriate Small Business and Industrial Expansion
9 • Minor Street and Sidewalk Repairs
10 • Improve Neighborhood Entrances
11 • Relocate Road Maintenance Yard Industrial Uses to New Airport Site
12 • Enhance Sharp/ Jaycee Parks
13 • Construct Perimeter Recreation Trails Link to High School and Wayne Park
14 • Transform Appearance of 141st Street from Country Road to City Boulevard

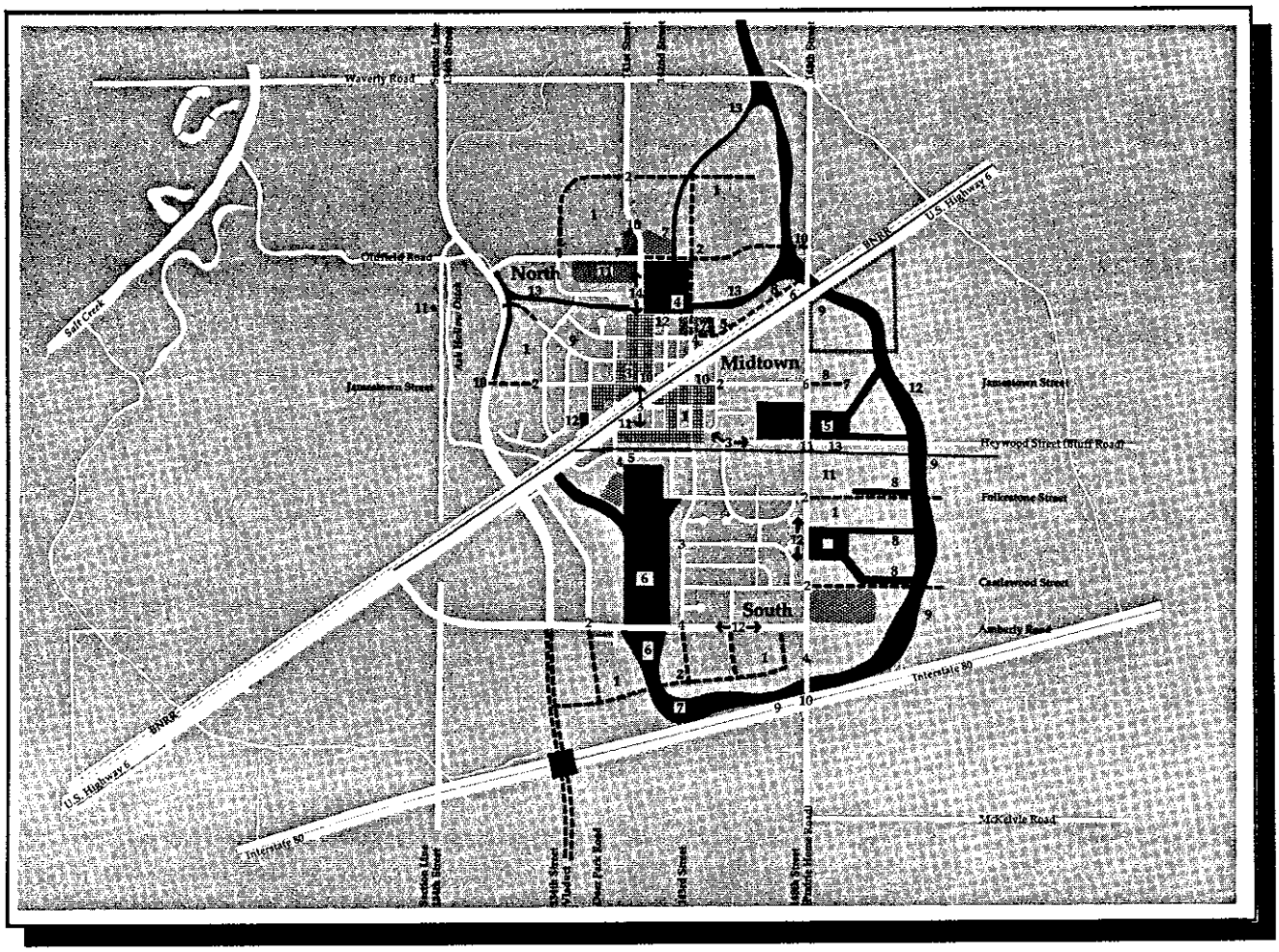
■ Midtown Waverly

1 • Residential Rehabilitation Area
2 • Street and Sidewalk Improvement Area
3 • "Green Streets" Enhancement of 141st Street and Heywood Street
4 • Enhance Wayne Park
5 • Future Neighborhood Park East of 148th Street
6 • Eastward Extension of Jamestown Street
7 • Complete Network of Cross-Neighborhood Collector Streets
8 • Promote Continuity of Traditional Setbacks and Character on Jamestown
9 • Encourage Business and Industrial Development Southeast of 148th Street and US 6
10 • Improve Landscaped Buffering between Residential Areas and the Industrial/ Commercial Uses Along US 6
11 • Improve Landscaping at Neighborhood Entrances
12 • Construct Perimeter Recreation Trail Link to Jaycee Park
13 • Transform Appearance of Bluff Road near 148th Street from Country Road to City Boulevard

■ South Waverly

1 • Residential Growth Area to Extend to Areas North of I-80 and East of 148th Street
2 • Complete Network of Cross-Neighborhood Collector Streets
3 • Street and Sidewalk Improvements
4 • Improve Neighborhood Entrances
5 • Enhance Landscape Buffering between Commercial and Residential Areas
6 • Enhance Wayne Park; Extend Ash Hollow Ditch Greenbelt to Areas South of Amberly
7 • Future New Neighborhood Park along Ash Hollow Ditch south of Amberly Road; and in Area East of 148th Street
8 • Continue to Build Mid-Block Pedestrian Routes Through New Housing Areas
9 • Construct Perimeter Recreation Trail to Link Jaycee and Wayne Parks to New Residential Growth Areas
10 • Improved Neighborhood Entrances
11 • Support Expansion of High School /Civic Uses near 148th and Heywood Streets
12 • Transform Appearance of 148th Street and Amberly Road from Country Road to City Boulevard

A City of Strong Neighborhoods: Summary Map



6

How the Five Themes Work Together

Waverly should implement the visions and actions presented by the plan through a realistic program that matches the resources of the community.

The five themes, with their narratives and maps, are the core of the Waverly Plan. This section addresses the relationships among the themes and examines key issues that relate to the implementation of the plan by both public agencies and private decision-makers. These key areas include:

• *Land Use,* displaying the general pattern of uses within the city. This major issue area discusses how uses will be located throughout the city consistent with the development concepts included in the plan.

• *Development Policies,* which are the basic actions needed to implement the plan's development and land use concepts are illustrated on the Policies Map.

• *Implementation Schedule,* summarizing the actions contained in the detailed plan and establishing a time schedule for their execution. The schedule can be used to track progress of the plan.

Land Use

■ The Land Use Map

The Land Use Map provides the traditional representation of land uses throughout Waverly and its jurisdiction at the end of this plan's twenty year life. The map does not distinguish between existing and proposed land uses, but rather shows the pattern that will emerge from the implementation of the Five Themes.

The Land Use Map is a guide for Waverly's Planning Commission and the City Council in making land use decisions. However, it is not literally a zoning map and does not necessarily represent mandatory zoning categories for individual parcels of property. In addition, the map shows desired uses

Land Use

on specific sites which are different from current uses. These represent the desired outcome of long-term land use change and do not affect the rights of current owners to use their property lawfully and in accordance with city ordinances.

The Land Use Map is color-coded, with each color representing a classification of uses. The land use categories presented in the map and its legend include the following:

• *Open Space and Agriculture.* These areas include such agricultural activities as farming and agricultural support uses. They also include sites that are likely to be undeveloped because of environmental characteristics, such as floodways and floodplains. Rural residential uses may be scattered throughout areas designated for Open Space and Agriculture. However, normal subdivision platting activity is not recommended in these areas.

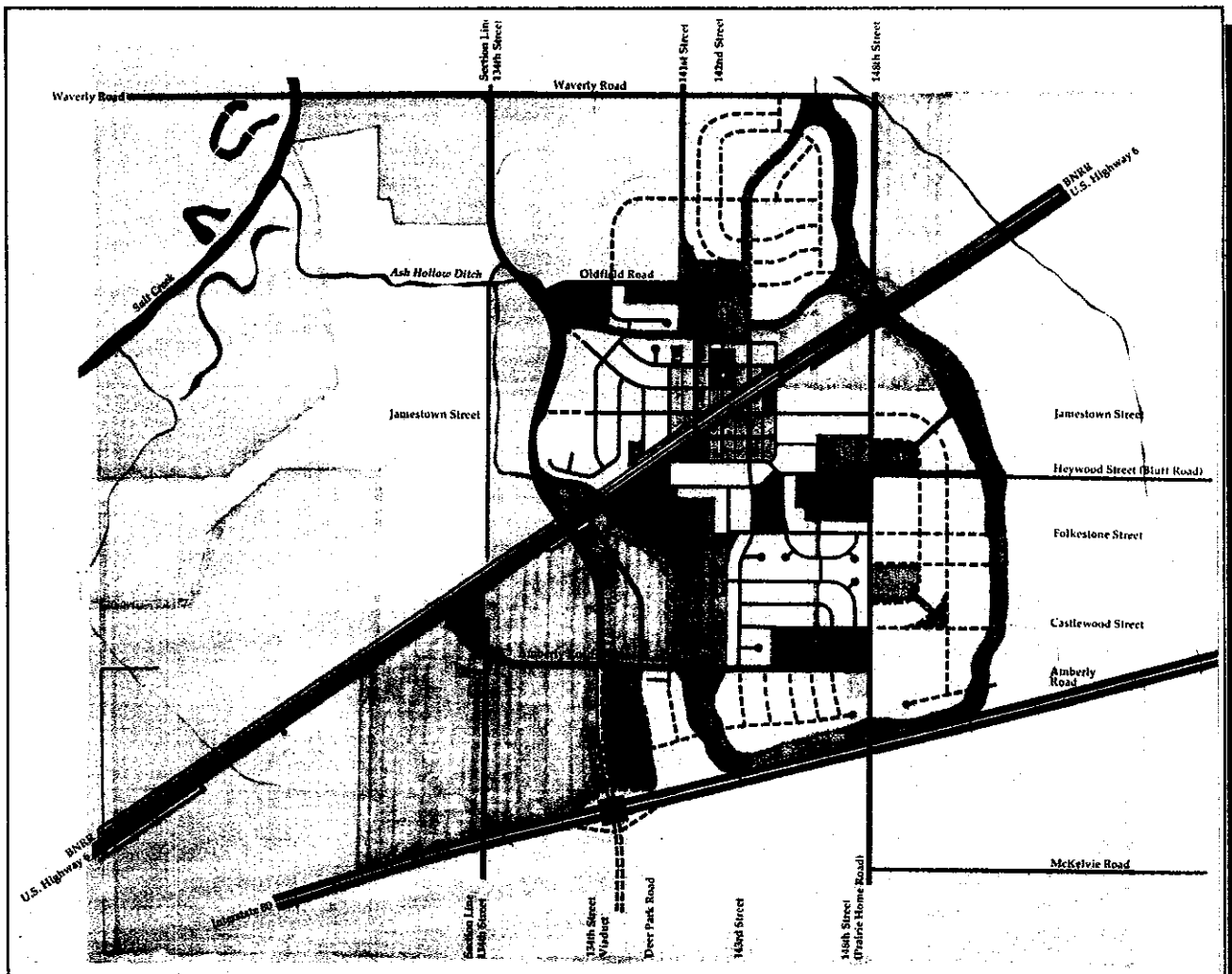
• *Single-Family Residential.* This land use area describes predominately single-family neighborhoods developed at urban densities of up to four units per acre and generally provided with full urban services. Civic uses such as parks, schools, and churches may be integrated into single-family areas. In addition, some other housing forms, such as duplex and townhouse residential, may be carefully integrated with single-family development.

• *Mixed-Density Residential.* These areas, while predominately single-family in character, will support a mixture of other housing types, including duplexes, townhomes, and low-density multi-family development. Typical densities in these areas will range from three to ten units per acre. The Land Use Map envisions mixed density residential development in traditional neighborhoods in central Waverly near downtown, in Midtown Waverly south of East Cornhusker Highway (US 6), and within some new development areas on the periphery of the city.

• *High-Density Residential.* These areas provide accommodation for multi-family housing. In addition, other uses such as low-intensity offices and lodging, may be integrated into these neighborhoods. Typical densities in these areas will range from 10 to 25 units per acre.

• *Town Center Commercial.* Town Center commercial areas provide for traditional commercial and office uses within

Future Land Use Plan



Future Land Use

- Agricultural
- Single Family Residential
- Mixed Density Residential
- High Density Residential
- Town Center
- Major Commercial
- Neighborhood Commercial
- Industrial
- Semi-Public and Institutional Uses
- Public Parks and Other Open Spaces
- Proposed Airport

0 500 1200

■ Land Use

Downtown Waverly. These areas may include mixed density housing and community and civic facilities.

• *Major Commercial.* These areas support large-scale, auto-oriented commercial uses, including shopping centers and free-standing commercial buildings. Major commercial development includes the US 6 corridor; and potential future commercial growth encouraged by the possible southerly extension of the North 134th Street viaduct route to an interchange with I-80.

• *Neighborhood Commercial.* These areas are designated to serve limited commercial service roles for surrounding residential areas, predominantly on the south and east edges of Waverly's future growth centers. The principal site proposed for such a site is the southwest corner of Amberly Road and 148th Street (Prairie Home Road).

• *Parks and Public Facilities.* These civic use areas include parks and recreation facilities, open space corridors, greenbelts, school sites, water supply and wastewater treatment plants, and other major facilities. Public facilities may also be distributed throughout other land use areas.

• *Semi-Public and Institutional.* These areas designate major institutional or semi-public uses, including churches, nursing homes, day care centers, and medical care facilities. Uses such as churches or day care uses on relatively small sites, may be incorporated into any other use area.

• *Business Park.* Business park uses combine offices and commercial development with light manufacturing and limited warehousing and distribution, often within the same building.

• *Industrial.* These areas include industrial locations, usually with substantial truck traffic and outdoor storage. Primary industrial areas will continue to grow along US 6 southwest and northeast of Waverly.

Policies Map

The Policies Map helps to express the location and relationships of the key actions outlined in the Waverly Plan. The Policies Map summarizes the plan's key physical

■ Policies Map

development proposals. It is a diagrammatic guide to the plan's physical vision of Waverly in the year 2010.

Many of the action steps contained in the Waverly Plan do not involve physical improvements. These actions are very important to the plan, but are not illustrated on the Policies Map.

■ Short-Term Program

■ Short-Term Work Program

The scope of the Waverly Plan is both ambitious and long-term. Each of the many actions and policies described in the plan can contribute to the betterment of the city. Yet, presenting a twenty-year development program at one time can appear daunting. In order to build an entire structure, it is necessary to start with a strong foundation. The implementation schedule presents actions which Waverly should undertake in the short term. Many of these items are organizational or statutory, setting in motion the forces that will lead to the realization of the entire plan. Others involve significant capital projects.

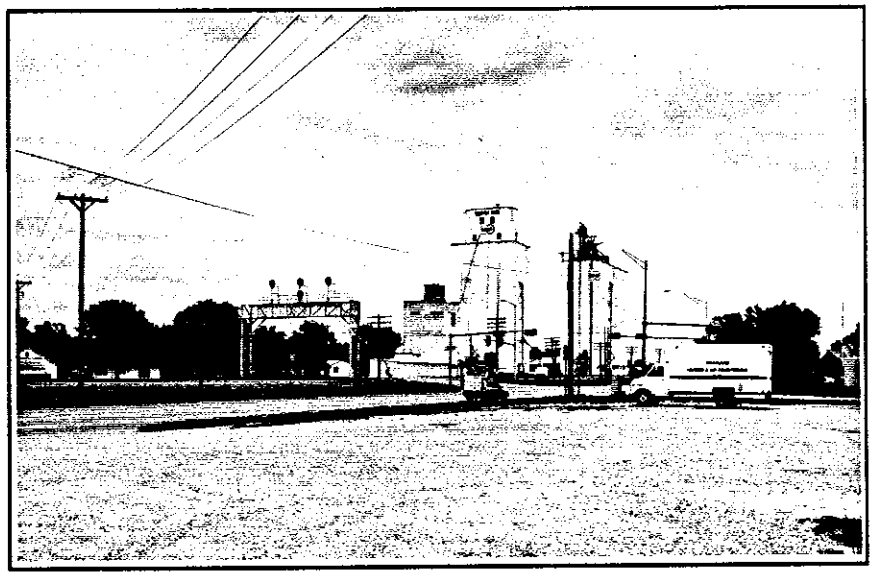
The following actions are the key, foundational steps which Waverly's city government, businesses, organizations, and citizens should implement within the next two years. Together, they form a work program for the community, designed to capture the key opportunities which can allow the city to meet the challenges of changing regional and demographic dynamics.

1. Implement plans to obtain regulatory approval to proceed with the construction of a **general aviation facility** in the City of Waverly. Prepare final documents in coordination with the Nebraska Department of Aeronautics and the Federal Aviation Administration to **secure approval of an airport northwest of the City on Site "F"**, as identified by the 1992/1993 Airport Planing Study.

2. Initiate discussions with the Nebraska Department of Roads and transportation officials of Lancaster County to gain support and designation of a fixed alignment for a future **extension of the 134th Street viaduct route to an interchange with Interstate 80**. Coordinate with planning efforts by the City of Lincoln and Lancaster County for an East Beltway corridor.

• *Drainage swale in Wayne Park.*

• *The East Cornhusker Highway and railroad corridor.*

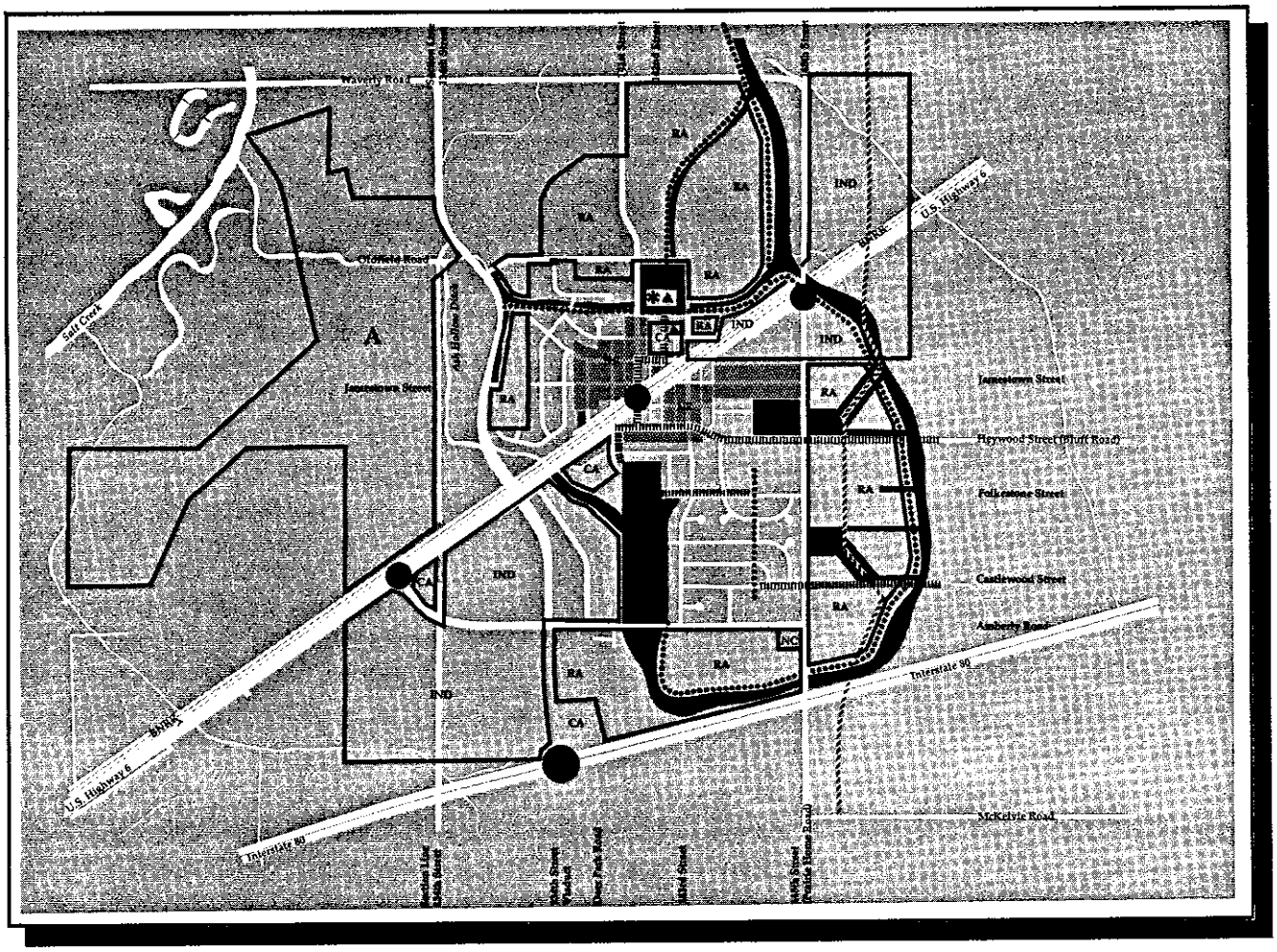


Policies Map Legend

- RA Residential Development Areas
- CA Commercial Development Areas
- IND Industrial Development Areas
- NC Neighborhood Commercial Node
- A Future General Aviation Facility
- NR Neighborhood Revitalization Areas
- Open Space Development
- Community Street Enhancement
- * Proposed Community Center (Jaycees)
- Proposed Recreational Trails Network
- Highway Crossing Improvements
- Relocated or Upgraded Gas Pipeline

0 800 2400

Policies Map



Short-Term Program

3. Create a **Waverly Partnership designed to encourage the construction of 17-20 new units of affordable housing annually** by private developers and builders. Put in place financing and marketing tools necessary to encourage builders to do business in Waverly, including the creation of **special assessment districts, a construction loan pool, and City front-end financing** of public improvements.

4. Create **marketing programs** aimed at attracting **new residents and strategic businesses** and industries to the city.

5. Add capacity to the sewer treatment plant by **removing surface inflows.** Complete the program underway to **televise the city's sanitary sewer lines** to locate sources of surface water inflow. Follow-up survey with the creation of a **Capital Improvement Plan** schedule to disconnect surface water inflow sources as they are identified.

6. Begin planning and engineering for sewer and water **utility extensions to future industrial park sites** along East Cornhusker Highway (US 6) east of 148th Street, and southwest of the City along East Cornhusker Highway (US 6). Design a system of **looped collector streets** to serve industrial development sites.

7. Begin the planning and design work to **construct a public library facility** for the City of Waverly near 142nd and Kenilworth Streets, on the north edge of Downtown.

8. Begin the process of instituting a **Small Business Development Program,** focusing at first on a modest but strategic effort to serve the growth of small industries in Waverly, as well as playing an active role to support the City's efforts to construct the proposed airport and I-80 interchange projects.

9. Channel growth to **managed development areas,** designated as growth centers in the comprehensive plan. Implement pre-annexation agreements on residential and industrial development sites within Growth Centers.

10. Construct a **Community Center,** a project promoted by the Waverly Community Foundation for Jaycees Park.

Short-Term Program

11. Create a residential **rehabilitation program aimed at preserving the city's supply of older homes.** Enhance property maintenance and building code enforcement to obtain **better housing maintenance.**

12. In conjunction with future expected growth, **modify the city's Federal Aid Road System,** to open opportunities for state and Federal assistance for major street projects.

13. Continue the process of bringing public buildings, sidewalks, the city pool, and other city facilities into compliance with the **Americans with Disabilities Act.**

14. Construct **sidewalks that serve areas with substantial pedestrian traffic** when deficiencies exist, especially in areas linking schools, parks, commercial areas and other activity centers.

15. **Extend Jamestown Street west to the North 134th Street viaduct** to improve traffic circulation and correct drainage and inundation problems caused by the **missing link of paved curb and gutter** needed for successful surface drainage in the neighborhood.

16. Complete implementation of Waverly **parks and recreation facilities improvement program,** including the construction of **recreational trails and new neighborhood parks** to link growth areas to the existing city park system.

17. Coordinate a schedule of needed **intersection improvements** with the Nebraska Department of Roads and the Burlington Northern Railroad for the **pedestrian crossing of 141st Street,** and the major **intersection of East Cornhusker Highway (US 6) and 148th Street.**

18. Establish as a matter of policy the **reservation and extension of a grid of cross-neighborhood collector streets** as new residential development continues.

19. **Expand the street rehabilitation program** to correct deficiencies identified in the Waverly Plan.

20. Complete the program of **street and landscaping improvements to establish the Linked Amenity Network** proposed by the Plan.

Short-Term Program

21. Support the **school district** in its efforts to **expand facilities concurrent with residential growth.** As needed, construct new buildings and additions to ensure adequate **facilities for the future.**

Legend for Implementation Schedule Theme References

E A Share of Growth in the Region

H An Expanded Housing Supply

Q A Quality Environment for Growth

P Quality Public Services and Infrastructure

N A City of Strong Neighborhoods

TABLE 6 -1: Implementation Schedule

Action	Themes	Within 2 Years	Within 5 Years	Within 10 Years	Within 20 Years
• Obtain regulatory approval for the proposed Waverly General Aviation Airport at the site northwest of the City.	E, Q, P	■			
• Obtain fixed alignment for proposed future I-80 interchange /134th Street viaduct connection.	E, Q, P		■		
• Create the Waverly Partnership as need arises to accelerate affordable housing construction.	E, H, P		■	■	
• Complete sanitary sewer televising program to identify sources of surface water inflow.	P				
• Complete utility extensions to serve future industrial park sites northeast and southwest of the City.	E, Q, P		■	■	
• Establish a facility for a Waverly Municipal Library.	Q, P, N			■	
• Institute a Small Business Development Program.	E		■		
• Channel growth to managed development areas; Complete pre-annexation agreements.	Q, P, N	■	■		
• Create a residential rehabilitation program to preserve the City's supply of older homes.	Q, N		■		
• Construct a Community Center.	Q, P, N		■		
• Modify the City's Federal Aid Road System in conjunction with future growth for federal assistance with major street projects.	E, Q, P			■	
• Adapt municipal structures and recreational facilities to comply with the federal Americans with Disabilities Act.	P	■			

TABLE 6 -1: Implementation Schedule

Action	Themes	Within 2 Years	Within 5 Years	Within 10 Years	Within 20 Years
• Construct missing sidewalk links; Repair deteriorated sidewalks.	P, N	■	■	■	■
• Expand school facilities concurrent with new residential growth.	H, Q, P, N			■	■
• Implement improvements to Wayne Park, including landscape treatments and recreational trail development.	P, N	■	■		
• Upgrade playground equipment at Sharp Park.	P, N	■			
• Complete a planned playfield development at Jaycees Park.	P, N		■		
• Construct Mansfield Ditch greenbelt recreational trail to link the Northwest Growth Center to Jaycees Park.	Q, P, N		■		
• Construct Waverly Perimeter Recreational Trail to link East and Northeast Growth Centers to Jaycees Park.	Q, P, N			■	
• Construct Ash Hollow Ditch Recreational Trail to link South Growth Center to Wayne Park.	Q, P, N		■		
• Develop a new neighborhood park near 148th Street and Heywood Street.	Q, P, N			■	■
• Develop a new neighborhood park near 148th north of Castlewood Street.	Q, P, N		■		
• Extend Ash Hollow Recreational Trail west along I-80 to link South and East Growth Centers.	Q, P, N			■	
• Construct pedestrian crossing improvements of US 6 at 141st Street.	Q, P, N				
• Construct pedestrian crossing improvements of US 6 at 148th Street.	Q, P, N				■

TABLE 6 -1: Implementation Schedule

Action	Themes	Within 2 Years	Within 5 Years	Within 10 Years	Within 20 Years
• Complete intersection improvements at:					
- East Cornhusker Highway (US 6) and Amberly Road.	P			■	
- East Cornhusker Highway (US 6) and 148th Street.	P		■		
- Amberly Road and 148th Street.	P		■		
- Heywood Street and 148th Street.	P		■		
• Maintain policy to extend existing grid of cross-neighborhood collector streets as new development continues.	E, H, Q, P, N	■	■	■	■
• Expand street repair and rehabilitation program.	Q, P, N		■	■	■
• Complete landscaping improvements to establish the Linked Amenity Network.	Q, P, N		■		
• Extend Jamestown Street west to the 134th Street viaduct to improve traffic access to the viaduct and correct drainage problems.	P, N	■			
• Construct Northeast Sanitary Sewer Interceptor Project.	P				■
• Construct Northwest Sanitary Sewer Interceptor Project.	P			■	
• Zone and encourage neighborhood commercial development on the southwest corner of 148th Street and Amberly Road.	E, Q			■	
• Relocate Lancaster County Road Engineering Facility to Airport Site.	Q, P, N			■	
• Relocate City of Waverly Street Maintenance Facility to Airport Site.	Q, P, N			■	
• Gradually locate other industrial uses from areas west of Jaycees Park.	Q, P, N			■	
• Establish a neighborhood housing redevelopment area to replace relocated industries; as well as area to the south, east of 139th Street.	H, Q, P, N			■	

TABLE 6 -1: Implementation Schedule

Action	Themes	Within 2 Years	Within 5 Years	Within 10 Years	Within 20 Years
• Implement tree planting and parksite improvement program.	Q, P	■	■	■	■
• Facilitate the required upgrade or relocation of the gas pipeline east of the City.	H, P		■	■	■
• Maintain a contiguous, compact development pattern to ensure economical service extensions.	Q, P, N	■	■	■	■
• Modify subdivision and zoning regulations to encourage and promote affordable housing development.	H, Q, N	■			
• Consolidate driveway access from properties along the highway.	P		■	■	■
• Enhance the visual quality of the highway corridor with monument signs at entrances to Waverly, as well as landscaping and banners where appropriate.	Q	■	■		
• Alter the road design for 148th and 141st Streets to change their character from high speed county roads to urban neighborhood streets.	P, N		■	■	
• Continue City policy to favor open channel stormwater drainage systems, augmented with recreational trail corridors whenever possible.	P, N	■	■	■	■
• Reconstruct obsolete, undersized water mains near former water tower site and on East Oak Lane Circle.	P	■	■		
• Reconstruct water main east of 142nd Street along Kenilworth Street and Woodstock Boulevard.	P	■			
• Complete loop water main along 148th Street between the High School, Castlewood and Jamestown Streets.	P	■	■		
• Monitor clean-up of Well Site #3 for re-opening within 15 years.	P				■

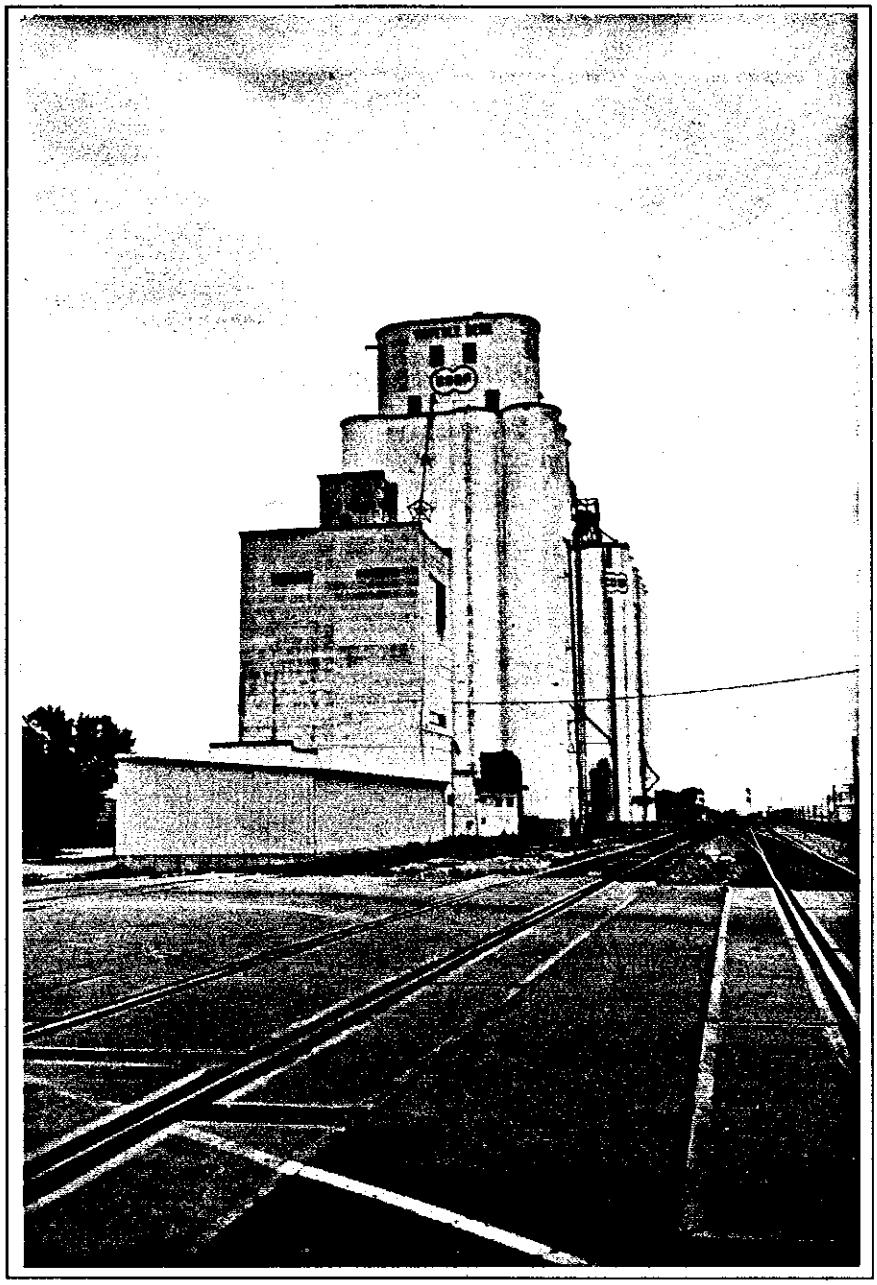
TABLE 6 -1: Implementation Schedule

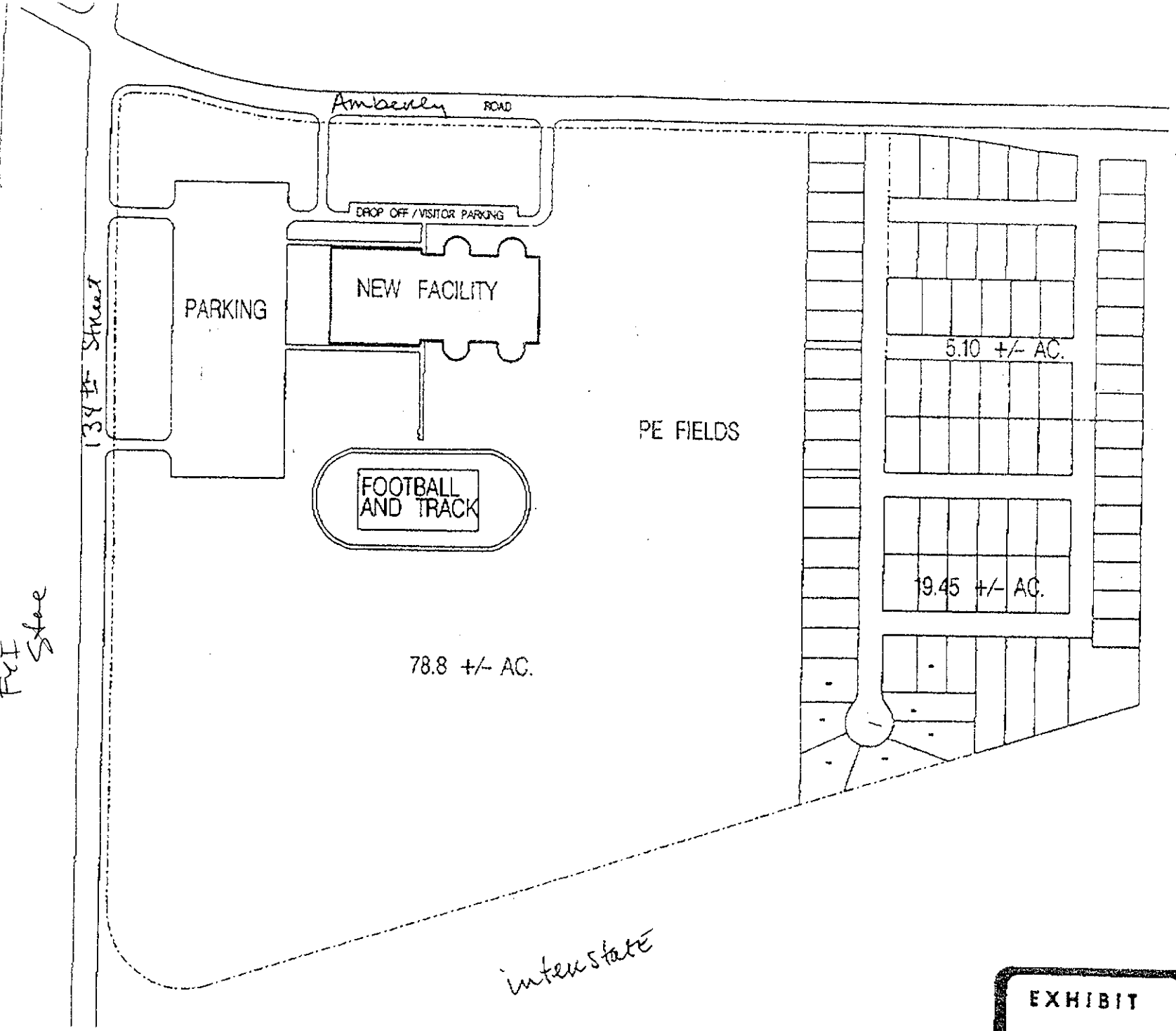
Action	Themes	Within 2 Years	Within 5 Years	Within 10 Years	Within 20 Years
• Complete the computerized system inventory of the city's water system.	P	■			
• Seek municipal ownership of the site beneath the elevated water reservoir near Hamlow School.	P	■			
• Monitor regional and local solid waste disposal needs and capacity of the Lincoln City Landfill.	P		■	■	■
• Broaden community-wide education, awareness and involvement in solid waste recycling.	P		■		
• Limit development to areas outside the Salt Creek floodway/floodplain.	Q, P	■	■	■	■
• Limit subdivision for residential development to areas north of I-80.	Q, P	■	■	■	■
• Improve landscaping between commercial/ industrial uses and residential areas.	N		■		
• Improve landscaping at entrances to neighborhoods.	N		■		
• Improve zoning and code enforcement to assist in upgrading housing conditions in older neighborhood areas.	H, N		■		
• Adhere to policy to require new subdivisions to provide trail links and mid-block pedestrian routes to tie new housing areas to the existing city.	Q, P, N	■	■	■	■
• Encourage business and industrial expansion along Woodstock Boulevard; Pave Woodstock Boulevard.	E, Q			■	
• Pave Waverly Road between 134th and 148th Streets.	P				■
• Pave 134th Street between Oldfield Road and proposed I-80 interchange.	E, P				■

About this Report

■ The Waverly Plan was composed on Macintosh computers in ReadySetGo 4.5a and 6.0 and set in Palatino. Project managers and principal authors were Jeffrey P. Johnson, AICP and Martin H. Shukert, AICP. Other contributors included Matthew Carpenter. Report design was by Martin Shukert. Photography was by Martin Shukert and Ariel J. Shukert. Graphics were by Jeffrey Johnson and Martin Shukert. Photo processing was by Professional Darkroom Services, Omaha, Nebraska; photo-mechanical reproductions by A&G Engineering Reproductions, Omaha, Nebraska. printing by A&D Duplicating Services, Omaha, Nebraska.

© Copyright 1994 by the City of Waverly, Nebraska





SITE A LAYOUT

EXHIBIT A

A portion of Lot 65, Irregular Tracts in the Southwest Quarter (SW¼) of Section 21, Township 11 North, Range 8 East of the 6th P.M., Lancaster County, Nebraska, consisting of 78.8 acres, as more particularly described on Exhibit "A" attached hereto.