THE BEATRICE PLAN

The Comprehensive Development Plan For The City of Beatrice, Nebraska

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With the Citizens of the City of Beatrice

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An Introduction to the Beatrice Plan

Beatrice is a city of rich history, a classical small city that can use its quality to great advantage. It is further a city that confronted the economic challenges of the 1980's and emerged as a diversified, dynamic community during the 1990's.

Roles of a Comprehensive Plan

The Beatrice Plan is designed to provide a comprehensive vision of the city's future. It is a future that is based on taking community actions 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. During the 1980's, the City of Beatrice transitioned from an economy based primarily on agriculture to a more diversified, stable economic structure and has built on that foundation during the 1990's. Beatrice can take advantage of significant opportunities as it positions itself for growth and rejuvenation in the next century.

Beatrice has been a traditional center for business and education in its region. Beatrice and similar communities can also lead the expansion of enterprise in our State during the next century. Beatrice offers an excellent quality of life, offering the best of a small community. The city is close to the attractions of Lincoln, yet offers the intimacy of a small town. It has pulled together as a community to execute strategic projects, including a superb new library and prospering industrial parks. Now, a new vision of Beatrice can further unify the city and assure its continued strength.

In 1992, Beatrice published its current comprehensive development plan. This plan established a vision for a unified community, with a system of greenways, streets, and community facilities designed to bridge the geographic barriers that divided the city into four sectors. The city has made major strides since the adoption of that plan, including:

• The construction of a new Beatrice High School in the southeastern part of the city. This accomplishment has helped to establish the southeast sector as a major growth center as envisioned by the existing plan.

• Continued industrial development in northwest Beatrice.

• The development of an active Main Street program in downtown.

• Continued residential growth in the Country Club and northeast growth areas of the city.

• Substantial infill development in the Glenover district.

However, major challenges and opportunities remain, including:

• The need for development of the road network necessary to unify the city and provide better access to the high school area.

• The probable abandonment of the UPRR through the city.

• The possible regional impact of the correctional facility being developed by the state in Tecumseh. Beatrice becomes a logical choice for employees, particularly professional staff.

This plan is conceived as an update of the 1992 plan, maintaining its basic assumptions and priorities, but adapting it to the current status of the city in the year 2001.

Roles of a Comprehensive Plan

This comprehensive development plan for Beatrice has two fundamental purposes. The first purpose 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.

• The Legal Role

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

However, under Nebraska law, a city 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. Under state statutes, a comprehensive development plan must address, at a minimum, the following issues:

-Land use, or the planned distribution of activities and uses of land in the community.
-Transportation facilities.
-Community facilities, including recreation facilities, schools, public buildings, and infrastructure.
- Annexation, identifying those areas that may be appropriate for annexation in the future.

The Beatrice Plan provides the ongoing legal basis for the city's continuing basis to regulate land use and development.

• The Community Building Role

A comprehensive development plan has an ultimately more significant role in the growth of a community. The plan establishes a picture of Beatrice's future, based on the participation of residents in the planning of 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 Comprehensive Plan: Approach and Format

The comprehensive plan takes a thematic and goal-oriented approach to the future development of Beatrice. The plan establishes eight development themes for the city, corresponding to its most important strategic development and investment 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 arrangement enables the plan to tell the story of the city's future development and presents an integrated program of the city's growth.

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

1. Meeting Regional Challenges

This theme considers Beatrice's role in its region and its status as a vital regional economic and trade center. Important issues discussed here include economic development, retailing, regional transportation, and tourism.

2. A Physically Unified City

This theme considers the separations created by Beatrice's growth away from its points of origin at the river and the crossroads of major highways. This growth away from a center, combined with natural and artificial barriers such as the river and creek systems and railroads, has divided the city into distinct territories. This chapter presents a strategy that builds on the concept of the 1992 Beatrice Plan to bridge geographical barriers.

3. Room for Orderly Growth

This theme addresses growth projections and needs for Beatrice and establishes directions for the city's future growth and development. The theme takes the position that managed growth can produce the greatest economic and qualitative benefits for the city.

4. Mobility for All

This theme considers transportation and street systems and relates mobility needs to other development objectives.

5. A Recreation Lifestyle

This theme describes Beatrice's parks and sports facilities and outdoor recreation as a way of life for residents in the Big Blue River Valley. It presents improvement plans for new existing parks and trails, to be integrated into the City's growth, housing, and regional tourism efforts.

6. Quality Public Services and Infrastructure

This theme examines the quality of infrastructure, public facilities, and parks within Beatrice. These facilities are vital to the city's ability to support growth and serve present and future residents.

7. A City of Strong neighborhoods

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

8. A Revitalized City Center

Approach and Format

Downtown Beatrice is a distinctive place, a large Downtown that underlies its historic and strategic importance to an entire region. This theme addresses a variety of issues, including the public environment, building conditions and uses, redevelopment opportunities, and management strategies.

9. A Place for All Ages

This theme recognizes the diversity of Beatrice's population and the need to provide services that address the needs of specific population groups. Particularly important are services to senior citizens, who are a major constituency in Beatrice, and programs which speak to the necessity of retaining young people in the city.

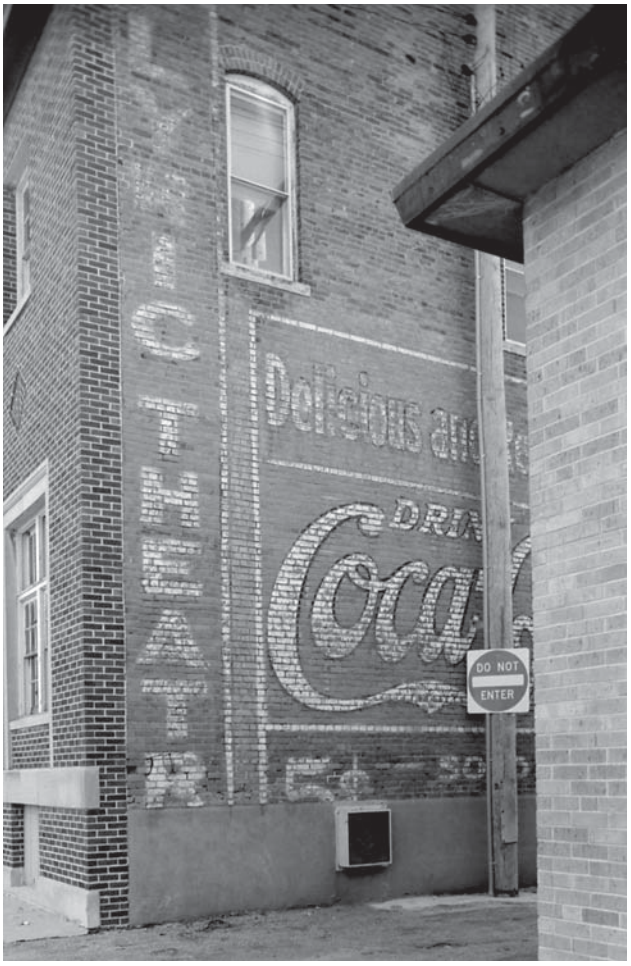
Each chapter is presented in a uniform, easy-to-follow way. The four sections contained in each chapter include:

• **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 themes. 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 Beatrice with the planning tool that it needs to realize its exciting and distinctive future.



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Meeting Regional Challenges

Beatrice should retain and expand its role as a strong economic presence and center for its region.

Beatrice has traditionally served as a focus of activity for its southeastern Nebraska region. The city is the seat of Gage County, which in 1930 was third among the State's counties in population. Within that center of population and agricultural activity, Beatrice grew as a key crossroads community and commercial center. Located at the intersection of two regional highways and served by two national railroads systems, the city grew in economic importance. Its role as a retail service center is evident from its large downtown and retail establishment.

However, Beatrice and its surrounding areas are being challenged by gradual economic and demographic change. Since 1930, the city's surrounding market area has slowly but steadily lost population. During the same period, Beatrice has experienced slow population gains as people have moved to town from surrounding rural areas. As a result Beatrice, which made up just over one-third of the county's population fifty years ago, now accounts for well over one-half of the people of Gage County. At the same time, the city itself is experiencing substantial out-migration, particularly of younger people. Beatrice's ability to cope with these demographic challenges will determine its strength in the future.

Changing economic conditions also affect the city. The declining rural population and increasing competition from major retail centers and discount department stores in neighboring communities have had a major impact on Beatrice's traditional retail and agricultural service base. The city has met this challenge through an aggressive economic development program in the 1980's and 1990's. This program included the development of industrial parks and active recruitment of industry. As a result, the community has countered national trends by posting an increase in the number of available manufacturing jobs. The long-awaited completion of US 77 as a 4-lane expressway linking Beatrice and Lincoln has also integrated the city into the larger regional economy. Yet, the complex problem of maintaining economic growth in a highly competitive global economy will further challenge the city in the future.

The opening theme of the Beatrice Plan views the city in its regional and statewide context and develops policies that will help the city successfully manage its future.

GOALS

In working to meet challenges and opportunities created by Beatrice's regional context, the community should:

MAINTAIN AND EXPAND BEATRICE'S ROLE AS A REGIONAL TRADE AND ECONOMIC CENTER.

Beatrice has traditionally served as the center of retail trade area that includes all of Gage County; substantial parts of Johnson, Jefferson, and Pawnee counties in Nebraska; and Washington and Marshall Counties in northern Kansas. For certain kinds of specialty and service-oriented retailing, the city's trade area extends as far north as Lincoln. In this secure market area, Beatrice taxable retail sales increased by 45% during the 1990's.

The 1980's brought severe challenges to the community's retail trade and service sectors. The opening of Wal-Mart in Fairbury and Marysville along with growing retail development in nearby Lincoln and more distant Omaha added to the variety and sophistication of goods that could be purchased in the southeast Nebraska region. The completion of US 77 as an expressway to Lincoln brought the retail magnet closer to Beatrice from a time and perception perspective, but Beatrice has nevertheless prospered during the 1990's. New retailing businesses along the Highway 77 corridor have opened and expanded the variety of shopping available to the region. The economic boom of the 1990's, an increasing population, and the opening of new retailing along the Highway 77 corridor led to steadily increasing retail sales during the 1990's.

As a result, despite growing competition from Lincoln and Omaha, Beatrice's retail community enters the new century in a position of strength and shows no signs of slowing down. Retailers offer a wide range of goods and services, including a level of personal care and service that are often not found in discount stores and larger cities.

In addition, Beatrice's economy has successfully diversified and has become less dependent on agriculture and retailing for its economic survival. Finally, resources such as the Homestead National Monument and its possible expansion can create a new and emerging economic market of regional tourism.
Beatrice has proved its resiliency and ability to adjust to changing times. The flexibility and level of community spirit will be indispensable to it as the city

strives to maintain its traditional role as an economic center.

IMPROVE BEATRICE'S ABILITY TO ATTRACT ADDITIONAL PEOPLE

After five decades of steady population growth, Beatrice's population declined by 4.16% during the 1980's partially driven by out-migration. The dynamics and meaning of this population change are examined later in this section. During the 1990's, this trend appears to have reversed with a 5% increase in population between 1990 and 1999. One major trend was clear during the 1980's - young people tended to move out of the city, while older people tended to move back. An increasing ability to attract and retain younger families probably played a significant role in the population increases during the 1990's.

Just as Beatrice and similar communities face increasing competition in their once relatively secure retailing markets, they also face tremendous competition for residents. The variety and perceived economic advantages of larger cities and metropolitan centers encourage younger people to move away. Talented young people view hometowns as places to be from, rather than as places to move to, in order to establish a household. Beatrice competes with bigger cities like Lincoln and Omaha, just as those cities compete with even larger metropolitan areas out of the state.

Yet, Beatrice again has significant resources in its competition for people. Increasing concern about the complexities and perceived hazards of big city life are causing Americans to look again at smaller communities. Electronic communication and the ability to work in a global economy from a small community can also increase the attraction of smaller communities. Beatrice offers its residents a good quality of life that is oriented to families. It is large enough to provide variety and resources to its residents, but small enough to retain an intimacy and friendliness that can be antidotes to an anonymous urban society. Beatrice is also close to Lincoln and its cultural opportunities and has become perceptually closer with the completion of US 77. Finally, Beatrice has developed a strong, independent job base. One challenge for the city will be to make strategic investments which can help parlay its advantages into additional population and household growth.

IMPROVE INTERCITY TRANSPORTATION CONNECTIONS

Beatrice originally grew because of its good road and railroad connections. Transportation links are equally important in the new century. The economic success of a community can depend upon the ability of truck traffic to gain reliable access to other parts of the country on the Interstate Highway system. Business travel is increasingly dependent on general aviation service. Finally, railroad service remains important to agriculture and major industry.

The connection of Beatrice to the Interstate system via US 77 will be particularly important to the city's future. This tie for both commerce and people to Lincoln and Interstate 80 will help to cancel the disadvantage of its location off Nebraska's major east-west artery.

WORK COOPERATIVELY WITH OTHER COMMUNITIES TO EXPAND THE REGION'S ECONOMIC BASE.

Increasingly, towns and cities in a region will find cooperative action to be more effective than individual action. For example, in industrial recruitment, an individual community may be unable to offer the employment base or land or financial resources to attract a major business. However, these resources may be available on a pooled basis. Towns in a region are interdependent - a job center in one benefits all.

The completion of the State Correctional Center in Tecumseh represents an example of this interdependence. The employment base created by this facility will inject needed economic strength into southeast Nebraska communities. Beatrice, as the nearest regional center, can become a place of residence for staff and can be especially attractive to professional employees who seek the variety of a middle-sized city.

New economic centers like tourism growth and development are also most readily realized through cooperative action. One community by itself may not have the variety of features necessary to attract visitors. However, several communities, forming a network of attractions, can offer major resources to tourists. A visitors' network, involving joint promotion, marketing, and even administration can make each community stronger.

FACTS AND ANALYSIS

This section examines important demographic and economic trends that will have a major impact on Beatrice as we plan for its future. Some of these trends will raise concerns; others indicate areas of major strength. Together, they provide an accurate and realistic picture that will help Beatrice chart a course toward its future. This section will help to define the major challenges that Beatrice will face as it enters the new century.

Population Characteristics

Population and population characteristics are among the most important indicators of the state of a community. This discussion will present key findings as we analyze the dynamics of the city's population during the 1980's and project trends into the future.

• Beatrice has gradually grown in population during the last 60 years. At the same time the population of Gage County outside of Beatrice has substantially declined.

The gradual population decline and increasing urbanization of Nebraska's population has been a persistent trend for fifty years. Gage County and its largest city display the same trend. Since 1940, Beatrice's population has grown by 23.93%, while the county's population has declined by 22.29%. As a result, Beatrice makes up a far greater percentage of the county's total population in 2000 than it did in 1940 and this trend likely continued through the next century. The initial 2000 Census for Gage County is 22,993 while Beatrice's is 12,496, 54% of the County's population. The County experienced its first population increase since the 1920's. The city's population growth was slightly higher and therefore continued to increase its overall share of the County's population.

• Beatrice showed a decline in population during the 1980's for the first time since the 1930's. Most of the population decline was accounted for by out-migration.

Beatrice's population declined from 12,981 in 1980 to 12,354 in 1990, the city's first population decline since the depression years of the 1930's. 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 the town will increase. Therefore, a city with more population in younger age groups (particularly with people in childbearing or family formation years) will tend to grow.

• **Migration patterns.** During any period in a city's life, people move in and out. If more people come to the city than leave, its population will tend to increase. A community that is building new housing may experience significant in-migration, some of which are residents new to the city, while others are relocating from surrounding rural communities.

• **Annexation**. A city's population can grow through the annexation of populated areas.

In order to assess what happened to Beatrice's population during the 1990's, the city's expected population based solely on changes in births and deaths is calculated and compared with the actual outcome of the 2000 census. These projections are based on the following assumptions:

- Use of a cohort-survival method to develop predictions. This method "ages" a five-year age range of people by computing how many of them will survive into the next five year period. The cohort survival rates

Table 1-1: Population Change: Beatrice and Gage County

	1940	1950	1960	1970	1980	1990	2000
Total County	29,588	28,052	26,818	25,719	24,456	22,794	22,993
Beatrice	10,083	11,813	12,132	12,389	12,891	12,354	12,496
Beatrice as a percentage of Gage County Population	34.08	42.11	45.24	48.17	52.71	54.20	54.35

Source: U.S. Bureau of the Census

that were used were developed by the U.S. Bureau of the Census.

- Generally, birth rates in Nebraska tend to approximate 15 per 1,000 residents. However, overall birth rates are related to the numbers of people in various age groups of the population.

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

It is important to note that projections are approximations and are not fully accurate representations of real behavior. However, it is possible to draw some important conclusions from this analysis. If no one had moved into or out of Beatrice, the city's population would have declined slightly. This is caused by the age composition of the community. However, the city actually gained 142 persons accounting for over a 3% increase over what was predicted. A majority of this increase occurred among males while the number of females actually decreased in size between 1990 and 2000.

Table 1-2: Predicted and Actual Population Change, 1990-2000

	1990	2000	Change	%
Predicted Population(based on survival and birth rates)	12,354	12,086	-268	-2.17
Actual Population	12,354	12,496	142	1.15
Predicted Male Population	5,687	5,656	-31	-0.55
Actual Male Population	5,687	5,885	198	3.48
Predicted Female Population	6,667	6,430	-237	-3.55
Actual Female Population	6,667	6,611	-56	-0.84

Sources: U.S. Bureau of the Census, Current Population Reports ; UNL Bureau of Business Research, Nebraska Population Projections, 1985-2020; RDG, Crose Gardner Shukert, 2001

• During the 1990's Beatrice's rate of out-migration appeared highest among 20-24 year olds and 35-39 year olds. On the other hand, Beatrice experienced in-migration among those in childbearing cohorts and senior citizens.

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. In addition, this knowledge can help to determine policies designed to help increase the city's population. Table 1-3 compares predicted and actual population change for each age group in the city. Tables 1-4 and

TABLE 1-3: Predicted and Actual Age cohort changes All Residents, 1990-2000

Age Group	1990 Actual	2000 Predicted	2000 Actual	Actual - Predicted	% variance: actual/ predicted
Under 5	831	655	739	84	12.82%
5-9	905	708	787	79	11.16%
10-14	772	829	846	17	2.05%
15-19	715	902	908	6	0.67%
20-24	669	767	695	-72	-9.39%
25-29	932	709	732	23	3.24%
30-34	895	663	701	38	5.73%
35-39	909	923	862	-61	-6.61%
40-44	663	884	891	7	0.79%
45-49	576	893	871	-22	-2.46%
50-54	528	644	691	47	7.30%
55-59	544	549	586	37	6.74%
60-64	640	487	531	44	9.03%
65-69	666	479	523	44	9.19%
70-74	650	525	581	56	10.67%
75-79	561	495	580	85	17.17%
Over 80	898	974	972	-2	-0.21%
Total	12,354	12,086	12,496	410	3.39%

1-5 perform the same comparison for females and males in Beatrice. The predicted population projects how many people would 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 tended to move in or out of Beatrice.

During the 1990's the number of people in Beatrice between ages 20 and 24 was about 9% less than expected based on survival rates of age groups. The loss of this population group is common as young adults leave for college and to begin careers. Beatrice was able to attract young adult residents back to the community after college. The number of residents 25 to 34 increased by 4% over predicted, creating an echo effect among the youngest cohorts.

Beatrice also showed a significant in-migration of people age 65 and older. Beatrice's senior population of 2,656 people was more than would have be predicted simply by cohort survival, an increase of 7.4% over predictions.

Tables 1-4 and 1-5 indicate similar trends when migration patterns for male and females are examined

TABLE 1-4: Predicted and Actual Age cohort Changes Females, 1980-1990

Age Group	1980 actual	1990 Predicted	1990 Actual	Actual - Predicted	% variance actual/ predicted.
Under 5	440	449	395	-54	-12.03
5-9	359	449	445	-4	-0.89
10-14	418	439	382	-57	-12.98
15-19	518	358	375	+17	+4.75
20-24	545	416	340	-76	-18.27
25-29	562	515	480	-35	-6.80
30-34	376	541	437	-104	-19.22
35-39	339	557	462	-95	-17.06
40-44	291	371	341	-30	-8.09
45-49	340	331	308	-23	-6.95
50-54	397	281	269	-12	-4.27
55-59	318	322	294	-28	-8.70
60-64	452	367	357	-10	-2.72
65-69	413	283	394	+111	+39.22
70-74	414	381	399	+18	+4.72
75-79	292	313	341	+28	+8.95
Over 80	509	528	648	+120	+22.73
Total	6,983	6,900	6,667	-233	-3.38

TABLE 1-5: Predicted and Actual Age cohort Changes Females, 1990-2000

Age Group	1990 Actual	2000 Predicted	2000 Actual	Actual - Predicted	% variance actual/ predicted
Under 5	436	334	375	41	12.28%
5-9	460	361	411	50	13.85%
10-14	390	435	425	-10	-2.30%
15-19	340	458	472	14	3.06%
20-24	329	386	359	-27	-6.99%
25-29	452	336	356	20	5.95%
30-34	458	325	365	40	12.31%
35-39	447	446	442	-4	-0.90%
40-44	322	451	440	-11	-2.44%
45-49	268	437	414	-23	-5.26%
50-54	259	310	346	36	11.61%
55-59	250	252	275	23	9.13%
60-64	283	234	246	12	5.13%
65-69	272	211	228	17	8.06%
70-74	251	217	234	17	7.83%
75-79	220	181	213	32	17.68%
Over 80	250	282	284	2	0.71%
Total	5,687	5,656	5,885	229	4.05%

separately. However, younger women, between ages 15 and 24, were more likely to leave Beatrice in the 1990's than men of the same age. On the other hand, men in their 40's during the 1990's were more likely to migrate out of the city than women. Older men and women were both likely to migrate into Beatrice during this period.

• Beatrice's population aged significantly during the 1990's.

The result of these patterns is that Beatrice was an older community in 2000 than it was in 1990. Table 1-6 compares the age composition of Beatrice's population for 1990 and 2000. Beatrice's median age of almost 38 in 1990 increased to about 39.9 by 2000. Additionally, the median age of women in Beatrice is substantially higher than that of men.

• The size of Beatrice's households declined during the 1980's.

An aging population would suggest a declining average household size. This in fact has been the case in Beatrice. In 1990, the city's average household size was 2.28. By 1990, this average had fallen to 2.24. Conversely the number of households increased by 189 or 3.6%. As a result, Beatrice continued to support a new development market, despite only a experiencing a 1.15% increase in population. The implication of this demographic change are considered in Chapter Three, which evaluates the demand for new housing in the city.

• Beatrice's population trends during the 1990's contain significant opportunities and challenges.

The findings of the previous discussion point to an aging population yet the community also experienced an in-migration of younger families. There are important opportunities contained within these conclusions. Specifically:

- The population of very young children (under age 10) is higher than projected levels.

- While the out-migration of young adults during the 1980's 1990's was significant, it also was not cataclysmic. During the 1990's, unlike the 1980's, the city was successful at attracting young adults back to the community to begin careers and families.

- In-migration of senior citizens is an important economic and human opportunity for the city.

From a policy point of view, these population dynamics suggest that Beatrice should:

• Implement programs which will continue to encourage young families to remain in the city and provide positive associations and opportunities for children and teenagers, encouraging them to continue to return as adults.

• Provide quality services to its increasing senior population and become an increasing magnet for people after retirement.
• Involve senior citizens in the community and with young people through intergenerational programming.

TABLE 1-6: Age Composition as Percent of Total Population, 1990-2000

Age Group	1990 All	2000 All	1990 Female	2000 Female	1990 Male	2000 Male
Under 5	6.73	5.91	3.20	5.51	3.53	6.37
5-9	7.33	6.30	3.60	5.69	3.72	6.98
10-14	6.25	6.77	3.09	6.37	3.16	7.22
15-19	5.79	7.27	3.04	6.60	2.75	8.02
20-24	5.42	5.56	2.75	5.08	2.66	6.10
25-29	7.54	5.86	3.89	5.69	3.66	6.05
30-34	7.24	5.61	3.54	5.08	3.71	6.20
35-39	7.36	6.90	3.74	6.35	3.62	7.51
40-44	5.37	7.13	2.76	6.82	2.61	7.48
45-49	4.66	6.97	2.49	6.91	2.17	7.03
50-54	4.27	5.53	2.18	5.22	2.10	5.88
55-59	4.40	4.69	2.38	4.70	2.02	4.67
60-64	5.18	4.25	2.89	4.31	2.29	4.18
65-69	5.39	4.19	3.19	4.46	2.20	3.87
70-74	5.26	4.65	3.23	5.25	2.03	3.98
75-79	4.54	4.64	2.76	5.55	1.78	3.62
Over 80	7.27	7.78	5.25	10.41	2.02	4.83
Total	37.51	39.9	40.24	42.8	34.75	37.1

Population Projections

The future size of Beatrice's population is very important for planning purposes and suggests future directions for the community. The impact of future population changes on community growth is considered in detail under the theme "Room for Orderly Growth" in the third chapter of the Beatrice Plan. However, it is important here to examine the various futures that the city faces, particularly given its population experience of the last twenty years.

Future population for Beatrice is forecast by:

- Computing probable changes in Beatrice's existing population. The calculation of the "base" population of the city assumes no net migration.

- Basing population forecasts on 1990 Census statistics for age distribution. As before, the cohort survival method is used to project population, utilizing birth and death rates developed by the Bureau of the Census and the National Center for Health Statistics.

- A migration model has been utilized, designed to be relevant to the city's growth during the 1990's.

- A continuation of an annually residential construction rate of 52 units and its correlation to the 0% migration.

Table 1-7 displays population projections for these three scenarios in Beatrice.

Based on the initially 2000 Census number of 12,496 Beatrice experienced a 3% migration rate during the 1990's. However, construction activity during the 1990's would indicate a more aggressive growth pattern. Over the last ten years Beatrice experienced a construction rate of approximately 52 units annually. This rate of construction would have indicated a higher 2000 population for the city then has been sited by the initial Census numbers and more likely to reflect what was really happening in the city over the last ten years. If Beatrice can sustain this level of construction activity the city's population should increase by 1,340 every ten years (see Table 1-7a). When added to the 0% migration scenario (births minus deaths) the city will experience a 2010 population of 13,281 and a 2020 population of 14,491.

Population projection is an inexact science. However, projections can help a city set out its priorities. Developing policies which retain young families and produce an absolute population increase are important to Beatrice. This goal of growth is a unifying thread that runs through the plan's individual themes and recommendations.

Economic Factors: Employment

Just as the 1980's brought a major change in the dynamics of Beatrice's population, so did the decade mark an important transition in the economic base of the city and its county. During this period marked by severe dislocations and changes in the agricultural

TABLE 1-7a: Beatrice Construction Activity

Residential Units	Total Units 1990-1999	People per Household	Total People
Single Family	268	3.00	804
2-Family	90	2.50	225
Modular Homes	40	2.25	90
Multi-Family	126	1.75	221
Total	524		1,340

TABLE 1-7: Beatrice Population Projections, 1990-2020

	1990	1995	2000	2005	2010	2015	2020
No net migration	12,354	12,211	12,086	11,994	11,941	11,887	11,811
+3.0% migration	12,354	12,394	12,496	12,542	12,674	12,806	12,915
Construction Activity	12,354	12,394	12,496	12,664	13,281	13,897	14,491

economy, Beatrice diversified and increased employment in major non-agricultural areas. This economic transition was very important during the 1990's and will continue to be so as the city moves toward the future. This section will examine some of the economic changes that the city has experienced.

• Since the 1970's Beatrice has transitioned to a manufacturing and service oriented economy.

As seen in Table 1-8 overall total employment has increased since 1970 but not without a significant drop occurring during the 1980's. During this period Beatrice has transitioned from being a transportation, agricultural services, and retail hub into an increasingly manufacturing community. Manufacturing jobs have grown by 22% since 1970 with only a minor increase during the 1980's. The difficult 1980's produced an overall drop in employment in the community.

• Gage County's unemployment rate has fluctuated since the 1980's but remained fairly constant since the mid 1990's.

During the first half of the 1980's, Gage County had an increasing labor force and declines in total employment, producing a relatively high unemployment rate. The unemployment rate has remained stable during the 1990's. During the last half of the 1980's, the size of the labor force decreased and total employment increased, producing very low unemployment.

Table 1-9 displays labor force and unemployment trends for Gage County during the 1980's and 1990's. During these periods, marked by agricultural depression in the early and mid-1980's, Gage County's unemployment rate rose to a high of 6.2% in 1982. In 1985, total employment in the county had fallen by 2.62% and unemployment stood at 5.5%. Trends reversed between 1985 and 1990. During this period, the unemployment rate fell to 1.7%, the result of simultaneous drops in the size of the labor force and increases in the number of jobs. Between 1990 and 1995 both the labor force and total employment continued

TABLE 1-8: Beatrice Employment , 1970-1990

Industry	1970	1980	1990	Change 1970-1990	Change 1980-1990	% Change 1970-1990	% Change 1980-1990
Total Employed	5,336	6,178	5,770	434	-408	8.13	-6.60
Agriculture	83	101	196	113	95	136.00	94.06
Construction	311	343	332	21	-11	6.75	-3.21
Manufacturing	865	1,051	1,057	192	6	22.20	.57
Transportation/ Communications	418	401	316	-102	-85	-24.40	-21.20
Wholesale Trade	169	179	156	-13	-23	-7.69	-12.85
Retail Trade	1078	1,190	1,061	-17	-129	-1.58	-10.84
FIRE	242	285	220	-22	-65	9.09	-22.81
Nonprofessional Services	459	443	385	-74	-58	16.12	-13.09
Health Services	588	1,126	1,035	447	-91	76.02	-8.08
Education	395	442	441	46	-1	11.65	-0.23
Professional	499	435	350	-149	-85	-29.86	-19.54
Public Administration	229	182	243	14	61	6.11	33.52

to increase in the county. However, the NDOL indicates a significant fall in both workforce and employment during the last part of the decade. In 1999, unemployment in Gage County remains at a low 2.6%.

• Trends during the 1990's indicate that Gage County is transitioning from an agricultural based economy to one more dependent on manufacturing and service related industries.

The 1990's have displayed very clear trends toward employment growth in manufacturing of durable goods and services and a strong decline in agricultur-

TABLE 1-9: Gage County Labor Force and Unemployment, 1980-1999

	1980	1985	1990	1995	1999	Change 1980-1999	Change 1985-1990	Change 1990-1995	Change 1995-1999
Labor Force	11,864	11,801	11,602	11,907	11,253	-5.15%	1.69%	2.63%	-5.49%
Total Employment	11,458	11,158	11,400	11,634	10,928	-4.63%	2.17%	2.05%	-4.14%
Unemployment Rate (%)	3.3	5.5	1.7	2.3	2.6				

TABLE: 1-10 Gage County Employment by Sector

Employment Category	1980	1990	1999	Change 1980-1999	Change 1980-1990	Change 1990-1999
Total Employment	11,458	11,400	10,928	-4.63	-0.51	-4.14
Total Non Agricultural Wage and Salary	8,404	8,566	9,280	10.42	1.93	8.34
Manufacturing	1,250	1,277	1,833	46.64	2.16	43.53
Durable Goods	895	1,073	1,546	72.74	19.89	44.08
Non-durable Goods	355	205	287	-19.15	-42.25	40.00
Non-manufactuing	7,154	7,289	7,447	4.10	1.89	2.17
Construction and Mining	322	237	294	-8.70	-26.40	24.05
Transportation, Utilities	453	366	320	-29.36	-19.21	-12.57
Retail Trade	1,523	1,568	1,565	2.76	2.95	-0.19
Wholesale Trade	381	420	348	-8.66	10.24	-17.14
FIRE	384	267	231	-39.84	-30.47	-13.48
Services	1,656	1,988	2,286	38.04	20.05	14.99
Government (includes Beatrice State Development Center)	2,434	2,443	2,404	-1.23	0.37	-1.60

al employment. During the decade, total employment actually dropped by 4%, or 472 jobs. However, non-agricultural employment increased by 8%, or over 700 jobs. The largest gains occurred in the manufacturing of durable goods, growing by a large 43%, or about 550 jobs. This is identified with Beatrice's effective industrial development policies. Service employment also increased by 20%, or about 300 jobs, during the last decade. Clearly, the historic transition of Gage County from an agrarian to an urban economy has accelerated during the 1990's.

• Beatrice's income levels have grown at a much less dramatic rate during the 1990's than occurred during the 1980's, but grew at a rate comparable to other Nebraska communities.

Median incomes in Beatrice have generally remained below statewide averages. The city's median income was about 90% of the statewide average in 1980. During the 1980's increases in median income were fairly substantial but the strengthened economy of the 1990's meant decreased inflation and a stabilizing economy. Although Beatrice's economy strengthened during the 1990's it grew at a much slower rate than the state. By 1999 the city's median income had dropped to 83% of the statewide average. This is borne out by the higher number of lower and middle-income people and lower percentage of higher income people than the state as a whole. Table 1-11 compares income distributions for the city, state, and nation.

Between 1980 and 1990, Beatrice maintained the same rate of income growth as the state as a whole. However, this rate exceeded the income growth rate experienced by comparable communities in Nebraska. Thus, while median incomes in Beatrice continued to trail several of the state's major cities, the gap was closing. During the 1990's Seward's income growth continued to out-pace that of Beatrice but whereas Beatrice had grown faster than Norfolk during the 1980's this trend reversed during the 1990's. Table 1-12 compares median incomes and relative growth rates in Beatrice and comparable communities in Nebraska.

• Conclusions

The economic analysis of Beatrice and Gage County indicates that:

- Although the economy slowed during the 1990's as compared to the late 1980's for residents of Beatrice, it remained steady with fewer fluctuations than occurred throughout the 1980's.

- The Beatrice area is experiencing very low statistical unemployment.

TABLE 1-12: Relative Household Incomes, Beatrice and Comparable Nebraska Cities, 1980-1998

City	1980 Median	1990 Median	1999 Median	% Change 1980-90	% Change 1990-99
Beatrice	$14,411	$23,063	$30,920	60.04	30.15
Alliance	18,705	27,427	-	46.63	-
Columbus	17,987	26,237	33,376	45.87	27.21
Fremont	16,758	24,412	31,692*	45.67	29.82
Seward	16,244	26,592	34,956	63.70	31.45
Hastings	15,427	22,464	-	45.61	-
Kearney	15,491	23,880	36,237	54.15	51.75
Norfolk	16,715	24,935	33,742	49.20	35.32
North Platte	18,961	27,962	-	47.47	-
Scottsbluff	13,958	23,094	-	65.45	-
Nebraska	15,991	25,717	37,374	60.82	45.33

TABLE 1-11: 1999 Income Distribution by Percentage

	Under $10,00-0	$10,000-14,999	$15,000-24,999	$25,000-34,999	$35,000-49,999	$50,00-0-74,999	Over $75,000	1999 Median HH Income
Beatrice	12.0	11.2	18.1	14.8	18.3	18.4	7.0	30,920
Nebraska	9.2	7.4	15.5	14.3	17.7	19.8	16.2	37,374
USA*	10.3	7.8	14.0	13.2	16.0	18.6	20.1	38,885

- The steady growth in incomes was not enough to match the growth that was occurring for the state as a whole.

- The transition of Gage County's employment and economy from rural agricultural to an urban manufacturing and service base has accelerated during the 1990's.

- Economic development policy in Beatrice should continue the clear trend toward increasing economic diversification and to expand the available workforce in the community.

Retail Markets

As a regional service center, retail trade is a particularly important part of Beatrice's economy. Net taxable retail sales grew substantially in Beatrice during the 1970's, and again accelerated during the late 1990's. Retail sales in the early 1980's were stagnant, because of the dual challenges of the downtown in the agricultural economy and the opening of Wal-Mart in nearby Fairbury. New retail development in the 1990's provided a significant increase in retail sales, especially in the later half of the decade when sales during the month of June grew by 16% between 1995 and 1999. Through the 1990's Beatrice retail sales grew slightly faster than the county as a whole but was still less then the growth experienced by the state.

Clearly Beatrice continues to face challenges in its retail market. The completion of Highway 77 as an expressway to Lincoln only increased the competition for shoppers. Despite increased competition Beatrice has thrived during the late 1990's with the construction of the new Wal-Mart and a stable downtown district. Advancing the city's market share in the face of continued and increasing regional competition and declining rural population will require Beatrice to maintain and enhance current buying patterns and loyalties and to begin to penetrate new markets.

Regional Transportation

Beatrice's primary regional transportation facilities include its road and railroad systems and its municipal airport. The airport is an excellent, fully-equipped general aviation facility. In addition, The Burlington Northern also provides satisfactory freight service to most parts of the country.

Beatrice is served by two Federal and one State highway. North-south US 77, running from Sioux City to Texas through Beatrice and Lincoln, is the region's most heavily travelled highway. During the 1990's, this corridor was upgraded to a four-lane expressway, providing Beatrice with a direct multi-lane connection to the Interstate system at Lincoln. Future projects will include work on the viaduct across the BNSF railroad line.

US Highway 136 runs along the southern tier of Nebraska and into northern Missouri and central Illinois. Improvements during the 1990's have included an upgraded two-lane facility with surface shoulders. Finally, State Highway 4 roughly parallels US 136 from the US 75 intersection in eastern Nebraska to its terminus in the central part of the State. Planned improvements include 12.1 mile grading, surfacing and resurfacing of the highway from Beatrice to Plymouth occurring sometime after 2007. This section of Highway 4 bisects The Homestead National Monument and its design could be influenced by future plans for the park.

TABLE 1-13: Taxable Retail Sales for the Month of June ($000)

	1990	1991	1993	1995	1997	1999
Beatrice (non-motor vehicle retail sales)	7,789	8,322	9,048	9,753	11,010	11,325
Gage County	9,043	9,320	10,102	10,990	12,402	12,777
Nebraska Total	962,735	978,437	1,062,252	1,236,438	1,340,145	1,515,784

Regional Tourism

Regional tourism and travel has an important economic development potential for Beatrice and other communities. Visitors to a community, drawn by significant attractions, produce important benefits through spending for shopping and services. The tourism potential of Beatrice and other Southeastern Nebraska communities is strengthened by their proximity to the state's two major population centers. A 100-mile radius drawn around Beatrice yields a potential tourism market in excess of one million people.

Beatrice has two major visitor attractions - the Gage County Museum and Homestead National Monument. The museum, housed in the former Burlington Passenger Station and listed on the National Register of Historic Places, includes regional historical exhibits and artifacts. Since 1995 the facility has seen steady growth in the number of visitors, but the proportion of those coming during the summer months has decreased. This fact suggests an increase in use by school groups and other structured activities, but lower visitation by individual tourists. Table 1-15 summarizes the recent attendance history of the Gage county Museum.

Homestead National Monument, operated by the National Park Service of the US Department of the Interior, is located west of the city on Highway 4. The monument features interactive displays and restorations which recall the nation's early homesteaders. It also features re-established native prairies, with an extensive trail system, self-guided tours, and visitors' center. Visitation at Homestead National Monument has fluctuated throughout the 1990's, reaching its peak in 1993 with 46,537 visitors and ending 1999 with 41,510. Proposed expansion of the facility through additional federal funding could dramatically increase attendance during the planning period.

TABLE 1-14: Gage County Museum Visitation 1993-1999

	1993		1995		1997		1999		% change 1993-199-9
	Total	Summer	Total	Summer	Total	Summer	Total	Summer	
Total Number of Visitors	2,960	1,505	3,769	1,593	4,925	2,154	6,800	1,568	129.73
% Of the Total		50.84		42.27		43.74		23.06	

POLICIES AND ACTIONS

This section presents the policies and actions that will enable Beatrice to address the regional challenges that face the city and to fulfill the goals set out at the beginning of the chapter. The analysis in the first part of the section has identified the need to:

• Counter the trends of natural population decline and support the continued in-migration that will affect Beatrice's ability to grow.

• Continue the steady economic growth and diversification that the city experienced through the 1990's.

• Strengthen Beatrice's traditional role as a regional market and service center.

• Improve regional linkages through an enhanced regional transportation system.

• Develop new economic markets by encouraging visitation to the city from nearby urban centers.

Economic Development

In order to continue to diversify its economy and help the city grow by providing existing and prospective residents with economic opportunities, Beatrice should complete these policies and actions:

1. Industrial Park Expansion

Beatrice's Northwest Industrial Park has been developed in three stages by the City of Beatrice and Gage County Economic Development, Inc. Park I has been built out; but 55 acres still remain in Parks II and III of quality industrial space. Continued development is likely to use all available space in the parks well before the end of the planning period. Therefore, the city should provide for the acquisition of industrial land and provision for supporting infrastructure. The size of the new park is discussed under the theme "Room for Orderly Growth", which considers industrial absorption rates in Beatrice.

The preferable sites for additional industrial park development are adjacent to the current Northwest Park. These sites benefit from readily available infrastructure and convenient transportation facilities, including US 77 and the Beatrice Municipal Airport. Purchase of land for Parks II and III was realized through the use of sales tax dollars under LB 840. This successful program should continue; Beatrice should maintain a minimum three-year supply of modern, fully-served industrial land. In order to assure availability of optimum sites, the land acquisition process should be completed within the next ten years; actual development of the park should occur when the available land falls below a three-year supply.

Industrial Park and Redevelopment Finance

In addition to the current use of LB 840, industrial park financing may pursue several other options. Parks I and II are located outside of Beatrice's city limits, in order to avoid municipal property taxes; however, Park III is located within city limits. Redevelopment financing tools, such as tax increment financing, may be used to assist project development in Park III 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. Since the city previously declared Park III to be "blighted and substandard", pursuant to the Nebraska Community Development Law, the city could issue bonds to finance acquisition and public improvements.

2. These bonds would be 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 years or less by repaying the added property taxes created by the new project to the business.

The city can also utilize program income from Community Development Block Grant (CBDG) repayment for project development in Park III and expansion of the industrial park. Funds through the CBDG program can be utilized for land acquisition, site clearance and redevelopment of blighted areas. For redevelopment of blighted areas the city would need to

follow the same procedures used in the designation of Park III as "blighted and substandard" under the Nebraska Community Development Law.

2. Small Business Development Program.

Manufacturing, much of which is generated by local entrepreneurs, has been a staple of Beatrice's economic growth. Economic diversification will continue to be a critical priority for Beatrice. Economic growth can be generated in three ways: recruitment of new industries from outside the city; expansion of existing local industries; and creation of new enterprises. A small business development program can establish the city as a nurturing environment for small business and as a center for economic opportunity. This atmosphere, in turn, can encourage people with skills and ideas to move or return to Beatrice to make a start in business. Programs that expand opportunities in Beatrice can counter the out-migration of young families that Beatrice and similar communities tend to experience.

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

The program can begin most readily with advisory services. An advisory program should orchestrate resources offered by the Chamber of Commerce, active and retired business-people, 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 Beatrice.

Later stages of the program can involve a business incubator building and establishment of a Small Business Investment Corporation. Incubator buildings provide affordable space and cooperative services (such as reception, copying, FAX, computers, and conference facilities) to improve a new business' chance for success. The project may be housed in a Downtown building or in a new structure in the expanded industrial park and may be administered through a new nonprofit corporation. A business investment corporation is capitalized by other local interests and makes equity investments in promising new businesses. Federal sources, such as Community Development Block Grants, may be used for capitalizing an investment program.

The development and marketing of an advisory service program should be implemented during the early part of the planning period. Execution of a full scale business development program should be targeted for 2005.

3. Marketing Programs

Business recruitment will continue to be an effective and important part of Beatrice's economic development strategy. In addition to recruitment, the city can open job opportunities by helping existing businesses in the city expand their markets and compete more successfully. Finally, the successful marketing of Beatrice as a center for opportunity is important to the city's effort to expand its labor force and attract new residents.

Programs which accomplish these objectives can be grouped together as "marketing programs," because in one way or another, they market the city and its businesses. The audiences for these efforts vary - they may be new businesses making site decisions; potential customers for locally-made products; or young families deciding where to set down roots. Together, they represent the backbone of city and Gage County

Economic Development Inc. (GCED) economic development efforts.

Focuses for these marketing programs include the following:

Industrial Recruitment

The city's economic development agent, the Gage County Economic Development, Inc., should develop a list of potential target industries for Beatrice, based on the likely fit between individual industries and Beatrice's features. The community should implement a marketing campaign based on these targets.

Elements of a targeted business attraction campaign include:

- Having available sites through industrial park expansion.
- Developing focused and effective marketing materials.
- Instituting a program of direct meetings with industrial decision-makers.
- Carefully offering incentives, only in those cases when assistance is needed and provides a substantial financial benefit to the city.

Cooperative Product Marketing

The GCED should help orchestrate cooperative marketing of Beatrice's manufacturers and their products. This strategy involves focusing on a very targeted series of trade shows that can help expand Beatrice's markets and developing a common exhibition to present at these events. It would be designed to produce new markets for the city's goods and to encourage similar manufacturers to consider Beatrice as a plant site.

Business Contacts

The City, GCED, and Gage County should continue their current policy of close and regular contacts with individual businesses to accommodate their specific needs.

Job Marketing

Beatrice should continue its current Job Fair program, which matches available jobs in Beatrice with people in Southeast Nebraska who are seeking employment. The fairs can help build the labor force that Beatrice businesses need to increase capacity. In addition, they provide an important opportunity to market Beatrice to new residents.

Labor Force Enhancement

The community should match area businesses and Southeast Community College to provide programs for developing specialized job skills that meet the needs of existing businesses and possible recruitment targets. The college is a vital resource for creating job skills. Focused skill development programs can provide human resources that are needed by Beatrice's industries. Business recruitment efforts should be matched by advanced training that meets the needs of targeted industries. This program can make Beatrice an especially attractive location for new businesses and can help enhance the city's role as a residential magnet for the surrounding region.

4. Retail Development

Beatrice should implement a comprehensive, cooperative marketing program to maintain current markets and attract new customers. Elements of this strategy, which should be implemented by an association of Beatrice merchants, include:

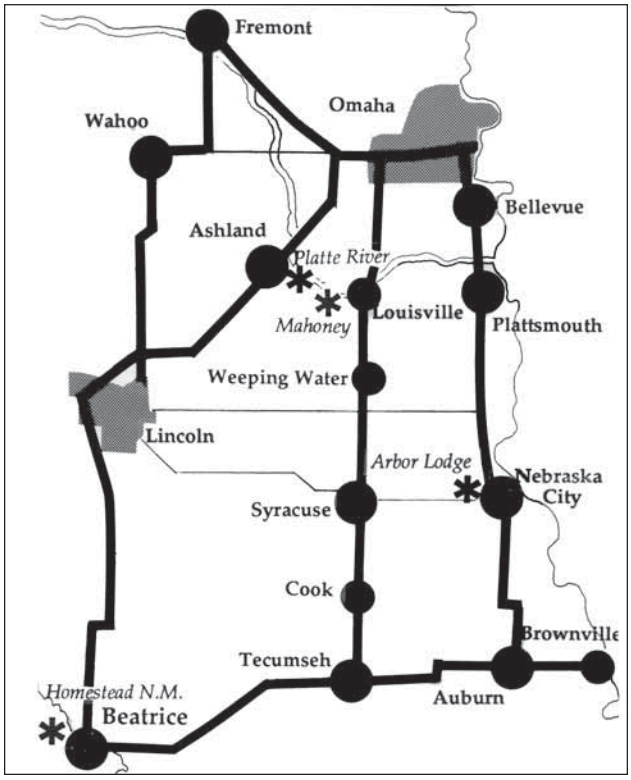
- Joint marketing of Beatrice and local businesses by all commercial centers and businesses in the city. Thus, merchants in Downtown and other commercial concentrations such as Indian Creek Mall, the North Highway 77 corridor and East Court Street should join to market businesses cooperatively, with a focus on the regional market.

- **Orientation to "small-town" service**. A vital "separator" between the Beatrice retail community and larger city or chain retailers is the sense of personal service that a smaller community can offer. This distinction should be emphasized in marketing materials. It is critically important, however, that service is an actuality rather than a marketing slogan.

- *Effective Downtown development.* Downtown remains Beatrice's principal business center and most distinctive retail area. Therefore, its viability will be critical to the ability of Beatrice to compete in the regional retail market. Downtown programming is considered in detail in Chapter Seven, "A Revitalized City Center".

5. Tourism and Increased Visitation

Beatrice's two primary visitor attractions, the Gage County Museum and Homestead National Monument, can become important destinations. The steady visitor gains at Homestead indicate that there is a growing awareness of its excellent resources. However, annual attendance of 41,000 in a market area of 1,000,000 indicates substantial room for growth. Two approaches can be instrumental in increasing economic development in Beatrice through increased visitation.



A Tourism Network

A multi-community tourism network would be oriented toward an increasing market for low-cost, one and two-day family oriented travel experiences. The network, involving effective joint marketing of tours and attractions would include communities on Highways 77, 136, 50 and 75, and would be aimed at the metropolitan markets of Omaha, Lincoln, and surrounding areas. Participating communities would include Omaha, Fremont, Wahoo, Lincoln, Beatrice, Auburn Brownville, Nebraska City, Plattsmouth, Syracuse, Tecumseh and Louisville, as well as smaller communities such as Cook and Weeping Water. The loop includes national monuments, state parks and recreation areas, historic sites and attractive communities.

The loop should be established through cooperative efforts initiated by the tourism bureaus of the constituent communities. The Tourism Division of the Nebraska Department of Economic Development may be the convener of such a process. Discussions leading to creation of such a joint venture should begin within the next two years.

Housing

In order to improve its ability to attract new residents, Beatrice should encourage a comprehensive housing development program.

1. Development Areas

Beatrice should designate areas for new development large enough to accommodate two to three times its projected twenty-year absorption of residential land. These 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 by scarcity of available residential sites. An optimum mix of efficient 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 Chapter Three, "Room for Orderly Growth".

2. Affordable Single-Family Housing

A significant supply of affordable single-family houses can provide a resource to attract potential residents to Beatrice. Beatrice should develop programs that encourage the development of "affordable" single-family housing, generally ranging in price from $75,000 to $105,000. Specific housing demands and programs that can deliver housing within this targeted range are elsewhere in the Beatrice Plan.

3. A Range of Housing Types

A relative lack of quality rental housing in Beatrice may discourage higher income people from living in town, particularly before they are ready to make the commitment of home purchase. Beatrice should encourage rental housing development which would provide new professionals and business managers with short-term housing alternatives.

Elements of the city's efforts here will be market identification and meetings with proposed developers. Local businesses should assist with referring employees to new housing opportunities. The city may also be involved in providing sites for potential development.

Affordable Housing Finance Programs

A variety of programs exist to help provide affordable housing in Beatrice. 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 home buyers, 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 Grant program.

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

- HOPE VI program, 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.

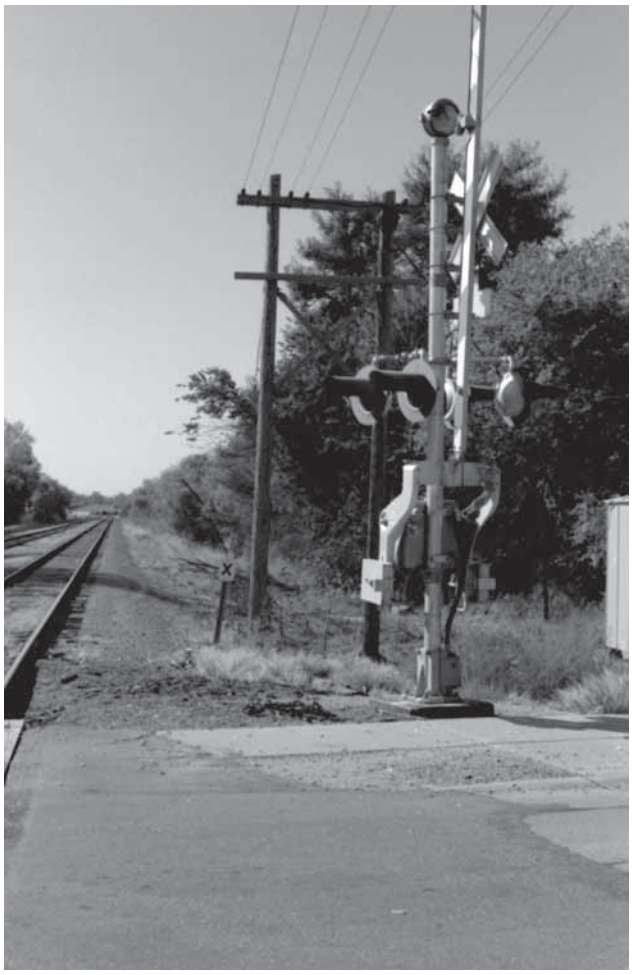
- HOME funds, administered by the State to provide leverage financing for new or rehabilitated rental development.

- Historic tax credits, offering a 20% first-year investment tax credit to investors in the certified rehabilita-

tion 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.

- Low-income tax credits, administered by the Nebraska Investment Finance Authority. This program provides ten-year tax credits to investors in projects that reserve specified numbers of their units for low-income occupants.

- Rent-to-own programs, which develop affordable rental housing while providing tenants with the ability to build equity toward the purchase of a new home in town. Rent-to-own projects provide a way for young households to become invested in the city and grow with it



Transportation

In order to strengthen regional transportation links, Beatrice should implement or encourage the following projects:

1. US 77

During the 1990's, US 77 expressway was completed between Beatrice and Lincoln. The city should continue to monitor any work planned for the highway. In addition, the city should be involved with other US 77 communities working with the State to extend the expressway section from the Kansas border to Sioux City.

2. Nebraska Highway 4

Improvements to Highway 4 are scheduled by the Nebraska Department of Roads for beyond 2007. These improvements will include grading, surfacing and resurfacing of the highway from Beatrice to Plymouth. Improvements to this section could be altered due to plans for expansion of Homestead National Monument, which Highway 4 bisects west of the city. It will be important for the city to monitor the development of this project. Improvements at Homestead National Monument and increased attendance should also be monitored for its effect on the highway.

Public Facilities

Beatrice should strengthen its competitive posture in relation to Lincoln and other communities by implementing the following actions.

1. Fire Station

The city must consider the need for an additional fire station facility south of the Blue River. The removal of city offices from the City Auditorium would relieve some of the space pressures in the current city hall. It would also allow for expanded use of the facility. The need for an additional station could be necessary during the later part of the planning period if growth projections are met.

2. Parks and Recreation

Beatrice should improve the quality of life that it offers to current and potential residents by upgrading its park system. Beatrice's existing park system is in excellent condition with key amenities, but opportunities exist to extend these to the entire community and the region. A particularly important opportunity for system enhancement is the development of a recreational trail system, using the Big Blue River corridor and the abandoned Union Pacific Railroad line as key components of the system. Such a system would provide an important open space amenity that would compare favorably with systems in other, larger communities.

A Physcially Unified City

Beatrice should become a unified and united city by overcoming physical and developmental barriers that tend to divide it.

Most American communities, large and small, have a tendency to grow apart. Cities and towns traditionally develop from a specific point or area. Often, this point of origin is related to transportation and access. It may be a crossroads, a river landing, or an original railroad depot. As growth continues and the boundaries of the city spread, people tend to live farther from one another. In some cities, growth occurs in relatively concentric circles around the center. These cities tend to be more compact and maintain stronger downtown areas. Other communities grow in one or two directions, particularly if the center is defined by a major barrier such as a river. These cities tend to have lower densities and display a greater amount of separation between neighborhoods on the edge of development and areas in the traditional central city. In nearly every case, development tends to be "centrifugal" - that is, it tends to occur at the edges and is drawn away from the center.

Beatrice has experienced a similar, and in some ways a rather complex development pattern. The city is a crossroads community, going first west along Court Street from the river and then outward from its original points of maximum access - 6th and Court. As the city grew, it spread out along the four legs of its major crossroads highways. However, it grew asymmetrically to the north and northeast, attracted by the availability of high land and the "gravity" pull of Lincoln. The centrifugal nature of Beatrice's growth, overlaid on the major water and railroad barriers, has caused the city to emerge as four distinct communities. This phenomenon can cause conflicts and can, at worst, make sectional concerns more important than community-wide issues.

A major theme of the 1992 Beatrice Plan was unification - the establishment of a network of streets and greenways that connected the four separate parts of the city. Beatrice has implemented some major recommendations of the plan. These include the construction of a new high school on a site that encourages concentric development and the funding of a trail along the Big Blue River, linking major parks and public open spaces. But major work remains, including the development of an additional river crossing and related road system.

As in 1992, Beatrice will benefit greatly from continuing to grow together as a physically unified community. This concept is basic to many of the other themes developed in the Beatrice Plan. Through it, Beatrice can take a community-wide view of development - and, in doing so, maintain its status as a great community.

GOALS

This section presents the basic goals which will be addressed through the theme of creating a physically unified community. In pursuing goals which will knit the parts of the city together, Beatrice should work to:

• **Improve the accessibility of key centers and facilities to all parts of the city.**

Beatrice has a wide variety of facilities and community offerings. Traditionally, many of these functions have been located Downtown. These have included the seats of city and county government, the Municipal Auditorium, the high school and middle school, the public library, and the city's primary retail and employment centers. Downtown was perceived as "community territory" - the property of all citizens and the exclusive domain of no one.

In common with many Nebraska communities, major park and recreational facilities were located along the river corridor. Thus, Chautauqua Park, with its historic Chautauqua programs and, later, a host of other recreation improvements, was a retreat across the river from the business of community commerce of the north bank. Riverside Park accommodated other recreation facilities and eventually became the home of Beatrice's public swimming pool.

In later years, some of these major community attractions have decentralized. During the 1990's the high school and library moved out of the downtown and the swimming pool was moved out of Riverside Park. Without transportation connections, it becomes harder to get to some of these features from different parts of

the city. As a result, they may be perceived as becoming the territory of one specific section of town. A key goal of unifying the city must be to improve access from all parts of Beatrice to major community features and attractions. This assures that the good things of life in Beatrice are available to people in all neighborhoods.

• Increase communications from one part of the city to every other part.

Beatrice's street pattern, in common with many other Nebraska communities, is a grid that is generally determined by the original surveying and sectioning of land mandated by the Homestead Act. Generally a grid street pattern produces a network which affords a high level of access among sections of the city. However, Beatrice's grid is interrupted by its waterways - the Big Blue River and Indian Creak and its railroad corridors. These barriers have isolated the local street systems and divided them into four distinct districts. Developing continuity in the city's street grid can help to unify Beatrice's physical structure.

• Decrease sectional and neighborhood differences in order to encourage the location of major, one-of-a-kind community facilities.

Physical divisions can justifiably cause a resident's perspective to be sectional rather than community-wide. When other parts of the city seem to be remote, people focus in on their specific neighborhoods and become rightly concerned about the equitable distribution of facilities. Residents begin to worry that one section of the city will receive benefits at the expense of others. In a physically unified community, however, each section of the city realizes the benefit of major projects. As with traditional downtowns, community facilities are the property of everyone and not the territory of one particular neighborhood.

• Improve the quality of the city's environment.

Major community amenities such as Beatrice's park system should become a part of every neighborhood. This concept of integrating open space systems into neighborhoods was pioneered by the great landscape architect Frederick Law Olmsted and can greatly improve the quality of life in the community. Recreation and open space systems can be powerful forces in unifying sections of the city, particularly given the increasing popularity of such recreational pursuits as bicycling, walking, and running. The role that environmental quality can have in attracting residents has previously been discussed in Chapter One, "Meeting Regional Challenges."

FACTS AND ANALYSIS

This section reviews historical and current development patterns in Beatrice. It will help point out the trends that created separated sections in Beatrice and will point the way to solutions that will help unify the community's physical structure.

• Early Growth Patterns

Beatrice, in common with many Nebraska cities, grew from a point of maximum regional accessibility. Originally this point was the crossing of a major east-west road and the Big Blue River; later, it was the crossroads of two major inter-regional highways, the roads that eventually became US 77 and US 136, and the confluence of three major railroad lines. These railroads included a Burlington Route branch that joined the Burlington main line at Crete and extended into northern Kansas; the recently abandoned Union Pacific, north to Lincoln and to the main line at Central City and south to Marysville and Topeka; and the previously abandoned Rock Island to Fairbury, Lincoln, and northern Kansas. These three railroads ran together in a corridor on the eastern edge of Downtown, then followed the gentle grades of the Big Blue and Indian Creek floodplains. The railroad corridors defined the location of major industry in Beatrice. In central Beatrice, industry clustered south of the downtown retail district in a quadrant generally defined by 6th Street, Market and Court Streets and the Big Blue floodway.

Commercial development grew westward from the railroad and river to the eventual epicenter of Beatrice's Downtown at the intersection of 6th and Court. Court Street became the principal shopping street, while buildings of civic importance such as the Gage County Courthouse, major churches, and Beatrice Junior School (formerly the High School), were sited north along Sixth Street. Major community landmarks include the Burlington Passenger Station (1906), the Carnegie Library (1902-03), and the Paddock Hotel (1919), all listed on the National Register of Historic Places.

As Beatrice grew commercially in the late 1800's, its residential neighborhoods also began to develop. As a general rule, wealthier residents built imposing, high-style houses in neighborhoods north of Court Street, toward Lincoln and away from the flood-prone Big Blue River, the city's railroad corridors, and major industry. Thus, most of the city's imposing historic houses are located within a district generally west of 12th Street, south of Washington Street, and north of Court Street. More modest housing in vernacular styles was located south of Court Street, toward the river and the Union Pacific corridor.

The city's principal recreational areas developed as "retreats" on the south bank of the Big Blue. Chautauqua Park and its pavilion, constructed in 1889, made Beatrice a center for culture and continuing education in Southeastern Nebraska. The park formed the focus for adjacent residential development. More speculative development took place across the Big Blue in West and South Beatrice. The continuation of the major highways (6th Street to the south, Court Street to the west), provided the only access routes to these "satellite" communities.

Later Development Patterns

• Residential Development

The preponderance of late 20th Century residential growth occurred in the north and northeastern parts of Beatrice. The neighborhoods north and east of 6th and Court Streets include 54% of the city's single family housing. During the 1980's much of the residential development was concentrated north of Court Street and east of 19th Street. The 1990's development south of the river included the Country Club area and the Belvedere and Dusenbery-Doyle neighborhoods in the southwestern part of the city.

Major residential growth in Beatrice continues to occur at the extremities of the city, at the northeastern, southeastern, and southwestern edges. These trends reinforce the city's historic patterns of decentralization and tend to work against the concept of unification.

• Commercial Development

The popularization of the automobile caused substantial changes in Beatrice's historical commercial development patterns. More recent commercial development has followed the major crossroads arterials out of the center of Beatrice. Most development has occurred to the north along 6th Street and to the east along Court Street.

Higher density, free standing commercial and office development on small sites extends north from Downtown along 6th Street. However, larger scale, auto-oriented development grew along North 6th Street (US 77) north of the Union Pacific grade crossing. The largest single project in this area is Indian Creek Mall an enclosed mall that includes a discount department store and a furniture store as principal anchors and mall shops. The newer motels, the convention center and a new Wal-Mart discount store also have grown along the Highway 77 corridor.

Neighborhood-oriented commercial development grew east along Court Street from Downtown. Smaller scale commercial development grew along the street in both free-standing buildings and converted houses. A major, more auto-oriented commercial and office node developed along Court Street from 19th to 24th Streets. Major anchors in this commercial cluster include a supermarket and a discount department store.

Less intense, more intermittent commercial development grew along West Court and, to a lesser degree, South 6th Street. A significant cluster of commercial buildings developed along West Court between LaSelle and Sumner Streets. Yet, because of the relative separation of these areas from more populated parts of the city, the south and west parts of town have not experienced major commercial growth. In addition, topographic problems and the adjacency of the Burlington right-of-way to south 6th Street made major development difficult in this corridor.

Commercial growth in Beatrice has followed the very local pattern of decentralizing along the city's major arterials. Without an interconnecting traffic system,

however, this pattern also reinforces the city's recent development trends toward increasing separation of its components.

• Industrial Development

Recent industrial growth has also moved to the north along the US 77 corridor. A major industrial concentration, anchored by Store Kraft Manufacturing, occurs near the crossing of the Union Pacific Railroad and 6th Street. The city's most important new industrial concentration is the City's Industrial Parks, south and west of the Beatrice Municipal Airport. This location, on the periphery of the city and technically outside of the city limits (except for Park III), provides excellent access to US 77 and the airport.

• Public Facilities

While still generally concentrated in the traditional city center, public facilities have also responded to city growth patterns. In 1991, the Beatrice Public Library moved to a new facility at 16th and East Court. The school district constructed a new high school, and the City constructed a Senior Center both along East Court Street on the edge of development and the Beatrice YMCA and new Aquatic Center are located on East Scott Street. The city has also developed Hannibal Park, a 40 acre complex in Northeast Beatrice. These facilities, which are located conveniently for most residents of north and central Beatrice, are relatively distant under current conditions for residents of south and west Beatrice and Glenover.

• Summary

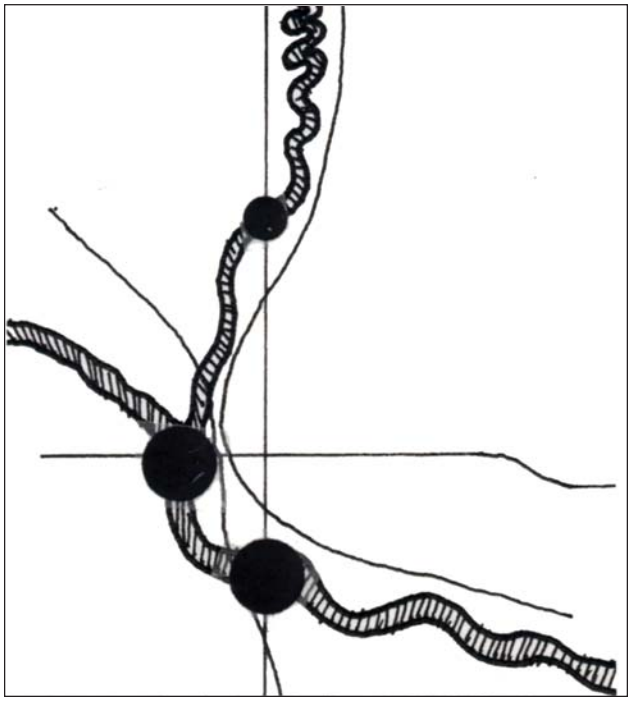
Development trends in Beatrice have tended to pull the city away from its relatively compact origins. Recent residential growth is concentrated at the southern and northeastern edges of the community. Similarly, commercial growth has occurred on major highways at the northern and eastern edges of Beatrice. Major public facilities have relocated out of the downtown district, while still locating on sites generally viewed as community territory. The goal of producing a more unified structure for Beatrice's development requires that these development ends be tied together through linkages, creative facility siting, and designation of strategic development areas.

Barriers and Transportation Patterns

Beatrice's pattern of decentralized development tends to separate parts of the city from one another. However, major physical barriers in the community reinforce these separations. While neighborhood distinctions can be an asset, these barriers complicate access and can create a sectionalism that may not serve the city well. In order to overcome barriers, it is necessary to review and understand them.

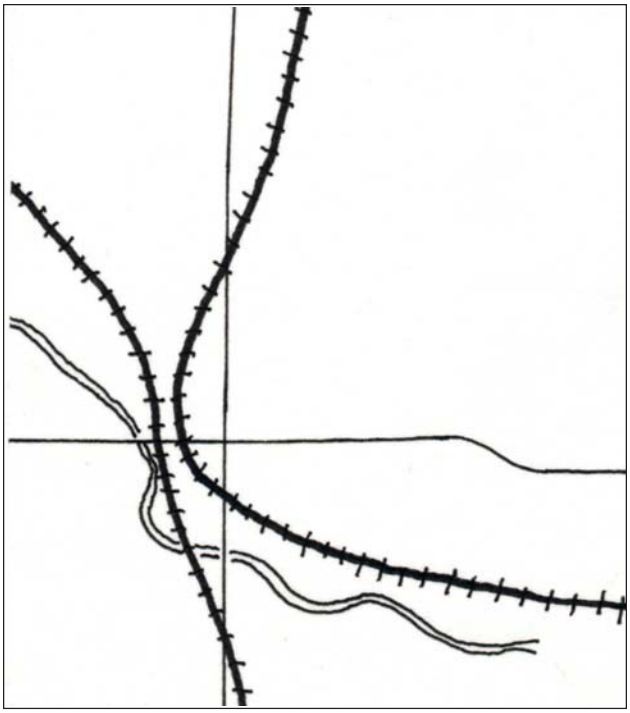
• Waterways

The Big Blue/Indian Creek system has had a major effect on development in Beatrice. The Big Blue River generally runs from the northwest to southeast, with a meander that roughly surrounds Downtown Beatrice. Indian Creek runs in a north-northeast to south-southwest direction, crossing North 6th Street north of Dorsey Street and joins the Big Blue north of the Court Street Bridge. The floodway and floodplain of the river are relatively wide. For example, at the Court Street crossing, the floodway is almost a 1/2 mile wide, expanding between Glenover and West Beatrice. The river's 100-year floodplain increases the breadth of this barrier.



• **Railroads**

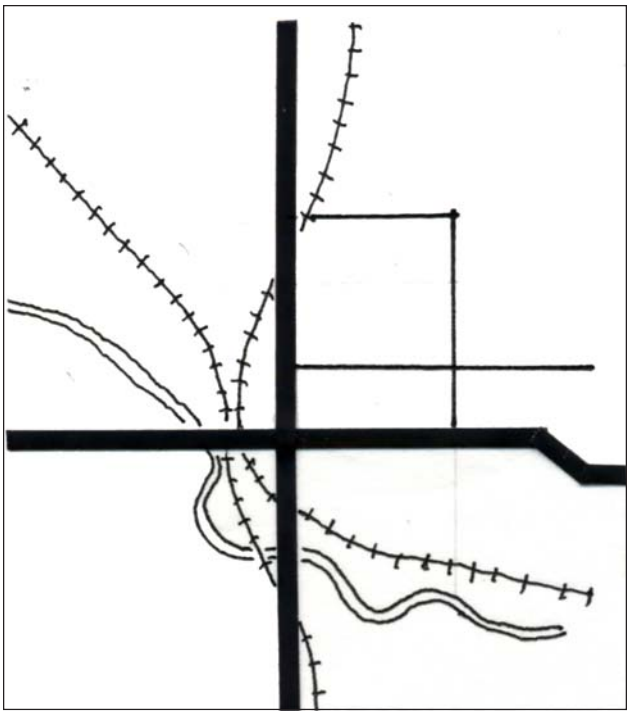
The railroad corridors through Beatrice present minor barriers. The abandoned Union Pacific roughly parallels Indian Creek to Downtown and is located in or on the edge of the creek's floodplain. South and east of Downtown, the Union Pacific, along with the abandoned Rock Island, parallels the Big Blue River. The Burlington Northern approaches Beatrice from the northwest through the Big Blue floodplain, crosses the river west of the 6th Street bridge, and proceeds parallel to South 6th Street partially in a cut. This cut produces a barrier between the eastern and western parts of South Beatrice, bridged only by the Marlborough Avenue viaduct. Abandonments have reduced the dividing effects of these corridors and can create opportunities for trail linkages.



• **Major Arterials**

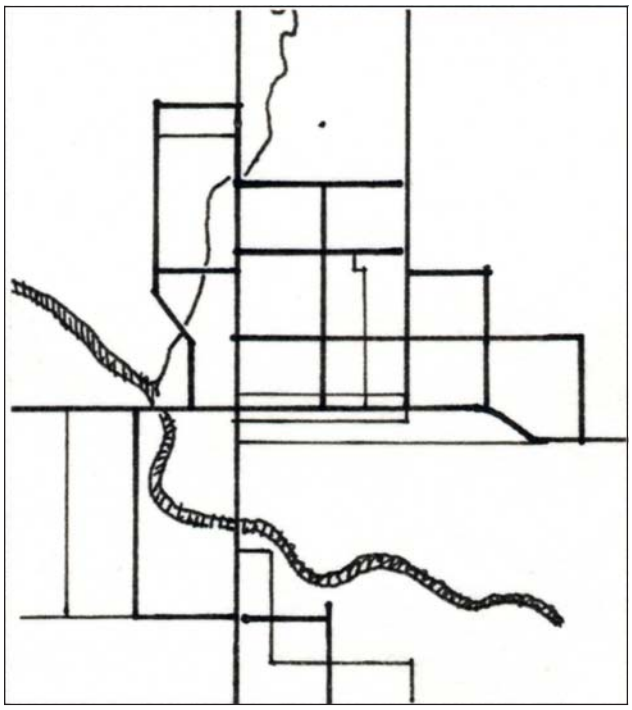
Beatrice's two major arterials, Court Street and Sixth Street, do not represent major barriers, although they carry substantial traffic. Sixth Street (US 77) north of Downtown is an urban street, lined with community facilities and both commercial and residential buildings. The character of the street changes north of Jackson Street, becoming a substantially higher-speed, less pedestrian environment. The street south of Downtown crosses the Big Blue and constitutes a substantial barrier to pedestrians crossing from Chautauqua Park to the Memorial Drive area. The street is primarily a higher-speed vehicular environment as it leaves Beatrice to the south.

Court Street is a major community arterial, with substantial neighboring commercial development. The street furnishes an undivided section for its length through Beatrice, permitting free left turns. The street carries sufficient traffic to be a substantial obstacle to pedestrians, particularly to mobility-impaired people. However, the street's section does not make it a major edge for sections of the city.



• **Street Pattern**

Beatrice's street pattern is generally a grid. Within each section, the grid network is relatively continuous. However, links among sections of the city are limited. Access from south to central Beatrice is provided only by 6th Street, while Court Street provides the only crossing from west to central Beatrice. Glenover is linked only to the east by Irving Street and Hoyt Street. There currently is no fully improved road connections between South and West Beatrice.



• **Summary**

The pattern of physical barriers in Beatrice divides the city into four distinct sections - the north and Central parts of the city, west Beatrice, South Beatrice, and Glenover. The primary physical barrier that defines these sections is the Big Blue River/Indian Creek waterway system. The separations are strengthened by the lack of crossings and interconnections among these areas. Trips between Glenover, West Beatrice, and south Beatrice require travel through Downtown and the central part of the city. Similarly, only one route connects central Beatrice with South and West Beatrice.

• Conclusion

Beatrice is a physically divided community. This division was created by the natural decentralization of major community features and development patterns and the discontinuities created by major barriers, particularly the Big Blue River and Indian Creek and their associated floodway. A fundamental concept of the Beatrice Plan calls for the unification of a city that has grown apart by helping to draw the community back toward itself. The Policies and Actions section describes the programs that can accomplish the goals of this theme.

POLICIES AND ACTIONS

This section presents a program of policies and actions that will enable Beatrice to fulfill the theme of becoming a physically unified city. This program is designed to overcome the effects of a gradually decentralizing city, the presence of major physical barriers which sectionalize the community, and a lack of transportation linkages between parts of the city.

Conceptually, the program calls for a threefold strategy:

• Designating a major development area which directs new development back toward the center of town.

•Creation of a double loop circulation system that uses pedestrian, bicycle, and vehicular legs as parts of two interconnected loops that connect Beatrice's four sections.

• Developing a major street grid that crosses the city's waterway barriers and connects South, Central, and West Beatrice; and Glenover.

• Land Use

In order to develop a more compact community design to help Beatrice grow back toward its center, the city should implement the following strategies:

1. Growth Center at 19th and Scott

The city should designate a major growth center southeast and southwest of 19th and Scott Streets. This growth center, providing for potential development of approximately 300 acres, should be viewed as a location for major new residential growth along with important community facilities.

The 19th and Scott growth center is located near a cluster of major new or recently improved community facilities, including the high school, the YMCA, the Public Library, the Aquatic Center, Hannibal Park, the riverfront and East Court commercial area. These facilities provide amenities that help to support major residential development. Most importantly, growth at 19th and Scott is "centripetal" - pulling growth back toward the center - rather than centrifugal. It counters Beatrice's trend of experiencing all new growth at the

edges of the community. Major public facility development in the area, if properly linked to other parts of the city, will take the issue of site out of the discussion. Indeed, the site is not the territory of any one section of the city. Finally, the site is very developable - flat, but outside of floodway and floodplain.

2. Development of Commercial Nodes

Commercial areas have emerged as major activity centers in American communities. Thus, their placement and development can be very important in defining communities and establishing structure for the city. Land use policy in Beatrice should encourage commercial development at key nodes. This policy should simply enhance and strengthen current development patterns to establish areas that function as focuses of community activity.

The commercial nodes proposed for Beatrice include:

• **Downtown Beatrice.**

• **North Highway 77.** This commercial area, centered around Indian Creek Mall and the new Wal-Mart, will provide major auto oriented regional retailing, lodging, and service facilities.

• **26th and Court Street.** The East Court Street district, specifically 19th to 26th Streets, will provide community commercial services, including local retailing and services facilities. It will be a principal business node for Beatrice's east side development areas.

• **Sumner/LaSelle and West Court.** This node will provide neighborhood commercial facilities for West and some South Beatrice neighborhoods.

Generally, new commercial development should be channeled into these four key commercial nodes.

Transportation

In order to develop a transportation system that unifies Beatrice by providing connections between its sections, the city should implement the following projects:

1. Creation of a Street Grid

A key to the creation of a physically unified city is the creation of a street grid that connects Beatrice's four large districts. Vital elements of this grid include:

• **26th Street**

Beatrice should develop a north to south link in the eastern part of the community by extending 26th Street south from Scott Street to Oak Street in South Beatrice. The project includes a bridge over the Big Blue River. The project should also include pedestrian and bicycle accommodations by providing an eight-foot sidewalk/bicycle path on one side of the new street to connect to Chautauqua Park.

The 26th Street connection is an extremely important link in a citywide transportation grid. It connects developing areas in southeast Beatrice with the Southeast development area and central Beatrice. In addition, it functions as the east leg of the double circulation loop designed to unify Beatrice's neighborhoods. The project further strengthens the East Court commercial area by providing direct access to it from the southeast. Finally, a 26th Street connection substantially improves public safety by permitting access to all parts of Beatrice during flood conditions. Serious floods can inundate the Sixth Street and Court Street bridges over the Big Blue and cut parts of the city off from vital services.

The 26th Street extension is important as well to the development of the 19th and Scott growth center. In addition, it provides excellent access to existing major east side public facilities from most parts of Beatrice. The extension would also improve the function of the new high school adjacent to 33rd Street.

Thirty-third Street may provide an alternative routing for a north-south connection at the Big Blue crossing; however, 26th is a better short-term alignment given current development patterns. The use of 26th would also require an extension of Oak Street.

• **Belvedere Avenue Extension**

Belvedere Avenue should be extended as a paved street west to Sumner Street. This project will involve both the city and county and will provide an additional connection to development in southwest Beatrice.

• **Sumner Street**

Sumner Street is currently paved in a rural road section south of Belvedere Avenue. This street completes the west leg of the city's inter-sectional grid and provides a direct connection between south and west Beatrice. In addition, the extension opens parcels in southwest Beatrice for residential development. Improvements to this link will require a cooperative effort between the city and county.

• **Community Streets: 6th Street, Court Street, and East Beatrice Parkway.**

Community streets are major street that link important community features and institutions. Residents often perceive these streets as important axes and orient themselves to them. Ideally, these streets should provide good accommodations for pedestrians and encourage people to walk as well as drive along them.

Sixth Street and Court Street are both "community streets" for the City of Beatrice. The Eastern Beatrice Parkway should develop as an important link in the 19th and Scott Street development area. It would extend from 13th Street at about Scott, following the edge of the Big Blue floodplain, and then extend north along 26th Street and east to 13th Street as an extension of Dorsey Street. These streets also constitute important links in the double loop system that unifies the city's four sections. The city should encourage their development as community streets. Specific components of this policy include improving sidewalks and pedestrian accommodations; enhancing the safety of pedestrian crossings at strategic points; strengthening landscaping and development standards governing development along the streets; upgrading and modernizing street lighting; and providing special features such as banners.

Public Facilities

In order to provide amenities and services on an equitable basis to all parts of the city and to use facilities as technique to unify the community, Beatrice should carry out the following programs:

1. Recreational Trail

Beatrice should develop a major recreational trail system that connects all four parts of the community. Components of this system include:

• The Big Blue Bikeway, connecting Hannibal Park, the 19th and Scott Street growth center, Chautauqua Park, West Scott Street Ballfields and Riverside Park;
• The UP Trail, following the former UP right-of-way roughly along Indian Creek to the east edge of Downtown;
• The Homestead Trail connecting Beatrice to the Homestead National Monument.

The development of the UP Line Trail would connect Beatrice and Lincoln, providing immense recreational and economic development opportunities. The centerpiece of the system is the city's existing open space network along the south side of the Big Blue, and including Chautauqua Park, West Scott Street Ballfields, Nichols Park, Riverside Park and Veterans Memorial Drive. The completed network also includes a new pedestrian and vehicular 26th Street crossing over the Big Blue and Union Pacific, and a pedestrian bridge over the river east of Nichols Park parallel to Court Street.

2. Neighborhood Parks and Facilities

Public facility policy should assure an equitable level of services to all parts of the community. Thus, service gaps created by a lack of facilities such as neighborhood parks or playgrounds, should be filled over time. Linking the parks and open spaces through the trail system and civic streets will also be important to providing recreational access to all parts of the community.

Summary of Policies

Land Use

1. The city should designate a major growth center south of 19th and Scott Streets.

2. Beatrice should channel commercial development to one of four specific commercial nodes.

Transportation

1. Beatrice should develop a major street grid that connects its four distinct districts. Major elements of this grid include:

- An extended 26th Street.
- A south arterial crossing over Highway 77 south of the Beaver and Belvedere corridors.
- Sumner Street south to Belvedere Avenue.
- Pedestrian and urban design improvements to Court and Sixth Streets.

Public Facilities

1. Beatrice should develop a major recreation trail system that includes a river-related greenway, a connection to Lincoln via the former UPRR, and a link to Homestead National Monument.

2. Parks in Beatrice should provide an equitable level of service to all neighborhoods.

Room for Orderly Growth

Beatrice should provide quality areas to accommodate future growth. Growth should be managed and directed to areas that will strengthen and unite the community.

The ability to grow and evolve is vital to Beatrice's future. As the community plans for its future, it should encourage growth and assure that adequate land is available to accommodate anticipated development. During the last twenty years, the city has experienced slow steady overall growth in both its physical form and its employment base. The last section discussed some of these growth patterns and their effects on the physical form of the city. Residential growth has occurred at the edges of the community, with a majority of this development occurring in the northeast part of Beatrice, while commercial growth has tended to move north on 6th Street. During the last ten years steady growth has accompanied moderate population growth. Population projections for Beatrice indicate that, given current trends, population growth is likely to continue.

The overall growth section of the comprehensive development plan must anticipate needs and demands that will accompany population growth and an increased number of households. Beatrice is a dynamic urban environment that will evolve and change. New homes will be needed as people move to the city and new households are created. In addition, new units will replace older structures that are taken out of the city's inventory by public and private actions. Job formation will continue as well, and new commercial and industrial areas will develop to reflect changing demands and needs.

At the same time, Beatrice has the unique ability to affect its rate and type of growth. One recurring point in the theme "Meeting Regional Challenges" is that Beatrice can affect its future through implementing focused, growth-oriented policies. The city finds itself in competition with other communities in a trade and commuter area that extends as far away as Lincoln. Therefore, the number of people who live in Beatrice in 2020 depends on what the city does today to attract residents and businesses.

Yet, growth in Beatrice should not occur in random ways. The quality of its environment will be an important marketing point for Beatrice in the future. Areas of new development can be powerful tools in defining that quality. Thus, growth should be directed to and encouraged in areas that met such crucial objectives as the building of a unified city. New growth centers should work as part of a coordinated policy leading to a stronger community. They should not occur in a policy vacuum that can worsen physical divisions and sectionalism.

This section presents a strategy to guide the city's growth over the next two decades. This strategy is based on the premise that new growth is critical to Beatrice's success as a community and that physical expansion of the city's infrastructure, public facilities, and community services should be designed to serve growth efficiently.

GOALS

This section presents the basic goals which address the theme of providing room for orderly growth. These goals are designed to work in conjunction with the city's need to compete regionally and to produce a more unified, less sectional community structure. In achieving its growth goals, Beatrice should strive to:

• Provide adequate land for projected and potential growth.

This section will provide specific areas for phased residential growth, consistent with Beatrice's demand for new housing. It will also designate ample land for industrial development and define the roles of Beatrice's commercial centers. Such designations must permit a reasonable amount of flexibility, to accommodate possible changes in trends and to allow the private sector adequate choice to make wise and economical decisions.

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

Development should reinforce the urban form of the community. These new growth areas should provide maximum advantages to all parts of Beatrice. 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.

• Encourage economical extensions of infrastructure and services.

It makes sense to conserve scarce public funds by striving for efficient growth patterns. A more compact form with good linkages and well conceived service patterns will help Beatrice accomplish this goal. Indeed, the private sector benefits when the public sec-

tor is more efficient. In Beatrice, the cost of much of a development's infrastructure is borne by the private developer. The city should support its development community by implementing cost-saving measures that encourage high quality growth at the most reasonable cost.

FACTS AND ANALYSIS

This section describes land use characteristics and trends that will help determine the amount of land needed to accommodate development in Beatrice. In addition, it will project the community's probable housing demand and residential land requirements for the next twenty years.

Existing Land Use

The Existing Land Use Patterns Map and Table 3-1 summarize current land uses in Beatrice and its jurisdiction based on a detailed 2000 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

Most of Beatrice's residential land is in single-family use at urban densities. The next largest residential category within the jurisdiction is rural residential, including very large lot homes and farmhouses, but excluding surrounding agricultural uses. Although 34.1% of Beatrice's housing was renter-occupied in 1990, the amount of land devoted to as-built multi-family residential is relatively small. Similarly, land used for mobile home residential makes up a relatively small part of the city's development land. Most mobile home residential development on single lots is located in Glenover and north Beatrice.

• Commercial Uses

Over sixty percent of Beatrice's commercial development is outside of the downtown area. Most of this is centered around the Highway 77 corridor on the north side of the city. The Indian Creek Mall area and new Wal-Mart make up a large portion of land used for commercial purposes. A secondary commercial node is located along East Court Street. Downtown, while representing a small part of the city's commercial land area, is rather large for a city of Beatrice's size.

TABLE 3-1: Land Use Distribution: Beatrice and Extra-Territorial Jurisdiction, 2000

Land Use Category	City		Jurisdiction	
	Acres	% of Developed Land	Acres	% of Developed Land
Residential	**1205.3**	**34.11**	**70.1**	**13.34**
Rural Residential	40.3	1.14	70.1	13.34
Single Family	1,055.0	29.86	0	0
2-4 plex/ Townhouses	41.4	1.17	0	0
Multi-family	44.6	1.26	0	0
Mobile Home	24.1	0.68	0	0
Office	**19.4**	**0.55**	**0**	**0**
Commercial	**161.5**	**4.57**	**0**	**0**
Downtown	12.9	0.37	0	0
Retail & General Commercial	107.4	3.04	0	0
Auto Services	41.3	1.17	0	0
Industrial	**185.4**	**5.25**	**121.2**	**23.06**
General Industrial	173.0	4.90	102.6	19.51
Salvage	12.4	0.35	18.6	3.55
Civic	**1,037.4**	**29.36**	**334.3**	**63.60**
Schools	61.9	1.75	69.9	13.31
Public Facilities	38.2	1.08	0.5	0.09
Other Civic	713.7	20.20	254.1	48.34
Parks and Rec.	223.5	6.33	9.9	1.87
Road Right of Way	863.3	24.43	-	-
Railroad Right of Way	61.3	1.74	-	-
Total Urban Developed	**3,533.7**	**100**	**525.6**	**100**
Ag/Open Space	1,063.8		-	
Vacant land	319.2		-	
Total Area	**4,916.6**		**525.6**	

• **Industrial Uses**

While Beatrice has a large amount of industrial property located within city limits, approximately 39% of Beatrice's industrial development occurs outside city limits in the city's industrial park. Developing the remaining 40 acres within the Park III will increase the industrial development within city limits to almost 66%. These proportions reflect the importance of industry in Beatrice and its economy.

• **Other Patterns**

Beatrice contains a large amount of land in civic use, with major facilities including the Beatrice State Development Center and Southeast Community College. The relatively small percentage of vacant land within the city limits reflects Beatrice's concerns for efficient and contiguous urban development. The city has been increasingly concerned with the public costs of development and has generally avoided providing infrastructure to areas that are unlikely to experience development.

Land Use Trends

Land use surveys for the city were conducted by the State of Nebraska Office of Planning and Programming in connection with comprehensive plans prepared in 1966 and 1976 and by RDG Martin Shukert Inc. in 1991. While differences in categories and tabulation methods make direct comparisons with the 2000 survey difficult, it is possible to draw some general conclusions about changes in city land use patterns and distributions over the last twenty-five years. Table 3-2 summarizes the evolution of land use in Beatrice over the last 35 years.

One of the strongest trends is the increase in the amount of civic property since 1966. This is largely caused by the inclusion of the airport, Hannibal Park and West Scott Street Ballfields within the city limits. Besides annexation of the airport the city has also acquired sections of the floodplain and constructed the new Beatrice High School and Aquatic Park. Area devoted to parks and recreation has grown from just 94 acres in 1966 to 224 in 2000. The city has developed additional park land but has also acquired a large amount of land within the flood plain that remains unutilized. With the closing of two railroad lines through the city the amount of land dedicated to transportation has dramatically decreased during the last twenty-years. The city has also experienced substantial growth in both commercial and industrial uses.

In common with many other communities, the density of development in Beatrice has declined since

TABLE 3-2: Comparative Land Use in Beatrice, 1966-2000

	Acres				% of Developed Area				Acres/100 People			
	1966	1976	1991	2000	1966	1976	1991	2000	1966	1976	1991	2000
Residential	824.7	1,041.2	1,201	1,205	40.2	35.4	37.5	34.11	6.55	8.35	9.72	9.21
Commercial	65.9	184.6	189	181	3.2	6.3	5.9	5.12	0.52	1.48	1.53	1.38
Industrial	112.6	107.8	167	185	5.5	3.7	5.2	5.25	0.89	0.86	1.35	1.42
Civic	99.7	77.9	220	813	4.8	2.7	6.9	23.03	0.79	0.62	1.78	6.21
Parks/Rec.	94.2	126.7	144	224	4.6	4.3	4.5	6.33	0.75	1.02	1.17	1.71
Transportation	845.9	1399.4	1285*	925	41.7	47.6	40.1	26.17	6.7	11.22	9.13	7.07
Total Developed Area	2,042.2	2,937.6	3,206	3,534	100	100	100	100	16.2	23.56	25.95	27.00
Vacant/ Undeveloped	872.4	1,231.4	1043	1,383					6.91	9.08	8.44	10.57
Total City Area	2,914.6	4,169.1	4,249	4,917					23.14	33.44	34.39	37.56

1966. In 1966, Beatrice had 16.2 acres of urban land for each 100 residents; by 2000, this proportion has increased to 27.00 acres. Of major uses, increases in allocation of land per 100 residents are most dramatic for residential and public uses. Declines in residential density have been relatively modest since 1976. Densities have a significant impact on the cost of government, for as densities decline, the per capita costs of providing public services tend to increase.

• Land Use Absorption

Table 3-3 presents annual average rates of land consumption using comparative information on land use between 1966 and 2000. These rates, in turn, provide one basis for projecting future requirements for each type of land use. Beatrice's most rapid period of new development took place between 1966 and 1976. Since 1976, residential and commercial land absorption have slowed, while industrial absorption has accelerated. An additional 118 acres of undeveloped industrial land located within the Gage County Industrial Parks are not included in these calculations.

• Residential Land Use Projections

Beatrice's previous land use rates, combined with population and development projections, suggest forecasts of land consumption over the next twenty years. Since 1990, Beatrice has added about 48 residential units annually. That approximate level of development is expected to increase during the future planning period to approximately 58 units annually. Beatrice's population forecasts appear in Chapter One under the theme, "A Profile of Beatrice". Projections are summarized in Table 1-7 and predicts a population of 14,491 by 2020.

Table 3-4 present the projected twenty-year housing demands for this scenario. The analysis is based on the following methods and assumptions:

- The basic method used in projecting annual demands is to compare the number of units needed in a given year (number of households plus 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 five year demand computed in this section.

- Household size in Beatrice is expected to remain steady over the next ten years and then begin to slowly increase to 2.185 by 2020.

- The city's non-household population (people in student dormitories, institutions, groups 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 rate of 4.14% of the city's population.

- Beatrice's current moderate vacancy of 5.9% will decrease slightly to 5.8% during the planning period.

- The projection model assumes that about 11 units annually will be lost to demolition, redevelopment, or conversion to other uses.

In 1991, about 93.3% of Beatrice's housing stock was single-family. This proportion dropped to 90.9% by

TABLE 3-3: Urban Land Consumption for Principal Uses, 1966-2000

	Area (acres)				Area Change (acres)			Annual Land Consumption		
	1966	1976	1991	2000	1966-1976	1976-1991	1991-2000	Since 1966	Since 1976	Since 1991
Residential	825	1,041	1,201	1,205	376	160	4	11.15	6.79	.44
Commercial	66	185	189	181	209	4	-8	3.35	-0.21	-.89
Industrial	113	108	167	185	137	59	18	2.21	3.33	2.00
Other	1,911	2,835	2,692	3,345	781	-143	653	4041	18.75	72.56
Total	2,915	4,169	4,249	4,917	1,500	80	668	57.15	28.71	74.22

TABLE 3-4: Housing Demand for Beatrice, 1990-2020

	1990-2000	2000-2010	2011-2020	Total
Population at End of Period	12,496	13,281	14,491	
Household Population at End of Period	11,978	12,731	13,890	
Average Persons per Household	2.135	2.135	2.185	
Household Demand at End of Period	5,610	5,963	6,357	
Projected Vacancy Rate	5.80	5.80	5.80	
Unit Needs at End of Period (Household Demand + Vacancy)	5,956	6,330	6,749	
Replacement Need	129	120	100	220
Cumulative Need during Period	520	516	519	1,035
Number of Units Constructed During Period	524	NA	NA	NA
Net Need	(4)	516	519	1,035
Average Annual Construction	52	52	52	52

2000. While single-family detached units will remain dominant, future housing trends suggest that:

- Higher-density housing forms that maintain single-family characteristics (single-family attached and townhouse configurations) will grow in popularity, accommodating an aging "baby-boomer" and empty-nest population.

- Affordable housing development will generally take the form of townhouses and multi-family development.

- Mobile homes will be a relatively small component of Beatrice's housing supply. Manufactured housing on permanent foundations is categorized as single-family housing.

Based on these projections and trends, there will be a cumulative demand of 1,035 residential units during the next twenty years. Using the previous proportions of owner and renter occupancy noted in the 1990 census, about 65% of these units should be developed for owners (predominantly in single-family) and 35% should accommodate renters (predominantly in multi-family, duplex, townhouse and mobile home units).

• **Required Residential Area**

The residential projections developed above help to estimate the amount of land that will be needed to accommodate growth to the year 2020. Gross estimated density for single family residential development is 3 units per acre, while the average gross density of multi-family development is estimated at twelve 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 "hard demand" for residential land. This is necessary to preserve competitive land pricing. Based on

TABLE 3-5: Required Residential Land, 2000-2020

Housing Type	%	2000-2010	2010-2020	Total	Gross Density (units/acre)	Hard Land Needs (acres)	Designated Land (acres)
Single-Family	53	273	275	549	3	183	366
Townhouse	15	77	78	155	6	26	52
Multi-Family	30	155	156	311	12	26	52
Moble Home	2	10	10	20	6	3	6
Total	100	516	519	1,035		238	

these assumptions, Table 3-5 describes the amount of new area that will be required for additional development. Annual absorption of residential land will average around 13 acres. This growth rate is greater than that experienced during the 1980's but lower than the levels experienced by Beatrice between 1966 and 1976.

• Commercial Development

Table 3-3 showed that commercial land in Beatrice has decreased since 1976. Since development along the Highway 77 corridor has occurred during this time, the difference is likely due to differing methods for categorizing and calculating this particular land use. For this reason using past growth to project commercial growth within Beatrice is not appropriate; but instead two methods can be used to help project commercial land needs:

- *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, thereby relating commercial growth directly to residential development rates.

Table 3-6 compares the results of these two methods, which suggest a need for approximately 36 acres of commercial land during the next twenty years. In order to provide alternative sites, the land use plan should designate 1.5 times the hard demand for commercial land. This means that around 54 acres of land should be designated for future commercial development.

• Industrial Development

The need for industrial land is not directly related to population growth, making it much more difficult to predict. A single major corporate decision can dra-

TABLE 3-6: Required Commercial Land for Beatrice, 2000-2020

	2000	2010	2020	Need	Designated
Population Proportion					
Projected Population	**12,496**	**13,21**	**14,491**		
Comm Use/100 res.	**1.5**	**1.5**	**1.5**		
New Projected Commercial Use (acres)	**180.9**	**192.3**	**209.8**	**28.9**	**43.33**
Residential Use Proportion					
Residential Land (acres)	1205.3	1324.3	1443.3		
Commercial Land/Res Land Ratio	0.1501	0.1501	0.1501		
Projected Commercial Use (acres)	180.9	199.1	217.1	35.8	53.59

TABLE 3-7: Required Industrial Land for Beatrice, 2000-2020

	2000	2010	2020	Need	Designated
Population Proportion					
Projected Population	12,496	13,281	14,491		
Industrial Use/100 res.	1.5	1.5	1.6		
Projected Industrial Use (acres)	184.4	203.2	229.0	44	132
Residential Use Proportion					
Residential Land (acres)	1205.3	1324.3	1443.3		
Industrial Land/Res Land Ratio	0.1538	0.1538	0.1538		
Projected Industrial Use (acres)	185.4	204.0	222.5	37	110

matically increase (or decrease) the projected industrial demand in a community. In addition, a decision by the city to pursue industrial development aggressively can affect industrial land needs.

The projection methods used to predict commercial demand may also be used to approximate industrial needs. Table 3-7 calculates additional industrial land needs over the next twenty years. Based on population and the residential use proportion methods described above, Beatrice should absorb between 37 to 44 acres of new industrial land within and adjacent to the city. In order to provide maximum flexibility, the land use plan should designate about three times the "hard demand" for industrial use. Therefore, the plan should provide about 132 acres of industrial and business park land within and adjacent to the city.

• Summary

An analysis of land use trends and projections leads to the following conclusions:

• The most rapid decade of development in Beatrice occurred between 1966 and 1976. Additional land absorption by most land uses has slowed down since then, although Beatrice has continued to grow at a steady rate.

• The exception to this rule has been industrial development, which absorbed land at an accelerating rate during the 1980's and 1990's.

• Based on a projection of modest in-migration, Beatrice will need to build approximately 1,162 units or 58 units annually over the next twenty years. This will generate a hard demand need for 267 acres of additional residential development. Therefore, Beatrice should designate 535 acres of land as allowable for residential conversion.

• Most new commercial development should make more efficient use of existing urban land through reconfiguration or redevelopment. An additional sixty-seven acres should be designated for uses related to visitor services and to serve residential development in eastern growth centers.

• Industrial expansion should continue to occur in Beatrice. The city should work toward full use of Gage County Industrial Parks II and III. Some growth should also occur in underused redevelopment areas.

POLICIES AND ACTIONS

This section presents strategies that will enable Beatrice to plan successfully for projected growth. New development will serve the city best if it is managed, that is, channeled to areas that will best fulfill Beatrice's community development potential. Growth should not be dispersed at random on the city's edges; such an outcome would waste the potential energy that development can create for the community. The city's growth program calls for a threefold strategy:

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

• Assign specific profiles to individual commercial areas and encourage appropriate development of each area.

• Encourage further industrial expansion and economic development through the development of new business environments.

• Housing

In order to assure that residential development accomplishes the maximum possible benefits for Beatrice, the city should implement the following strategies:

1. Adequate Land Supply

Beatrice should designate residential land area for development equal to twice the amount of land required for actual construction. The land use plan should provide about 535 acres for residential developments; actual need could vary, depending on demands and population change during the planning period. This strategy will provide an adequate supply of land and avoid an artificially created scarcity. However, development should be allowed only in those areas designated until this plan is updated. This disciplined approach will help to insure cost-effective, efficient development patterns.

2. Compact Development Pattern

The concept of a unified city requires a compact development pattern, rather than continued dispersion at the edges. Development will and should occur contiguous to new growth areas on the northeast, southeast, and southwest parts of the community. However, a significant amount of new growth should occur east of 19th Street and south of Scott Street to the Big Blue River. This area is already served by sewer and is close to vital community facilities and services, including the High School, Public Library and Aquatic Center. A second major growth area, in southwest Beatrice, can help to unify the southern and western parts of the city. Finally, north and northeast developments should utilize Hannibal Park, the U.P. Railroad trail and the Indian Creek corridor to create a compact urban area that provides convenient access to all parts of the city and can be served economically by utilities and public services.

3. Targeted Residential Development Areas

The analysis presented in this chapter shows that residential development in Beatrice can take many directions in the future. In light of this trend, the plan recommends opening areas for new development that will result in a compact development pattern. Categories for development areas include currently platted subdivisions; and areas likely to experience new development activity during the next twenty years. These proposed development areas include:

• **Existing Subdivisions**. This category calls for completion of existing platted subdivisions including Sun Ridge Development, Dusenbury-Doyle, Flowing Springs, Village on the Green, Country Club Meadows and Cedar Creek. This land will absorb much of Beatrice's development during the early part of the planning period.

• **Newly Developing Areas**. These areas include:

- The Southeast Development Area, with about 300 total acres including space for public facilities and an

additional 125 acres for park and recreation development.

- Ninety acres south of BSDC and west of 33rd Street.

- Two sites totaling approximately 123 acres north of Hannibal Park.

- North of Dorsey, between the proposed UP Trail and 19th Street, with approximately 191 acres.

- A Southwest Development area, north of Belvedere Avenue and east of Sumner Street with an area of almost 100 acres.

- 628 acres in the Southern Development area.

Approximately 238 acres of these areas will satisfy Beatrice's residential land conversion needs through the year 2020 under the new migration scenario. A more aggressive growth scenario could bring all of these development areas into play, while providing adequate choices of site for new development.

4. Innovative Development Patterns

Both the original town of Beatrice and most subsequent development were laid out on a grid pattern and used the pattern to establish an underlying order. Since World War II, subdivision development has been introverted, using discontinuous street patterns with cul-de-sacs, arbitrarily curvilinear street patterns, and other techniques aimed at keeping the rest of a community out. In addition, development based on the platting of small additions can sometimes fail to provide a collector street network that relates the project to adjacent development. Beatrice has done an excellent job of maintaining a street network in newly developing areas.

New development in a community should relate to the traditional patterns of the town. The concept plan for the Southeast Development Area suggests how such a new area can still reflect traditional growth patterns. The concept, which could accommodate expansion of the YMCA, uses a modified grid network off of a circumferential boulevard that crosses 19th Street and provides a substantial amount of public space. The system is tied into the city's street pattern and provides direct link to the high school, library and recreation opportunities in eastern Beatrice. Innovative plans can provide a superior environment to traditional subdivision design and can utilize the elements of public space that make smaller communities special and unique.

• Land Use

In order to optimize the development potential for future commercial and industrial development, Beatrice should execute the following policies:

1. 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. Unlike residential and industrial land uses, commercial strategies relate less to projected absorption rates than to the function that different commercial areas should fill in the community. The development plan envisions a system of commercial centers, each of which plays a specific role in its community. Through new development, improvements, better land utilization, and development, these centers will create a workable commercial pattern that fills Beatrice's diverse needs. They include:

• Downtown and Downtown Redevelopment Area.

The Downtown core is generally bounded by 4th, 8th, Market, and Elk Streets. This center, with its great civic regional importance, requires special design and policy attention and is addressed individually under the theme "A Revitalized City Center." Downtown Beatrice will continue to be a major and distinctive retail node - a magnet that attracts people to Beatrice and a center for public activity.

During the 1990's Beatrice took a major step when it joined the Lied Nebraska Main Street Program. The district should redevelop an area south of Market and west of 5th Street. Much of this area is in marginal use or vacant. Its redevelopment would provide excellent location for new large-scale retail development that would normally seek outlying locations; or new business park settings that combine office, warehousing, and light industrial uses. The city should direct such growth into this area and create land acquisition and development financing tools through its local redevelopment authority. A Redevelopment Plan for this area should include a more specific concept for the reuse of this strategic land area.

• Regional Retailing

The Indian Creek Mall and North Highway 77 areas have become centers for major regional retailing. Most

projects here provide auto-oriented commercial development with substantial on-site parking. The area should continue to grow in this role during the planning period. Expansion will occur on underutilized industrial or commercial sites in the northern and eastern growth centers.

• Community Commercial

The growth plan anticipates substantial east side development in the 19th Development Area and in Northeast Beatrice. This will provide additional demand for community commercial development that has occurred along East Court Street between 19th and 24th Streets. With additional southeast sector growth, the plan envisions the emergence of a community commercial node at 26th and East Court and at 33rd and East Court.

• North Sixth Street and East Court Street Corridors.

Commercial development should continue to take place along the 6th Street and Court Street corridors, to the north and east of Downtown Beatrice. The character of these important corridors will continue to have a variety of land uses. New commercial development should include street yard landscaping, carefully designed signage, and management of the total number of curb cuts. Reasonable control of access will improve traffic safety by helping to manage the location and number of turning movements and conflicts with through traffic. In addition, linear commercial development should provide adequate screening for adjacent residential properties.

• Neighborhood Convenience Nodes

The West Beatrice area has some commercial development along the Court Street corridor but lacks good neighborhood commercial services. These services include convenience retail and services. The growth plan proposes the development and reinforcement of two neighborhood convenience nodes - West Court and Sumner Street and West Court and LaSelle Streets. Neighborhood commercial uses that are now strung along West Court should gradually, over time, consolidate into a more concentrated and effective center at the LaSelle and Sumner Street intersections.

• Highway Commercial

The north US 77 corridor, adjacent to Beatrice Municipal Airport, is a good location for lower intensity commercial uses, including lodging and restaurant facilities to support the convention center and its future expansion. Service uses at this location will also benefit from the nearby industrial park and its substantial businesses. This development should be served by an access road parallel to Highway 77, separating commercial sites from the adjacent airport.

2. Industrial/Business Park Land

Beatrice should provide adequate industrial land to support potential demand. The growth plan indicates industrial expansion within and to the west of Park III. Based on population growth and residential use ratio, Beatrice will require 42 to 72 acres of additional industrial land. Using the method of designating three times as much as the hard demand requires, there will be a need to identify 125 to 215 acres of industrial land. The 54 acres of developable land remaining within Parks II and III will not meet this demand. Additional land to the west of Park III should be added to the Gage County Industrial Park program. A portion of the land in a Downtown redevelopment area, described earlier, may accommodate "business park" uses - a mixture of office, distribution, and limited industrial uses within flexible buildings.

• Transportation

Beatrice should support designated development areas by constructing supporting transportation improvements.

The next section discusses Beatrice's street and highway system in more detail. This network is in good condition and does not experience widespread problems of congestion. However, ongoing system improvements will occur during the planning period. One of the objectives of these improvements should be to encourage growth and development in Beatrice. Projects that will accomplish this include:

• **The 19th Street Extension.** As the Southeast development area grows with residential and recreational uses, the south extension of 19th Street to the Beatrice Parkway will become increasingly necessary. This extension will provide a vital link to future development in the areas south of Court Street and existing development to the north.

• **The 26th Street Extension**. As southern Beatrice continues to develop, providing links between public facilities and commercial markets north of the Big Blue River will become more pressing. In addition, the southern extension of 26th Street to Oak Street will provide a vital link between sections of Beatrice during floods which occasionally close existing 6th Street and Court Street bridges.

• **33rd Street Extension**. As residential development in eastern Beatrice continues, the city should carry out a sound policy of building residential collectors in the north and northeast parts of the city. Twenty-sixth is the logical north-south link followed by 33rd Street in this network. Thirty-third Street should be dedicated and improved from Sargent to north of the Big Blue River in conjunction with adjacent platting and excluding those areas already developed by BSDC. Depending on timing and development patterns, 33rd Street may substitute for 26th as an alignment for a new river crossing. However, this option will involve added costs including an eastward extension of Oak Street; and limited access through BSDC will hinder the street's role as a collector.

• **Sumner, Oak, and Belvedere Extensions**. A lack of street connections isolates South and West Beatrice from each other. The future upgrading of the hard-surfaced, rural sections Sumner Street and Belvedere Avenue will open development of the proposed Southwest Development Area. In addition, this project will improve access to the proposed neighborhood commercial node between Sumner and LaSelle on West Court and will allow such a node to serve the entire South Beatrice area. The extension of Oak Street will link to an extended 26th Street and provide an additional access across the Big Blue River. This important linkage will provide easier access to existing public facilities and open the area to future residential development.

Specific transportation projects are addressed in detail in the next chapter, "Mobility for All".

• Framework for Decision-Making

Beatrice's future land use map and policies should provide both guidance and flexibility to decision makers in the land use process.

A Future Land Use Plan provides a development vision for the city that guides participants in the process of community building. However, it cannot anticipate the design or specific situation of every rezoning application. Therefore, the plan should not be taken as a literal, lot-by-lot prescription of how land is to be utilized. Rather, it provides a context that helps decision-makers, including city administrative officials, the Planning Commission, and the City Council, to make logical decisions which implement the plan's overall principles.

The Future Land Use Plan establishes a number of categories of land uses, some of which provide for single primary uses while others encourage mixed uses. Two tables are included in this section to help approving agencies interpret the intentions of the land use plan. Table 3-8 presents and defines the various categories proposed in the plan and establishes criteria for their application. It also considers the appropriate zoning districts within Beatrice's Zoning Ordinance for each use category or recommends new zoning policies where necessary. Tables 3-8 and 3-9 together form a framework for findings by the Planning Commission and City Council which provide both needed flexibility and consistency with the plan's overall objectives.

TABLE 3-8: Land Use Plan Categories and Use Criteria

Land Use Category	Use Characteristics	Features and Locational Criteria
Agriculture and Open Space	- Generally in agricultural or open space use. - Agriculture will remain the principal use during the planning period. - Extension of urban services is unlikely during the foreseeable future.	- These areas should remain in primary agriculture use. Urban encroachment, including large lot subdivisions, should be discouraged. - Primary uses through the planning period will remain agricultural. - Typical zoning would be AG Agricultural.
Urban Reserve	- Generally in agricultural or open space use. - Areas may be in the path of future urban development after the planning horizon contained in this plan. - Very low density residential uses may be located in the area.	- These areas should be reserved for long-term urban development. - Primary uses through the planning period will remain agricultural. - Any interim large lot residential development should avoid obstructions to future urban development. - Typical zoning would be AG Agricultural.
Conservation Development	- Restrictive land uses, emphasizing housing and open space. - Civic uses may be allowed with special use permission.	- Applies to developments in rural areas where preservation of open space or ag land is desirable; or developments that incorporate a substantial amount of open space. Golf courses or cluster developments are examples. - Development regulations should permit reservation of common open space and encourage design of projects to take best advantage of open space resources. - Typical zoning is AG, RR, R-1, or R-2. Special regulations may be needed to promote conservation developments.
Large Lot Residential	- Restrictive land uses, emphasizing housing and open space. - Civic uses may be allowed with special use permission.	- Includes area that have developed to low densities, but utilize conventional subdivision techniques. - Applies to areas where conventional large lot subdivisions have been established. - Most houses use individual wastewater systems and are unlikely to experience extensions of urban services. - Gross densities will generally be less than one unit per acre. - Typical zoning is RR, although special regulations are needed to promote conservation developments.
Single-Family Residential	- Restrictive land uses, emphasizing single-family detached development, although unconventional single-family forms may be permitted with special review. - Civic uses are generally allowed, with special permission for higher intensity uses.	- Primary uses within residential growth centers. - Should be insulated from adverse environmental effects, including noise, smell, air pollution, and light pollution. - Should provide a framework of streets and open spaces. - Typical densities range from 1 to 6 units per acre. - Typical zoning is R-1.
Moderate-Density Residential/Urban Residential	- Restrictive land uses, emphasizing housing. - May incorporate a mix of housing types, including single-family detached, single-family attached, and townhouse uses. - Limited multi-family development may be permitted with special review and criteria. - Civic uses are generally allowed, with special permission for higher intensity uses.	- Applies to established neighborhoods of the city which have diverse housing types, and in developing areas that incorporate a mix of development. - Developments should generally have articulated scale and maintain identity of individual units. - Develop in projects with adequate size to provide full services. - Tend to locate in complexes, but should include linkages to other aspects of the community. - Typical maximum density is 6 to 10 units per acre. - Innovative design should be encouraged in new projects. - Typical zoning is R-2.

TABLE 3-8: Land Use Plan Categories and Use Criteria

Land Use Category	Use Characteristics	Features and Locational Criteria
Mobile Homes	- Accommodates mobile homes which are not classified under State law as "manufactured housing, - Single-family, small lot settings within planned mobile home parks.	- Develop in projects with adequate size to provide full services. - Tend to locate in complexes, but should include linkages to other aspects of the community. - Typical maximum density is 8 units per acre. - A new zoning district and updated regulations should be established to govern development of mobile home facilities. - Zoning is RC. Development proposals always require Planned Development designations.
High Density Residential	- Allows multi-family and compatible civic uses. - Allows integration of limited office and convenience commercial within primarily residential areas.	- Locate at sites with access to major amenities or activity centers. - Should be integrated into the fabric of nearby residential areas, while avoiding adverse traffic and visual impacts on low-density uses. - Traffic should have direct access to collector or arterial streets to avoid overloading local streets. - Requires Planned Development designation when developed near lower intensity uses or in mixed use developments. - Developments should avoid creation of compounds. - Attractive landscape standards should be applied. - Typical density is in excess of 10 units per acre. - Typical zoning is R-3.
Mixed Use	- Incorporates a mix of residential, office, and limited commercial uses.	- May apply to urban corridors, including 6th and Court Streets. - Also applies to larger districts and planned areas in new districts which incorporate an urban mix of residential, office, and commercial uses. - Developments should emphasize relationships among parts. - Pedestrian traffic should be encouraged and neighborhood scale retained when applicable. - Projects should avoid large expanses of parking visible from major streets. - Signage and site features should respect neighborhood scale. - Commercial and office development in mixed use areas should minimize impact on housing. - Current RC districts partially accommodate mixed uses.
Limited Commercial/Neighborhood Business District	- Includes a range of low-impact commercial uses, providing a variety of neighborhood services. - Includes low to moderate building and impervious coverage. - May include office or office park development.	- Should be located at intersections of major or collector streets. - Should avoid a "four corners" configuration, except within neighborhood business districts. - Development should emphasize pedestrian scale and relationships among businesses. - Uses should be limited in terms of operational effects. - Good landscaping and restrictive signage standards should be maintained. - Good pedestrian/bicycle connections should be provided into surrounding areas. - The dominance of automobiles should be moderated by project design. - Typical zoning is O or LC .

TABLE 3-8: Land Use Plan Categories and Use Criteria

Land Use Category	Use Characteristics	Features and Locational Criteria
Community Commercial	- Includes a variety of commercial uses. - Establishes larger buildings and parking facilities than Limited Commercial uses.	- Should be located at intersections of arterials or other major streets. - Should avoid a "four corners" configuration. - Traffic systems should provide alternative routes and good internal traffic flow. - Negative effects on surrounding residential areas should be limited. - Good landscaping and restrictive signage standards should be maintained. - Good pedestrian/bicycle connections should be provided into surrounding residential service areas. - Buffering from surrounding uses may be required. - Typical zoning is GC or CS.
Main Street Mixed Use	- Traditional downtown district of Beatrice. - Includes mix of uses, primarily commercial, office, upper level residential, and warehousing/industrial uses. - Primary focus of major civic uses, including government, cultural services, and other civic facilities.	- Establishes mixed use pattern in the traditional city center. - Recognizes current development patterns without permitting undesirable land uses. - District may expand with development of appropriately designed adjacent projects. - New projects should respect pedestrian scale and design patterns and setbacks within the overall district. - Historic preservation is a significant value. - Typical zoning is CBD.
Limited Industrial/Business Park	- Limited industrial provides for uses which do not generate noticeable external effects. - Business parks may combine office and light industrial/research uses.	- Limited industrial uses may be located near office, commercial, and, with appropriate development standards, some residential areas. - Strict control over signage, landscaping, and design is necessary for locations nearer to low intensity uses. - Most proposed industrial locations in Beatrice Plan are relatively isolated from residential uses. - Typical zoning is LI.
General Industrial	- General industrial provides for a range of industrial enterprises, including those with significant external effects.	- General industrial sites should be well-buffered from less intensive use. - Sites should have direct access to major regional transportation facilities, without passing through residential or commercial areas. - Developments with major external effects should be subject to Planned Development review. - Typical zoning is GI.
Civic	- Includes schools, churches, libraries, and other public facilities that act as centers of community activity.	- May be permitted in a number of different areas, including residential areas. - Individual review of proposals requires an assessment of operating characteristics, project design, and traffic management.
Public Facilities and Utilities	- Includes facilities with industrial operating characteristics, including public utilities, maintenance facilities, and public works yards.	- Industrial operating characteristics should be controlled according to same standards as industrial uses. - When possible, should generally be located in industrial areas.

Land Use Compatibility Guide: Key for Rating

Table 3-9 along with the following key presents a land use compatibility guide which assesses the relationships between adjacent land uses and provides a basis for review of land use proposals based on their surroundings.

5: Identical to pre-existing land uses or totally compatible. Development should be designed consistent with good planning practice.

4: The proposed use is basically compatible with the pre-existing adjacent use. Traffic from higher intensity uses should be directed away from lower intensity uses. Building elements and scale should be consistent with surrounding development.

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

2: The proposed use has significant conflicts with the pre-existing adjacent use. Major effects must be strongly mitigated to prevent impact on adjacent uses. A Planned Unit Development is required in all cases to assess project impact and define development design.

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

TABLE 3-9: Land Use Compatibility Guide

	Existing Adjacent Land Use						
Proposed Land Use	Residential Units/Acre	Large Lot Residential	Low-Density Residential	Moderate-Density Residential	Medium-Density Residential	High-Density Residential	
Large Lot Residential	<1	5	5	4	4	2	
Low-Density Residential	1-6	4	5	4	3	2	
Moderate-Density Residential	6-8	3	4	5	4	3	
Medium-Density Residential	8-16	3	3	4	5	5	
High-Density Residential	>16	2	2	3	4	5	
Office		2	2	3	3	4	
Limited Commercial		1	2	3	3	4	
General Commercial		1	2	2	3	3	
Limited Industrial		1	1	1	2	2	
General Industrial		1	1	1	1		
Civic		3	3	3	3	4	
Utilities		2	2	2	2	2	
Proposed Land Use	Office	Limited Commercial	General Commercial	Limited Industrial	General Industrial	Civic	Utilities
Large Lot Residential	2	1	1	1	1	4	2
Low-Density Residential	2	2	2	1	1	4	2
Moderate-Density Residential	3	3	2	2	1	4	2
Medium-Density Residential	4	4	3	2	1	4	2
High-Density Residential	4	4	3	2	1	4	2
Office	5	5	5	4	3	4	4
Limited Commercial	5	5	5	4	3	3	4
General Commercial	5	5	5	4	3	2	5
Limited Industrial	4	3	5	5	5	2	4
General Industrial	3	2	3	4	5	1	3
Civic	4	3	3	2	1	5	2
Utilities	2	2	3	4	5	2	5

Mobility For All

Beatrice should provide all of its citizens with access to its important features and activity centers. transportation system improvments should be designed to enhance other community development objectives.

Beatrice originally developed at a crossing point of an east-west highway and the Big Blue River. The extension of the Burlington Railroad reinforced this pattern, as Downtown Beatrice grew from the river westward. Later, as north-south travel became more important, the town's focus was defined by the crossroads of the major highways that became 6th Street and Court Street. The city's street network established the framework for the community's growth, taking the form of a rectilinear grid pattern. This grid, regular in the original plat of the city, included break lines at the joints between different additions.

Uniquely in Beatrice, public transportation had a significant role to play in the early growth and ultimate form of the community. During the 1880's, streetcar lines, built by real estate developers, opened outlying areas to residential development. The first line opened in 1885 and provided service from Downtown to 6th and Summit. In 1886, tracks extended as far northeast to 13th and Jackson before turning back again to 11th and Grant Streets. Another line extended to 11th and Court Street. The Northeast Beatrice loop was finally completed in 1887 as the northeast line was completed from Grant to Court Streets along Eleventh Street.

Other branch lines provided service to Beatrice's outlying districts. The South Beatrice Railway extended from Downtown to the Belvedere area in southwest Beatrice, with a branch to Chautauqua Park. Another line ran across the river along Court Street to Linden Tree Park. A third line diverged from the northeast line at 13th and Summit to the burgeoning suburb of Glenover. Beatrice's transportation system took on the patterns and dimensions of a major urban center, as streetcar lines determined directions of development. In Beatrice, as in many larger cities, public transportation allowed people to live in neighborhoods farther from the town center.

During the 1890's, the nationwide economic depression, coupled with local droughts, short-circuited Beatrice's drive to become a major city. The streetcar lines that had become the lifelines of the city's growing residential areas shut down one by one. Despite their 1893 purchase by the Rapid Transit and Power Company of Lincoln and the subsequent electrification of all service, Beatrice's streetcar system shut down by 1897. The outlying areas were separated from the main city, and development came to a halt.

As Beatrice grew in a more conventional way during the twentieth century, its grid street system expanded and was improved to serve new residential, commercial, and industrial development. The system developed most completely in the northeastern quadrant. Today, Beatrice has a good network of streets and sidewalks, providing reasonable access to most sections of the community. Most streets are fully improved, have sidewalks on both sides, and are in relatively good condition. The city in recent years has instituted an effective street rehabilitation program. Generally, the city is free of major traffic congestion problems and moves traffic in a safe and efficient manner.

In spite of the generally good functioning of Beatrice's transportation system, further improvement can help realize the city's development concept. The street network has few connections among the city's four major sections, contributing to their separation from one another. Within some neighborhoods, poor street and sidewalk conditions create internal circulation problems and contribute to the deterioration of residential areas. Finally, Beatrice's primarily auto-oriented transportation system has become less accessible to a large senior population.

Beatrice has effectively avoided serious transportation problems. However, improvements can continue to help develop the city's circulation system and avoid major problems in the future. Even more importantly, improvements to the transportation system can and should have a dual function - they can improve the ability of all residents to reach the good things that Beatrice has to offer; and they can meet other overall community development objectives. Thus, the transportation component of the Beatrice Plan is another important contributor to the building of the community.

GOALS

The overall assumption of this chapter is that major transportation improvements in Beatrice must have two functions - they improve the quality of access throughout the city and they help further other community development objectives. As Beatrice continues to strengthen its transportation system, it should strive to:

- **Provide for the safe movement of all residents of Beatrice.**

Safety is a fundamental consideration for all elements of a transportation system. Some street intersections

experience a higher relative share of accidents than others while some sidewalk segments are in poor condition and pose hazards to pedestrians. Some locations present conflicts between vehicles and pedestrians. Finally, the community should serve the needs of a growing number of bicyclists and help insure their safety as well. This chapter will address these concerns, provide solutions for identified problems and suggest direction for future needs that will emerge from community change.

• **Assure that the transportation system is adequate to meet the demands placed upon it.**

Beatrice's transportation network is basically sound and has developed over the years to meet community needs. All major streets perform at an acceptable level of service, keeping the city free from major congestion problems. Yet, the system must continue to develop with the city for it to continue to provide the good level of service that residents expect of it.

• **Provide mobility for people who are not using automobiles**.

Many of Beatrice's elderly residents are increasingly transportation disadvantaged as the city provides few alternatives to the use of cars. Many senior citizens can no longer drive or feel uncomfortable about using automobiles. Beatrice should provide people with transportation options to be sure that mobility is provided for all its citizens.

• **Minimize conflicts between traffic movement and the growth objectives of major development districts.**

Problems may develop through conflicts between pedestrians and vehicles, parking problems, routing of trucks and service vehicles, and neighborhood traffic congestion. Important examples of these problems include the effects of truck traffic along US 77 through Downtown and industrial traffic through Glenover. Solutions to these problems are discussed in this chapter.

• **Use the transportation network to support desirable patterns of community development. Recognize the critical link between transportation and land use.**

Transportation systems do more than move people from one place to another. They also form the structure of the community and are a very important implementation tool in the comprehensive planning process. Just as the streetcars of the 1880's helped developers implement their visions of growth in Beatrice's outlying areas, so should the modern transportation system realize our contemporary objectives of a physically unified city, prepared for orderly and substantial growth.

This plan envisions a network that strengthens future development by connecting parts of the city together and opening new areas for growth. Beatrice can realize this vision through street improvement and system expansion and pedestrian and bikeway improvements.

FACTS AND ANALYSIS

This section examines important elements of the transportation system that will assist in developing specific policies. It discusses the structure of the city's street system and the role that its individual parts play. It will also analyze changes in traffic patterns and evaluates the condition of Beatrice's transportation network.

Functional Categories: The Structure of the System

The Street Classification Map displays Beatrice's existing TEA-21 system with State functional classifications. A street segment must be designated part of the TEA-21 system to be eligible for Federal funding assistance for major improvements.

Beatrice's street system is primarily a local grid in each of its four principal sectors. Some new developments in the eastern and southeastern parts of the city utilize the curvilinear street systems and cul-de-sacs that are characteristic of more recent subdivision design. However, the city has successfully maintained continuity in its local street systems and has kept cul-de-sacs to a manageable length.
However, while street networks are relatively well developed within each section of the city, connections among the four major districts are relatively scarce. Chapter Two, "A Physically Unified City" discussed this issue in detail. The primary regional structure for the city's system is established by the intersecting arterials, north-south Sixth Street (US 77) and east-west Court Street (US 136 and N-4). US Highway 77 (6th Street) is classified as an expressway north and as a major arterial south of Court. The divided expressway section of US 77 begins at Dorsey Avenue and proceeds north to Lincoln and Interstate 80. The other

0 1000 2000 4000
In Feet
NORTH
Street Classification
Beatrice, Nebraska
RDG Crose Gardner Shukert
Omaha and Des Moines
Arterials
Minor Arterials
Collector
Highway 77
Indian Creek
Sargent
Industrial Road
Ashland Ave
Dorsey
Big Blue River
Ella St
Meadow St
Scott St
Highway 136
Highway 77
Beaver Ave

highways through the city, including Court Street and Highway 4 north of Court Street are also designated as major arterials.

While the major arterials provide inter-regional connections for Beatrice, streets designated as other arterials collect traffic from a number of neighborhoods and provide routes for major movement within the city. These major streets are designed for speeds of 40 mph or below. As a rule, these streets are spaced at 0.5 to 1.0 miles in developed urban areas and 2.0 miles in fringe areas. These streets include:

- 33rd Street north of Court Street,
- 19th Street north of Court,
- 13th Street north of Court,
- 2nd Street north of Court,
- Sumner Street south of Court,
- County Road 317 north of Sargent,
- Ashland north of Industrial ROW,
- Sargent west of Ashland,
- Industrial ROW west of 6th Street,
- Dorsey east of 6th Street,
- Monroe east of 6th Street,
- Hoyt west of 6th Street and east of 19th Street,
- Lincoln east of 6th Street,
- Belvedere Avenue west of 6th Street.

Collector streets provide local access and circulation routes from local neighborhoods. Collectors are designed for relatively low speeds (30 mph and below) and provide unlimited local access. Collectors run within residential areas and distribute trips from arterials to their ultimate destinations. They also collect traffic from a neighborhood's local streets and channel it to arterials. Examples of collectors in Beatrice's current system include:

- 19th Street south of Court Street,
- 16th Street north of Court Street,
- 8th Street north of Court Street and south to Market Street,
- 7th Street north of Court Street and south to Market Street,
- 9th Street north of Beaver Avenue,
- Ashland north of Hoyt Street,
- Railroad Street north of Hoyt,
- Center Street south of Court Street,
- Sumner Street north of Court Street and south of Belvedere Avenue,
- Irving Street west of 6th Street,
- Hoyt west of Ashland,
- River Street west of Sumner Street,
- Ella Street east of 6th Street,
- Market Street east of 6th Street,
- Scott Street east of 19th Street,
- Grable Street east of 6th Street,
- Beaver Avenue east of 6th Street.

The functional network establishes a good plan for linkages and connections in the northeast and southwest quadrants of the city. However, these linkages are less effective in the southeastern and northwestern quadrants. Additional residential, industrial, and civic development in these areas will require an expanded street network, requiring modifications to Beatrice's TEA-21 system.

Traffic Volumes

The 1999 Traffic Volume Count from the Nebraska Department of Roads indicates traffic loads on major segments of Beatrice's street system. The counts indicate the following:

- The heaviest loads in Beatrice's street system occur all along 6th Street and specifically north of Court Street or Highway 136. Average daily traffic (adt) in this area ranges from 12,345 to 19,310 vehicles per day (vpd). Volumes drop below 10,000 only south of the BNSF Railroad line.

- The second most heavily traveled corridor is Court Street. peaking at the Sumner Street intersection with a count of 12,920 vpd. Volumes decrease going in both directions but do rise again in the 19th Street area.

- Also receiving heavy volumes of traffic are 19th and Lincoln Streets. These sections average over 5,000 vpd at their intersections with Highway 4 and 136.

Table 4-1 compares traffic volumes from 1978 to 1999. They explain the use and dynamics of the city's network during the last twenty years. These comparisons indicate:

- Much of the increase in traffic volumes has occurred during the 1990's. Residential growth in the northeast and industrial development in the northwest has caused the largest increases to occur on arterials and collectors serving these areas.

- Twenty-three locations have experienced increases in traffic volumes greater than 1,000 vpd during the 1990's alone. One of the largest increases, 5,090 vpd, occurred along the North 6th Street (Highway 77). Additional commercial and industrial growth in

TABLE 4-1: Average Daily Traffic Counts 1978 - 1999

Roadway Name	Segment	1978	1991	1999	Change 1978-1999	Change 1991-1999
2nd Street	North of Grant Street	1145	1540	3485	2340	1945
6th Street	North of Sargent		8430	10,875	-	2445
	North of Dorsey	13395	14220	19310	5915	5090
	South of Dorsey	12295	12770	15770	3475	3000
	North of Court	11680	13340	12,345*	665	-995
	South of Court	8180	8230	10305	2125	2075
	South of Caldwell	9705	8635	11295	1590	2660
	South of Mulberry	4075	4180	5370	1295	1190
7th Street	South of Monroe	860	1220	1505	645	285
	North of Lincoln	1405	1380	1765	360	385
	North of Ella	1620	1835	2195	575	360
8th Street	South of Monroe	590	680	775	185	95
	North of Lincoln	1150	985	1,200**	50	215
	North of Ella	1435	1785	1,700**	256	-85
13th Street	South of Dorsey	305	385	480	175	95
	South of Monroe			1245	-	-
	North of Lincoln	980	1345		-980	-
	South of Lincoln	1405	1635	1785	380	150
16th Street	South of Monroe	280	255	425	145	170
	North of Lincoln	1190	1420	1590	400	170
	North of Ella	1125	1650	1590	465	-60
19th Street	North of Dorsey	610	755	700	90	-55
	South of Dorsey	1885	2435	3175	1290	740
	North of Hoyt	3180	3890	5020	1840	1130
	South of Hoyt	3510	4025	5380	1870	1355
	North of Court	4730	5235	6455	1725	1220

TABLE 4-1: Average Daily Traffic Counts 1978 - 1999

Roadway Name	Segment	1978	1991	1999	Change 1978-1999	Change 1991-1999
19th Street	South of Court	1850	2570	2835	985	265
33rd Street	North of Court	730	885	1265	535	380
Sherman Street	North of Court	2810	2600	3085	275	485
Sumner Street	North of Court	1400	1195	1600	200	405
	South of Court	870	960	1155	285	195
	South of Belvedere			560	-	-
Ashland Street	North of Irving		840	3015	-	2175
Center Street	North of Belvedere		125	160	-	35
Sargent	West of 6th			200	-	-
Industrial Row	West of 6th		1855	3640	-	1785
Dorsey	East of 6th	2900	3500	4910	2010	1410
	East of 13th	2040	2610	3620	1580	1010
	West of 19th	1595	2160	2800	1205	640
Irving Street	West of 6th	705	935	810	105	-125
Monroe Street	East of 6th	3105	3950	4180	1075	230
	West of 13th			3215	-	-
	West of 19th		1225	1470	-	245
Hoyt Street	West of Ashland		275	230	-	-45
	West of 6th	560	1160	1305	745	145
	West of 19th	565	650	980	415	330
River Street	West of Highway 4		80	215	-	135
Lincoln Street	East of 6th	4820	6000	5995	1175	-5
	West of 13th	3950	5260	5705	1755	445
	East of 13th	3920	4520	5030	1110	510

TABLE 4-1: Average Daily Traffic Counts 1978 - 1999

Roadway Name	Segment	1978	1991	1999	Change 1978-1999	Change 1991-1999
Lincoln	West of 19th	2710	3080	3780	1070	700
	East of 19th	1740	2010	2300	560	290
	East of 33rd		1310	1485	-	175
Ella Street	East of 6th	3560	3505	3240	-320	-265
	East of 8th	1825	2120	3330	1505	1210
	East of 13th	1075	1325	1880	805	555
	West of 19th	835	930	1230	395	300
Court Street	South of Scott	2060	2425	3190	1130	765
	North of Scott	2885	4210	5000	2115	790
	West of Sherman (Hwy 4)	3545	5005	6150	2605	1145
	East of Sherman (Hwy 4)	6155	7880	9785	3630	1905
	East of Sumner	10445	10930	12920	2475	1990
	West of 6th	8375	8250	8360	-15	110
	East of 6th St.	9445	8855	8355	-1090	-500
	West of 19th	6420	7535	7630	1210	95
	East of 19th	7150	7220	9310	2160	2090
	West of 33rd	2380	3320	5595	3215	2275
Market Street	East of 6th	3590	3675	3390	-200	-285
	East of 7th	2280	2350	3130	850	780
	West of 13th	1445	1590	2160	715	570
	West of 16th	1220	1480	2055	835	575
Scott Street	West of Court	535	610	905	370	295
Grable Street	East of 6th	1105	1085	900	-205	-185
Belvedere Avenue	East of Center		350	430	-	80
	West of 5th	145	280	515	370	235

Northern Beatrice and the upgrading of the corridor have generated this increase.

- Significant increases have occurred along collector streets serving the northeast quadrant. The increase in residential development in this area has produced heavier traffic loads in this area.

- Residential development and the construction of the new high school on east Court Street has meant a 69% increase in traffic volumes in the 33rd Street area.

- A decrease in traffic volumes occurred mostly along the city's collector streets. These changes occurred mostly in the central section of the city and could suggest an increased reliance on the 6th Street and Court Street corridors.

Capacity Analysis

A capacity analysis compares the traffic volumes on a street segment with the design traffic capacity of that segment. The ratio of volume over capacity (V/C) corresponds to a "level of service" (LOS), which describes the quality of traffic flow.

Measures of Levels of Service (LOS)

System performance of a street is evaluated using a criterion called the "level of service" or LOS. LOS is qualitative measure that examines such factors as speed, travel time, traffic interruptions, freedom of maneuvering, safety, convenience, and operating costs of a road under specific volume conditions. A ratio of volume to capacity (that is how much traffic the street carries divided by how much traffic the street was designed to carry) provides a short method for determining LOS. LOS categories are described as follows:

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

- LOS C: This level provides stable operation. Traffic flows approach the range in which increases in traffic will degrade service. Minor incidents can be absorbed, but a local slow-down of traffic will result. In urban settings, LOS C is a good level of service to work toward. It corresponds to a V/C ratio of 0.70 to 0.80.

- LOS D: This level borders on an unstable traffic flow. Small traffic increases produce substantial service deterioration. Maneuverability is limited and comfort levels are reduced. LOS D represents a V/C ratio of 0.80 to 0.90. LOS D is frequently used as a compromise standard in dense urban settings.

- LOS E: LOS E represents typical operation at full design capacity of a street. Operations are extremely unstable, because there is little margin for error in the traffic stream. LOS E corresponds to a V/C ratio of 0.90 to 1.00.

- LOS F: LOS F is a breakdown in the system. Such conditions exist when queues form behind a breakdown or congestion point. This condition occurs when traffic exceeds the design capacity of the street.

Street Performance Evaluation

Table 4-2 uses the volume/capacity ratio method to compute the LOS offered by each major street segment in the city, utilizing 1999 traffic volumes. Based on this computation, Beatrice's street system functions at a high level of service. Only one area had a Level of Service below LOS A. The 6th and Dorsey Street intersection at LOS B still provides excellent service to the area.

Cautions About the LOS System

The LOS measure is ultimately a measurement of traffic speed. Clearly, LOS is an important measure, because the basic purpose of streets is to move traffic. However, LOS is insensitive to other important values, including neighborhood preservation, environmental quality, economic vitality and access, energy conservation, and efficient development patterns. Indeed, a dispersed development pattern may actually improve LOS but may also cause people to drive longer distances. This can increase the total amount of traffic, the amount of street that the city must maintain, and the length of average trips. In some situations a poor LOS may be desirable from an urban or economic point of view. In downtown areas, for example, the need for pedestrian movement and safety, parking , and commercial visibility supercedes the need for a low LOS. Thus, while LOS is a useful measurement tool, it should not be used to the exclusion of other values. The transportation system should serve, rather

TABLE 4-2: V/C Analysis for Beatrice's Major Street Segments, 1999

Roadway Name	Segment	Volume	Capacity at LOS C	Absolute Capacity	V/C	LOS
2nd Street	North of Grant Street	3485	8400	10500	0.33	A
6th Street	North of Sargent	10,875	23800	29750	0.37	A
	North of Dorsey	19310	23800	29750	0.65	B
	South of Dorsey	15770	23800	29125	0.54	A
	North of Court	12,345*	21000	26250	0.47	A
	South of Court	10305	21000	26250	0.39	A
	South of Caldwell	11295	23000	29125	0.39	A
	South of Mulberry	5370	9400	11750	0.46	A
7th Street	South of Monroe	1505	8400	10500	0.14	A
	North of Lincoln	1765	8400	10500	0.17	A
	North of Ella	2195	8400	10500	0.21	A
8th Street	South of Monroe	775	8400	10500	0.07	A
	North of Lincoln	1,200**	8400	10500	0.11	A
	North of Ella	1,700**	8400	10500	0.16	A
13th Street	South of Dorsey	480	8400	10500	0.05	A
	South of Monroe	1245	8400	10500	0.12	A
	North of Lincoln		8400	10500	-	
	South of Lincoln	1785	8400	10500	0.17	A
16th Street	South of Monroe	425	6500	8125	0.05	A
	North of Lincoln	1590	6500	8125	0.20	A
	North of Ella	1590	6500	8125	0.20	A
19th Street	North of Dorsey	700	8400	10500	0.07	A
	South of Dorsey	3175	8400	10500	0.30	A
	North of Hoyt	5020	8400	10500	0.48	A
	South of Hoyt	5380	8400	10500	0.51	A
	North of Court	6455	9400	11750	0.55	A

TABLE 4-2: V/C Analysis for Beatrice's Major Street Segments, 1999

Roadway Name	Segment	Volume	Capacity at LOS C	Absolute Capacity	V/C	LOS
19th Street	South of Court	2835	6500	8125	0.35	A
33rd Street	North of Court	1265	8400	10500	0.12	A
Sherman Street	North of Court	3085	10400	13000	0.24	A
Sumner Street	North of Court	1600	84400	10500	0.15	A
	South of Court	1155	8400	10500	0.11	A
	South of Belvedere	560	6500	8125	0.07	A
Ashland Street	North of Irving	3015	6500	8125	0.37	A
Center Street	North of Belvedere	160	6500	8125	0.02	A
Sargent	West of 6th	200	8400	10500	0.02	A
Industrial Row	West of 6th	3640	8400	10500	0.35	A
Dorsey	East of 6th	4910	8400	10500	0.47	A
	East of 13th	3620	8400	10500	0.34	A
	West of 19th	2800	8400	10500	0.27	A
Irving Street	West of 6th	810	6500	8125	0.10	A
Monroe Street	East of 6th	4180	8400	10500	0.40	A
	West of 13th	3215	8400	10500	0.31	A
	West of 19th	1470	8400	10500	0.14	A
Hoyt Street	West of Ashland	230	6500	8125	0.03	A
	West of 6th	1305	8400	10500	0.12	A
	West of 19th	980	8400	10500	0.09	A
River Street	West of Highway 4	215	6500	8125	0.03	A
Lincoln Street	East of 6th	5995	8400	10500	0.57	A
	West of 13th	5705	8400	10500	0.54	A
	East of 13th	5030	8400	10500	0.48	A
	West of 19th	3780	8400	10500	0.36	A
	East of 19th	2300	8400	10500	0.22	A

TABLE 4-2: V/C Analysis for Beatrice's Major Street Segments, 1999

Roadway Name	Segment	Volume	Capacity at LOS C	Absolute Capacity	V/C	LOS
Lincoln	East of 33rd	1485	8400	10500	0.14	A
Ella Street	East of 6th	3240	6500	8125	0.40	A
	East of 8th	3330	8400	10500	0.32	A
	East of 13th	1880	8400	10500	0.18	A
	West of 19th	1230	650	8125	0.15	A
Court Street	South of Scott	3190	9400	11750	0.27	A
	North of Scott	5000	9400	11750	0.43	A
	West of Sherman (Hwy 4)	6150	21000	26250	0.23	A
	East of Sherman (Hwy 4)	9785	21000	26250	0.37	A
	East of Sumner	12920	12800	26250	0.49	A
	West of 6th	8360	12800	16000	0.52	A
	East of 6th St.	8355	14000	16000	0.52	A
	West of 19th	7630	14000	17500	0.44	A
	East of 19th	9310	10400	17500	0.53	A
	West of 33rd	5595	8400	13000	0.43	A
Market Street	East of 6th	3390	8400	10500	0.32	A
	East of 7th	3130	8400	10500	0.30	A
	West of 13th	2160	8400	10500	0.21	A
	West of 16th	2055	6500	8125	0.25	A
Scott Street	West of Court	905	6500	8125	0.11	A
Grable Street	East of 6th	900	6500	8125	0.11	A
Belvedere Avenue	East of Center	430	8400	10500	0.04	A
	West of 5th	515	8400	10500	0.05	A

than dominate, the overall city environment.

Other Transportation Modes

Sidewalks

Beatrice maintains a relatively complete sidewalk system within its traditional grid. However, this system breaks down in Glenover and West Beatrice, suffering from some of the same discontinuities as the local and collector street system. Gradual adaptation of major pedestrian corridors to full accessibility will be an important priority for Beatrice's pedestrian system.

Trails

Beatrice currently lacks an extensive trail system. The 1992 Beatrice Plan proposed the development of a trail on the south side of the Big Blue River between Chautauqua Park and Court Street. The city is in the process of developing this trail link. An additional opportunity has emerged with the abandonment of the Union Pacific line through the city. An extended trail system is discussed in Chapter Five "A Recreation Lifestyle".

Conclusions

This analysis suggests that:

- Beatrice enjoys a highly connected street network. New development must continue this level of connectivity which effectively moves local traffic around the community.

-Most of the Beatrice street system operates within design capacity. Future growth will need to tie into this system and ensure that traffic is dispersed evenly.

- Growth and external projects will have an impact on the planning of the city's transportation system. These influences include:

> - A Highway 4 bypass around Homestead National Monument creating a new northern entrance into the city.
> - Southern and Western growth that will require an additional bridge across the Big Blue River, which would likely occur with an extension of 26th Street.

- Beatrice has few facilities for bicycle traffic. This problem would be addressed with the conversion of the UP rail-line. Creating links to this trail should extend the system to all parts of the city and to key destinations within the community.

POLICIES AND ACTIONS

The previous analysis of Beatrice's transportation system indicates that the city faces no immediate traffic emergencies. Through progressive policies, it has avoided the congestion that plagues many urban communities. Additionally, it has implemented many improvements that addressed and solved traffic safety problems. On a superficial level, it appears that Beatrice's transportation agenda is limited to maintenance and ongoing system rehabilitation.

Yet, in a more subtle way, the transportation system is a critical component in efforts to develop Beatrice as a great and distinctive community. While aspects of the system may function well in moving people from one point to another, they may prevent areas from realizing their potential for growth. In addition, the circulation system, by definition, links areas together. Therefore, the extension and enhancement of the system becomes vital as Beatrice grows together as a unified community.

In Beatrice, a transportation program should meet current and future mobility needs without compromising the character of the city's urban environment. This general policy includes:

- Maintaining and enhancing good traffic circulation through the city, including addressing potential trouble spots created by development trends such as commercial development and southern residential development.
- Providing routes and alternative modes for local trips to prevent friction on major arterials.
- Using transportation as a formative and positive determinant of design and urban form.
- Developing a continuous network to accommodate non-automobile transportation.

The components of this program include:

STREET CLASSIFICATION SYSTEM
EASTSIDE CONNECTIONS
INDUSTRIAL TRAFFIC
LOCAL CONNECTIVITY
CIVIC STREETS
PEDESTRIAN AND TRAIL SYSTEM
GATEWAYS AND CORRIDORS
PUBLIC TRANSPORTATION

STREET CLASSIFICATION SYSTEM

Beatrice should define the roles of various streets within its traffic system.

The Street Classification Plan defines the various functions that major street segments have in the Beatrice system, and establishes the city's TEA-21 (or successor program) eligible system. The plan recommends maintaining the current classification system established in the Nebraska Department of Transportation's 1997 map, with the following additions:

• Sargent Street arterial should be extended to 26th Street as part of the Beatrice Parkway and on to 33rd Street as a collector street.

• Twenty-sixth Street extended from Sargent and across the Big Blue River as an arterial within the Beatrice Parkway.

• An extension of Dorsey Street to 33rd Street.

• Extension of Oak Street or Beaver Avenue to 26th Street to provide an additional east west access within southern Beatrice.

EASTSIDE CONNECTIONS

Beatrice's major long range roads system priority should be an east side river crossing at 26th Street.

While Beatrice's street system generally functions well, future growth to the east could jeopardize north-south traffic flow. Residential development east of 6th Street will have a limited number of choices to important recreation destinations such as Chautauqua Park and West Scott Street Ballfields. Currently 6th Street is the city's only north-south river crossing. As a result, most trips from eastern Beatrice to Chautauqua Park or the Country Club are channeled back to the 6th and Court Street intersection and across the 6th Street bridge.

Improvements to Beatrice's transportation system should create a continuous transportation system that fully utilizes the 26th Street bridge.

The Land Use Plan proposes these key transportation links:

- **Beatrice Parkway,** connecting future development in the east with the parks and recreation opportunities along the Big Blue River. Development of the Park-

way will include improvements to 26th and Sargent Streets.

- **19th and 33rd Street** extensions and upgrades. Bringing these streets into the Beatrice arterial and collector systems will allow traffic to flow from residential developments in eastern Beatrice to key public destinations in the city.

While a 26th Street crossing most appropriately meets current traffic needs, a 33rd Street crossing could be an alternative if eastward growth occurs rapidly and implementation of this crossing is delayed until late in the planning period. A 33rd Street crossing would require completion of 26th Street as an arterial north to Dorsey Street and extension of Oak Street.

INDUSTRIAL TRAFFIC

Beatrice should channel industrial and truck traffic away from residential or pedestrian areas when feasible.

Industrial traffic through and in Beatrice creates two significant conflicts:

• Traffic serving the Gage County Industrial Parks sometimes uses Ashland Avenue south to Railroad Avenue and 2nd Street affecting the Glenover neighborhood.

• Through truck traffic on US Highway 77 (6th Street) has a significant effect on the downtown environment.

• The following recommendations address the conflicts between industrial traffic and sensitive urban environments:

1. Railroad Avenue should be extended and improved to provide a southern route out of the industrial parks.

2. Signage and traffic calming design techniques should be used if necessary to discourage truck traffic for using Ashland Avenue through Glenover.

LOCAL CONNECTIVITY

The local street network in developing residential areas should be designed with multiple connections and relatively direct routes.

Within the framework of higher-order streets (arterials, collectors, and the collector parkway), local street systems will develop to serve individual developments. These systems should be designed with clear circulation patterns that preserve the quiet qualities of local streets while providing residents, visitors, and public safety and service vehicles access which is comprehensible and direct. This can be done by incorporating the following standards or techniques in local street design:

-Hierarchy and Cueing. Local street networks should have a natural order to them that provide cues, leading residents and visitors naturally to their destinations. Hybrid street networks combine the ease of use of a grid with the privacy of a contemporary suburban street pattern.

- **Connectivity.** The street network should have segments which connect to one another internally and to collector streets. Several measures to evaluate the connectivity of street networks have been developed. One measure is the ratio of the number of street links divided by the number of nodes (intersections or cul-de-sac heads). A target ratio of 1.40 produces a good neighborhood mix of connectivity and privacy.

- **Alternatives to Cul-de-Sacs**. Cul-de-Sacs are often valued by developers and home buyers for their privacy but are difficult and expensive to serve with public safety and maintenance. Alternatives are available which maintain the positive characteristics of cul-de-sacs while limiting some of the liabilities. These include:

- Access loops, which provide two points of access.
- Circles or bulls at the corners of streets or access loops. These provide many of the features of cul-de-sacs, including safe environments observed by a cluster of houses.
- T-intersections, which reduce the number of traffic/pedestrian conflicts.
- Short cul-de-sacs, shorter than 300 feet in length.

- **Design for Low Speed.** Traffic in a local street system should move at slow speeds. This can be accomplished by:

- Providing local streets with design speeds that are the same as speed limits. This produces self-enforcing speed limits, by which motorists drive at appropriate speeds.
- Using traffic calming devices. Such devices include narrowings at mid-block, neckdowns at intersections, speed tables (a more gradual and spread out version of the speed bump), and gateways.

CIVIC STREETS

Beatrice's streets should be designed as public spaces as well as movers of traffic.

Good streets have more than one purpose. In addition to moving traffic they are important public spaces and should be designed appropriately. The concept of civic streets defines strategic streets as parkways that connect neighborhoods, parks, and activity centers and provides a strong and unified image for the community. These streets have special characteristics that serve to unify rather than divide neighborhoods; accommodate pedestrian and bicycle, as well as vehicular traffic; and encourage adjacent development to be oriented toward rather than away from the public right-of-way. These characteristics include:

- A pedestrian/bicycle domain set back from the roadway by street landscaping and an adequate greenway setback from curb to walk.
- Special lighting and street graphics.
- Well-marked pedestrian crossings, sometimes with features such as crossing nodes which reduce the distance that pedestrians must travel to cross the street.
- Street furniture that claims part of the street environment for people who are outside of vehicles.

Civic streets will have different roles, ranging from neighborhood circulators and collectors to major arterials. In Beatrice, these civic streets include:

- Sargent Street
- Beatrice Parkway, the proposed southeastern circum ferential
- Court Street

- 6th Street

As these streets are developed or upgraded, the design features that mark civic streets should be incorporated into their design.

PEDESTRIAN AND TRAIL SYSTEM

Beatrice should maintain a continuous pedestrian network to complement the street system.

A multi-use trail and walkway system can complement automobile trips by providing a good environment for non-motorized transportation. The trail aspects of the system are described in more detail in Chapter Five of this plan. The system includes several levels of facilities:

- *Off-Street Trails*, providing exclusive paths separated from parallel streets. An off street trail system would link all quadrants of the city and would include the Big Blue River Greenway and the UP Line. Additional off-street links will include segments from Southeast Community College to Cedar Elementary and the Big Blue River corridor and from the Beatrice Parkway along Dorsey Avenue to the UP Trail. The Homestead Trails link into the Big Blue Bikeway will be an important link to the National Monument.

- *On-Street Trails*, providing trail facilities parallel to streets. These trails generally include a wide multi-use pathway, and are proposed for:

  - 26th Street, as part of the Beatrice Parkway
  - Sargent Street, from the UP trail to 26th as part of the Beatrice Parkway
  - Hoyt from 26th to 33rd Streets.

- *Share-the-Road segments and sidewalks*, including designated routes for pedestrian and bicycle use. This type of link is proposed for:

  - Penrod from Mary Street north to the Blue River Greenway.
  - 13th Street from Sargent to Scott Streets.
  - Hoyt/Arthur Streets from the UP Trail to 26th Street.

"Share-the-road" designation should not relegate bicycles to specific routes. However, they do help direct bicyclist to certain routes and notify motorist that bicycles are likely to be in the area.

This proposed system links many of the major activity centers and features of Beatrice to residential neighborhoods.

GATEWAYS AND CORRIDORS

Beatrice should maintain the design quality of its major community corridors, allowing them to serve as attractive gateways into town and positive business and community environments.

The development of Highway 77 as a four-lane expressway linking Beatrice to Interstate 80 has provided expanded opportunities to the city of Beatrice. The ability to link the highway commercial development to the north with the downtown and Court Street corridor will be important to economic growth strategies. A program to maintain the attractive character and good functioning of these key corridors should include:

- Improvements of sidewalks and installation of banners and improved, glare-free lighting.

- Where possible, consolidation of access points to reduce the number of curb cuts and traffic conflicts.

- Definition of community entrances with community signs and entrance features at the entrance interchanges and corporate limits.

- Directional signage, leading visitors to major community attractions.

- Maintaining pedestrian scale along community corridors, avoiding dominance of street frontages by parking lots or automotive facilities.

PUBLIC TRANSPORTATION

Beatrice should continue its current transportation services to seniors and people with handicaps and expand the service to a "service route" format that combines flexibility with predictable service to major traffic generations.

With its relatively large senior population, Beatrice should at least continue its current demand-responsive services to seniors and people with disabilities. If demand and funding makes an upgrade of public transportation possible, Beatrice should consider an innovative "service route" transit system. This service could use vehicles with special image features, like a rubber-tired trolley. Service routes provide services to specific points of community activity at defined times, but vary their routes between those points based on the demands and needs of riders. In this way, the system provides door-to destination service, as well as specific on-line pick-up points. Emerging technologies can help automatically plot the most efficient routes. Beatrice should also work with the City of Lincoln to develop transportation services for the elderly between the two communities.

A Recreation Lifestyle

Beatrice should provide a quality park system to support the needs of its current and future residents and serve as a symbol of the unique character of the community.

Parks and Recreation Issues and Policies

An outdoor life style is important to Beatrice. Residents enjoy good access to excellent city and regional parks, along with the Big Blue River Valley. Park needs in the community include both active and passive recreation. A balance of nature and recreation; and a basic connectedness between the city and the countryside is the vision of Beatrice's future park and open space system. Yet, in Beatrice, park and open space development is more than an amenity. Rather, it is an indispensable part of an overall economic development strategy.

Park System Master Planning: A Process of Added Value

Parks and natural resources within a community have both economic and humanistic attributes. They add value to the community enhancing both the experience of living and the value of property in the community. Parks can be major determinants in the stabilization of existing neighborhoods and the development of high quality new residential settings. Studies find that a high quality, diverse recreational system ranks second only to the educational system in attracting new residents to a community. Beatrice's parks and natural resource system should be integrated into the city's development pattern and should provide recreational opportunities for all citizens.

A Quality Park System

Beatrice's park facilities are relatively evenly distributed, meeting the needs of the majority of the public. Beatrice has no neighborhood parks but instead has four large community parks that serve each quadrant of the city. The mix of mini-parks and evenly distributed community parks provides excellent service coverage to the city. The southern and western sections of the city do have fewer mini-parks, but Chautauqua Park, West Scott Street Ballfields and Riverside Parks adjust for this deficit. Beatrice also has a tremendous opportunity to develop the Big Blue River corridor as a greenway that will link the city's park and open space system together.

GOALS

To enhance its facilities and continue to use its open space system as a central element contributing to community quality, the City of Beatrice should:

• Create a linked park network of greenways and civic streets that connect open spaces, neighborhoods, and activity centers.

Such a network can help define the city and provides convenient access to its park and open space resources. It is particularly important in Beatrice, where important resources like Chautauqua Park, West Scott Street Ballfields, Hannibal and Riverside Parks are located on opposite sides of the city. The development of a linked park system has several benefits, including:

-Accommodating recreational activities that display some of the highest levels of participation, including bicycling, walking/hiking, and cross-country skiing.

-Increasing safe access to recreational facilities by non-motorized modes, and increasing the service coverage of existing outdoor recreation facilities.

-Providing linkages among various parts of the city.

• Provide recreational facilities to meet the needs of newly developing areas.

Beatrice should provide neighborhood and community parks in growth areas, as well as other recreational experiences, such as nature interpretation, resource conservation, trail systems, and other passive activities. It is vitally important to set aside quality parkland/open space during planning stages of new residential developments. Planning of these neighborhood park spaces should ensure safe, convenient, and desirable pedestrian access from neighborhoods to parks. In addition, parks should fit within the framework of the greenway concept.

• Distribute active recreation use across the geographical area of the city, guarding against over-concentration of park resources in any quadrant of the city.

The adequacy of park services is measured in both numbers and by geographic distribution. Parks that are inaccessible to neighborhoods prevent easy access and provide a lower level of service.

• Provide an equitable mechanism for establishing service standards in growth areas and financing park acquisition and development.

The reservation and development of new park and open space areas in developing areas is a major challenge for a growing city. The establishment of service standards was once based on national norms, but are increasingly predicated on levels of local service. These establish a basis for park dedications and assessments in developing areas. Park system finance should be based on a benefit principle, apportioning costs based on who benefits from specific projects.

• Balance active and passive recreation opportunities for all people of Beatrice.

The city should maintain a balance between active and passive recreation. Development of the Big Blue River corridor will be essential to linking the more active parks of Hannibal and West Scott Street Ballfields, and will also be important in creating more passive recreation opportunities within Beatrice.

• Use parks and open spaces to encourage neighborhood reinvestment and to help to reinforce Beatrice's urban form.

Parks and open spaces can help to provide structure for a growing community. In traditional towns, the green or commons was a focus for both civic life and community amenity. Park development can have equal value for contemporary development, adding a public aspect to life in new residential areas.

FACTS AND ANALYSIS

Park facilities are evaluated in four ways:

•**Facilities by Classification**. Parks are classified into different categories to determine the level and area they should serve.

•**Facilities Relating to Overall population Service Standards.**

•**Geographical Distribution**. The service radius of each facility is analyzed to identify geographical gaps in service.

•**Park inventory and assessment.** Improvement needs are noted for each city-owned park.

Facilities by Classification

In order to systemically analyze the park system, Beatrice's major recreation and open space areas are classified as follows:

Overall Open Space: Beatrice's public park system contains approximately 245 acres. Traditional park area standards recommended by the National Recreation and Park Association (NRPA) suggest one acre of parkland per 100 residents. Assuming a 2000 population of 13,090, Beatrice's ratio of 18.69 acres per 100 residents substantially exceeds this standard. Even when undeveloped land is removed from the equation Beatrice still has 17.9 acres per 100 residents. Development of the Big Blue River corridor will meet the city's overall needs through 2020. Beatrice will need to monitor residential development and maintain the current level of service throughout the city.

The park classification system developed by the National Recreation and Park Association (NRPA) is used to classify the facilities in Beatrice's system. These categories include:

Mini-Park: Mini-Parks generally address specific recreation or open space needs. Generally, these parks are usually less than one acre in size and have a service radius below 0.25 miles. The city has six mini-parks ranging in size from 0.3 to 2.8 acres. The existing parks include Astro, Charles, Froberry, Nichols, Robertson, and Roszell Parks.

Neighborhood Parks: Neighborhood parks are considered the basic unit of a community park system and provided a recreational and social focus for residential areas. These parks desirably provide space for informal active and passive recreational activities. The typical service radius for neighborhood parks is usually 0.25 to 0.50 miles. Neighborhood parks adequate in size to accommodate the requisite facilities often contain a minimum of five acres; 5 to 10 acres is generally considered optimal. Site selection criteria include ease of access, neighborhood location, and connection to greenways. Standards call for 1 to 2 acres of neighborhood parks per 1,000 people. Beatrice has no the fall under these standards but its numerous Mini-Parks and four large community park areas fill the gap for neighborhood parks.

School Parks: School parks combine the resources of schools and city agencies to provide joint social and recreational facilities. Location is based on criteria for school site selection. There are four elementary locations across the city providing four play areas, four tennis courts and six softball fields that are maintained by Beatrice Public School.

Community parks: These include areas of diverse use and environmental quality. Such parks meet community-based recreation needs and may preserve significant natural areas and often include areas suited for intense recreation facilities. Typical criteria for community parks include:

-adequate size to accommodate activities associated with neighborhood parks, but with space for additional activity.

-a special attraction that draws people from a larger area, such as a swimming pool, pond or lake, ice skating rink, trails, special environmental or cultural features, or specialized sports complexes.

Community parks generally contain between 10 and 50 acres (more typically 30 to 50 acres) and serve a variety of needs. The typical service radius of a community park is approximately .5 to 3 miles. Traditional NRPA guidelines for community park area, call for 5 to 8 acres per 1,000. Chautauqua Park's large size, 66 acres, and amenities including RV camping and the Tabernacle extend its serve coverage beyond the three mile standard. West Scott Street Ballfields, and Hannibal and Riverside Parks are Beatrice's other community parks.

Natural Resource Areas. These include lands that preserve important natural resources, landscapes, and open spaces. Prairie Park along the Big Blue River is considered a Natural Resource Area. The city has a tremendous opportunity to extend this area along the River corridor and incorporate it into a greenway system that links the city's parks and open spaces.

Greenways. These open spaces tie park system components together to form a linked open space environment. Greenways follow either natural environments, such as drainageways, or man-made settings such as railroad corridors, parkways, and other right-of-ways. Greenways may also be pre-designated as part of development design. The Big Blue River corridor provides the city with the greatest opportunity for utilization of a natural greenway. The city should also support efforts to convert the UP Railroad line into a trail linking Beatrice and Lincoln.

Sports Complex. These spaces consolidate heavily programmed athletic fields and facilities to large sites with strategic locations. Typically, facilities have a minimum size of 40 acres. Traditional NRPA guidelines for sports complexes, which may be part of community park or school park acreages, call for 5 to 8 acres per 1,000. West Scott Street Ballfields and Hannibal Park both have strong characteristics of sports complexes but also provide for or have the opportunity to provide a wide range of activities.

Special Use Parks. These cover a broad range of facilities oriented to a single purpose use, including cultural or social sites, or specialized facilities. The Beatrice Aquatic Center is a stand alone facility providing only water related activities.

Tables 5-1 and 5-2 summarize Beatrice's park system by type of park and summarize available facilities. Tables 5-3 and 5-4 examine present levels of service and future needs to accommodate projected population. The analysis indicates that:

- Statistically, Beatrice has adequate park space to meet future population needs. Continued growth will require additional park space, much of which can occur through development of the Big Blue River corridor.

- Beatrice's current level of service is well above that recommended by the NRPA in all areas except neighborhood parks. Beatrice's numerous mini-parks and four large community parks compensate for this defi-

cit. This deficit will need to be addressed in new residential developments.

- Beatrice is experiencing a deficit in soccer fields and should consider West Scott Street Ballfields for expansion.

Facilities by Geographical Distribution

Geographic park service can be evaluated using the following NRPA standards for distribution:

- Mini-parks: 1/4 mile or less radius.
- Neighborhood Parks: 1/4 -1/2 mile radius
- Community parks: 1 to 2-mile radius

Based on this analysis:

- Beatrice's excellent deployment of parks provides service coverage to nearly every part of the city.

- Northern growth areas will require additional park services as they move outside the radius of existing parks.

- Residential areas, including Glenover and areas south of Scott Street, are within the radius of community parks; however, both natural and manmade barriers limit access. Lack of access across the Big Blue River reduces Chautauqua Parks service to pedestrian users, and Glenover is separated from the city's larger parks by both the river and the highway corridors.

Table 5-1: Park System Analysis

Park Facilities in Beatrice Type and Location	Acres	Playground	Playing Fields	Courts	Special Facilities
MINI-PARKS Generally less than one acre, addresses limited, isolated, or unique recreational or open space needs					
Charles Park 223 N. 6th Street; between the Carnegie Library and the BPS Administrative Offices	1.4	No	No	No	Concrete bench and dedication plaque.
Robertson Park 900 High Street; Northeast corner of 9th and High Street	0.3	Yes	No	No	3-Benches, drinking fountain, picnic tables
Astro Playland 1816 Hoyt Street; Northeast corner of 18th and Hoyt Streets	1.3	Yes	No	No	3 benches, 2 picnic tables, 2 horseshoe pits
Roszell Park Northwest corner of Park St. and Union Ave	0.3	Yes	No	No	Park signage
Nichols Park South of the Blue River along West Court Street	2.8	No	No	No	Historical Bandstand
Froberry Park Northwest corner of Mulberry Ave and Front St;	1.5	Yes	No	No	-
TOTAL MINI-PARK AREA	**7.6**				

- Glenover is technically served by Roszell Park. However, this is the smallest and most sparsely equipped of the city's parks. In addition, Glenover is relatively distant from the city's four elementary school sites. Expansion and improvement of Roszell Park would correct this service deficiency.

- Development of the Big Blue River Greenway will extend existing parks service areas through increased accessibility.

Table 5-1: Park System Analysis

Park Facilities in Beatrice by Type and Location	Acres	Playground	Playing Fields	Courts	Special Facilities
COMMUNITY PARKS Generally 10 to 50 acres, depending on facilities; more typically 30 to 50 acres. Includes neighborhood park menu of facilities, but serves larger purpose. Meets community-wide recreational needs, and includes special facilities. May include special natural environments. Often, a major community image feature. Typical service area is .5 to 3 miles					
Chautauqua Park 1000 S. 6th St.; south bank of the Big Blue River north of Grabel Street and east of 6th Street.	66	Yes	Yes	2 tennis	3-Restrooms, 3 picnic shelters, Bandstand, log cabin, 25 unit RV camping, tank monument, 9-hole disc golf course, horseshoe pits.
West Scott Street Ballfields Center Street between Court and Doane Streets.	54	-	Yes	-	Concession stand and restrooms
Hannibal Park 2200 Hoyt Street; South of Hoyt Street between 22nd and 26th Streets	40	Yes	Yes	Yes	2 restroom, 2 picnic shelters, historic windmill, aircraft static display; 3 bleachers
Riverside Park 500 West River RoadWest and south of the Big Blue River and north of River Street	32.0	Yes	Yes	Yes	2 picnic shelters, 1 restroom, 4 horseshoe pits, 5 BBQ Grills, 2 sand volleyball courts; boat dock
TOTAL COMMUNITY PARK AREA	192				

Facility Needs

An analysis of specific facility types indicates that Beatrice generally meets standards for most active recreational facilities. The city lacks a significant multi-use recreational trail system. Development of the Big Blue River corridor and conversion of the UP Railroad line into a trail could address this problem. Though, additional trails will be needed to connect key destinations in the city with the greenway system.

Table 5-1: Park System Analysis

Park Facilities in Beatrice by Type and Location	Acres	Playground	Playing Fields	Courts	Special Facilities
SPECIAL USE PARKS Cover a broad range of facilities oriented to a single purpose, including cultural or social sites, or specialized facilities.					
Beatrice Aquatic Center 12th and Scott Streets	5.0	-	-	-	9,000 square foot 0-dept pool, youth pool fountain, bubbler and toys; 124 foot loop slide; frog slide; 8 foot river slide; 2 1-meter diving boards; shade structures; bath house; concession stand
TOTAL SPECIAL USE PARKS	5.0				
NATURAL RESOURCE AREAS Lands set aside for preservation of significant natural resources, remanet landscapes, or open space. Size is dependent on resource availability and opportunity.					
Prairie Park West of the Big Blue River along Memorial Drive	30	-	-	-	Tall grass prairie preserve.
TOTAL NATURAL RESOURCE AREAS	30				

Table 5-2: Major Recreation Facilities in Beatrice

Criterion	Support			Recreation facilities						
Public Parks	**Acres**	**Restrooms**	**Picnic Shelters**	**Baseball Fields**	**Softball Fields**	**Soccer Fields**	**Tennis Courts**	**Swimming Pool**	**Wading Pool**	**Play Areas**
Chatauqua	66	3	3	0	1	0	2	0	0	2
Riverside	32	**1**	2	1	0	0	2	0	0	1
Hannibal	40	2	2	3	5	0	6	0	0	1
West Scott Street Ballfields	54	1	0	5	0	1	0	0	0	0
Beatrice Aquatic Center	5	1	0	0	0	0	0	1	0	0
Prairie Park	30	0	0	0	0	0	0	0	0	0
Charles	1.4	0	0	0	0	0	0	0	0	0
Robertson	0.3	0	0	0	0	0	0	0	0	1
Astro	1.3	0	0	0	0	0	0	0	0	1
Roszell	0.3	0	0	0	0	0	0	0	0	1
Nichols	2.8	0	0	0	0	0	0	0	0	0
Froberry	1.5	0	0	0	0	0	0	0	0	1
Totals	**234.6**	**8**	**7**	**9**	**6**	**1**	**10**	**1**	**0**	**8**
School Sites Lincoln	6.0	0	0	0	2		1	0	0	0
Paddock Lane	5.9	0	0	0	2	0	1	0	0	0
Cedar	5.0	0	0	0	2	0	1	0	0	0
Stoddard	2.2	0	0	0	0	0	1	0	0	0
Totals	**19.1**	**0**	**0**	**0**	**6**	**0**	**4**	**0**	**0**	**0**
Other Facilities	YMCA: 25 Yard swimming pool, gym, racquetball courts, walking/running track, weight training equipment, sauna, whirlpool, locker rooms.Hidden Acres: 18-hole golf courseBeatrice Country Club: 18-hole golf courseAmerican Legion Field: 1 Legion baseball field									

Major Park Development Issues

Based on the findings from the park and community services planning process, the following issues emerged for the Beatrice park system:

- Maintenance, rehabilitation, or enhancement of existing park facilities where needs exist, including continuation of a successful tree planting and replacement program.

- Continued development of a comprehensive trail and greenway system, integrated into the structure of the city, and designed to provide Beatrice with a linked park and open space system.

- Growth and financing of parks to serve the existing population and projected growth areas.

Table 5-3: Park and Recreation Services Related to Population

Criterion	Standard	Existing Facility	Comments
Swimming Pools	- 1 50-meter pool per 20,000 - 1 25-yard pool per 10,000 -Based on standard Beatrice requires one 25-yard pool.	- Beatrice Aquatic Center: 1 9,000 sq. ft. 0-depth pool. - YMCA: 1 25-yard indoor pool.	The number of existing facilities satisfies the community's requirements.
Baseball Fields	- 1 diamond per 6,000 population. - Based on standard Beatrice requires two diamonds.	- 9 public diamonds - 1 private diamond	Baseball facilities have regulation dimensions and have adequate lighting and support facilities.
Softball Fields	- 1 diamond per 3,000 population. - Based on standard Beatrice requires four diamonds.	- 12 diamonds	Beatrice is adequately served by baseball fields.
Tennis Courts	- 1 court per 2,000 population. - Based on standard, Beatrice requires 6 courts.	- Public parks: 10 courts - Schools: 4 courts	School courts provide multi-use hard surfaced recreational space. Beatrice is adequately served by tennis courts.
Golf Courses	- 2 18-hole course per 25,000 population.	- Beatrice Country Club: 18 holes - Hidden Acres: 18 holes	Both facilities are semi-public and allow public play with user fees. Beatrice is adequately served by golf courses.
Soccer Fields	- 1 field per 10,000 population - Based on standard, Beatrice should have 1 soccer field.	- One field is located at West Scott Street Ballfields	Ottumwa is adequately served by soccer fields but local demand may require that this standard be exceeded.

Sources: *National Park, Recreation and open Space Standards,* National Recreation and Park Association, 1996
RDG Crose Gardner Shukert, 2000

POLICIES AND ACTIONS

This section describes strategies designed to enhance the park system's status as a leading community feature. The overall concept:

- Envisions a linked park system, molding Beatrice's open space system into a green network that unites the community and makes each major park the territory of everyone in the city.

- Allows the park system to grow with the city.

- Proposes new centers for recreation, which are integrated into a greenway system.

- Provides recreational facilities needed to meet community priorities.

The components of this program include:

GREEN NETWORK
GREENWAY ACCESS TO MAJOR COMMUNITY FEATURES
MAJOR OPEN SPACE CENTERS
PARKSITE IMPROVEMENT PROGRAM
NEIGHBORHOOD PARK FINANCE MECHANISM

GREEN NETWORK

Beatrice's park system should be a network of parks, connected by continuous green corridors defined by trails, greenways, boulevards, and civic streets.

A linked greenway system merges parks and open spaces into all parts of the life and development of the city. It expands the use of the park system beyond individual service areas to encompass the entire city. The components of Beatrice's Green Network will include its existing and future parks, a circular trail system that includes major linear open space links, boulevards and civic streets. Major green space linkages will include:

• A greenway that will follow the Big Blue River west of Riverside Park to east of 19th Street and include Riverside, Prairie and Chautauqua Parks, and West Scott Street Ballfields.

• A Parkway that will include trail and greening of the Sargent Street, 26th Street and a loop linking 33rd Street to Scott Street.

•A West Beatrice Loop that will provide Southeast Community College access to the greenway system and key destinations within the city.

• Upgrade of Hoyt, Arthur, 13th and Penrod Streets to Bicycle Streets that extend the Greenway and provide access to northern and western residential developments.

• Homestead Trail, linking Homestead National Monument along the Highway 4 corridor to the city.

• Conversion of the UP Railroad line into a trail that will link Beatrice to Lincoln and provide regional access to the city. Trail links to the Big Blue River Greenway and Downtown Beatrice will be essential to providing citywide access to a regional amenity.

GREENWAY ACCESS TO MAJOR COMMUNITY FEATURES

Major community activity centers should have pedestrian connections to the greenway system.

The greenway and park system should provide a secondary transportation connection to major community facilities, such as the downtown, Beatrice High School, BSDC and Southeast Community College. Therefore, nearby links in the greenway system should have pedestrian connections to these major centers. In addition, new projects should be designed to incorporate and encourage pedestrian and bicycle access. These links will include trail connections along the Beatrice Parkway and Bicycle Streets along Hoyt, Arthur, 13th and Penrod Streets. A West Beatrice Loop links the city's amenities to Southeast Community College.

MAJOR OPEN SPACE CENTERS

Beatrice should develop major open space centers that are accessible to the community through the trail and greenway network and provide passive recreation opportunities.

Beatrice has begun this process with the development of Prairie Park but needs to extend these spaces. A system of open spaces along the Big Blue River will

provide greenspace opportunities to future development and a corresponding trail system will provide access to residents through out the community. A tremendous educational opportunity exists in the native grass and habitat created in Prairie Park and along the Big Blue River corridor. Identifying ways to leverage these opportunities will provide Beatrice with an amenity few communities enjoy.

PARKSITE IMPROVEMENT PROGRAM

Beatrice should implement a regularly budgeted, incremental program of park site improvements and upgrades at its existing parks.

Continued investment in Beatrice's existing park system will maintain its status as a major community asset. This program should include the continued use of the nursery system and extensive tree maintenance program. The three nurseries located in or adjacent to Hannibal and Riverside Parks and West Scott Street Ballfields provides 200 to 400 trees a year. The current rate of planting 8 to 10 trees for each tree that is removed should be continued and expanded to any additions made to the park system.

Several common system-wide themes emerge as priorities for Beatrice's park system. These include:

- Updating the park master plan for the city's parks.
- Upgrading of restrooms and drinking fountains at specific locations.
- Bringing all parks into compliance with the American with Disabilities Act.
- Connecting existing parks with a future trail system.
- Continued development and expansion at specific locations.

Parksite enhancement and rehabilitation should be funded on a regular, predictable basis. Continuation of Beatrice's successful park system will mean continued funding of the tree maintenance program and the Chautauqua research arboretum.

Parksite Improvements Program:

Chautauqua Park
- Upgrade and expansion of the camping area.
- Replacement of the oldest playground equipment.
- Upgrade of restrooms and showerhouse to meet most recent ADA requirements.
- Installation of fire suppression equipment within the Tabernacle.
- Pruning and replacement of older trees.
- Expansion of the disc golf course to 18-hole.
- Upgrade of road system.
- Reconstruction of waterfall.

Riverside Park

- Repair or removal of tennis courts.
- Utilization of poolhouse as a showerhouse for campers.
- Upgrade of ground system with possible utilization of the closed lower road.
- Electrical upgrades and construction of dumping station for the camping area.
- Development of a trailhead for the Big Blue River bikeway and Homestead Trail.

Hannibal Park

- Improved roads and parking.

- Upgrade and replacement of playground equipment.
- Construction of an additional set of playground equipment.
- Development of a buffer between existing and future residential development and heavily used softball fields.
- Assigning a caretaker to the park to decrease vandalism.

Charles Park

- Landscaping, street furniture and lighting that is contiguous with the downtown.

Robertson Park

- Upgrade of playground equipment.
- Upgrade of the water fountain.
- Construction of a small picnic shelter.

Nichols Park

- Continued program with local civic club for maintenance of the park.
- Repair and maintenance of bandshell.

Astro Park

- Construction of small picnic shelter.

Roszell Park

- Upgrade of playground equipment.
- Expansion of the park to provide improved service to an isolated part of the city.

Froberry Park

- Expanding play equipment to include swings.

Prairie Park

- Expansion of native grass and habitat along the Big Blue River Flood Plain.
- Development of an educational area that would be linked to the trail system.

NEIGHBORHOOD PARK FINANCE MECHANISM

In order to finance park acquisition, Beatrice should establish a parksite acquisition fund, financed along with new subdivision development.

A mechanism to finance community park acquisition is required to ensure the reservation of well-located and appropriately sized open spaces. Park acquisition may take place through one of two devices: dedication of appropriate parcels by developers or a payment in lieu of dedication to acquire other parksites. A "benefit fee" approach to park financing must trace expenditures to the direct benefit of those areas that are paying the fee.

The obligation for land dedication (or payment in lieu of dedication) is a function of:

- Acres in development.
- Development capacity established by the development's zoning.
- Number of people per unit in Beatrice (2.27 according to the 1990 census).
- The city's desirable level of service standard in acres of neighborhood park per 1,000 people.

The park finance system should be implemented through the city's land development ordinances. It provides an equitable way to finance acquisition of appropriate parks consistent with the principles of the comprehensive plan.

Quality Public Services

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

Beatrice's public services and infrastructure systems make up the framework for the city's operation and growth. These systems often operate quietly and provide the basic municipal support for the lives of Beatrice's residents. Through past investments and ongoing upgrading, Beatrice has established a high standard for its public facilities. This section of the plan discusses how this standard can be maintained and further improved in the future.

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

Usually, the long-term costs of operations and maintenance are often much larger than the initial capital expenditure. For example, long-term maintenance of park system greatly exceeds the cost of acquiring or even developing parkland. In light of this fact, there are situations in which building a new facility is less costly than living with an outdated facility with high maintenance costs. These situations exist when an initial capital outlay produces a long-term savings in operating costs.

The high local costs associated with public facilities and infrastructure make this part of the comprehensive plan very important to Beatrice. In addition, residents' level of satisfaction with the city and its government relate to how well they feel they are served. In the end, providing high quality public services and infrastructure will greatly and beneficially affect Beatrice's livability and desirability. 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 infrastructure. In order to continue to provide excellent services to its citizens, Beatrice should work to:

Maintain the quality of Beatrice's public facilities and services.

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

- City Hall, along with the auditorium and fire station.
- Other city owned buildings, including the new and old libraries and the police station.
- Public works, utilities, and park maintenance and storage facilities.
- Beatrice Municipal Airport.
- The city's infrastructure, including sewers, water system, electric distribution system, solid waste disposal and the treatment plant.

These facilities and their continuing enhancement and successful operation are indispensable to the future of Beatrice and its ability to support further growth.

Assure a healthful and abundant water supply.

Beatrice draws its water from two city-owned well fields several miles to the northwest. The quality of the water at the older well field is threatened by nitrate pollution from agricultural operations. In addition, deficient mains create water supply problems in some parts of the city. The solution of these problems is particularly important to Beatrice.

Support new development goals with adequate, economical infrastructure.

New development areas designated in the comprehensive plan will require some infrastructure extensions and improvements. Requirements will emerge from storm sewers, new or 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 public and private costs of new services. Clearly, public dollars must be wisely spent in providing services. Less obviously, the city must also be concerned with the size of private costs, to assure the continuation of orderly growth based on market-related investment decisions.

Provide 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. The key to insuring cost efficiencies is sound capital improve-

ment programming. Operations and maintenance savings are also realized through good planning and programming. These savings can occur through the use of techniques such as facility sharing, consolidations, joint use, the appropriate location of improvements, and budgeting for routine maintenance. Simply stated, the city cannot afford redundancies in the development and operation of facilities or the provision of services. Often, quality can be increased and costs reduced by avoiding duplication and encouraging inter-agency cooperation. The public facilities plan will address these options.

FACTS AND ANALYSIS

This section examines the current conditions of Beatrice's vital infrastructure and public service systems. It examines four basic components: the city's public facilities, those structures and resources which provide the home bases of major municipal operations; its infrastructure systems, including sanitary sewers, storm drainage, water distribution, solid waste disposal, and electrical distribution; its park and recreation system; and services to areas that are designated for new development.

Public Facility Inventory and Analysis

The City of Beatrice provides key services through a variety of city-owned buildings and facilities. The historic Municipal Building, including the city's administrative offices, fire station, and public assembly and recreation facilities, is Beatrice's most visible public building. The city also owns and operates a number of maintenance and storage facilities which act as bases of operation for important public services. Most recently, the City has completed an office and maintenance facility for the Water, Streets and Electric Departments at Highway 77 and North Commerce Street. The new high school and expanded administrative offices are also key public facilities within the city.

Table 6-1 presents an inventory and evaluation of these varied 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.

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

• Relocation of the City offices and development of a reuse plan for the existing Municipal Building.

•The development of reuse options for the historic Carnegie Library building in Downtown Beatrice.

Other needs include:

•Enlarging the Fire Station to improve accommodations efficiency and safety.

•Converting the lower level of the Library for use as an expanded Heritage Room and display area for original works of art.

•Expanding salt storage at 2nd and Bell location or identifying a new central location.

•Expand Chautauqua Park Shop to accommodate a consolidated Park maintenance and shop area.

•Construct street along platted lots at the Airport to facilitate industrial and retail development.

•Develop plans for redevelopment or improvement of the Veteran's Memorial Drive area.

Municipal Building and Fire Station

205 North 4th St. Northwest corner of 4th and Ella Streets

The fire station located in the Municipal Building, a masonry, historic structure. The building is two stories on east and three on west. The site is about 1.5 acres and the building is situated within a 150 foot square envelope. The auditorium is accessed from 4th Street on the east. Administrative offices are located on two levels and include city departments and other public agencies such as the housing Authority.

The Fire Station uses over 15,000 square feet in the Municipal Building and includes three double stacked bays in west lower level. The department absorbed ambulance service in 1992 and have added 9 pieces of equipment since 1992.

Evaluation

The structure is in very good condition. The removal of the police station has increased space but accessibility issues still exist. The location of some city offices in the building is functionally inefficient. Some non-city agencies might be more appropriately housed in other parts of Downtown Beatrice.

The Fire Station has inadequate space to accommodate all functions. Stacking of equipment reduces response time and decreases safety. Response time averages 3.5 minutes but is 7 minutes to the far eastern developments. Growth in the eastern and southern sections of the city will likely require an additional station in the southeastern quadrant of the city. Response time is also hampered by safety issues along Ella Street and at key intersections.

Recommendations

- Implement plan to relocate city offices.
- Develop reuse plan for the Municipal Building.
- Provide more space for the Fire Department south of the Big Blue River.
- Monitor need for additional fire station.
- Install early warning traffic lights along 5th and Ella Streets. Evaluate the need for pre-emption system at 6th and Lincoln; 19th and Lincoln; 6th and Monroe; and 6th and Dorsey.

Beatrice Police Department

201 North 5th Street, Northwest corner of 5th and Ella Streets

The Police station occupies a two story, 8,500 square foot, brick structure that was extensively renovated in the 1980's. It was originally built for a bank and purchased by the city in 1994. The first floor is occupied by the Police Department, Dispatch Center, and Southeast Area Drug Enforcement Task Force. The basement is used for evidence storage and the 2nd floor is unoccupied.

Evaluation

The structure is in excellent condition. The department has adequate space through the planning period. Plans floor occupation of the second for by the city administrative offices have been completed. Handicap accessibility to the second floor and to restrooms on the second floor will need to be addressed before the city can move into the space. A program for upgrading and replacing equipment has been implemented. Retention of officers has developed as a significant issue.

Recommendations

- Address accessibility issues and implement plans for the second floor.
- Complete technology upgrades including computer aided dispatch system.
- Identify programs and policies to increase retention of trained officers.

Carnegie Library

200 North 5th Street

The historic, 7,500 square foot, two-story masonry structure is sited on approximately 0.5 acres. Off-street parking is provided along street frontages. The building is adjacent to a city park and the Beatrice Public School's Administrative Offices to its north. The library was replaced by new facility in 1991.

Evaluation

The structure is in very good condition, with a central location and good site access. A reuse study is being developed.

Recommendations

Reuse of the facility based on completed study. Potential uses include:

- A cultural center with temporary and permanent collections
- A small multi-purpose performing arts facility
- Artist-in-residence area and workshop for artists and students.

Any rehabilitation must respect the historic character of the structure.

New Beatrice Public Library

Northeast of 16th and Court Streets

The building was completed and occupied in 1991. It includes 23,000 square feet, with a 17,000 square foot lower level used for a walking track. Site size is approximately 2 acres. Off-street parking is provided on the west side of the building. Main level meeting rooms can accommodate occupancy of 400 people.

The expansion of the Heritage Room to include records from the Nebraska Genealogical Society has meant an additional 3,000 volumes. The library's collection is approximately 80,000 and averages 2,000 users a week

Evaluation

Location is central to many residential areas and near projected new growth centers. Expansion of the Heritage Room to include the Genealogy collection and computer workstations has created space and conflicting use issues. Plans for utilization of the lower level have been developed. This could include a new Heritage Room and art gallery and installation of lower-level restrooms. The building is in excellent condition except for persistent leaks in the roof.

Recommendations

- Develop lower level for an expanded Heritage Room and art gallery for numerous original pieces that have been donated to the Library.
- Identify permanent solution to roof leakage.

Beatrice- Board of Public Works

500 N. Commerce St. Northwest of Commerce and Highway 77

The BPW offices are located in a one story masonry building. The Water, Electric and Street Departments are all located in the 1996 facility. Attached to the main office is a one story metal skin maintenance shop for the Water Department. The 10 bay building also includes a small mezzanine area for inventory and storage.

Metal skin buildings, with 14 bays each, are located to the northwest and northeast of the main offices and house the Streets and Electric Department's maintenance shops. The northwest Street Shop also includes an additional storage room. Located to the north of the Street and Electric Shops is the storage yard for the BPW. The area is fenced and secured, except for the main offices and watershop.

Evaluation

The buildings are in excellent condition. The northern location will mean the continued need for emergency equipment storage within the city.

One bay at the Street Maintenance shop, used exclusively for sign storage, is too small.

Recommendations

- Continue routine maintenance.
- Expand the Street Shop to the north for additional sign storage.

Storage Facility Complex Ella to High Street, West of 1st Street	The complex is located on approximately five acres of flood plain property, containing outside storage areas and the following structures: • Park Storage Building: 5,700 square foot, one-story metal building, formerly the Street Maintenance Building. • Water Department Storage Building: 2,400 square foot, one-story metal building, formerly the Water Maintenance Building.
Evaluation	The Service Building and Electric Storage Building were demolished after 1992. The remaining buildings are in fair condition. Location in the flood plain creates a water inundation problems during peak flood periods, requiring the removal of equipment. Location is reasonably central, with good access to 1st Street off Elk Street.
Recommendations	• Continue routine maintenance. • Continue monitoring flooding in the area and address as needed.

Storage Building 2nd and Bell Streets	Building is a 4,000 square foot, one-story metal structure on a 10,000 square foot site. Structure is used for sand and salt storage.
Evaluation	Structure is in poor condition. Additional salt storage is needed.
Recommendations	• Identify a new central location for salt storage.

Storage Building North 2nd Street, south of David Street	The structure is a 4,800 square feet, one-story metal building owned by the Water Department. The building is located within the floodplain and is used to store emergency equipment only.
Evaluation	The structure is in fair condition. Its location in a heavy industrial area is appropriate for the existing use.
Recommendations	• Continue routine maintenance.

Park Maintenance Buildings Chautauqua Park	The site contains two structures: a 2,000 square foot, one-story metal building and a 1,000 square foot wood-frame storage facility. The site is in the southeast corner of the park and has a small gravel parking area. It is well-screened from the rest of the park by trees and topography.
Evaluation	The metal building is in good condition. The wood building is in fair to good condition. Access to northern parts of Beatrice would be improved with linkages proposed in the comprehensive plan.
Recommendations	• Expand to assume function of main park maintenance facility and to consolidate three existing facilities.

Park Maintenance Building Riverside Park	The one-story, 2,550 square foot facility is a converted brick bathhouse. The site also has some outside storage of light equipment and a small nursery.
Evaluation	The structure is in fair to good condition but is not practical for maintenance and storage.
Recommendations	• Evaluate the feasibility of converting the building into a restroom or shelter for the park. • Relocate maintenance and storage services to a consolidated facility.

Municipal Airport

North edge of City, west of US 11 and north of Sargent

The facility covers nearly 645 acres and features two runways. The north/south runway is 5,600 feet long and the northwest/southeast runway is 4,400 feet; each is 100 feet wide. The taxiway runs parallel to the north/south runway and is 35 feet wide. The runways have medium intensity lighting and were overlaid in 1998.

Runway approaches include MALSR and ODALS along with GPS. The Airport also offers two NDB's, VOR and an automated weather system (AWOS). Structures on the property include:

- Five T-Hangers and 4 large executive hangers owned by the Airport Authority.
- Terminal building is a one-story, 1,000 square foot brick structure.
- Vehicle Maintenance Shop.
- Several metal maintenance/storage hangars.
- Fuel facilities.

The facility is owned by the City of Beatrice Airport Authority and is used for non-commercial aviation. UPS overnight cargo service comes in each morning and flies out each night.

Evaluation

Private hangars and terminal in good condition. Additional space for a pilots lounge and meeting rooms is needed in the terminal.

Facility location is excellent, near to expanding industrial park and commercial development. The site is large enough to accommodate growth as well as related uses. Development of an access road along Highway 77 would expand development opportunities at the airport.

Recommendations

- Complete repair to the taxiway and ramp in 2000 and construct crossover taxiway in 2002.
- Initiate planned repairs of asphalt in 2004 and facility upgrades planned for 2005.
- Update layout plan in 2005.
- Build a public street parallel to the highway for commercial development.
- Add to or modify terminal building

Beatrice Senior Citizen Center

101 N. 25th Street

The one story brick structure was completed in the late 1996. The building is owned and maintained by the City of Beatrice but is leased to the Beatrice Senior Center Board and the Blue River Area Agency on Aging. The Agency provides the meals and bus service out of the Center. Noon meals and morning socials are provided five days a week. The building is fully accessible with handicap parking adjacent to the building.

Evaluation

The building is in excellent condition and should only require routine maintenance through the planning period. The city currently provides maintenance and janitorial services and utilities.

The Blue River Area Agency on Aging provides shuttle service throughout the city and to Lincoln on designated days.

Recommendations

- Continue routine maintenance.
- Identify funding mechanisms to facilitate self-sufficiency.

Sanitary Sewers

Beatrice sanitary sewer collection system consists of 130 miles of sewer lines, ranging in size from 6 to 24 inches. Most of the system consists of vitrified clay pipe. Depths of lines range up to 24 feet. Date of construction of sewers range from 1888 to present, with the oldest lines found in the downtown district. Generally, the entire developed areas of the city are served by sanitary sewers.

Evaluation

The Downtown sanitary sewer system is near the end of its functional and structural service life. One section was replaced in the 1990's but more extensive rehabilitation or replacement will be needed. Some Downtown sewers are experiencing capacity problems. Repaving of downtown alleys should be accomplished along with sewer replacement.

The city has established a program to replace pipes located within the floodplain to reduce inflow in these areas. The city has televised 40% to 50% of the system and has established a 3 to 4 year cycle.

Recommendations

- Replace Downtown sewers as needed.
- Continue to budget maintenance funds to eliminate sources of infiltration and inflow from the sewage collection system. This method is more cost-effective than treating extraneous water.

Sanitary Sewer Lift Stations

Sanitary sewer pumping stations are maintained at the following locations:

- 22nd and Market
- 19th and Carlyle
- 1st and Bell
- Pleasant and Wiebe
- Herbert and Indian Creek
- Irving Street west of Store Kraft Mfg.
- Beatrice State Development Center
- Beatrice Country Club
- Sunset Addition

Evaluation

The nine lift stations are generally in good operating condition. Routine maintenance is performed by city staff at periodic intervals.

Recommendations

- Continue routine maintenance program.

Sanitary Sewer Siphons

Sanitary sewer siphons are maintained at the following locations:

- Bell Street at the Big Blue River
- 5th Street at the Big Blue river
- 3rd Avenue and Memorial Drive
- Front Street and Memorial Drive
- 6th Street at Indian Creek
- 19th Street at the Big Blue River

Evaluation

The siphons are in good operating condition. Routine cleaning and maintenance is performed by city staff at regular intervals.

Recommendations

- Continue routine maintenance program.

Wastewater Treatment Plant

The wastewater treatment plant is located along the east side of Chautauqua Park on the south bank of the Big Blue River. The plant currently treats on average 2 million gallons per day. The facility consists of a plant lift station, pre-aeration and grit removal, primary clarifier, rotation biological contact units, two final clarifiers and sludge processing equipment.

The plant design is based on the following criteria:

- Average dry weather flow of 1.65 million gallons per day.
- Peak dry weather design flow of 3.31 million gallons per day (peaking factor of 2.0).
- Total Peak flow of 7.04 million gallons.

Evaluation

Planned upgrade of capacity and removal of ammonia should extend the plant life out to 2015.

The RBC building will need to be heated but this heat will be used in the filter system instead of released into the air. This should increase efficiency of the plant.

The solids collected from the wastewater treatment facility are mixed with yard waste to produce Class A compost. The composting takes place on approximately 8 acres at the landfill. The compost is provided to the public free of charge.

Recommendations

- Complete planned improvements to the treatment facility.
- Continue composting program and initiate innovative programs for reuse and recycling.

Storm Sewer System

Beatrice's storm sewer system is not extensive. The majority of lines are located in and around the Downtown area; in areas north and northeast of downtown; and along primary highway extensions through the city. Storm sewers are not present in the Glenover area.

A study on the 19th and Elk Street intersection was completed in 1999 and a stormwater management plan was completed in 2000.

The city received Project Impact money for various projects including upgrade of the 6th and Monroe intersection.

Evaluation

The city needs to continue working on storm sewer problems in the community. for example, problems exist at the 6th and Monroe and 19th and Elk intersections. Upgrade of the 6th and Monroe is scheduled with assistance from Project Impact.

Recommendations

- Establish plan for upgrade and replacement in problem areas.
- Identify funding mechanisms for the 19th and Elk Street area.
- Review future subdivisions and developments to assure that property owners will be provided with adequate storm drainage.

Flood Plains

Beatrice's principal drainage ways include the Big Blue River, running from the northwest to the southeast along the southwest side of Downtown; and Indian Creek, running generally north and south and emptying into the Big Blue west of Downtown.

Evaluation

Beatrice has implemented an effective flood plain management program and should continue to acquire properties with structures located in the flood plain as they become available and as funding permits. The structures should then be removed and property incorporated into the city's greenbelt.

Recommendations

- Enforce ordinances and regulations dealing with flood plain development.
- Continue the property acquisition program to develop a greenbelt within the 100 year floodplain.

Water Mains

The existing water main system ranges from .75 to 24 inches in diameter. Generally, the entire developed area of Beatrice is served by the water main system. The City has expanded its service area to include the village of Filley, the Beatrice State Development Center, and the Beatrice Rural West Water District.

Evaluation

There are numerous undersized water mains, located in various parts of the city. Small diameter (less than 6 inches) mains may not provide adequate pressure and fire flows. The overall system is professionally maintained and operated by the city.

Recommendations

- No major distribution system projects are planned at this time. The city should systematically replace problem and undersized mains as funding becomes available.

- A study should be completed to identify areas of concern. The study should establish a need based and cost-effective capital improvement program.

Water Storage Reserviors

Water storage reservoirs are maintained at the following locations:

- 2 million gallon underground storage reservoir at 4th and Grant.
- 3 million gallon underground storage reservoir at 4th and Grant.
- 500,000 gallon elevated storage tank at Mulberry and West Streets.
- 1 million gallon elevated storage tank at 19th and Jackson Streets.

Water is initially pumped to the 4th and Grant pump station before being distributed to the other reservoirs.

Evaluation

Both underground tanks were drained and cleaned in 1995 and found to be in good condition. Interior and exterior work was completed on the Mulberry reservoir in 1997. The Jackson Street reservoir was cleaned and inspected in 2000. All of the reservoirs are in good condition and provide a four day supply of water.

Filley draws directly from the distribution system to their reservoirs.

Recommendations

- Evaluate need for northern pump station in conjunction with growth in this area.

- Continue routine maintenance.

City Water Supply Wells

The source of Beatrice's water supply consists of city-owned wells located in two well fields to the north of the city. The oldest field includes 8 wells constructed from 1931 to 1967. Two 14 inch water transmission lines deliver water to the 4th and Grant reservoirs. A second well field has two wells completed with two more scheduled to go online in 2001. The four new wells will have an 8 million gallon per day capacity. The city currently averages 2.2 million gallons per day .

Evaluation

Nitrate levels at the older well field will require phasing out of the wells for residential use. Twenty to Twenty-four inch transmission lines to the newer field has alleviated capacity problems.

Recommendations

- Complete construction of remaining two wells.
- Monitor changes in Federal regulations requiring treatment of the water.
- Continue routine maintenance.

Solid Waste

Collection of solid waste is currently provided by a local private contractor under service agreement with the city. Collections are made at curbside or alley-side at residences and from refuse containers at businesses. Collected solid waste is then taken to the sanitary landfill for disposal.

The landfill is operated by the Beatrice Area Solid Waste Agency. The present cell of the landfill was opened in 1997 adjacent to the former landfill cell. The former landfill cell is located on 20 acres that will be monitored for the next 30 years. The city has purchase an additional 160 acres to the south for buffer and a future landfill. The existing cell will reach capacity in 2032. A bailing machine purchased in the late 1990's has increased the efficiency of the facility.

A recycling program has been established and is implemented through the private haular. Drop-offs can also be made at a recycling center located at 11th and Caldwell. Yard waste is also accepted at the landfill and handled by the Water Pollution Control Department.

Evaluation

The purchase of the bailing machine has reduced overall volume but efforts should continue to decrease overall collection.

The facility is self-sufficient and should continue to do so throughout the planning period.

A successful composting program has been established and should continue to be supported.

Recommendations

Beatrice should continue to implement a citywide recycling effort. An aggressive public relations campaign should be implemented to encourage voluntary separation of recyclable commodities. The design of such a program should simplify separation of commodities to achieve a high participation rate. Source separation provides the most local and cost-effective recycling alternative.

Electric System

The City of Beatrice owns, operates, and maintains the electrical distribution system within the community and nearby areas.

Evaluation

All new electric distribution lines are installed underground.

The city has implemented a program of replacing substandard transmission and distribution lines and hardware on an ongoing basis.

The city has in effect a program of locating and systematically eliminating all PCB-laden materials within the distribution system. PCB's pose a health hazard when an accident exposes them to the environment. PCB's are handled by trained personnel and are properly disposed of at an approved hazardous waste disposal facility.

The department is working to convert voltage across town to 12,500 and should be completed around 2005.

Downtown lighting will need to be replaced but should be completed in coordination with any Downtown improvement projects.

Recommendations

Electric lines in the Downtown area are overhead generally running through alleys and across public streets. These lines and appurtenant transformers are very unattractive. It is prohibitively expensive to bury all facilities in this district in the short-term. Those lines which are most obvious and visually intrusive or which are deficient or have an impact on specific projects, should have highest priority for underground installation. Replacement of downtown lights will also be required and should be done in coordination with any downtown improvement project.

The municipal electric utility should continue to work closely with the Gage County Economic Development to attract new industry to Beatrice. Desirable industries would be "clean" and generally dependent upon electric power. New industry in the industrial park would also generate added revenue.

Infrastructure Analysis

This section presents an inventory and evaluation of the city's existing infrastructure systems. This inventory and evaluation includes the sanitary sewer, storm sewer, water distribution, solid waste disposal, and electrical distribution systems.

Sanitary Sewer System

Table 6-2 inventories Beatrice's sanitary sewer system. The inventory identifies the following major issues:

•The Downtown sewer system is nearing the end of its service life. Parts of the system are over 100 years old. Structural and capacity problems will require a comprehensive rehabilitation or repair program for the Downtown system.

•Replacement of lines located in the floodplain should continue to reduce extraneous waters.

•The city's lift-stations and siphons are in good condition, requiring only continuing preventive maintenance.

•Complete upgrades to the treatment facility to increase efficiency of the plant.

Storm Drainage System

Table 6-3 examines the city's storm drainage system. The city's system is relatively limited, concentrated mostly in and around Downtown; in north and northeast Beatrice neighborhoods; and along major highway extensions. The inventory identifies the following issues:

•The system experiences ponding problems at specific locations including 3rd and Monroe and 19th and Elk Streets.

•The city should regulate new developments to assure that they provide adequate11 storm drainage.

•Beatrice has carried out an effective program of flood plain acquisition and protection along the Big Blue River. This policy should continue as funds and property are available.

Water Supply System

Table 6-4 examines the city's water supply system. The inventory identifies the following issues:

• Some of the city's water mains are too small to provide adequate water pressure and fire flows. Generally, these mains have diameters of less than six inches.

•Beatrice's oldest well field has experienced high nitrate levels and should be phased out with the completion of a second well field.

•Beatrice will need to monitor changes in state and federal regulations that could require treatment of the water.

Solid Waste Disposal

Table 6-5 addresses Beatrice's solid waste disposal program. The inventory identifies the following issues:

• Beatrice disposes its solid waste at a landfill operated by the Beatrice Area Solid Waste Agency. The newest cell for the landfill was opened in 1997 and has a service life of 30 to 35 years.

•Monitoring of the former landfill will need to continue until 2027.

•The city's most appropriate solid waste disposal strategies during the planning period involve reduction of waste stream into the landfill. The city has instituted a composting program which is separating yard wastes from the waste stream. The city has also purchased a bailing machine which reduces overall volume. The city should institute a waste reduction program that fosters the use of the recycling program and reduces the overall waste stream.

Electrical Distribution System

Table 6-6 reviews the city's electrical system. The inventory identifies the followingissues:

•New electrical distribution systems in Beatrice are installed underground.

•The city has implemented a regular program of replacing substandard lines and hardware.

•The Downtown overhead distribution system is unsightly and visually obtrusive. Placing the system underground on a comprehensive basis is extremely expensive. Priorities should be established for strategic segments of the Downtown system.

•The Downtown electrical distribution system is in fair to poor condition and should be replaced in coordination with any Downtown improvement projects.

POLICIES AND ACTIONS

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

Public Facilities

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

1. City Hall Relocation/Fire Station Expansion

Within the next five years the city should relocate its city offices. The city will also need to evaluate uses for the Municipal Building which could include office space for Public Properties to facilitate their role in the development and use of the facility. In addition, the fire station will require expansion to provide proper room for rescue services now provided by the Fire Department. This expansion could occur on sight or through the construction of a second station south of the Blue River.

2. Preservation of the Municipal Building

Beatrice's Municipal Building is an excellent example of modern style of architecture. Efforts to list the building on the National Register of Historic Places should be completed. In addition, a preventive maintenance program should be continued to protect this important resource. Finally, all modifications to the building must be carefully executed to be consistent with the structure's unique design.

3. Park Maintenance Building

Within the next five to ten years, Beatrice should expand its parks maintenance buildings in Chautauqua Park to meet projected park and right of way maintenance requirements. This expansion would add about 2,000 square feet to the current facility.

4. Library as an Information and Cultural Center

Beatrice's superb public library has enabled it to become home to part of the Nebraska Genealogy Society's collection and the recipient of numerous original works of art. The community should continue to invest in the library's collection and technology and implement plans for full utilization of the building, creating a center for learning and community culture and activity.

Infrastructure

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

1. Sanitary Sewer System

Downtown Sanitary Sewers

With the completion of the floodplain program Beatrice should begin an ongoing program of replacement of obsolete or deficient downtown sewers. These sewers date from 1888 and are the oldest part of the city's system. Many allow infiltration through pipe joints and some lines are experiencing capacity problems. The sewer system should be examined by the city in order to establish priorities for a phased replacement program. Sewer replacement should be included in the city's capital improvement process and completed as funding permits. Burial of electri-

cal service and alley repaving may be completed along with sewer replacement.

Sewer Treatment Plant Upgrades

Regulations requiring removal of ammonia will mean modifications to the existing facility. In addition, upgrades to improve overall efficiency have been established and will need to be completed. Completion of the upgrades will extend the life of the plant to 2015. Efforts to improve efficiency should be ongoing, in such away that improves the overall environmental quality for the city and community's downstream.

2. Storm Drainage System

Proposed actions affecting Beatrice's storm drainage system are focused on the relief of local ponding problems. Specific actions include:

13th and Monroe. New storm pipe and inlets should be constructed in 13th Street from Summit to Monroe Streets.

19th and Elk. Ponding and minor flooding problems at 19th and Elk may be improved by adding additional inlets to take better advantage of existing storm sewers. Recommendations made in the storm water system study should be implemented.

Floodplain Management. Beatrice should continue its current aggressive and successful program of flood plain management. The city's primary program has involved the acquisition of floodway and other flood-prone lands and their preservation as open space.

3. Water System

Proposed actions for Beatrice's water system include measures which will improve the quality of Beatrice's water supply and enhance its distribution system. The city has provided water systems which accommodate future growth and has established a looped water system as its community standard. New wells that were drilled during the 1990's have also improved the city's water quality and distribution. The city will need to complete construction on two more wells and possibly discontinue use of some of the oldest wells. The city should also complete an analysis of its water main system. The objective of this analysis should be to determine deficiencies in the system, including undersized and deteriorating lines, and to propose a detailed phased capital improvement program.

4. Solid Waste Disposal and Recycling

The newest cell for Beatrice's solid waste landfill was opened in 1997 with a service life of 30 years, well beyond the planning period considered in this document. However, the city will need to continue to monitor the old landfill cell through the planning period and will need to aggressively support the use of the recycling and composting programs. The success of these programs will ensure the service life of the landfill.

5. Electrical Distribution

During the early part of the planning period, strategic parts of the Downtown overhead distribution system should be buried. Specific segments scheduled for underground installation should be those which have the greatest impact on the appearance of Downtown Beatrice. The most cost-effective scheduling of burial is when an alley is scheduled for sewer rehabilitation or replacement - a priority under the sanitary sewer improvement program proposed earlier in this section.

6. Telecommunications Infrastructure

The City must continue to pursue the development of adequate telecommunications infrastructure for business, government and industrial needs.

A City of Strong Neighborhoods

Every neighborhood in Beatrice should provide a positive living environment for its citizens.

Beatrice's residential areas are one of the city's most important resources. The community's housing stock is its largest single capital investment. In addition, residents generally measure their satisfaction with their community by the quality of their neighborhoods. The previous chapters of the Beatrice Plan have looked at regional and citywide issues. The discussion has viewed neighborhoods as distinct districts and proposed methods to reduce the importance of boundaries between them. Yet, planning for individual neighborhoods is also very important to the success of the Beatrice Plan. The city is made up of its constituent parts and is only as healthy as each of those parts.

Beatrice's neighborhoods grew from the origin of the city center along Court Street east of the Big Blue River. The historic plat of the city clustered east and northeast of Downtown, oriented to the cross-axes that became the city's two major highways. During the 1880's and 1890's, the outlying districts of West and South Beatrice and Glenover developed as "streetcar suburbs" for the burgeoning city. Those initial development patterns, combined with the later decentralizing trends created by increased auto use and FHA-insured housing, helped produce the city's current structure of neighborhoods.

Several of Beatrice's neighborhoods are unique by virtue of the strong physical barriers that divide them. As a result, these areas are unusually distinct and identifiable. The characteristics of other neighborhoods are more subtle. Beatrice can gain strength as a unified whole made of strong, distinctive parts.

Indeed, Beatrice's neighborhood units are building blocks that provide the organizational foundation for the city's future growth and development. This chapter looks in detail at neighborhood conditions, including housing, streets, sidewalks, neighborhood public facilities, and private amenities. It then develops policies and actions steps for neighborhood improvements to assure the continuing vitality of each part of the community.

GOALS

This section presents the basic goals which neighborhood based policies for Beatrice should address. Beatrice's neighborhoods have spacial, individual qualities that demand individualized actions. In working to strengthen its constituent parts, the community should work to:

Assure that each neighborhood in Beatrice achieves a state of wholeness and health.

A city is the sum of its parts. Therefore, a whole and healthy city must be built of healthy neighborhoods. Beatrice's residential areas must provide good living environments. Its public facilities and services must be readily available and accessible to all sections of the community. In addition, access to retail services and other private amenities is also important in defining the quality of wholeness so important to the community's neighborhoods. Neighborhood policies and strategies must address both public and private sector service issues for the city to provide complete living environment throughout its urban and urbanizing area.

Build an environment which allows people from all parts of the city to participate in its growth and development.

Implementation plans designed to change or improve the physical form of the city often minimize the importance of the process that must be present to get the job done. Planning and city improvement are 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.

Housing is perhaps the most fundamental service in a city. Both the maintenance of the existing housing stock and its rejuvenation with new units in a variety of price ranges and styles will provide neighborhoods with the building blocks of health. High quality schools, churches, day care facilities, parks, and cultural facilities further support the city's living environments. These summarize the positive aspects and aspirations of neighborhoods.

In addition, a good living environment is also free from major intrusions and hazards. Deteriorated streets, traffic problems, poor pedestrian circulation, or property maintenance, and code violations can diminish the life quality that neighborhoods offer. These conditions interfere with resident's enjoyment of their own property, reduce property values, and make neighborhood revitalization more difficult. Thus, neighborhood policies must accentuate both positive aspects of neighborhoods and seek to reduce negative or deteriorating influences.

Provide an environment in Beatrice that offers better housing opportunities for all.

While Beatrice generated significant housing development during the 1990's, experiencing the construction of about 477 units (including manufactured homes), it has not met the potential demand for new affordable housing. Providing new housing to serve a range of people, including young families, professionals moving into the city, low-income households, and seniors, is important to the city's ability to attract business and retain young people. Even with substantial new housing construction, the city struggles to meet the housing needs of its population of retirees, young families and long-time residents seeking to better their own housing situations. Beatrice must work to meet the needs of all in order to prosper.

FACTS AND ANALYSIS

This section examines the condition of individual parts of Beatrice and provides the basis for the development of neighborhood conservation and improvement policies. The analysis contained in this section uses the tool of neighborhood planning districts to understand the city and its dynamics in a more fine-grained way.

Neighborhood Planning Districts: A Rationale

Each of Beatrice's neighborhoods has a unique identity. Each has its own special needs, energies, problems, and solutions. For this reason, the Beatrice Plan establishes seven neighborhood planning districts that provide the organizational framework for this chapter. These districts help understand the Beatrice 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 should not be viewed as self-contained or independent. Their boundaries are extremely fluid as people travel and conduct daily business throughout the community. Indeed, a consistent theme of the Beatrice Plan is the unification of diverse areas and the reduction of sectionalism.

The Definition of Districts

Often, the boundaries of districts are defined by important community features, including major arterials such as Court Street; railroad corridors; Indian Creek; and the Big Blue River. These boundaries are highly recognizable and in some cases form major edges that must be bridged successfully.

In addition, more subtle factors also help to define planning districts. These included such factors as age of housing, housing types and densities, neighborhood issues, and accessibility of services. In all cases, the boundaries were established to help us organize and propose public policy. It is important that the districts be understood as community organizers and not community dividers.

The seven Beatrice planning districts, their approximate boundaries and general characteristics are as follows:

1. North Central Beatrice: This area contains much of the city's oldest and most historic housing, and includes a mixture of housing types, conditions, and price ranges. The districts is defined by East Court on the south, approximately 16th Street on the east, the north city limits, and Indian Creek on the west. Sixteenth Street represents a subtle divide between the Northeast Beatrice district and more contemporary development to the east.

2. Northeast Beatrice: This district has been the city's primary new growth area in recent decades. It is characterized generally by post-war and, in some areas, post-1980, construction. It is generally defined by 16th Street on the west, East Court Street on the south , and the east and north city limits of Beatrice.

3. South Central Beatrice: This area contains highly diversified housing stock in terms of age, condition, price range, and building type, and residential density. The district contains several areas which require major public action. These include the 19th Street development area and the south Downtown Redevelopment area. Its boundaries include east Court on the north, the Big Blue River on the south and west and the east city limits.

4. Country Cub/Chautauqua Park: This Southeast Beatrice district includes the older, established neighborhood near Beatrice's historic Chautauqua Park and newly developing areas near the Beatrice Country Club. The district is defined by the Big Blue River on the north, the South 6th Street and BN corridors on the west and the south and east city limits.

5. South Beatrice: This district is a new, primarily single-family residential neighborhood that is relatively isolated from other Beatrice neighborhoods by a discontinuous street network. It is defined by the Big Blue River on the north, South 6th Street on the east, and the southwest and west city limits.

6. Glenover: This very distinct neighborhood, initially platted as a suburb of Beatrice, contains a mix of single-family houses, individual mobile homes units, and vacant land. It is adjacent to the Gage County Industrial Park and is defined by Indian Creek on the east, the Big Blue River on the south and the city limits on the north and west.

7. West Court: This district is an older, primarily single-family area, developing a linear pattern along West Court. The city has actively acquired floodway properties in the eastern part of the neighborhood to eliminate hazards to property and life The district includes such principal features as the Gage County Fairgrounds, Southeast Community College, and Riverside Park. It is defined by the Big Blue River on the north and east, Milliken Street on the south, and the west city limits.

TABLE 7-1: Housing Affordability Analysis, 1990

Income Range	% of County Median	% of Households	Number of Households in Each Range	Affordable Range for Owner Units	Number of Owner Units	Affordable Range for Renter Units	Number of Renter Units	Total Affordable Units	Balance
$1-10,000	0-44	21.01	1,094	$0-15,000	291	$0-100	45	336	-758
$10-14,999	45-66	13.23	689	$15-24,999	482	$100-200	362	844	155
$15-24,999	67-110	21.26	1,107	$25-49,999	1503	$200-350	892	2,395	1,288
$25-34,999	111-155	17.90	932	$50-74,999	863	$350-500	412	1,275	343
$35-49,999	156-221	18.19	947	$75-99,999	233	$500-650	51	284	-663
$50-75,000	222-331	6.38	332	$100-150,000	61	$650-750	4	65	-267
$75,000+	331+	2.02	105	$150,000+	0	$750+	7	7	-98
Median	$22,643		5,206		3,433		1,773	5,206	

Housing Characteristics in Beatrice

This discussion will examine housing value and physical characteristics of Beatrice's housing stock.

Housing Costs and Affordability in Beatrice

Beatrice displayed relatively moderate housing values in 1990, a reflection of population declines and an ample supply housing during the difficult period of the 1980s. Median house value for owner-occupied units in 1990 was $40,600, and about 66% of all owner-occupied housing had values below $50,000. Median monthly contract rent was $219 in 1990; over 73% of all units had a monthly rent below $350.

Table 7-1 matches the estimated cost of housing in 1990 to the city's income distribution. A positive balance indicates a surplus of housing within the affordability range of each respective income group, while a negative balance indicates a shortage. The analysis indicates a relative shortage of both very low and higher cost units in Beatrice in 1990. As a result, higher earners occupied housing that, if available, could be affordable to a more moderate income market. New single-family construction since 1990 tended to focus on these higher income groups and a "move-up" market.

TABLE 7-2: Development Activity , Beatrice 1990-1999

Year	Single-Family	Multi-Family	Manufactured	Total Units
1990	29	6	0	35
1991	30	4	0	34
1992	29	27	0	56
1993	35	28	0	63
1994	26	15	0	41
1995	29	14	0	43
1996	18	45	2	65
1997	17	34	3	54
1998	24	28	34	86
1999	32	15	0	47

Construction Activity in Beatrice, 1990-2000

After a decade of slower housing development during the 1980s, Beatrice experienced substantial new housing development during the 1990's, with the construction of about 524 single family, multi-family, and manufactured units between 1990 and 1999. The housing demand model presented in Chapter Two of this comprehensive plan reflects this level of production. Multifamily development accounted for about 42% of this development. After allowing for demolitions and other losses to the housing supply, Beatrice's housing stock increased by an estimated 407 units, or 7%, during the 1990's. The city averages about 26 single-family units annually, a healthy rate for the city. Development levels slowed during the middle 1990's but climbed once more to peak in 1998.

Table 7-2 illustrates the city building permit activity since 1990.

Subsidized Housing Supply

The Beatrice Housing Authority and private owners maintain a significant supply of housing for seniors and families that use one or more federal housing subsidy programs. BHA's main housing resource is the Section 8 voucher/certificate program, providing housing assistance to approximately 130 households in 2000. Private owners operate an additional 182 subsidized units for seniors, the disabled and families. Table 7-3 summarizes the city's inventory of subsidized units for low and moderate income households.

Housing Development Needs

Table 7-4 presents the current estimated income distribution (by percent of households) of Beatrice, paired with affordable monthly housing costs for each income range. These target costs are matched to strategies that can deliver housing affordable to each income range. For example, programs that are most appropriate to families earning between $25,000 and $35,000 can produce housing with monthly costs between $625 and $875, including utilities, corresponding to houses with mortgages in the range of $50,000 to $80,000. Strategies which can deliver housing in this price range include rehabilitation of existing housing, manufactured housing, and affordable single-family development using financing devices such as deferred second mortgages. These strategies are con-

sidered in more detail in the Housing Strategies portion of this plan.

Table 7-5 presents a ten-year housing development and pricing program for Beatrice, based on the city's relative income distribution. The program provides production targets for various cost ranges of rental and owner-occupied units. The development program is based on the following assumptions:

- New development in Beatrice will be about 70% owner-occupied and 30% renter-occupied housing. This represents the 1990 owner/renter distribution of occupied housing.
- Owner-occupied housing will be distributed generally in proportion to the income distribution of households for whom ownership is a realistic strategy. Some of the market for lower-cost owner-occupancy may be shifted toward market rate rentals.
- Lower-income households will generally be accommodated in rental development.

The analysis indicates a need for about 103 owner-occupied units with prices below $110,000 and 32 units with effective rents below $400 in current dollars, a total of 135 "affordable" units. Therefore, a housing program for Beatrice should establish an average annual production target of about 13 units.

These projections are based on current trends and do not include actions which can expand the Beatrice market. These include:

- Major employment expansions.
- Housing developments that can attract people from surrounding regions, such as substantial senior housing developments.
- Relocation from major redevelopment activities.

TABLE 7-5: Ten Year Housing Development and Pricing Program, 2000-2010

	2001-2005	2006-2010	Total Demand
Tax Credit Rentals, Rents under $400	32	32	64
Market Rate Rentals Rents over $400	45	45	90
Affordable, $60,000-80,000	46	46	92
Affordable/Moderate $80,000-110,0000	57	57	114
Moderate Market, $110,000-170,000	57	57	114
Market$170,000 and Over	22	22	44
Total	258	258	516

TABLE 7-3: Subsidized Development in Beatrice

Development	Address	Type	Number of Units
Homestead Village	1119 Monroe Street	Elderly and Disabled	62
Carstens Garden	1700 Park	Elderly	50
Park View Village	1200 South 8th Street	Elderly	24
Timber Ridge Townhomes	1302 Scott Street	Families	32
Ridgefield Townhomes	1700 North 9th Street	Families, Elderly, and Disabled	8
Pinetree Villa	2200 Ella Street	Elderly	6
Valley Heights	2300 Ella Street	Elderly	10
Section 8	Scattered existing homes		130

Housing Conditions

Table 7-6 summarizes the results of a citywide housing conditions survey, conducted in Beatrice as part of the 1992 Comprehensive Plan. The survey includes 4,088 single-family units as well as multi-family and mobile home units.

The overall survey indicates that Beatrice has a very good overall housing supply. About 27.6% of the city's housing stock exhibits a need for substantial rehabilitation. The largest categories of houses require either no attention or minor maintenance items. Computation of overall rehabilitation needs assume 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 at $2,000 per unit; and units in "excellent to good" condition require no further investment. Based on this computation, the capital value of all rehabilitation needs in the community ranges from $11.3 to $15.4 million.

Not surprisingly, Beatrice's housing condition problems are most prevalent in its older, pre-war housing stock. Of the 47.5% of the single-family stock that is over 50 years old, over 47% is in fair or poor condition, requiring substantial rehabilitation. These units are located primarily in the city's four older neigh-

TABLE: 7-4 Housing Income and Price Matrix for Beatrice, 2000

Income Target	Number of Households 2000 estimate	% of Households	Affordable Monthly Housing Costs (including utilities)	Price Ranges for Ownership Housing	Appropriate Housing Types and Strategies
Under $15,000	1,300	23.3	0-375	Less than $27,500	-Public housing -Section 8 certificates -Section 42 tax credit rentals -Existing housing rehab
$15,000-24,999	1,011	18.1	375-625	27,500-52,500	-Section 42 tax credit rentals -Mobile home/manufactured housing -Existing housing rehab -Acquisition with rehab
$25,000-34,999	829	14.8	625-875	50,000-80,000	-Existing housing rehab -Market rate rentals -Affordable single-family development
$35,000-49,999	1,024	18.3	875-1,250	80,000-110,000	-Market rate rentals -Affordable single-family development -Subdivision development with infrastructure assistance
$50,000-74,999	1,031	18.4	1,250-1,875	110,000-170,000	-Market-based single-family -Subdivision development with infrastructure assistance
$75,000+	392	7.0	1,875+	Over 170,000	-Market-based single-family -Subdivision development through special assessments
Total	5,587	100			

borhood planning districts. By contrast, only 3.9% of the city's post-war housing stock requires substantial rehabilitation.

Other types of housing display various trends. While mobile homes constitute a relatively small percentage of Beatrice's housing stock in 1991, over three-fourths of these units were in poor or fair condition. The improvement of design and maintenance standards for mobile homes facilities becomes a major issue for planning implementation through development ordinances. On the other hand, Beatrice's as-built multi-family housing stock is generally in very good condition.

North Central Beatrice

North Central Beatrice includes most of the historical city and includes a variety of major institutions, types of housing, and land uses.

General Description

North Central Beatrice contains most of the historical City of Beatrice. It features a variety of housing types, including historic structures and multi-family development. The district also includes important institutions and community features, including the North 6th Street Corridor, much of Downtown Beatrice, Beatrice High School and Middle School, and the Gage County Courthouse and government center.

Housing Characteristics and Conditions

• Nearly 70% of the district's housing stock was built before World War II. The neighborhood has the larg-

TABLE 7 -6: Housing Conditions: City of Beatrice, 1991

Single- Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	317	14.2	6	0.4	0	0	323	7.9
Fair	740	33.3	67	4.0	0	0	807	19.7
Good	919	41.3	710	42.4	2	1.1	1,631	39.9
Excellent	249	11.2	893	53.3	185	98.9	1,327	32.5
Total	2,225	54.4	1,676	41.0	187	100.0	4,088	100.0

Other Residential

Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	8	16	0	0	36	2 (25 pads)
Fair	11	58	1	0	25	1 (45 pads)
Good	18	96	17	0	10	0
Excellent	15	102	8	5	3	0
Total	52		26			

est concentration of older housing units in the city. About 38% of the city's single-family stock is located in the district.

• The neighborhood contains many homes and structures of architectural or historic significance.

• Of Beatrice's older neighborhoods, North Central Beatrice has the largest proportion of houses in good and excellent condition.
• The neighborhood contains a large number of apartment buildings in good or excellent condition. It has relatively few mobile home units.

• The district has scattered site condition problems in the form of zoning violations and structural deterioration of site features such as retaining walls.

Street and Sidewalk Conditions

• Streets in this district are nearly always paved with curb and gutter. Streets are generally in good condition. The district has some needs for street rehabilitation and repair, particularly at intersections.

• The area has a continuous sidewalk network. Sidewalks are in good overall condition in the northern sections of the district. However, may segments in the southern portion are deteriorated. These problems are most evident from 6th to 13th Streets, Court to Grant Streets, with scattered condition problems as far north as Summit Street.

Parks and Public Facilities

• Beatrice's new public library is located in the southeastern corner of the district. The 7,500 square foot historic Carnegie Library in Downtown Beatrice is available for reuse. Potential uses are discussed in Chapters Eight and Nine of the Beatrice Plan.

• The southern part of the district is served by the 0.3 acre Robertson neighborhood playground and park. The northern portion is served by Paddock Lane

TABLE 7-7: Housing Conditions: North Central Beatrice, 1991

Single-Family								
Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	66	6.1	1	0.2	0	0	67	4.3
Fair	341	31.6	32	6.8	0	0	373	24.1
Good	510	47.4	196	41.9	1	25.0	707	45.6
Excellent	161	14.9	239	51.1	3	75.0	403	26.0
Total	1078	69.5	468	30.2	4	0.3	4088	37.9% of city total

Other Residential						
Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	0	14	0	0	0	0
Fair	0	48	1	0	1	0
Good	0	32	15	0	1	0
Excellent	1	28	7	1	2	0
Total	1	122	23	1	4	0

School's 5.9 acre playground. The area is slightly below standards for neighborhood level open space. It is relatively well-served by Hannibal Park in Northeast Beatrice.

Neighborhood Issues and Trends

The North Central neighborhood is likely to maintain its dominance as a provider of the widest variety of housing choices in the city. Its options range from single-family homes to apartment complexes and from new units to historic mansions. The neighborhood has little room for new development, other than infill construction on scattered vacant lots. The district also will experience continued multi-family development in the form of small, single apartment buildings.

Northeast Beatrice

Northeast Beatrice has traditionally been the city's most rapid growth area. It is primarily single-family in character with some commercial development in the Court Street corridor. Hannibal Park is one of the area's most important features.

General Description

Northeast Beatrice has traditionally been the city's primary growth area, as new development has moved to the north and east. The neighborhood is principally single family in character. Its largest community feature, Hannibal Park, is one of the city's newest major open spaces. The neighborhood is adjacent to the Beatrice State Development Center on its west, one of the community's major employment centers.

Housing Characteristics and Conditions

TABLE 7-8: Housing Conditions: Northeast Beatrice, 1991

Single-Family								
Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	2	1.3	2	0.3	0	0	4	0.4
Fair	36	24.0	12	1.5	0	0	48	4.6
Good	81	54.0	288	36.3	0	0	369	35.4
Excellent	31	20.7	492	62.0	98	100.0	621	59.6
Total	150	14.4	794	76.2	98	9.4	1,042	25.2% of city total

Other Residential						
Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	0	14	0	0	2	0
Fair	0	4	0	0	1	0
Good	2	42	0	0	0	0
Excellent	1	34	0	2	0	0
Total	3	80	0	2	3	0

• The district now contains over 25% of Beatrice's single-family housing stock. A significant portion of this housing stock was built after 1980.

• A majority of the housing units in the district are in excellent condition. The neighborhood experiences few rehabilitation needs.

• The neighborhood has a high level of site and property maintenance.

• Platting activity in the area slowed down during the early 1990's.

Street and Sidewalk Conditions

• Almost all platted street segments are concrete with curb and gutter and are in excellent condition.

• The district's sidewalk system is continuous and in excellent condition.

Park and Public Facilities

• The area is conveniently served by the new Beatrice Public Library, Senior Center, High School and YMCA.

• The district is served by the 1.3 acre Astro Playland, with good playground equipment; and school and playground sites at Paddock Lane and Lincoln Schools. The area contains Hannibal Park, which fills needs for both neighborhood and community open space.

Neighborhood Issues and Trends

This district has remained the community's most popular growth area, despite a relative slowdown in construction activity from 1985 to 1992. The area can expand to its north and east. Hannibal Park will emerge as a focus for new development activity. New housing construction, with both single-family and multi-family units, will continue in the district without specific city growth incentives.

South Central Beatrice

South Central Beatrice encompasses a variety of housing types and includes both industrial and commercial development. The district includes areas proposed for substantial new growth.

General Description

South Central Beatrice encompasses a very diversified housing stock and wide variety of land uses. The district includes the area north of the Big Blue River and south of Court Street and contains portions of Downtown Beatrice and of the historic town of Beatrice. The area also includes older industrial areas and such important community institutions as the Martin Luther Home. The new YMCA and High School and proposed 19th Street Development area are located in the South Central District.

Housing Characteristics and Conditions

• Housing in the western part of the district was generally built well before World War II and contains some of the city's oldest units. The housing stock in the eastern part of the neighborhood is generally newer and in better condition.

• Housing is generally in good to excellent condition in the eastern neighborhoods. However, there are pockets of deterioration in the western part of the neighborhood. Many of these problem areas are near or adjacent to substantial industrial uses south of Downtown.

• The neighborhood has significant site problems, including zoning violations, unsightly outdoor storage, and presence of inoperable or abandoned vehicles.

• The area contains large tracts of vacant, unplatted property close to the core of the city and its facilities and services.

Street and Sidewalk Conditions

• Streets in the eastern portion of the district are hard surfaced, with curb and gutter, and are generally in good condition. Streets in the western portion are frequently unpaved. The city gravels and blades these streets on a regular basis to maintain them in serviceable condition.

• Sidewalks in the residential east are usually present and in good condition. They are in fair to poor conditions in the central and western parts of the district.

Parks and Public Facilities

• This neighborhood is served well by the adjacent public library and senior center. The YMCA, Water Park and High School are located in the eastern part of the district, providing an important amenity for the district.

• The western part of the district is served by 2.2 acre Stoddard School playground. Eastern areas are served by the Lincoln School site and relatively near Hannibal Park .

Neighborhood Issues and Trends

While the South Central district has seen limited new construction in the past decade, it is strategically located between two major growth areas for Beatrice. In addition, it has experienced major private investments, such as the Martin Luther Home and the YMCA. Timber Ridge Townhomes is located in the district, providing affordable housing for families. Area home sales continue at a modest rate.

The district has major development potential. Sites for growth include major parcels south of Scott Street along 19th Street. The development of this area is key feature of the Beatrice Plan and will require supporting infrastructure and transportation improvements. In addition, underutilized or deteriorated areas in the district south of Downtown have substantial redevelopment potential.

TABLE 7-9: Housing Conditions: South Central Beatrice, 1991

Single-Family								
Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	93	20.0	0	0	0	0	93	15.2
Fair	173	37.3	3	2.1	0	0	176	28.8
Good	178	38.4	95	65.1	0	0	273	44.6
Excellent	20	4.3	48	32.9	2	100.0	70	11.4
Total	464	75.8	146	23.9	2	0.3	612	15.0% of city total

Other Residential						
Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	1	2	0	0	2	0
Fair	0	4	0	0	0	0
Good	2	6	2	0	0	0
Excellent	4	8	1	2	0	0
Total	7	18	3	2	2	0

Country Club/Chautauqua

The Country Club/Chautauqua District contains two diverse and separate sections. These sections include an established neighborhood south of historic Chautauqua Park and a growing center for new development at the city's southeast edge.

General Description

The Country Club/Chautauqua district is composed of two separated neighborhoods, diverse in terms of age and price range. The Chautauqua Park neighborhood, on the western edge of the district, is an established neighborhood defined by historic Chautauqua Park, one of Nebraska's finest urban open spaces. The Country Club area consists of new subdivisions, located north of the Beatrice Country Club.

Housing Characteristics and Conditions

• The district contains pre-War, post-War, and contemporary housing, as well as a large amount of both platted and unplatted vacant or agricultural land. The area also contains some low-density, rural residential uses.

• The area contains pockets of houses in fair to poor condition adjacent to South 6th Street and to industrial uses on the southern edge of the district. Housing conditions improve to the east and along the park. Country Club Estates in the eastern edge of the district includes new housing in excellent condition.

• Although this area contains only 3.5% of the city's housing stock, it is experiencing a substantial level of new construction. The district accounts for an increasingly large portion of the city's new housing starts.

TABLE 7-10: Housing Conditions: Country Club/Chautauqua, 1991

Single-Family								
Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	9	15.5	1	2.2	0	0	10	6.9
Fair	28	48.3	5	11.1	0	0	33	22.9
Good	18	31.0	30	66.7	0	0	48	33.3
Excellent	3	5.2	9	20.0	41	100.0	53	26.8
Total	150	40.3	45	31.3	41	28.5	144	3.5% of city total

Other Residential						
Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	3	0	0	0	0	0
Fair	5	2	0	0	0	0
Good	3	0	0	0	1	0
Excellent	5	0	0	0	0	0
Total	16	2	0	0	1	0

Street and Sidewalk Conditions

• Streets in Country Club Estates are fully improved and in excellent condition. Streets in the Chautauqua neighborhood are usually hard-surfaced or gravel and in good condition. Some streets near the park are paved with brick.

• Sidewalks are generally present, continuous, and in good condition.

Parks and Public Facilities

• The district is served by one of the area's finest open spaces, Chautauqua Park. The park includes neighborhood playground facilities among its resources.

• The adjacent park maintenance facility in the southeastern part of Chautauqua Park is screened effectively from surrounding neighborhoods. This facility will eventually be expanded.

Neighborhood Issues and Trends

The neighborhood has a high proportionate level of sales activity and an active new construction market in its eastern part. Home values near the Country Club are very high in the local market; houses in established parts of the district have also held their value. The area provides important opportunities for further new development. The Beatrice Plan calls for the extension of 26th Street into the district, which will link it effectively to North Beatrice and open further development opportunities.

South Beatrice

South Beatrice is a relatively new single-family neighborhood. Yet, parts of it were originally developed in the 1880's as an early "streetcar suburb".

General Description

The South Beatrice district is a relatively new, predominately single-family residential neighborhood. The area is located west of 6th Street and includes some of the city's most distinctive neighborhoods. It is relatively isolated form the northern sections of the city and does not now have continuous street connections to West Beatrice and its facilities.

Housing Characteristics and Conditions

• This neighborhood has experienced a considerable amount of single- and two-family construction during the last decade. This construction has occurred on improved vacant lots surrounded by pre-existing development, and in the new Dusenbery-Doyle Addition. While the area is small, comprising only about 5% of Beatrice's housing sock, it is the second fastest growing area in the city.

• Most of the neighborhood's housing is in excellent condition. A few pockets of housing with problems are on the neighborhood's periphery. Site maintenance in the district is generally very good.

Street and Sidewalk Conditions

• Most streets in the eastern parts of the district are paved and in good condition; some platted east-west segments have not been developed, and some platted streets in the west are either unpaved or unimproved.

• Sidewalks are generally present and in good condition. A few sidewalk sections are absent in older areas on the western and northern edges of this neighborhood.

Parks and Public Facilities

• Since the 1991 the West Scott Street Ballfields and Froberry Park have been constructed within the South district. The west Scott Street Ballfields constitute a larger recreation facility that does not include playground equipment, but Froberry meets this need within the district.

• Much of Prairie Park, a natural green area, is located within the South district. The area provides an excellent opportunity for native habitat development and associated education opportunities. Completion of a greenway and corresponding trail along the Big Blue River will increase access to these areas and all of Beatrice Parks.

Neighborhood Issues and Trends

South Beatrice can support high-end new construction and development of single-family attached units. The South district offers good opportunities for future residential development. It requires improved linkages to the rest of Beatrice and access to school facilities in order to take full advantage of development potential.

West Court

The West Court community developed with the extension of transit service along the Court Street spine during the 1880. It includes areas of older housing and intermittent commercial development. However, it also includes a number of major community resources.

General Description

The West Court neighborhood initially developed with the extension of streetcar service west from Downtown Beatrice in the 1880. The area grew in a linear fashion along Court Street and filled in areas north to the Big Blue River. Today much of the district's housing stock is aging. Commercial development is intermittent and dispersed along West Court. A cluster of commercial facilities exists along west Court between Sumner and LaSelle Streets. The district includes major community facilities, including Nichols and Riverside Parks; the Gage County Fairgrounds; and the Southeast Community College. A portion of the district is in the Big Blue's floodway. The city has aggressively acquired houses in the most flood-prone areas to eliminate hazards to life and property.

Housing Characteristics and Conditions

• The West Court district contains a large percentage of older homes, many of which need rehabilitation.

• Although most of the area's housing was built before World War II, there are sections of newer housing. These are located south of Court and west of Cedar Street. This new housing stock is in good to excellent condition.

• The neighborhood contains a substantial number of mobile home units on single lots, generally in poor

TABLE 7-11: Housing Conditions: South Beatrice, 1991

Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	5	12.8	0	0	0	0	5	2.5
Fair	8	20.5	3	2.5	0	0	11	5.5
Good	12	30.8	35	28.7	0	0	47	23.5
Excellent	14	35.9	84	68.9	39	100.0	137	68.5
Total	39	19.5	122	61.0	39	19.5	200	4.9% of city total

Other Residential

Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	1	0	0	0	0	0
Fair	4	0	0	0	1	0
Good	7	2	0	0	0	0
Excellent	1	18	0	0	0	0
Total	13	20	0	0	1	0

condition. There are several mobile home parks or clusters, also in relatively poor condition.

• The district contains a variety of code and site maintenance problems.

Street and Sidewalk Conditions

• Many of the neighborhood's street segments are platted but unimproved "paper streets", particularly south of Scott Street.

• The district has many unpaved street sections particularly in the residential area between Court Street and the river.

• Sidewalks are usually present and in good condition along paved streets.

Parks and Public Facilities

• The West Court district is served by neighborhood park facilities at Riverside Park and at the Cedar School site. These provide a good level of park service.

• Nichols Park, on the eastern edge of the district, provides a 2.8 acre open space. The park is relatively isolated from the residential part of the district and is not extensively developed. It includes a community monument and provides an excellent opportunity for a tie into a riverfront open space system.

• Memorial Drive, a scenic but unpaved road, runs between 6th Street and Court Street. This road can form the route of a recreational trail system.

• The district contains such major community facilities as the County Fairgrounds and Southeast Community College, located west of US 136.

TABLE 7-12: Housing Conditions: West Beatrice, 1991

Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	118	33.1	1	1.1	0	0	119	26.9
Fair	123	34.6	11	12.6	0	0	134	30.2
Good	102	28.7	57	65.5	0	0	159	35.9
Excellent	13	3.6	18	20.7	0	0	31	7.0
Total	356	80.4	87	19.6	0	0	443	10.8% of city total

Other Residential

Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	2	0	0	0	14	2(25 pads)
Fair	1	0	0	0	13	0
Good	4	14	0	0	7	0
Excellent	3	14	0	1	0	0
Total	10	28	0	1	34	2

Neighborhood Issues and Trends

Sales values in the West Court area have been lower than average for Beatrice. However, the neighborhood has experienced some more recent construction, particularly in its southwestern areas. The area has important resources such as its river frontage and park facilities. These can be used to help integrate it more effectively into the rest of the city. West Court can support a low level of new construction activity. Reinvestment programs should help maximize this capacity and encourage the voluntary participation of existing residents in neighborhood improvements activities. These efforts should include neighborhood organization, creation of voluntary street and sidewalk improvement districts, and residential rehabilitation. In addition, improved street network connections could reduce the neighborhood's relative isolation and improve West Court's commercial potential.

Glenover

Glenover originally developed as a streetcar suburb, separated by Indian Creek and the railroad from the rest of Beatrice but linked by transit line. When the transit system collapsed, the separation remained. Yet, new developments are steadily decreasing the neighborhood's isolation.

General Description

Glenover is an older neighborhood of Beatrice, originally platted in the 1880 a suburb connected to the rest of the community by streetcar. The collapse of that service left Glenover isolated, a peninsula bounded by Indian Creek and the Burlington Northern Railroad. The area grew with a mixture of small, single-family houses and mobile homes. Recent projects, including the northward expansion of commercial development, the growth of the adjacent Gage County Industrial Park, and the construction of street projects such as the 1st and 2nd Street trafficway and the Hoyt Street bridge, have begun to end Glenover's isolation.

Housing Characteristics and Conditions

• A majority of Glenover's housing stock is in fair to poor condition. Over 25% of this supply is experiencing significant stress.

• Less than 20% of the neighborhood's housing of mobile homes on single lots in Beatrice. A majority of these units are in poor condition. The area has one mobile home park in fair condition.

• The neighborhood has a number of site maintenance problems. The most prevalent of these are zoning violations stem from backyard industrial businesses.

Street and Sidewalk Conditions

• Most streets in Glenover are paved, are in fair condition, and lack curbs and gutters. Some segments are unpaved and are maintained by the city in serviceable condition by regular graveling and blading.

• The neighborhood lacks a continuous sidewalk network.

• Glenover experiences industrial traffic on neighborhood streets from the adjacent Gage County Industrial Park.

Park and Public Facilities

• Glenover is served by the 0.3 acre Roszell Park. This small open space is in good condition and contains limited playground equipment. The level of service provided to the area is only fair.

Neighborhood Issues and Trends

Glenover experiences the lowest levels of overall sales and construction activity in Beatrice. However, the neighborhood's location is becoming steadily less isolated and more convenient to major facilities. Glenover's vacant land is a resource for future development, including the installation of higher quality accommodations for mobile homes and manufactured housing. Neighborhood improvement strategies should capitalize on this potential and improve the area's environment and service quality to residents.

Summary

A citywide and regional consideration of Beatrice's housing characteristics indicates that:

• In 1990, almost 66% of all housing units were in single-family structures. An almost equal amount of

single- and multi-family development during the 1990's has probably maintained this level.

• The city's vacancy rate is in the range of 5.5% to 6.0%.

• Multi-family development is most common in established neighborhoods north and east of the Big Blue River.

• Beatrice does have a shortage of the very lowest cost housing units. Its a critical priority for the city is to maintain its existing affordable housing supply.

• About 27% of Beatrice's single family supply in 1991 was in fair or poor condition. These problems are concentrated in the city's pre-World War II housing stock.

TABLE 7-13: Housing Conditions: Glenover, 1991

Single-Family

Condition Rating	Pre-War	%	Post-War	%	Post 1980	%	Total	%
Poor	24	30.0	1	7.1	0	0	25	25.8
Fair	31	38.7	1	7.1	0	0	32	33.0
Good	18	22.5	9	64.3	1	33.3	28	28.9
Excellent	7	8.8	3	21.4	2	66.7	12	12.4
Total	80	82.5	14	14.4	3	3.1	97	2.4% of city total

Other Residential

Condition Rating	Rural Res	2-4 Family	Apartment Buildings	Apartment Complexes	Mobile Home Units	Mobile Home Parks
Poor	1	0	0	0	18	0
Fair	1	0	0	0	9	1 (45 pads)
Good	0	0	0	0	1	0
Excellent	0	0	0	0	1	0
Total	2	0	0	0	29	1

POLICIES AND ACTIONS

BEATRICE HOUSING PARTNERSHIP

Beatrice should consider the creation of a housing partnership, organized to develop affordable housing.

The community should establish a Beatrice Housing Partnership composed of four elements: a community development entity, a supporting Lending Consortium, opportunities for employer assistance in housing, and an information and counseling service. It is important to note that this structure supports and complements but in no way substitutes for the private sector. Other parts of this overall strategy are intended to remove obstacles that prevent the private sector from meeting affordable housing needs. The Housing Partnership should only be involved as a development entity for worthy projects which for various reasons cannot be executed by private businesses. The Partnership itself includes:

• A development corporation which should be incorporated as a Community Housing Development Organization (CHDO) or a Community Development Corporation (CDC). This entity directly develops or organizes affordable housing efforts which are not occurring or practical in the private market.

• The Lending Consortium shares the risk of lending for untested or higher risk projects. Specific areas of concentration for a consortium may include:

- Projects developed by a CDC/CHDO.
- Mortgage lending to marginally bankable, low and moderate income buyers.

- Construction lending to builders of affordable housing.

• Employee-assisted housing provides methods by which major employers offer specific assistance to employees, potentially in concert with other development activities of the partnership.

• An information and counseling service, to assist new housing buyers with such issues as credit counseling and qualification assistance.

The Community Development Corporation (CDC)

These bodies are private, nonprofit corporations that operate as developers or general partners in affordable housing ventures. CHDO's are a type of CDC which meets specific federal requirements for community representation on its board of directors and are authorized to receive direct funding from the state-administered HOME program. The proposed Housing Partnership should include such a corporation, and should be a key participant in:

• Affordable single-family development.
• New, affordable rental housing development.
• Rehabilitation projects that involve purchase and resale of houses.
• Organization of housing development partnerships with private developers.

The Lending Consortium

The Lending Consortium shares the exposure of risky, but strategic, housing developments. The consortium approach can help assure a collaborative approach to lending for unconventional projects.

The central missions of the consortium should include:

• Construction and long-term financing of key project types that are identified in the community as high priorities. This may include financing of both private and nonprofit projects.

• Construction lending to private builders of affordable housing, particularly single-family or duplex/townhouse projects. Interim financing using a community housing investment fund can help involve small builders in the development of key housing types, while lowering the risk of builders in important, but marginally profitable areas. A construction loan pool eases the flow of capital to strategic project

types, while shifting the complete risk for these projects from individual enterprises to the private community at large. It permits small businesses to realize economies of scale by building a group of houses as part of a project, rather than individual, scattered units one at a time. In addition, this shift of the risk allows builders to expand an inventory of available speculative houses.

• Mortgage financing to low and moderate-income buyers. The consortium may be a mortgage lender to bankable low and moderate-income buyers who fall outside of normal underwriting standards for institutions. A consortium shares the risk of these mortgages among lenders. In these situations, the consortium may hold the mortgage notes in its own portfolio, as secondary markets are not always available.

• Rehabilitation financing. The consortium may be the financier of a community rehabilitation program, again sharing the private side exposure among the community's institutions and the CDC's capital fund.

Capitalization of the Consortium and its programs should be accomplished as follows:

• Proportionate funding by lenders. An equitable model would be participation in individual loans or in the construction loan pool proportional to overall assets.

• Corporate contributions and investments. The Beatrice Housing Partnership, including the consortium, should finance and develop in the public interest, but should not be a charitable organization. Thus, investments from Beatrice's business community may be an important source of working capital. These investments, creating a community housing investment fund, might be focused on:

- construction financing, with shorter-term paybacks, and
- long-term financing of key development projects, such as senior housing.

Employer-Assisted Housing

Employers should consider housing assistance as part of recruitment and benefit packages for current and prospective employees. Avenues for involvement may include:

• Investment in the equity for affordable housing developments financed under the Section 42 low income housing tax credit program. These investments receive substantial tax advantages, making them an attractive and financially rewarding investment option for some individuals and corporations.

• Downpayment assistance programs, potentially patterned after 401(k) programs. This program would permit employees to withhold a set amount of their salaries for deposit in an interest-bearing account. These employee contributions would be matched by a contribution from the employer. The downpayment matching program would continue for a specified period (up to three years) and /or a specified maximum. Alternatively, the employer could advance downpayment loans, repaid on the same basis.

Information and Counseling Service

The Partnership should maintain a housing assistance capability, potentially through arrangement with another organization or a Community Credit Union, which provides:

• Information to newcomers on available housing in the community.
• Information and educational assistance, helping new buyers navigate through the home purchase process.
• Referrals to other programs and sources of funding.
• Counseling and assistance with debt management, if required.

AFFORDABLE HOMEOWNERSHIP

The Beatrice housing strategy should remove obstacles and provide new opportunities for low and moderate income buyers. These approaches should be designed to help the private sector meet affordable housing needs to the maximum degree possible.

To the maximum degree possible, Beatrice should create opportunities for the private sector to deliver quality owner-occupied housing at affordable prices. Several major obstacles exist which prevent these units from reaching their target market. These include:

• Risks involved in the often speculative construction of moderate cost housing. Lower price ranges carry both the highest risk and the lowest profit expectations for builders. A construction loan program using the lenders consortium can help to insulate small builders from this risk.

• The front-end cost of public improvements in subdivisions, including the cost of special assessments for infrastructure, which can add monthly costs that disqualify potential buyers. The next section addresses concepts to address the issue of public improvement financing.

• The mismatch between the cost of even affordable housing and incomes of potential buyers.

Programs to address these obstacles include:

Participatory Deferred Payment Loans

The participatory mortgage concept can be used to extend the capacity of a moderate income buyer to afford a new home. In this scenario, a deferred payment mortgage (sometimes referred to as a "soft second mortgage") reduces the amount that must be borrowed at normal market rates. For example, an affordable housing unit is designed for sale at $95,000. Assuming a 3% downpayment and a 7.5% interest rate with 30-year amortization, this unit would require a monthly payment of $644 for principal and interest.

In the deferred payment situation, $20,000 of the mortgage cost may be written as a deferred payment second mortgage. The effective initial cost of the unit is reduced to $75,000. The monthly payment for principal and interest then drops to $508. The mortgage deferral could utilize CDBG/HOME funds.

The mortgage would have a participation clause, by which the second mortgage is repaid as a proportionate to its participation in the initial purchase. Assume that on resale, the house sells for $105,000. The initial public funding accounted for 21% ($20,000 of $95,000) of the house's price. On resale, the Housing Fund similarly recaptures 21% of the sales value, or $22,050. These funds are then used for similar purposes. If the value of the house declines, the City's recovery of the mortgage similarly declines.

Vacant Infill Lots

The City should identify areas where acquisition of deteriorated houses and existing vacant lots can assemble substantial contiguous or near contiguous sites. These sites may be assembled and conveyed to builders for development of affordable housing.

Actions which are needed to promote development of these sites include:

• Possible acquisition and assembly of vacant lots by the city of CDC. Design criteria for houses should be established. Public acquisition should only occur if private builders are unable to assemble sites.

• Changes in zoning regulations to permit development of new houses on lots which may not meet contemporary development regulations. These regulations may allow smaller lots or lot widths, reduced setbacks, or other allowances on legal lots of record.

• Participation of approved affordable housing in the participatory deferred payment program.

CDC Purchase And Resale

This program represents an approach to the preservation and rehabilitation of existing housing. Here, the community development corporation buys and rehabilitates suitable houses for resale to new owners. The Lenders Consortium finances the acquisition and rehabilitation, with a take-out on the interim financing funded as an FHA or conventional mortgage. Houses are marketed through the normal real estate sales process.

SUBDIVISION FINANCING FOR AFFORDABILITY

Beatrice should develop a mechanism which encourages subdivision development for middle and moderate cost housing.

Subdivision development and its front-end costs and risks complicate the problem of providing an adequate inventory of available, improved lots. The

high risk/low profit probability discourages development or encourages development in rural areas which do not require full urban improvements. Even devices like special assessments, which provide front-end public financing, create costs which can place housing beyond the means of moderate to middle-income buyers.

Tools to provide financing assistance for public improvements such as sewer extensions, intersections, major streets, and other necessary facilities are important to an effective housing strategy. The cost of providing infrastructure and site improvements typically accounts for $10,000 to $12,000 of a house's cost. Financing tools can help to lower this initial cost to a buyer, or lessen the initial financing burden to a developer.

Potential financing tools include:

• **Tax Increment Financing.** 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. Thus, the future taxes created by a residential development pay for improvements, allowing 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 focused, targeted way, with an emphasis on developments that serve low and moderate income people.

• **Infrastructure Banking.** The use of special assessments enables subdivision development by reducing the heavy front-end risks to private developers. While this works effectively for higher cost subdivisions, with buyers who are less sensitive to these added monthly costs, it can place housing costs beyond the reach of buyers of more moderate means.

An "Infrastructure Bank" should be considered to finance public improvements in subdivisions that provide middle moderately-priced owner-occupied housing. The infrastructure bank concept works as follows:

• The city (or the city in combination with another financing entity or program) provides front-end financing for public improvements on the lot. Let us assume that these costs are $10,000 per lot on a house that otherwise costs $70,000.

• The infrastructure financing is written as a deferred second mortgage loan, with no requirement for repayment until sale of the house. The second mortgage is a participatory loan – that is, its value appreciates along with the value of the house. In our example, the second mortgage makes up 12.5% of the home value (or $10,000 of a total cost of $80,000).

• When the house is sold (or refinanced), the infrastructure mortgage is repaid, with a face value that represents this same proportion of the transaction. If the house sells for $100,000, the Infrastructure Bank is repaid 12.5% of those sales proceeds, or $12,500. This money may then be used to replenish the Infrastructure Bank's capitalization.

• **Special Assessments.** Special assessments are appropriately used for higher cost subdivisions.

RENTAL HOUSING PRIORITIES

Development of new, affordable rental housing is an important development priority for the community. When possible, new development should provide a transition to owner-occupancy and avoid a large project orientation.

Priorities for rental housing development include:

• *Affordable rental housing.* Development for low-income households can utilize HOME funds, TIF, and Section 42 tax credits for financing. The proposed CDC may act as a general partner assembling limited partnerships to help promote needed housing for the city's low income population. Rent-to-own development, outlined as a potential CDC project, can provide avenues for low-income people to transition from

renter occupancy with greater economic self-sufficiency.

• *Rent-to-Own.* This new approach provides an opportunity for households of moderate income establishing themselves in Beatrice to rent a home while building equity toward eventual purchase. In this program, a CDC builds new rental housing in single-family, duplex, townhouse, or four-plex configurations. These units may be built with the assistance of the Section 42 tax credit. A portion of the family's rent is placed in an escrow that is directed toward downpayment. At the end of a specific period, the residents can then use the accumulated escrow as a downpayment to purchase either a new house or an existing unit. The rent-to-own program gives young families the opportunity to try out Beatrice as well as building equity and wealth. This program is appropriate to a community that is positioning itself to attract a new generation of residents.

• *Rental rehabilitation*. Options for this program are discussed under HOUSING CONSERVATION strategies.

HOUSING CONSERVATION

Beatrice should expand existing rehabilitation and code enforcement efforts into a comprehensive, multi-faceted rehabilitation and neighborhood development program.

Comprehensive Rehabilitation Programs

About 40% of Beatrice's housing units require at least moderate repairs or rehabilitation. A coordinated rehabilitation strategy, operating on a reliable, multi-year basis, is vital to ensure preservation of the area's critical supply of existing housing. A comprehensive rehabilitation program, appropriate to the respective needs of individual residential areas and towns, should include three program types. These include:

• **Direct rehabilitation loan programs**. This program would make direct forgivable loans and grants to homeowners from Community Development Block Grant (CDBG) funds. The program is most appropriate to homeowners with low incomes who are not otherwise bankable.

• **A leveraged rehabilitation loan program.** This approach leverages private loan funds (often through the FHA Title I Home Improvement Loan program) by combining private loans with CDBG or other public funds to produce a below market interest rate for homeowners. The program works most effectively in moderate income neighborhoods with minor rehabilitation needs and some demand for home improvements. It is effective in expanding the amount of work completed by a fixed amount of public funding. Loans in a leveraged loan program can be originated through individual lenders or through the proposed lenders' consortium. The experience of local lenders with FHA Title I can help expedite implementation of this program.

• **Purchase and rehab programs.** In this program a development corporation purchases, rehabilitates, and resells single-family units. A variation of this program combines a purchase/acquisition program with development of affordable housing for moderate income seniors, converting their equity in existing housing into equity for new, moderately priced condominiums. In this concept, the CDC builds one or two-bedroom attached units, with a target cost of (for example) $60,000 per unit. The CDC agrees to purchase the senior resident's current home at $30,000. That home is then rehabilitated and resold. The senior purchases the new attached unit, using the sale proceeds of the house as a substantial downpayment. The balance is amortized, with an approximate monthly cost of $300. Assuming that additional costs for maintenance and utilities is $125 per month, the new housing setting costs the senior household $425 per month, a moderate price for an appropriate new ownership unit.

Rental Rehabilitation

A single-family rehabilitation program should be augmented with a rental rehabilitation program, particularly important to support Beatrice's registration program. This should provide financing for the improvement of sound rental properties in need of rehabilitation on an area-wide basis.

The rental rehabilitation program should operate through a leveraged rehabilitation program. Mechanically, the foundation of a rental rehabilitation program should be private financing. An individual institution or the lenders' consortium should take a leading role in marketing the availability of rehabilitation loans to small rental property owners. A reservation of HOME funds could be secured and utilized by the city to assist with blended loans when some form of subsidy is needed. In some cases, unit rehabilitation may be paired with Section 8 certifi-

cates, to help provide adequate cash flow to meet debt service.

NEIGHBORHOOD POLICIES

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 CENTRAL BEATRICE

Neighborhood Policies and Actions

• Develop programs to encourage conservation and continued maintenance of the area's large, moderately priced housing stock. These should include publicly sponsored rehabilitation and incentive programs to encourage property improvements. North Central Beatrice is an excellent candidate for a leveraged rehabilitation loan program, blending public funds (such as Community Development Block Grant or HOME funds with private loans form local lenders to provide below market interest rate loans for housing rehabilitation or adaptive reuse.

• Establish programs targeted toward the preservation of historic houses and buildings. Proceed with designation of parts of the area as a National Register District.

• Improve pedestrian and vehicular safety and convenience with the repair and ongoing maintenance of residential streets and sidewalks.

• Continue to enforce zoning and code requirements to provide adequate protection for the neighborhood and adjacent retail and civic uses.

Public Facilities and Parks Policies

• Develop the lower level of the library as an expanded Heritage Room and art gallery.

• Improve Charles Park as a focal space for Downtown Beatrice, incorporating new benches, landscaping, event facilities, and a water feature. A complete Downtown development program is discussed in Chapter Eight of the Plan.

NORTHEAST BEATRICE

Neighborhood Policies and Actions:

• Continue to support platting activity and new development in this section of the city, recognizing that the district will no longer monopolize new growth. Concentrate development activity in existing subdivisions and in new projects around Hannibal Park.

• Encourage the development of high-quality rental housing to provide short- and medium-term residences for new employees and managers moving to Beatrice.

• As development warrants, complete the northeastern segments of the planned major street grid with extensions of 26th and Dorsey.

• Implement zoning ordinance revisions which will provide adequate screening between residential properties and the East Court commercial corridor.

Public Facilities and Parks Policies

• Continue the ongoing development of Hannibal Park as a mature open space. Link Hannibal Park to the rest of the park system through extension of the Big Blue Bikeway recreational trail.

• Improve the lower level of the Public Library for the Heritage Center and display area for original works.

SOUTH CENTRAL BEATRICE

Neighborhood Policies and Actions

• Provide and enhance neighborhood support facilities, services, and amenities. The district provides an excellent location for recreational, cultural, and educational facilities development in the vicinity of the YMCA. Additional retail facilities may be required to support new residential development.

• Promote new subdivision activity in the eastern part of the district, along the 19th Street corridor. Housing development should combine both single-family and multi-family development in an overall community plan. The plan should be innovative, recalling the historic character of Beatrice and integrating housing, public space, and community facilities.

• Implement a residential rehabilitation program, using CDBG funds to leverage private home improvement funds. Use a leverage program over direct loans or grants to increase program output. Use rehabilitation programs especially to upgrade neighborhoods that are adjacent to proposed centers for new growth.

• Extend 26th Street south to the Oak Street, linking the north and south banks of the Big Blue and establishing the eastern portion of the major street grid.

• Create a major redevelopment district in the western part of South Central Beatrice. This area's central location, proximity to Downtown, visibility from US 77, and current state of deterioration make it a particularly critical area for the city. Redevelopment activities will include land assembly for development of blighted areas; street and sidewalk improvement; and infrastructure development. Financing incentives such as Tax Increment Financing and the community financing authority extended in 1991 by LB 840 may be vital parts of redevelopment effort. Projects may include major commercial, business, and light industrial uses.

Public Facilities and Park Policies

• Develop neighborhood open space in connection with new housing, educational, and recreational projects in the 19th Street Development Area.

• Connect the district to the city's open space system by extending recreational trail development north along 26th Street to Dorsey and Hannibal Park and south to the Big Blue River.

COUNTRY CLUB/CHAUTAUQUA

Neighborhood Policies and Actions

• Encourage continued development activity in the Country Club Estates area. Promote development within existing subdivisions, as well as on adjacent tracts. Integrate high-quality multi-family development into residential projects.

• Encourage infill development in the western portion of the area on improved streets. Infill potential can be increased by strengthening nearby support services, improving buffering along commercial and industrial edges; and improving streets and sidewalks.

• Complete the major street grid through the area with the completion of the 26th Street and Oak Street extensions.

• Implement a neighborhood conservation program in older parts of the neighborhood to preserve housing through affordable rehabilitation financing.

Public Facilities and Park Policies

• Provide adequate buffering of the Chautauqua Park maintenance facility when that building expands.

• Provide good pedestrian access between newly developing areas in Country Club and neighborhood playground facilities in Chautauqua Park.

SOUTH BEATRICE

Neighborhood Policies and Actions

• Support continued single-family and two family infill development on vacant lots in the neighborhood.

• Encourage the development of neighborhood support facilities, including neighborhood retail and park facilities, which will serve the South Beatrice district.

• Expand the major street grid to link South Beatrice with the West court district, opening new lands for residential development. Develop street improvement and maintenance programs to support infill housing.

WEST COURT

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 enforcement; creation of a neighborhood association to act as an advocate for the area; housing rehabilitation; and the encouragement of voluntary street and sidewalk improvement districts.

• Identify through land use policy a neighborhood commercial node along West Court. This is most appropriately located at the intersection of Court and Laselle, extending to Sumner. Encourage the clustering of neighborhood retail and services at this node; and the rehabilitation and upgrade of existing businesses and buildings.

• Encourage the upgrading of mobile home units and park sites by considering the use of CDBG funds for rehabilitation.

Public Facilities and Parks Policies

• Develop the nucleus of the Big Blue Bikeway recreational trail in the district by connecting Chautauqua and Riverside Parks along the Memorial Drive corridor. Provide observation points and rest areas along the riverfront portion of the trail.

• Develop Nichols Park as an attractive component of an open space system. Improve the park as a family-oriented picnic and recreation area and strengthen its role as an attractive entrance to West Beatrice.

• Maintain adequate screening of the Riverside Park maintenance building.

GLENOVER

Neighborhood Policies and Actions

• Encourage the maintenance and expansion of affordable housing alternatives in Glenover through the provision of rehabilitation incentives and the development of good quality mobile home facilities. Rehabilitation should include the improvement of mobile homes sited on individual lots.

• Enforce zoning regulations to control industrial uses in residential zoning districts. In Glenover, new ordinances to control rather than prohibit these uses may be appropriate.

• Implement street and traffic improvement projects which channel industrial truck traffic away from Glenover to major truck routes such as US 77. Monitor the traffic impact on Glenover of future expansions to the industrial park.

Public Facilities and Park Policies

• Improve and expand Roszell Park to provide an adequate level of service to neighborhood. Optimum expansion would include 1 to 1.5 acres and additional equipment and neighborhood facilities.

CITY WIDE

Mobile Home Policy

The installation of mobile homes on single lots in residential neighborhood should not be permitted in Beatrice unless such mobile homes meet standards that the city is allowed to establish under state law.

The city should create an overlay district, designed to permit installation of mobile homes in planned parks with improved design and development standards. The overlay district should provide for a minimum park size of two acres, and require adequate traffic circulation, landscaping, and utilities. The overlay district should also provide standards for evaluating applications. The standards should include such criteria as neighborhood compatibility, scale, and access.

A Revitalized City Center

Downtown Beatrice should continue and expand its role as a primary civic and regional commercial center.

Downtowns always occupy a particular place of importance within cities and towns. They are a unique expression of the individuality of a town - no downtown looks exactly like any other downtown. Because of this relationship, people measure the health of their town by the health of their Downtown.

Beatrice shares this sense of downtown's civic importance with other communities. Downtown was the source from which the city grew, springing up at the crossing of the Big blue River at the present day Court Street. As Beatrice developed and became a node of activity for both rail and road transportation, the growth of Downtown accelerated. The Downtown district became the main commercial center of what became Nebraska's third most populous county and its rich agricultural market area. As a result, Downtown grew as a very large central business district. The quantity, size and scale of its commercial buildings belied the community's population, and suggested a regional center of considerable importance.

As Beatrice enters the new millennium, the Downtown remains an area of particular civic and commercial importance. In spite of peripheral commercial development, particularly along North 6th Street and East Court, it remains the city's largest commercial concentration and, to a large degree, its success is the success of the city's entire retail sector. It is also the seat of civic life, including such public resources as the Municipal Building and Auditorium, the Beatrice Police Department, the Gage County Museum, the Gage County Courthouse, Beatrice Middle School and Beatrice Public Schools Administrative Offices. Downtown's historic building stock is one of the most distinguished in Nebraska and opens additional opportunities for reinvestment.

On the other hand, Downtown faces such challenges as vacancy in its large building stock; the movement of such civic resources such as the library and high school out of the district; and the need to strengthen its competitive standing in an automotive age. This chapter will provide methods which allow Downtown to emerge as a revitalized city center.

GOALS

Maintain aging infrastructure to preserve public safety and the district's structures.

Preservation requires city investment in infrastructure improvements to keep pace with public service needs, including water mains adequate for fire suppression and prevention. Aesthetic improvements to infrastructure including electrical lines in alleyways and aging light fixtures should be evaluated. A phased program to bury electrical lines should prioritize strategic segments of the Downtown system.

Strengthen Downtown Beatrice's role as a "flagship" district for the city.

Downtown Beatrice is a psychological focus for the city. It has undoubtedly been discussed, worried about, and sometimes fought about more than any other part of Beatrice. The Downtown's image is bound up with that of the entire community. The downtown can capitalize on this identification by reenforcing it as a source of pride and vitality, a center that people in the city and around the region like to visit for enjoyment, commerce, and cultural enrichment.

Create a mix of uses and activities

The dramatic changes in retailing that have created the shopping malls and large discount stores has eroded the exclusive role that downtowns once held in American communities. This does not mean that Downtown Beatrice is declining. It simply means that it has evolved and will continue to do so creating a new and equally rewarding environment. This will be a place that will continue to provide a setting for many kinds of activities, including, but not limited to, the traditional focus on general retailing.

Yet, Downtowns sometimes try to revitalize themselves by trying to make themselves into something they are not. The failure around the country of many pedestrian mall experiments on Main Streets suggests that life in a city center is a delicate ballet that includes vehicles, pedestrians, places for activity, windows on the street, and other features. The revitalization of Downtown Beatrice should build on the intrinsic character of the district - strengthening what is good, improving what no longer works well.

Strengthen the Downtown retail environment.

In many communities, the role of Downtown has changed from one of primary retailing in pre-auto era days to one of specialty retailing, small business, and service activities. Downtown Beatrice has many of these small enterprises, yet it still includes significant general retailing. Further improvements in the public environment can elevate the districts business environment and strengthen its attraction for shoppers and other users.

Increase the economic rewards of building ownership in Downtown Beatrice

Any investment must provide a reasonable rate of return to its investor. This rule is equally relevant to Downtown properties. Older buildings are often fully amortized, avoiding debt services costs that tend to increase rents. However, upper levels of buildings in Beatrice are frequently vacant or bring very limited revenue. As a result, property owners receive a relatively low return on investment. In addition, further investment, involving rehabilitation, adaptive reuse, or bringing structures into compliance with contemporary codes or federal regulations, may seem unattractive to building owners.

When owners can expect a good return on downtown property, investment similarly increases. Therefore, the downtown development strategy must provide reasonable economic rewards to the district's property owners.

Improve the quality of the physical environment and the intensity of community activity in Downtown Beatrice

Downtowns are made of people and community life as surely as they are of buildings. Downtown Beatrice must be alive with people and activity. Some aspects of this life are physical - the district must provide an attractive and pleasant environment for its users; and should provide settings for events and programs. Other aspects are programmatic - providing attractions that attract people to the area.

Together, these methods can make visiting or shopping in Downtown Beatrice an experience - a place to enjoy, to see people, to understand the life and beauty of an American community. The restoration of civic activity is particularly important in Beatrice because of the move of the Public Library and High School important community centers, out of the business district. This focuses considerable attention on reuse options for the old Carnegie Library building.

FACTS AND ANALYSIS

This section examines important features of Downtown Beatrice that can help determine the directions of a development policy for Downtown Beatrice.

Land Use Patterns and the Surrounding Environment

Downtown Beatrice's relatively large business district centers around two main corridors. These main axes, Court and 6th Streets, include commercial, service and civic developments. The intersection of these two corridors is marked by the Kensington, an Historic Landmark, and the mixed use Court Street Plaza. This intersection is also the convergence of the city's two major Highways, 77 and 136, mean the area often is dominated by the vehicle. Radiating out from this area are some of the city's most significant civic and commercial destinations. These side streets, including Ella, Market, 5th and 7th often have a more pedestrian feel to them and are the location of the city's most concentrated commercial development.

Downtown transitions into civic, office, and residential settings to its north, as landscaping increases and land use intensity tends to decrease. Beatrice Junior High School is a major neighbor immediately north of the Downtown core area.

Lied Main Street Program

In 1996 Downtown Beatrice became part of the Nebraska Lied Main Street Program. As a member of the program Main Street Beatrice has access to the National Main Street Center and sponsoring organizations including the University of Nebraska-Lincoln College of Architecture, the Nebraska Department of Economic Development, the Nebraska State Historical Society and the Nebraska Department of Roads. The National Main Street Center utilizes a comprehensive approach toward downtown revitalization through historic preservation, promotional strategies and community involvement for communities with a population less then 50,000. Main Street Beatrice is based on the four themes of the National Main Street Center - Organization, Promotion, Economic Restructuring and Design. These four points will be essential to the Policies and Actions proposed later in this section.

Historic Significance

Historically sympathetic reinvestment can be an important revitalization element in a Downtown program because of the availability of tax credits for certified projects. In addition to economic advantages, historic importance adds distinctive themes to a downtown development program. Four structures, the Gage County Courthouse, Paddock Hotel, Carnegie Library, and Burlington Northern Depot are listed on the National Register of Historic Places. Other structures, including the Municipal Building, and the district itself could also be eligible for listing on the National Register of Historic Places. The development of Main Street Beatrice under the Lied Main Street Program should use its resources to leverage these opportunities.

Circulation and Parking

The ability of Downtown to accommodate vehicles will be important to the future growth of the district. As a rule, Downtown Beatrice should accommodate automobiles without being dominated by them. However, Downtown's main streets are both major highways. As a result, vehicular traffic is an extremely important and visible part of the downtown environment. This section will examine some of the issues involved as Downtown Beatrice works toward a co-existence between relatively heavy vehicular and pedestrian traffic.

Traffic Flow and Circulation

The primary traffic issue in Downtown Beatrice is the large amount of traffic on its two primary cross streets - Sixth and Court. These principal highways carry about 10,000 daily vehicles north, east, and west of their principal intersection in Downtown. The ef-

fect of these traffic volumes are intensified by the presence of heavy truck traffic through the Downtown center.

Both highways carry their traffic loads within 80 foot right of ways. Sixth Street provides four moving lanes in its 48-foot wide channel, permitting no on-street parking. Sidewalks along Sixth are 15.5 feet to back of curb. Court Street provides a 33 foot wide, three-lane trafficway. With parking both sides of the street. Court Street sidewalk width is 15 feet. Both highways experience some congestion from left-turn movements. These are particularly prevalent on Sixth Street, which experiences a large number of east and west turning movements onto Court Street. Building facades on property lines prevent any significant widening of either Sixth or Court Streets.

Beatrice has instituted a one-way traffic system around the Sixth and Court arterials. Ella Street, one block north of Court, operates one way westbound from 19th Street to 3rd Street, on the east edge of the Downtown core. Market Street provides one way eastbound service from 3rd to 19th Streets. In a north-south direction, 5th Street is one-way south from Lincoln Street to Market Street; 7th Street is one way northbound from Perkins Street south of Downtown to Monroe Street in North Beatrice; and 8th Street is one way southbound from Monroe to Ella Streets. Seventh and Eighth Streets operate as one way pairs through North Central Beatrice residential neighborhoods.
The city has attempted to route truck traffic around the retail core of Downtown, using a loop along Ella, Market, 3rd, and 7th Streets. While this voluntary route has been approved by the Nebraska Department of Roads, it has been generally unsuccessful. The difficult turns and circuitous route discourage drivers from using this route, who use the more direct main highways.

Parking

The availability of Downtown parking is important in Beatrice relatively large downtown district. Parking in Beatrice is provided in both private and public parking lots, and in the Beatrice National Bank parking garage. Table 8-1 below presents an inventory of off-street parking facilities in the Downtown core area that was completed in 1991.

Downtown Beatrice also provides 387 on-street spaces. Thus, the total parking supply in the core district is 1,055 stalls.

Based on the 1991 study of Downtown Beatrice the area had a deficit of about 79 parking stalls. This deficiency would appear only in extreme peak periods. Thus, in numbers, parking in Beatrice was in balance with needs. Given occupancy rates in 1991, Beatrice would have needed to convert 125,000 square

TABLE 8-1: Off-Street Parking in Downtown Beatrice

Block	Location	Private	Public	Total
1	North of Ella, 3rd to 4th	40	0	40
2	North of Ella, 4th to 5th	0	0	0
3	North of Ella, 5th to 6th	0	0	0
4	Ella to Elk, 6th to 7th	25	40	65
5	North of Ella, East of 7th	20	0	20
6	Court to Ella, 7th to 8th	0	40	40
7	Court to Ella, 6th to 7th	16	60	76
8	Court to Ella, 5th to 6th	10	0	10
9	Court to Ella, 4th to 5th	0	35	35
10	Court to Ella, 3rd to 4th	0	60	60
11	Court to Market, 3rd to 4th	0	0	0
12	Court to Market, 4th to 5th	10	0	10
13	Court to Market, 5th to 6th	0	220	220
14	Court to Market, 6th to 7th	36	0	36
15	Court to Market, 7th to 8th	56	0	56
Total		**213**	**455**	**668**

feet of vacant space into retail, office, and residential area to experience a need for approximately 175 more parking stalls. Need for additional parking should be incorporated into future development plans for Downtown.

Yet, if parking is distributed unevenly, even a numerically adequate supply will not work properly. Fortunately, Beatrice's distribution of parking is relatively good. The four core blocks around 6th and Court provide 332 off-street stalls (220 in the Beatrice National Bank parking structure) and 220 on-street stalls, or about 50% of the district-wide supply. This is adequate to support the needs of the central commercial core.

Pedestrian Environment

Downtown Beatrice, in common with other central business districts, is both a pedestrian and vehicular environment. Most users will park their vehicles and become pedestrians as they move through the district. In addition, the pedestrian environment offers the opportunity to develop a sense of civic space that can be an important part of an overall revitalization program.

The district's two primary shopping streets are relatively negative pedestrian environments. The heavy traffic and noise of passing trucks creates a relatively unpleasant setting. In addition, the amount of traffic on the two highways limits the amount of exchange between the two sides of each street. This problem is particularly severe for mobility-impaired people, such as the elderly and handicapped.

Both streets have adequate sidewalk width, at approximately fifteen feet. However, these sidewalks lack unified sidewalk landscaping or street furniture installation. Pedestrian amenities in the Downtown core area include:

- Charles Park, an attractive but underdeveloped open space north of Ella and adjacent to the Carnegie Building.

- A landscaped seating area at the Police Station at 6th and Ella Streets .

- A landscaped pedestrian node at 5th and Court Streets, adjacent to Claybaugh Pharmacy.

Summary

This analysis of Downtown Beatrice leads to the following conclusions:

• Downtown's historical and architectural significance is of vital importance. Fifty of its buildings are highly significant. We conclude that Downtown Beatrice is eligible for listing on the National Register of Historic Places.

• Downtown is negatively affected by heavy traffic, including a substantial number of trucks, on its two principal streets, Sixth and Court Streets.

• Downtown parking is generally in balance with parking demands. Potential future development could generate a need for additional stalls.

•Downtown provides pedestrians with a relatively negative environment. The district lacks pedestrian amenities; in addition, heavy traffic on major retail streets makes street crossing difficult for many people.

• Improvements to Charles Park should facilitate its role as a civic open space for community events and user enjoyment.

POLICIES AND ACTIONS

This section presents a strategy designed to help Downtown Beatrice achieve its future as a principal local and regional commercial and civic center. The downtown development program is designed to provide realistic steps leading to the revitalization of the city center. The overall concepts of this strategy call for:

• Full utilization of Main Street Beatrice, to coordinate and implement the downtown improvement program and to provide a unified marketing and promotional effort.

• The improvement of Downtown's public environment, in order to make the district a center for community activity and a supportive and pleasant environment for users.

• The stabilization of existing occupancy in Downtown and the conversion of vacant or underused space on street and upper levels to retail, office, and residential uses.

• The redevelopment of a blighted area south of the Downtown center as a location for new business and industry.

Management Program

Main Street Beatrice must continue to utilize its connections with the Lied Main Street Program in order to carry out the four principles of the program - Organization, Promotion, Economic Restructuring and Design.

1. Organization

The 1992 Beatrice Comprehensive Plan called for the establishment of a downtown Beatrice corporation. Through the Lied Nebraska Main Street Program the Main Street Beatrice program was formed in 1996 to carry out the four principles of the program. Through the principal of organization it is the job of Main Street Beatrice to build consensus and cooperation between the groups that play a role in Downtown Beatrice. The merchants' association and Chamber of Commerce are just two of the groups that Main Street Beatrice will need to utilize in the creation of a long term development plan.

2. Promotion

It will be important for Main Street Beatrice to market the downtown's unique characteristics to shoppers, new businesses, tourists, and investors. An effective promotional campaign builds a positive image of the downtown through the special events and programs. The Farmers Market is an excellent example of creating a positive image and exciting community atmosphere in the downtown.

Shopping malls successfully provide unified management of marketing and maintenance. Yet, Downtown districts, with their multiple ownerships and individual small businesses, rarely use this highly successful technique. However, the organizational efforts by Main Street Beatrice should facilitate promotional efforts such as "Buy Beatrice". Programs should be directed toward the city's primary market region, including Gage, Johnson, Jefferson, and Pawnee Counties in Nebraska and Washington and Marshall counties in Kansas. The Lincoln metropolitan area, with over 200,000 people, should also be a significant retail target for Downtown Beatrice. A marketing campaign directed at Lincoln should address the special quality and services of shopping in a small, but full-service community. It should use special events and an emphasis on other local attractions as ways to promote a day-long experience to potential customers from Lincoln. Redevelopment of the Carnegie Library as a cultural center should be a key component of the Downtown experience.

3. Economic Restructuring

Under the National Main Street Center program Economic Restructuring means strengthening the existing economic base of the downtown, while diversify-

ing it. Examples of economic restructuring activities include acquisition and reuse of important downtown buildings, developing financing packages to maintain key retailers in downtown, and acting as a general partner for significant development projects.

4. Design

By enhancing the physical appearance of Downtown Beatrice the city improves its image and creates an exciting place to be. Design not only involves buildings but also street lighting, window displays, landscaping of parking areas, signs, sidewalks, promotional materials and other elements that project a visual message and create a sense of place. The scope of this effort might include landscape maintenance; sidewalk repair and snow removal; and upkeep of social features such as banners and flags.

5. Program of Activities and Events

Community festivals in Beatrice and other cities demonstrate the power that events can have in attracting people to downtown districts. A full program of events can make Downtown a special attraction; this status, in turn, can produce increased awareness of Beatrice and patronage for businesses.

In building on this lesson, Main Street Beatrice should program an ongoing series of events, designed to identify the district as a center for activity, a place where families can come for a good time. Existing events including the Farmers Market, Night of the Great Pumpkin, and Christmas on Main Street programs are excellent examples of the type of events that create family oriented activities. Events should be staged on a regular basis and can include concerts; plays; flee markets; arts and crafts shows; historic building tours; and family athletic events such as walks, runs, and bicycle rides. Events should utilize local talent and resources to the greatest degree possible.

An event program carries with it two important physical development requirements. These include:

• A major civic space, designed to act as a center for events and an amenity for people in the heart of Downtown. Fortunately, Charles Park already provides Beatrice with such a space in a convenient location.
• A pedestrian system which links the civic space into the core of Downtown's retailing community. This pedestrian link helps to channel the activity generated by social events into the center of downtown and assures that people will stay in the area when the program is over.

The Public Environment

In order to create a public environment that will support the maintenance and strengthening of Downtown as a vital center filled with activities, Beatrice should carry out the following actions:

1. Charles Park

Charles Park is a strategically located, 1.5 acre open space north of Ella Street between 5th and 6th Streets. The park is used for the Farmers Market but its strategic location puts it in a position to be utilized to an even greater degree. This park should be revitalized to act as a center for community events, downtown programs, and user amenities. In short, Charles Park should become Beatrice's town square. Elements of this project include:

• **A comprehensive park improvement program,** including ornamental landscaping and shade trees; benches and street furniture; and bandstand, gazebo, or shelter feature to act as a stage for events; special paving and lighting; and graphics. A lighted fountain should be developed in the park as a focus for evening activity; the attraction of water to public spaces has been demonstrated across Nebraska in large and small applications.

• **A rear facade improvement program** for Ella Street businesses with secondary entrances facing Charles Park. This program should include upgraded signage and customer entrances from the park.

• **An alley upgrade and power line burial program**, which will include improved treatment of the alley, including burial of overhead power lines along the south boundary of the park.

• **Reuse of the Carnegie Library building**. The library building is an integral part of Charles Park. Ideally, it should be reused as a public facility. Examples of potential reuses include a cultural center with temporary and permanent collections; a small multi-purpose performing arts facility; or for an artist-in-residence area and workshop for artists and students.

2. Streetscape Program

A streetscape program should reinforce a Charles Park development program by linking the park to the downtown center and creating an important, pedestrian-friendly environment for users of the district. A streetscape program will improve the pedestrian environment along downtown's principal shopping blocks and provide an attractive path from major core parking facilities to the retail center. The upgraded pedestrian system should include the following components:

• Both sides of Sixth Street from the park to Market Street. First priority for improvements should be the west side sidewalk from the park to West Court.

• Court Street from 5th to 7th Streets.

• A mid-block alley from Charles Park to Ella Street, between 5th and 6th Streets.

• Ella Street from public surface lots east of 6th Street to 6th Street itself.

• Ella Street from the UP Trail to Charles Park.

• An improved pedestrian crossing at the 6th and Court intersection. This project may include the construction of corner nodes on court Street that are the depth of the existing parking lanes; and the use of a contrasting pavement surface, such as brick, within the crosswalks.

Sidewalk and pedestrian amenity improvements should include street landscaping and trees where possible; upgrading of existing canopies; installation of special pedestrian-scaled lights; and use of banners mounted to lighting standards. The linkage system is highly focused on strategic sidewalk segments. In the future, as funds become available, the system may be expanded to additional street and sidewalk segments.

3. Sidewalk Park

The primary Court Street retail area is a relatively "hard" area, furnishing little respite for pedestrians. In addition, the fact that this street will remain a major highway route limits the possibility for significant pedestrian improvements within the right-of-way. The public acquisition and development of a sidewalk park on Court would improve the shopping environment. The south-facing sidewalk park should be developed with landscaping and other streetscape features and themes developed at Charles Park and along the pedestrian linkage system.

Transportation

In order to improve the operation of the Downtown transportation system for the benefit of both pedestrian and vehicular users, Beatrice should implement the following actions:

1. Directional Information

Beatrice should design and implement an attractive directional signage system, leading from major city entrances to the Downtown district; and directing motorists to major off-street parking facilities.

2. Expanded Parking

Beatrice currently supplies adequate parking to meet its current needs under typical conditions. This assumes the continued availability of some private

parking facilities for public parking. Future projected development can produce a need for additional parking stalls in the core area. This need may be satisfied through:

• The development of new public parking facilities south of Market Street on sites between 5th and 7th streets. The actual siting of facilities depends upon the availability of individual parcels of land.

• The future provision of on-street parking on Sixth Street with redesign of that arterial following Bypass construction.

• Possible institution of diagonal parking along selected streets, including Ella and Market Streets.

3. Union Pacific Trail

The conversion of the abandoned Union Pacific right-of-way to trail use provides a north-south connection through the city and links downtown Beatrice to a regional trail facility leading to Lincoln. This can make Downtown part of an amenity network that incorporates the Big Blue River, major city parks, and Homestead National Monument.

Community and Economic Development

In order to encourage increased private investment in Downtown Beatrice and bring about the development of seriously blighted areas, a Beatrice should carry out the following actions and policies:

1. Blight Declaration

Under the Nebraska Community Development Law, areas must be declared "blighted" in order to begin the process of using the State's substantial package of community development tools. In 1999, The Blight and Substandard Determination Study and Redevelopment Plan was completed. The city should continue to take advantage of the development tools that the blight declaration makes available. These tools include Tax Increment Financing, which uses the added value created by redevelopment projects to retire debt associate with project improvements; and land assembly and conveyance powers.

2. Redevelopment Area

Beatrice should establish the area south of Downtown as a priority area within the blighted area designated under the 1999 redevelopment plan. The general boundaries of this redevelopment are Market Street on the north, 6th Street on the east, and the UP Trail on the west and south. The proposed UP trail provides direct access to the area.

The redevelopment area should include a mixture of existing and new uses. Strong existing commercial and industrial uses should be incorporated into a new growth district. The city should help to direct major new development into this area, which should include the following land uses:

• Land-intensive retail uses, including major businesses and discount stores that require large amounts of land and parking facilities.

• Business park development combining office uses with light manufacturing and industry; and limited warehousing and distribution.

•High quality industrial uses.

Elements of the redevelopment strategy include:

• Preparation of a detailed redevelopment plan for the site, including land use, infrastructure, and implementation components. The redevelopment plan would be designed as a prospectus, used to market the site to potential developers.

• As demand develops, assembly of land and sale to developers. Land acquisition may be financed through Tax Increment Financing. In addition, public financing incentives under LB 840, the program used to finance Gage County Industrial Parks II and III, may be considered if necessary. This program has allowed the city and county to provide public, tax-generated financing to the Parks with the approval of the voters. This tool should be used carefully and sparingly; however, it can be effective in encouraging major development.

• Development of infrastructure as required. Most of the proposed redevelopment area is currently served by 8-inch sanitary sewers and 6-inch water mains. Adequacy of these facilities depends on the nature of the users.

•Street and sidewalk linkages to the Downtown core. The most direct of these links is 5th Street.

3. Adaptive Reuse Program

The city should develop an ongoing program to encourage the reuse of under-utilized buildings in the Downtown core for commercial, office and residential uses. In many cases, potential rent levels are too low and rehabilitation costs are too high to make purely privately financed projects feasible. For desirable projects, the city should make a range of financial assistance programs available. Some of these include Tax Increment Financing, in which the added tax revenues created by the project are temporarily used to help finance debt service related to the development; Community Development Block Grants, awarded competitively by the State Department of Economic Development; other Federal programs, including the HOME program administered by the State and providing financing for rental rehabilitation and development projects; and historic and low-income housing tax credits.

A focus on specific buildings is advisable. The city should focus special marketing efforts and seek out developers to expand the use of these buildings.

4. Facade Improvement and Rehabilitation Program

While major adaptive reuse projects are important to the Downtown's future, the continued improvement of existing, occupied buildings is extremely important. Through Main Street Beatrice a facade improvement program has been established with the assistance of University of Nebraska at Lincoln. Some businesses have taken advantage of the design services offered by UNL. The next step in the program is providing readily available and affordable financing for facade and code improvements to buildings. The program, with the participation of Beatrice's banks, can combine private funding with public funds such as CDBG to provide below market interest rate loans for building improvements.

5. Historic Preservation Program

The architectural integrity of Downtown Beatrice is very important to its continued success. As development activity accelerates, it is important that construction be carried out in a way that preserves the integrity.

All rehabilitation and adaptive reuse work should be carried out in accordance with the Secretary of the Interior's Standards for Historic Preservation. In addition, the city should enact an historic preservation ordinance, designating Downtown as a district under this ordinance. This district designation should include a special code to guide building modifications. The code should address the treatment of building walls, roofs, ornaments, windows, doors, colors, and signage. Such a code should be developed and enacted as part of the city's zoning ordinance.

Public Facilities and Infrastructure

In order to assure that public buildings, facility policies and infrastructure support the business development of Downtown, Beatrice should carry out the following actions:

1. Carnegie Library

The historic Carnegie Library building is extremely important to Downtown Beatrice. It occupies a strategic site in the city center, within Charles Park. An active public use would help the development of the

park and create additional community activity in Downtown.

A reuse study done for the facility has been completed. The plan proposes three possible uses for the facility:

• A cultural center, possibly with both temporary and permanent collections.

• A small multi-purpose performing arts facility which can accommodate chamber music and recitals, small meetings, lectures, speakers, and rehearsals.

• Artist-in-residence area and workshop for artists and students.

Through continued public use of the facility, the Downtown maintains a significant community asset that should be used in coordination with activities planned in Charles Park. The facility is currently vacant, therefore identifying one of the options laid out in the Reuse Study should be acted upon in a timely manner to fully utilize the facility and prevent further deterioration.

2. Downtown Education Center

An exciting potential for an important new downtown activity center would be the creation of an educational center for Southeast Community College. This use would strengthen Downtown by adding a major public use center. It would also integrate the college into the life of the Downtown community and act as an entrance to the larger campus on the west edge of the city. A convenient Downtown location could improve access to the college's programs for a variety of people, including senior citizens.

The 1991 plan for economic development in Nebraska by Washington-based economic policy consultant Ross Boyle further reinforces this educational presence in Downtown. The Boyle study suggests the increasing use of electronic dissemination of education from central locations in the state.

3. Sewer Reconstruction

The Downtown sanitary sewer system is the oldest part of Beatrice's generally good sewer network. The sewer department will need to complete its program of televising sewer lines across the city, including the Downtown. Replacement of deteriorated sewers

should be programmed and carried out through the city's capital improvement process.

4. Burial of Overhead Power Lines

The burial of power lines is expensive and should be limited to strategic areas. Major lines to target for underground replacement area:

• The line running east and west in the alley north of Ella Street and south of Charles Park between 4th and 6th Streets. Burial of this line will enhance the Charles Park improvement program.

• The line running through the alley between Court and Ella Streets between 3rd and 7th Streets. Highest priority should be given to the segment of this line between 5th and 7th Streets.

5. Street Lighting

As it replaces street lights, Beatrice should install sharp cut-off lamp fixtures. These lamps reduce glare and direct light more efficiently to the street surface. In addition, they complement pedestrian scale accent lamps proposed along pedestrian network and in

downtown open spaces. These smaller scale lamps, usually with visible light sources, appear to generate most ambient light when used in concert with cut-off fixtures.

Summary of Policies

• Management Program

1. The Lied Main Street program and Main Street Beatrice should leverage its resources to the utmost in an effort to create a vital and active organization.

2. Main Street Beatrice should continue to channel its efforts into the four-point approach laid out by the Nation Main Street Center. These include: organization, promotion, economic restructuring and design.

3. Downtown should establish a regular, varied program of community events.

4. Downtown should establish unified marketing, promotional, and area management programs, administered through Main Street Beatrice.

• Public Environment

1. Beatrice should develop and improve Charles Park as a town square, an outdoor focus for community programming and activity.

2. Beatrice should develop a pedestrian system to link Charles Park, the UP trail and public parking facilities within Downtown's retail core.

3. Beatrice should develop a sidewalk park as a pedestrian refuge along Court Street.

• Transportation

1. Beatrice should implement an improved directional system, leading visitors to Downtown and public parking facilities.

2. Beatrice over the long term should provide increased parking as development demands.

• Community and Economic Development

1. Beatrice should declare Downtown and surrounding areas blighted to create incentives for additional

investment.

2. Beatrice should pursue a comprehensive redevelopment program in an area south of Downtown, west of 6th Street and south of Market Street. The area will accommodate space-intensive retail uses, business park, and industrial activities.

3. The city should develop an ongoing adaptive reuse program, encouraging the reuse of vacant or underused building space. It should put together appropriate public/private partnerships to help finance these projects The city should seek developers for specific, strategic buildings.

4. The city, in partnership with private lenders in Beatrice, should expand the facade improvement and rehabilitation program.

5. The city should implement an historic preservation program, including development of a code to guide major modifications to historic buildings.

•Public Facilities and Infrastructure

1. Beatrice should reuse the Carnegie Library building in accordance with the approved reuse study.

2. Southeast Community College should investigate the development of a Downtown education center.

3. Beatrice should complete surveys of the downtown sewer system and reconstruct over time deteriorated sections.

4. Beatrice should bury strategically located power lines in Downtown.

5. Beatrice should revamp Downtown street lights with sharp cut-off fixtures in the order of normal replacement.

A Place for All Ages

Beatrice should offer a high quality of life to people of all ages, with a particular emphasis on youth services and programs for senior citizens.

Beatrice, like all communities, must provide a quality environment for all its residents. People of different ages have different needs. Young people need activities that engage them and produce positive associations with the community. Because retention of young people is a critical part of Beatrice's development strategy, the bond that the community creates with its youth is exceedingly important. Beatrice should be much more than " a place to be from."

In addition, Beatrice's senior population is extremely important to the life of the city and its economy. Over 37% of the city 's 1990 population was over the age of 55, well over the statewide proportion of senior citizens. Beatrice must provide good services to this critical population group. Moreover, young and old people should no longer move in separate universe. Rather, intergenerational programming can energize both young and old. Beatrice should grow as a community which people of all ages can feel comfortable and part of the city.

Finally, the ability of Beatrice to offer a highly positive family environment is important to the community's future. One of Beatrice's best qualities is its intimacy and quality of family life, enhanced by many of the concepts contained within this plan. In addition, the ability of citizens to participate in the future planning of the city is yet another indicator of this important and special quality of intimacy and community partnership. Beatrice's residents, young and old, must have a stake in the future of the community.

This section addresses both facility needs and programs which can improve participation by all people in the life of the community and can help Beatrice continue as an enriching place for its residents. By achieving this distinction, Beatrice can increase the satisfaction that its own residents have with their community; encourage more of its youth to establish their households there; and increase its attractiveness to prospective residents.

GOALS

The theme, "A Place for All Ages," can address many issues. Specific goals concentrate on Beatrice's most strategic priorities. In assuring that the city remains a positive environment for people across the age spectrum, Beatrice will strive to:

•Provide good facilities and service for young people, building positive associations between youth and the community.

The most direct experience that young people have with public facilities in a city is with its school system. The secondary school facilities are particularly important in youth development and in the types of associations that students make with the city. In addition, the physical facilities that house junior high and high school are increasingly critical in advanced skill training and in science and computer education.

Youth programming and activities are also a growing focus for community attention. Successful programs do not plan for the young, but involve them in the implementation of activities. Community activities should also engage the young in the community and its ongoing improvement.

•Provide senior citizens with a supportive and positive living environment.

Beatrice has a large population of people over age 65. The senior age group is extremely important to the Beatrice community and is a major economic force. Beatrice provides a variety of life environments for the elderly, ranging from a positive and supportive place for independent living to a variety of skilled care facilities. The city should continue to recognize the importance of senior citizens to its life by provid-

ing innovative and positive services and programs to them.

•Improve the quality of and access to Beatrice's important quality of life features.

Beatrice's major quality of life features - its parks, library, recreational facilities, and other important centers - should provide good quality environments. In addition, they should be easily accessible to people of all ages. Facilities that are present but difficult to get to do not provide adequate service to all residents.

•Increase the participation of Beatrice's residents in the planning and government of the plan.

Access to decision-making processes is uniquely possible in a small city. The Beatrice City Council has institutionalized an excellent annual goal-setting program. This process helps to clarify the directions and priorities of the city's government. In addition, the residents of Beatrice should develop a stake in the planning of the community's future through a dynamic planning process - one that uses this Beatrice Plan as a base and modifies it through a participatory process to keep it fresh and relevant.

FACTS AND ANALYSIS

This section examines important features and changes in Beatrice. It will examine such issues as trends in special populations and the characteristics of educational facilities. This analysis will lead to a program designed to help assure a good environment for people of all ages in the community.

•Population Changes in Specific Populations

Table 9-1 displays projected population change for specific special needs populations for the next twenty years. These projections are based on the projected aging of Beatrice's population It is important to note that if Beatrice is successful in attracting additional younger families, the projected population under age 19 will also increase.

These projections indicate that the city's population of younger children will decline through the next two decades. On the other hand, the population of older youth increased through the 1990's before dropping during the early part of the century.

Beatrice's senior population will continue to be a major part of the city's population. Natural population change will result in a decline of the elderly population until the very end of the study period when the number of seniors should once again increase. However, the 1990's indicated a substantial in-migration of elderly residents.

TABLE: 9-1: Population Projections for Selected Age Groups, 2000-2010

Age Group	2000	2005	2010	2015	2020	% Change 2000- 2020
Under 10	1,526	1,368	1,272	1,286	1,267	-16.97
10-19	1,754	1,630	1,522	1,364	1,269	-27.65
Over 65	2,656	2,426	2,300	2,320	2,537	-4.48
Natural Change	5,936	5,424	5,094	4,970	5,073	-14.54

TABLE 9-2: Beatrice School District Attendance; 1985-2000

	Elementary	Special Ed.	Middle	High School	Total
1985	1067	21	511	525	2124
1986	1060	16	502	554	2132
1987	1112	20	487	520	2139
1988	1182	22	497	495	2196
1989	1215	19	512	474	2220
1990	1275	27	514	464	2280
1991	1278	27	527	496	2328
1992	1115	24	568	687	2394
1993	1104	40	576	663	2383
1994	1046	18	614	661	2339
1995	1009	15	624	702	2350
1996	974	20	617	700	2311
1997	941	26	573	748	2288
1998	929	25	582	804	2340
1999	894	22	586	820	2322
2000	942		579	817	2338

•School Enrollment

Table 9-2 displays the recent enrollment history for the Beatrice Public School District. The information leads to the following conclusions:

• Elementary enrollment in the Beatrice Public Schools peaked in 1991 and steadily decreased. The drop in 1992 was the first since 1986. This trend will continue if the city is unable for attract younger residents with small children.

• Middle school enrollment declined through the 1980's but rebounded during the early part of the 1990's. Since 1995 enrollment has steadily decreased and will likely continue to do so during the early part of the planning period based on current elementary school enrollment.

• Overall enrollment was steady during the 1990's , due mostly to in-migration. Moderate migration should sustain enrollment levels through 2010.

•School Facilities

Beatrice's public schools are generally adequate in size to accommodate existing and projected enrollment. The city's four elementary schools were originally constructed during a major capital improvement program in 1957. These schools were modified during 1970 and 1971. The city's original junior high building was razed after the completion of the new high school in the 1990's. The middle school then occupied the former high school which was constructed in 1951 and modified in 1971. The former location of the middle school is now the administrative office and additional parking for the junior high. Total floor area is adequate to meet current and projected enrollment demand. Land to the west of the high school has been designated for development as a sports complex. Funding for development of this area will need to be determined.

•Health and Care Facilities

Health care and the care of special populations are important characteristics of Beatrice. Major care facilities in the city include:

•*Beatrice Community Hospital*. The Beatrice Community Hospital, at 1110 North 10th Street, provides 71 acute beds and 45 intensive care nursing home beds. The facility includes operating rooms, diagnostic facilities, a coronary/intensive care unit, obstetrics, rehabilitation, emergency room, and other facilities. Its Parkview Center, in South Beatrice, provide 45 skilled nursing, 23 domiciliary, and 6 acute care beds.

•*Medical Service Concentrations*. Supporting medical office facilities include a cluster of offices west of the Beatrice Community hospital, the West Court Medical center.

•*Blue Valley Mental Health Clinic*. This clinic, near the hospital, provides out-patient mental health services.

•*Accommodation for the Elderly*. Beatrice's two primary nursing care centers, the Good Samaritan Center and Beatrice Manor, provide capacity of 223 people. Other elderly housing facilities include Carstens Gardens at 1700 Park; Homestead Village at 1119 Monroe;

Homestead House at 2300 Lincoln; Regency Retirement Center at 2101 Arbor Ave.; Flowing Springs at 2323 Scott; Park View Village at 1200 South 8th St.; and the Kensington in Downtown Beatrice.

•*Martin Luther Home*. The campus of the Martin Luther Home provides a variety of accommodations and services to the developmentally disabled. The Beatrice facility serves about 150 people and employs over 300 residents of Beatrice. The Martin Luther Home is affiliated with the Evangelical Lutheran Church of America.

•*Beatrice State Developmental Center*. This major state facility, just east of Beatrice, serves 466 clients and has a staff of 916 people. The center provides a comprehensive range of services to the developmentally disables.

POLICIES AND ACTIONS

This section presents a focused program of actions designed to help "Beatrice realize its aspirations as a place for all ages. Indeed, many of the projects and policies presented earlier under other themes of the Beatrice Plan help complete this overall theme. The specific program included in this section calls for the following targeted strategies:

• Improvement of youth programming.

• Development of enhanced senior services, including intergenerational recreational programming in quality facilities.

• Expansion of citizen participation in the process of planning the future of Beatrice.

Public Facilities

In order to provide a quality learning environment for its young people and a system of facilities serving the needs of all citizens, Beatrice should implement the following policies and actions:

1. School Development Program

Beatrice should complete a facilities analysis and begin a gradual facility enhancement program for the city's four elementary schools. Mechanical improvements have been completed during the last ten years; but the average age of the city's elementary schools is over forty years. Although the buildings are basically sound, major repairs and adaptations become necessary at this stage in a school building's life. With completion of the new high school, the city should begin focusing on the elementary schools. This should lead to an incremental schoolhouse improvement program, addressing the rehabilitation of each school in sequence, at a rate that fits into the district's overall debt structure.

2. Youth Gathering Place

Beatrice should develop a youth "gathering place," which involves young people in its planning, siting, building, and administration. We believe that devel-

oping a specific territory for young people is important. It is a equally important, however, that such a place not be viewed as a building that "adults want kids to use." Great care must be taken to allow young people to define both the necessity and nature of this facility and to be active participants in its design, development, and management. The creation of a youth center should be a community wide effort, involving both public and private sectors. The center should not duplicate other recreational facilities and should work in concert with them. The moving of the city offices out of the Auditorium could create an ideal location for this type of amenity. The youth should participate in the re-use plan for the facility, creating an exciting place for them and a greater understanding of the historic structures role in the community.

3. Recreational Programming

Beatrice should enhance its recreational programs to address the needs of residents most in need of public recreation - young and old people. New program directions include:

• *Youth Programming*

Adults often plan activities for young people based on their own perceptions of what youth should like to do. A more successful youth recreation program should engage young people in the planning and execution of their own activities.

The city should create a Youth Programming Council, appointed by the mayor and working with the city on recreational programs. This Council should be event-oriented; it must do things- street dances, festivals, and shows - that have immediate results and provide short-term success.

• *Intergenerational Programming*

Young and old people can enrich each other's lives. Beatrice's Public Properties Department and the school district should work with senior citizens' groups to integrate activities for different generations. Examples of such programs involve elderly residents as teacher's helpers in the school, or mentors and advisors for student groups and clubs. Similarly, student clubs can assist senior citizens' recreational and cultural programs.

In the last ten years the city has successfully grouped major community facilities. The construction of the Beatrice Public Library, Senior Center, High School and Water Park have created a community "center". This allows people more convenient recreational and cultural options in a single location. The next step for the city is leveraging public facility proximity to each other to strengthen individual facilities through the creation of cooperative relationships.

This community center should be further supported by access improvements, including the extension of 19th Street from South Beatrice; and the development of a community-wide recreational trail system. These features unite the city and make access to the emerging center readily available to all people and neighborhoods.

4. Homestead National Monument of America

In 1999, the National Park Service and Homestead National Monument of America completed a General Management Plan. Through the planning process key goals were established, which included:

- Construction of the Homestead Heritage Center.
- Adaptive reuse of the existing visitor center as an Education Center.
- Development of a Homestead Heritage Parkway.

The Monument is an important asset to the city both in economic and cultural terms. Homestead experienced a steady increase in the number of visitors during the past decade and future improvements to the Monument should continue to increase interest. Providing a link within the trail system between Homestead National Monument and the city should be an essential part of any transportation plan generated for the area. Providing this link will increase access to the area and create an exciting recreational amenity for the city. Beatrice should continue to monitor and support future expansion of the Monument.

Transportation

In order to provide good access to community facilities for all people, including those who are unable for unwilling to drive automobiles, Beatrice should consider the following actions:

Local Public Transportation

Chapter Four discussed the possible creation of a local transit system, to meet the needs of people who are not well served by an auto-oriented circulation system.

Public transportation once played an important part in Beatrice's history. However, the only remaining service is provided by a small taxi fleet. Public transportation may again become more important in the future. It would support the city's efforts to establish itself as a center for senior citizens. In addition, an internal transportation system could help in the development of a tourist network, linking facilities such as Homestead National Monument, the Gage County Historical Museum, SECC, the Family Resource Center, the Beatrice State Development Center, city parks, and other features.

Public transportation should include the continuation and improvement of taxi service; and the possible creation of a service route, as discussed in the transportation section of this plan.

Health Care

In order to secure its future as a regional heath center and provide quality services to all of its residents, Beatrice should implement the following policies:

Professional Recruitment

The Beatrice medical community should develop a marketing campaign, directed toward the University of Nebraska Medical Center, Creighton University, and other area medical schools, designed to increase the size of the medical community by five doctors over the next fifteen years and to attract other health professionals.

A successful effort will depend on fulfilling many of the quality of life goals of this strategic plan. Over the next fifteen years, Beatrice should establish itself as a superior living environment. The ability to provide a focused marketing program telling Beatrice's story to medical graduates and health professional

could successfully increase the size of the city's medical community.

Community Leadership and Planning

In order to expand opportunities for community leadership and participation in the planning of Beatrice, the city should implement the following policies:

Annual Planning Forum

Beatrice's city government should establish an annual public planning forum to discuss the future of the city and provide input to the continuous updating of the comprehensive plan. The Beatrice Plan will be a guide for future policy and development directions in the city. However, any comprehensive plan becomes dated over time because of changing in the community. Therefore, the plan should include a system for its annual updating and monitoring. This evaluation can be a source for increased and ongoing participation by residents in determining Beatrice's future.

SUMMARY OF POLICIES

Public Facilities

1. Beatrice should initiate a comprehensive school facility improvement program.

2. Beatrice should develop a gathering place for young people, involving youth in the planning, construction, and administration of the facility.

3. The city should develop a participatory recreational program, directed toward meeting the needs of both young and old people.

4. The city should site new facilities together in an emerging community center, determined by the locations of the YMCA and the Public Library.

Transportation

1. Beatrice should consider implementing a limited transit system, designed to meet the needs of people who are unable or unwilling to drive.

Health Care

1. The local health community should design and implement a program marketing the city and its attractions to young doctors and other health professionals.

Community Leadership and Planning

1. Beatrice should initiate a program of annual planning forums, designed to help complete annual updates of the Beatrice Plan.

Implementation Schedule

Beatrice should implement the visions and actions presented by the plan through a realistic program that is in step with the resources of the community.

A Timetable for Implementation of the Beatrice Plan

The nine previous chapters, with their narratives and maps, are the core of the Beatrice Plan. This section addresses the scheduling of plan implementation by both public agencies and private decision-makers. These key areas include:

• **Development Policies and Actions.** This section summarizes the policies and actions proposed in the Beatrice Plan, and presents projected time frames for the implementation of these recommendations.

• **Plan Maintenance**. This section outlines a process for maintaining the plan and evaluating Beatrice's progress in meeting its goals.

The table following in this chapter presents a concise summary of the recommendations of the Beatrice Plan. These recommendations include various types of efforts:

•**Policies**, which indicate continuing efforts over a long period to implement the plan. In some cases, policies include specific regulatory or administrative actions.

• **Action Items**, which include specific efforts or accomplishments by the community.

•**Capital Investments**, which include public capital projects that will implement features of the Beatrice Plan.

Each recommendation is listed as part of its theme in the Beatrice Plan. In addition, a time frame for implementing recommendations is indicated. Some recommendations require ongoing implementation. Short-term indicates implementation within five years, medium-term within five to ten years, and long-term within ten to twenty years.

Plan Maintenance

The scope of the Beatrice 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. Therefore, the city should implement an ongoing planning process which uses the plan to develop year-by year improvement programs. In addition, this process should also evaluate the plan on an annual basis in relation to the development events of the past year.

Such a process may include the following features:

• **Annual Action and Capital Improvement Program**. The Planning Commission and City Council should use the plan to define annual strategic work programs of policies, actions, and capital investments. This program should be coordinated with Beatrice's existing capital improvement planning and budgeting process, although many of the plan's recommendations are not capital items. This annual process should be completed before the beginning of each budget year and should include:

- **A specific work program for the upcoming year**. This program should be specific and related to the city's projected financial resources. The work program will establish the specific plan recommendations that the city will accomplish during the coming year.

- **A three-year strategic program**. This component provides for a multi-year perspective, informing the preparation of the annual work program. It provides a middle-term implementation plan for the city.

- **A six-year capital improvement program**. This is merged into Beatrice's current capital improvement program.

In addition, this process should include an annual evaluation of the comprehensive plan. This evaluation should occur at the end of each calendar year. Desirably, this evaluation should include a written report that:

• **Summarizes key land use developments and decisions during the past year and relates them to the comprehensive plan.**

•**Reviews actions taken by the city during the past year to implement plan recommendations.**

• **Defines any changes that should be made in the comprehensive plan.**

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

Meeting Regional Challenges: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Expand Gage County Industrial Park	Capital	•			
• Conduct a marketing program designed to recruit both businesses and new residents	Action Capital		•		
• Implement a cooperative retail development program	Action Policy		•		
• Develop a tourism network with other Southeast Nebraska cities.	Action Policy		•		
• Designate managed development areas for major residential growth.	Policy		•		
•Establish programs which develop a range of affordable housing types.	Action Policy		•		
• Monitor and encourage the expansion of US Highway 77 as an expressway from the Kansas border to Sioux City.	Capital	•			
• Upgrade to the park system, creating regional recreational amenities.			•		

A Physically Unified City: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Designate and encourage residential growth in the Southeast growth area.	Policy	•	•		
• Designate and implement the role of commercial nodes through land use policy.	Policy	•	•		
• Extend 26th Street south to Oak Street.	Capital				•
• Upgrade of Summer Street.	Capital			•	
• Establish 6th Street, Court Street and the East Beatrice Parkway as community streets with improved pedestrian environments.	Capital	•	•		
•Initiate a phased development plan for the Big Blue Bikeway.	Capital	•	•		
• Implement a facility location policy, based on equitable services.	Policy	•	•		

Room for Orderly Growth: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•In order to assure that residential development accomplishes the maximum possible benefits for Beatrice, the city should ensure adequate housing, a compact development pattern, identify targeted residential areas, and encourage innovate development patterns.	Policy	•	•		
• In order to optimize the development potential for future commercial and industrial development, Beatrice will need to designate commercial nodes and provide enough industrial and business park land to meet future demand.	Policy	•	•		
• Beatrice will need to guide development in a way that is contiguous to existing development.	Policy	•			
• The collector streets and parkway system in developing areas should be designated ahead of development and dedicated as growth takes place.	Policy	•	•		
• Beatrice's future land use map and policies should provide both guidance and flexibility to decision makers in the land use process.	Policy	•			
•Beatrice should implement an annexation program that will create opportunities for new development and facilitate the goals of the future land use plan.	Action Policy		•		

Mobility For All: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Beatrice should define the roles of various streets within its traffic system.	Action		•		
• Beatrice's major long range roads system priority should be an east side river crossing at 26th Street.	Capital				•
• Beatrice should channel industrial and truck traffic away from residential or pedestrian areas when feasible.	Capital		•		
• The local street network in developing residential areas should be designed with multiple connections and relatively direct routes.	Policy		•		
• Beatrice's streets should be designed as public spaces as well as movers of traffic.	Policy	•			
•Beatrice should maintain a continuous pedestrian network to complement the street system.	Capital	•	•		
• Beatrice should maintain the design quality of its major community corridors, allowing them to serve as attractive gateways into town and positive business and communtiy environments.	Capital	•	•		
• Beatrice should consider an upgraded transportation "service route."	Action			•	

Recreation Lifestyle: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Beatrice's park system should be a network of parks, connected by continuous green corridors defined by trails, greenways, boulevards, and civic streets.	Capital	•	•		
• Major community activity centers should have pedestrian connections to the greenway system.	Capital		•		
• Beatrice should develop major open space centers that are accessible to the community through the trail and greenway network and provide passive recreation opportunities.	Capital		•		
• Beatrice should implement a regularly budgeted, incremental program of park site improvements and upgrades at its existing parks.	Capital	•	•		
• Beatrice should establish a parksite acquistion fund, financed along with new subdivision development.	Action	•	•		

Quality Public Services: Development Constitution Summary

	Type	On-going	Short	Med.	Long
• Implement City Hall relocation plan.	Capital		•		
• Identify and implement expansion alternatives for the Fire Station.	Capital		•		
• Develop a building preservation plan for the Municipal Auditorium.	Policy		•		
• Expand the park maintenance building at Chautauqua Park to meet growing park needs.	Capital		•		
• Implement utilization plan for lower level of the Beatrice Library.	Capital		•		
• Continue the ongoing sewer rehabilitation program.	Capital	•			
• Relieve storm drainage problems at key intersections.	Capital	•			
• Continue the city's floodplain management and acquisition program.	Capital	•			
• Complete sewer treatment plant upgrades.	Capital		•		
• Complete a water main system analysis.	Capital		•		
• Implement a community-wide recycling program.	Policy	•	•		
• Bury strategic segments of the Downtown electrical distribution system.	Capital	•			•

A City of Strong Neighborhoods: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Beatrice should consider the creation of a housing partnership, organized to develop affordable housing.	Action		•		
• The Beatrice housing strategy should remove obstacles and provide new opportunities for low and moderate income buyers.	Action Policy		•		
• Beatrice should develop a mechanism which encourages subdivision development for middle and moderate cost housing.	Policy		•		
• Development of new, affordable rental housing is an important development priority for the community. When possible, new development should provide a transition to owner-occupancy and avoid a large project orientation.	Policy		•		
• Beatrice should expand existing rehabilitation and code enforcement efforts into a comprehensive, multi-faceted rehabilitation and neighborhood development program.	Action		•		
• Implement a program of strategies for each neighborhood planning district that involves neighborhood development, public facilities and parks.	Action Capital		•		

A Revitalized City Center: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Main Street Beatrice must continue to utilize its connections with the Lied Main Street Program in order to carry out the four principles of the program - Organization, Promotion, Economic Restructuring and Design.	Policy	•			
• In order to create a public environment that will support the maintenance and strengthening of Downtown as a vital center filled with activities, Beatrice should carry out the following actions:	Action Capital				
- Full utilization of Charles Park			•		
- A streetscape program linking all parts of the downtown				•	
- Creation of a sidewalk park.				•	
• In order to improve the operation of the Downtown transportation system for the benefit of both pedestrian and vehicular users, Beatrice should implement the following actions:	Capital				
- Directional information			•		
- Expanded parking				•	
• Stabilization of existing occupancy in Downtown and the conversion of vacant or underused space on street and upper levels to retail, office and residential uses.	Action	•			
• The redevelopment of a blighted area south of the downtown center as a location for new business and industry.	Action	•			
• In order to assure that public buildings, facility policies and infrastructure support the business development of Downtown, Beatrice should carry out the following actions:	Captial Action				
- Implementation of the Carnegie Library reuse study			•	•	
- Creation of a Downtown education center					
- Reconstruction of the oldest sewer lines		•	•		
- Burial of strategic overhead power lines		•			
- Street lighting that complements the overall atmosphere of the Downtown.			•		

A Place for All Ages: Development Constitution Summary

	Type	On-going	Short	Med.	Long
•Develop a gathering place for young people involving youth in the planning and administration of the facility.	Action Capital		•		
• Develop participatory recreational programs for young and old.	Action		•		
• Design and implement a program to market Beatrice to physicians.	Action		•		
• Initiate annual planning forums to update the comprehensive plan continuously.	Action Policy	•			
• Support future expansion of the Homestead National Monument and the development of a trail link to the Monument.	Policy Action		•		

Executive Summary

1.0 INTRODUCTION

This Executive Summary outlines the results of a project conducted to update the long-range transportation planning element of *The Beatrice Plan*, the city's comprehensive plan. Of particular relevance to *The Beatrice Plan* is the update to the population, employment, and future land use elements. Olsson Associates (OA) conducted the project under contract with the City of Beatrice. Funding for the project was provided, in part, through the Nebraska Department of Roads (NDOR) Comprehensive Plan Assistance Program.

1.1 Study Objective

The primary study objective was to update the long-range transportation element of *The Beatrice Plan*. The current plan was adopted in 2001 along with subsequent amendments. Development of a computerized, city-wide transportation model, in accordance with NDOR standards, was a focal point of the land use and transportation planning process. Key deliverables of this project include:

1. A state-of-the-art computerized transportation model developed using TransCAD.
2. A Long-Range Transportation Plan (LRTP) with recommended improvements prioritized for the short-, mid-, and long-range time frames. The LRTP replaces Chapter Four of the current plan.
3. Final project report to supplement the City's comprehensive plan document. The existing and future land use plans found in Chapter Three were used extensively in this project analysis.
4. Updated population and employment estimates for 2030. These estimates replace those included in Chapter One of the current plan.

The scope of work for this project was based primarily on planning level analysis. Utilizing input from City staff, several existing deficiencies were identified including congestion on US Hwy 77, atypical one-way pairs, safety concerns, school zones, and overall network consistency.

A city-wide field review was conducted as part of the model development process. Operational level recommendations, such as additional turn lanes and intersection alignments, were made for selected locations, as appropriate, based on the results of the field review. Most recommendations, however, are based on planning level analysis and are targeted at "big picture" improvements such as adding lanes to an existing roadway, replacing an at-grade railroad crossing with a viaduct, or providing a new roadway connection where no road exists today.

This distinction is important, as most major roadway improvement projects must be

identified and included in a long-range transportation plan for many years before funding becomes available.

2.0 DEMOGRAPHICS AND LAND USE

The relationship between transportation systems and land use underlies all activities related to transportation planning. Any number of projects commonly thought of as transportation planning—a bypass roadway, transit service for persons with disabilities, the location of a highway interchange—have implications for land use. As a result, no transportation planning effort can be concerned with transportation services alone.

The complexity of the land use/transportation issue is influenced by two key factors. First, the relationship between land use and transportation is reciprocal: land use patterns affect travel decisions and travel decisions affect land use patterns. Second, the activity patterns of businesses and households change independently of land use and transportation in response to changing values, jobs, age, income and preferences. Great effort must be taken to try to better understand this relationship.

Therefore, the transportation demand and land development cycle was evaluated as an effort to update *The Beatrice Plan* to ensure that transportation improvements can support new land uses, population and employment growth and redevelopment.

As noted previously, the primary focus of updating *The Beatrice Plan* was demographic analysis and land use planning analysis used to develop future population, employment and land development trends during the planning period.

2.1 Existing Conditions

Land Use

Land use defines where people live, work, and find recreation. Land use patterns shape the nature of socioeconomic data by reflecting urban and non-urban activity through population, employment, dwelling units, school enrollment, and other related demographic data. Some locations represent areas with a greater density of urban activity such as residential, commercial, industrial, institutional or recreational land uses, while some locations represent less dense activity which may include agriculture and open space.

In general, Beatrice's existing land use pattern is predominately urban in nature, with a density of approximately 4.9 dwelling units per acre of residential land. The city is the location of a community college campus, community medical facilities, a regional shopping center, and the one of the largest manufacturing operations in the region, making Beatrice the employment focal point of the region.

The predominant use of land within the planning area is residential with approximately 29.9% of the total urban land area in Beatrice. The majority of these residential uses are

single-family residential, which make up 90.5% of the residential land area. All other residential uses (Townhome/Multi-plex, Mobile home and multi-family housing) constitute only 9.5% of the residential land area. According to the 2000 US Census, 32.5% of Beatrice's housing stock is renter occupied. Commercial and office land uses account for nearly 5% of the land area in Beatrice and are concentrated in the Downtown area and along the Court Street and US Hwy 77 corridors. Just over 5% of developed land is occupied by industrial land uses. The majority of these uses are located along the northern and southern sections of the US Hwy 77 corridor and the southern sections of Downtown Beatrice. Finally, civic uses such as parks, recreation areas, and schools occupy nearly 29% of the total land area. This high percentage may be attributed to the recent annexation of the airport, the Beatrice State Developmental Center as well as the Gage County Fairgrounds located in south Beatrice. The existing land use map (found immediately after pg. 38) illustrates these land uses.

Population and Employment

Beatrice is the County Seat and population center of Gage County. With a population of nearly 13,000, Beatrice has nearly 55% of the population in Gage County. According to the 2000 US Census, it is estimated that total labor force within Gage County is 12,098. Over the past decade, employment growth has occurred, to a large extent in the manufacturing of durable goods and services. The largest gains occurred in the manufacturing of durable goods, growing by 43%. The majority of Beatrice's commercial growth has occurred outside of the traditional downtown area. The most recent growth of industrial development has occurred along the US Hwy 77 corridor. Currently the city is in competition with many other communities including Lincoln. This competitive position makes the city's current policies and actions very important to secure future residents and employers.

2.3 Population and Employment Projections

The Beatrice Plan was used as the basis for the population, employment and land use projections for the transportation modeling process. The plan summarizes the prospects for population growth as follows:

> "During the next twenty years, the city should expect a cumulative demand of 1,035 residential units. The estimated housing demand and estimated household sizes for the next twenty years will produce a population of about 14,500 persons by 2020." (*The Beatrice Plan*, pg. 12)

Beatrice's diverse regional economy includes substantial employment in retail trade, manufacturing and health care sectors. In fact, Beatrice has experienced strong retail sales growth since 1995. From 1995 to 1999, the City reported nearly 14% growth in retail sales. The increase in retail sales has occurred at the same time that commercial land in Beatrice has been decreasing. Due to this paradox, it becomes necessary to use a population to service relationship to estimate future commercial land needs. This projection method results in an estimated future commercial land use need of 36 acres.

Although industrial land is not directly related to population growth, it is appropriate to employ this same method to approximate the future land use need. The resulting future industrial land use need is between 37 and 44 acres.

The strong retail base, along with a diverse manufacturing base, regional medical facilities, Southeast Community College as well as easy transportation to southeast Nebraska and Lincoln, create a positive employment and economic climate for Beatrice now and into the foreseeable future. Future employment projections for the planning period were based on the population projection for 2020.

Table 2.1

	Beatrice Population Projections, 2000 - 2030 (Birth Rate = 53.4 per 1000)							
	2000	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**% Change 2000 - 2030**
5.0% In Migration	12496	12486	12730	13155	13667	14185	14668	17.38%

Table 2.2

Beatrice Future Employment Projections - 2030	
Employment Land Use	***Estimated Employment***
Retail	3083
Shopping Center	1807
Office / Financial	4433
Medical Office	313
Elem/Middle School	321
High School	110
College	142
Hospital	1316
General Light Industrial	139
General Heavy Industrial	522
Manufacturing	3567

2.4 Future Land Use

Once again, *The Beatrice Plan*, was the basis for developing future land use projections for the transportation model. Population and employment estimates were tested against the future land use recommendations included in the plan. The plan outlines future land use policies as follows:

> "Beatrice's new development will serve the city best if it is managed, that is, channeled to areas that will best fulfill Beatrice's community development potential."

The City's growth program should:

1. Designate phased growth areas for residential development, designed to provide the appropriate amount of land for urban conversion in places that provide for both economic and energizing new development.
2. Assign specific profiles to individual commercial areas and encourage appropriate development of each area. Encourage adequate commercial growth to respond to market needs supported by the City services such as water, sewer and roads.
3. "Encourage further industrial expansion and economic development through the development of new business environments." (*The Beatrice Plan*, pg 43)

The future land use map (found immediately after pg. 56) recommends identifying distinct development phases to provide for sound growth and urban development, consistent with the contiguous expansion of urban services. This phase system is designed to permit logical extension of urban services and appropriate development, and to avoid hemming urban growth inside rural density subdivisions using rural roadway standards.

The specific location of population and employment expansions were based on the progression of development through the four-phase development format outlined in the plan. Key areas of development over the planning period include continuing commercial development along eastern Court Street and northern US Hwy 77 corridors. Industrial growth for Beatrice is concentrated in the expansion of the existing Gage County Industrial Park located in northwest Beatrice. Primary growth areas for residential land uses are projected in largely the eastern part of the City and to a lesser extent in the southern part of the City.

3.0 SUMMARY

The Update to *The Beatrice Plan* focuses on Long Range Transportation Plan. Most recommendations are based on planning level analysis and are targeted at "big picture" improvements such as adding lanes to an existing roadway, replacing an at-grade railroad crossing with a viaduct, or providing a new roadway connection where no road exists today.

The basis for the LRTP recommendations are the updated population and employment estimates included in the tables in this Executive Summary. Largely, *The Beatrice Plan* remains unchanged and continues to be a relevant guidance document for private and public investment today.

Appendix A: Energy Element

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Introduction

The energy element for the Beatrice Comprehensive Plan provides a profile of existing energy use by sector *(Residential, Commercial, Industrial, and Transportation)*, the utilization of renewable energy sources, strategies and actions for the community, and a summary of the Nebraska Energy Code. Additionally the document will provide an assessment of energy security as well as the identification of areas best suited for future development. This chapter has been prepared in accordance with Nebraska State Statute 19-903(4). The purpose of this legislation is to ensure Nebraska communities have an energy plan to benefit from emerging technologies to reduce energy related costs.

State of Nebraska Energy Use

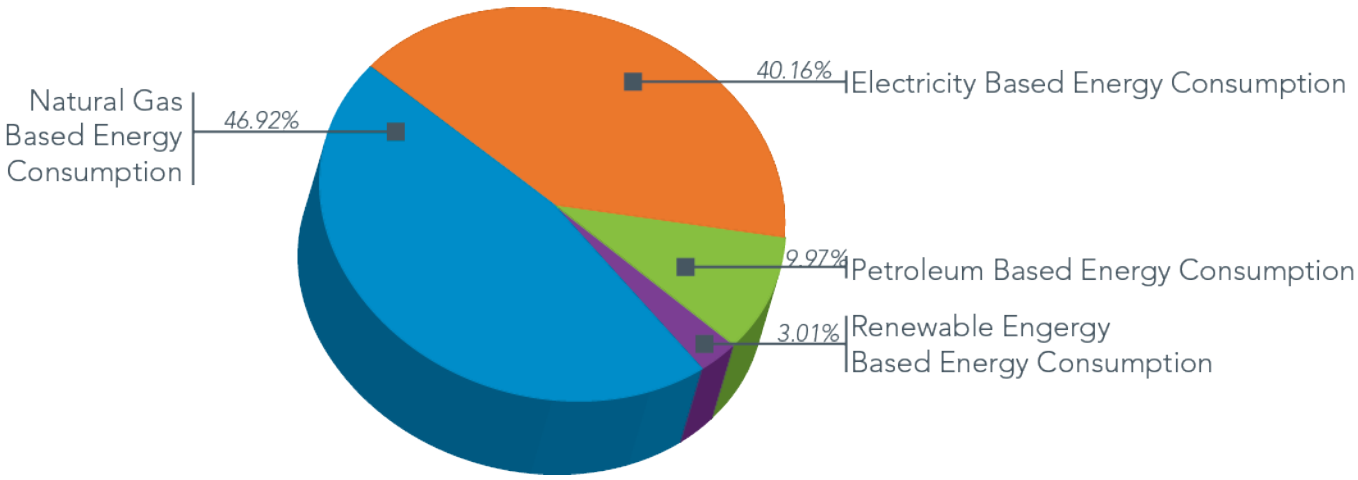
INFRASTRUCTURE AND ENERGY USE BY SECTOR

The energy utilization data displayed in the section is drawn from the Nebraska Energy Office and depicts energy consumption patterns on a state-wide level. This data obtained from state agencies are used to evaluate State energy production. This data is reported by sector *(Residential, Commercial, Industrial, and Transportation)* and by fuel type *(Renewable and Non-Renewable)* pursuant to the state statute governing energy element reporting. Please note that the figure for energy use by sector in the State of Nebraska may not equal the sum of the components due to independent rounding of these figures during the data collection process.

residential

The residential sector consists of private households residing in single family, duplex, and multifamily units. Energy is chiefly spent on space heating, water heating, air conditioning, refrigeration, cooking, clothes drying, and lighting. In 2010, a total of 85.87 Trillion British Thermal Units *(BTUs)* were used by residential sector energy users. Of this amount, 46.92% of the residential sector's energy consumption was from natural gas, 40.16% from electricity, 9.97% from petroleum products, and 3.01% from renewable energy. Between 2009 and 2010, residential sector net energy use increased by 3.02%. As of 2010, the State of Nebraska ranked 36th of 50 states in energy consumption by Residential Sector.
Source: US Energy Information Administration, State of Nebraska Energy Data Report

Figure 1 | NE Residential Sector Energy Use (2010)

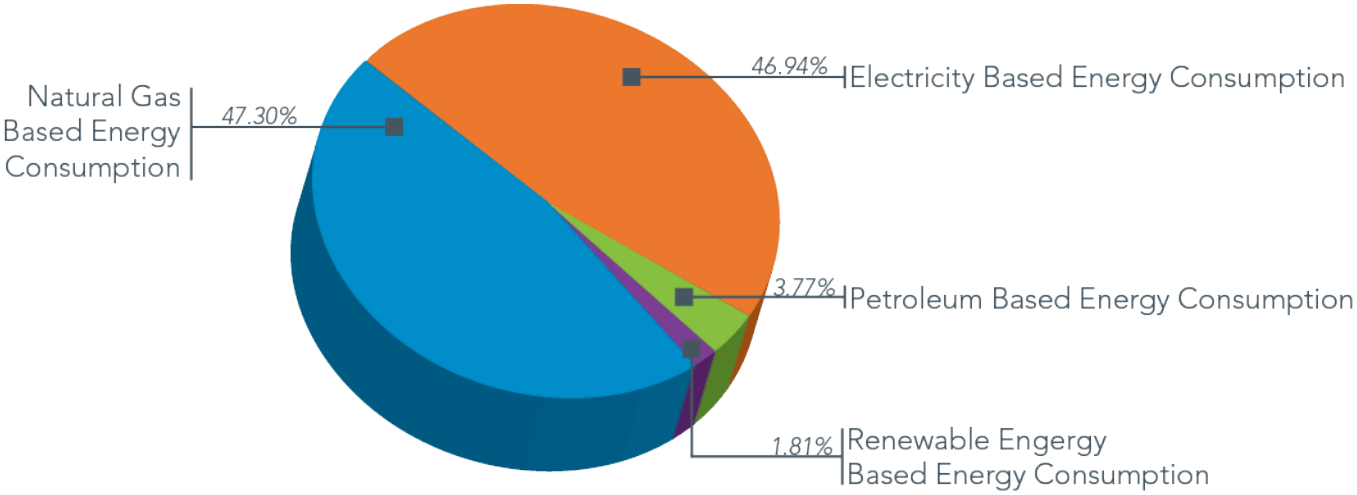


commercial

The commercial sector consists of nonmanufacturing business establishments including hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other enterprises; health, social and educational institutions; and federal, state, and local governments. In 2010, a total of 68.76 Trillion BTUs were used by commercial sector energy users. Of this amount, 46.94% of the commercial sector's energy consumption was from natural gas, 47.30% from electricity, 3.77% from petroleum products, and 1.81% from renewable energy. Between 2009 and 2010, commercial sector net energy use increased by 1.94%.

Source: US Energy Information Administration, State of Nebraska Energy Data Report

FIGURE 2 | NE COMMERCIAL SECTOR ENERGY USE (2010)

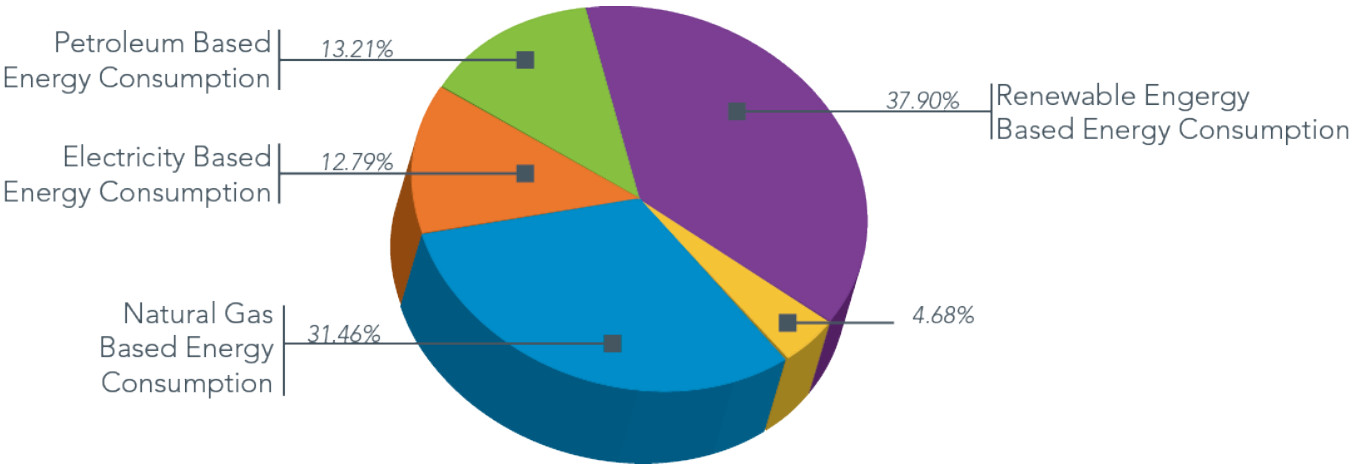


industrial

The industrial sector consists of manufacturing, construction, mining, agriculture, and forestry organizations. In 2010, a total of 272.06 Trillion BTUs were used by industrial sector energy users. Of this amount, 31.50% of the commercial sector's energy consumption was from natural gas, 12.81% from electricity, 13.22% from petroleum products, 37.90% from renewable energy, and 4.68% from coal. Between 2009 and 2010, industrial sector net energy use increased by 14.82%.

Source: US Energy Information Administration, State of Nebraska Energy Data Report

FIGURE 3 | NE INDUSTRIAL SECTOR ENERGY USE (2010)



transportation

The transportation sector consists of private and public vehicles that move people and commodities. In 2010, a total of 182.60 Trillion BTUs were used by transportation sector energy users. Of this amount, 93.21% or 169.83 BTUs of the transportation sector's energy consumption was from petroleum products *(54.24% from motor gasoline, 35.22% from diesel fuel, 2.57% from jet fuel, 0.13% from Aviation Gasoline, and 0.95% from lubricants)*. Of energy consumed in the State of Nebraska Transportation Sector natural gas and ethanol comprised 4.05% and 2.74%; respectively. Between 2009 and 2010, transportation sector net energy use increased by 6.64%.

Source: US Energy Information Administration, State of Nebraska Energy Data Report

FIGURE 4 | NE TRANSPORTATION SECTOR ENERGY USE (2010)

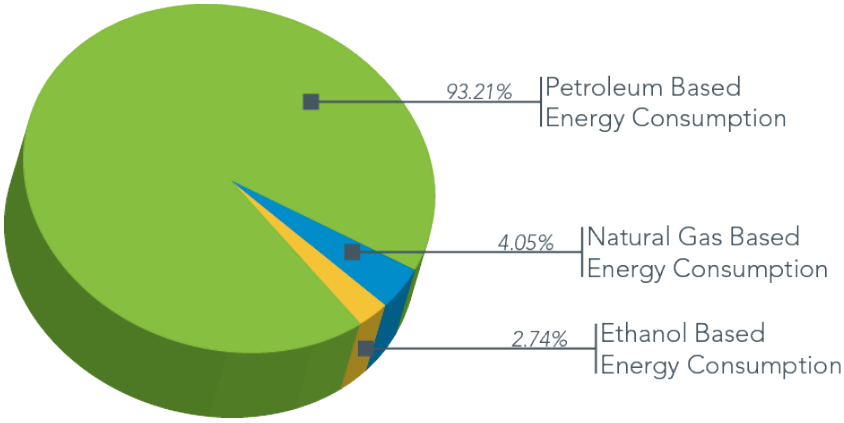
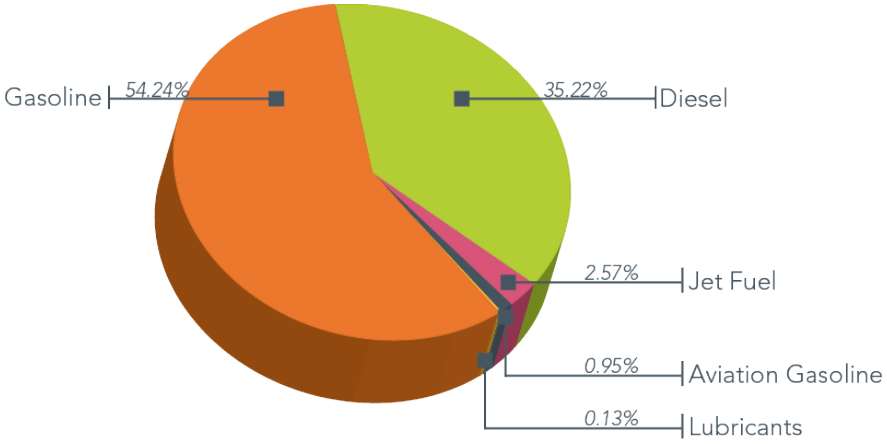


FIGURE 5 | NE TRANSPORTATION SECTOR PETROLEUM USE (2010)



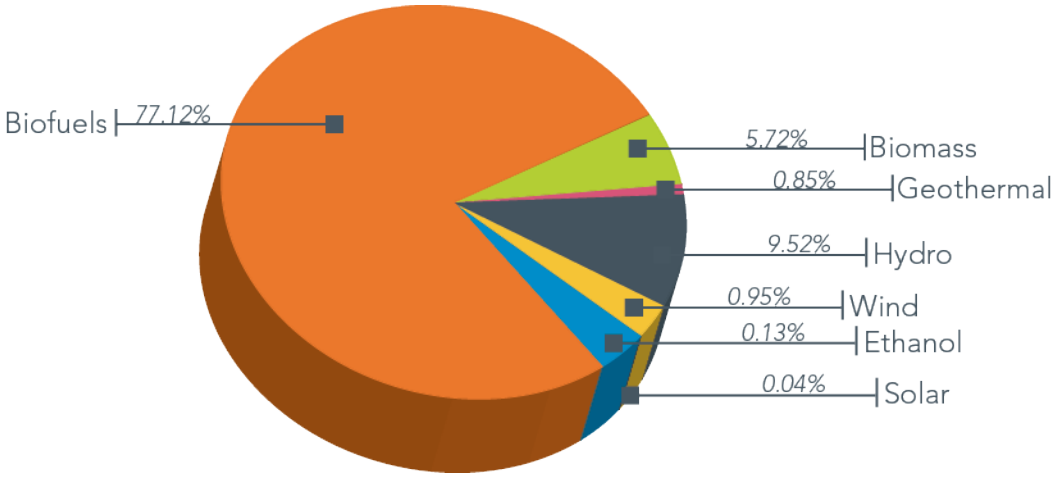
UTILIZATION OF RENEWABLE ENERGY SOURCES

In 2010, a total of 129.72 Trillion BTUs of renewable energy was used in the State of Nebraska. Of this amount, biofuels accounted for 80.1%; biomass 7.70%; geothermal 0.9%; hydro power 12.82%; wind 4.11%; and solar 0.04%. Total 2010 renewable energy use in the State of Nebraska accounts for approximately 15.37% of overall energy use. The United States, by comparison, used a lower percentage of its overall energy from renewable sources for the year 2010; t8.28%. Between 2009 and 2010, renewable energy use increased by 48.17%.

Source: US Energy Information Administration, State of Nebraska Energy Data Report

t Source: Trends in Renewable Energy Consumption and Electricity 2010, released 12/11/2012

FIGURE 6 | NE RENEWABLE ENERGY USE (2010)



City of Beatrice Electric Energy Use and Cost

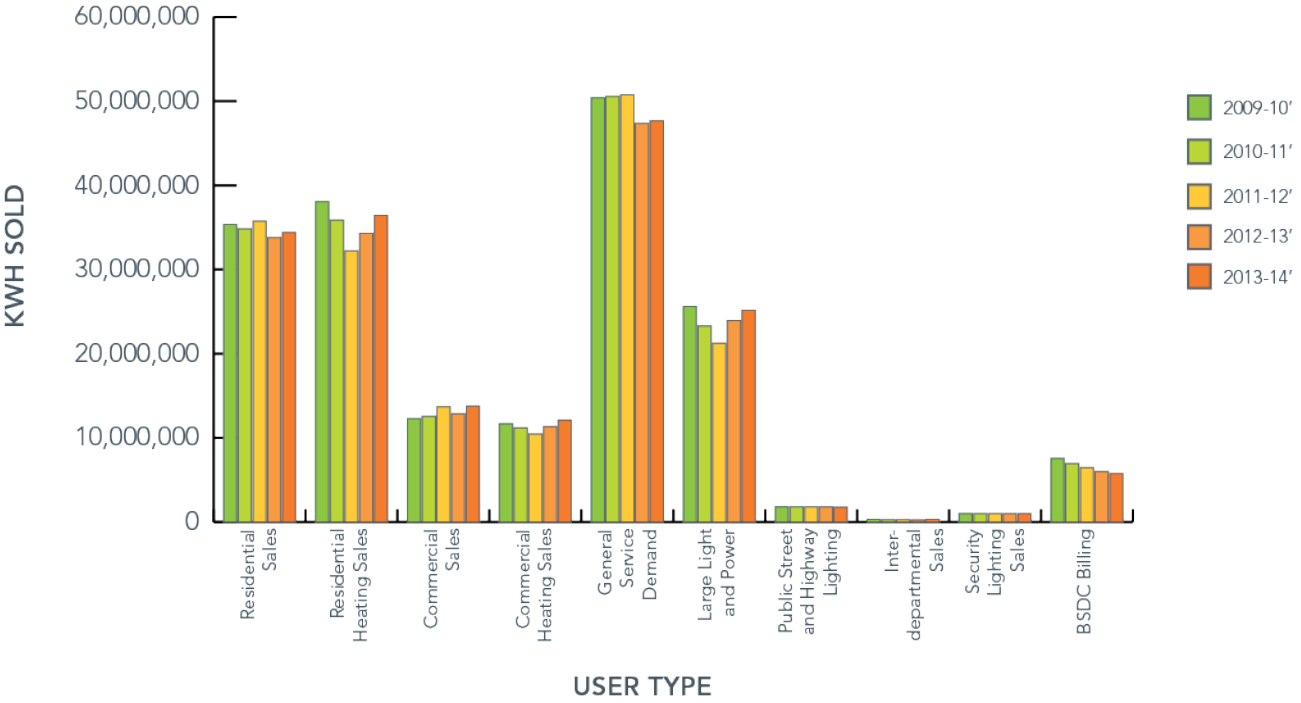
Additional information regarding the local energy use in Beatrice was obtained from the Beatrice Board of Public Works *(BPW)* office. This data provides a tally of the amount of energy sold by specific user types and the per-unit cost associated with each user type. This data was provided for the period from 2009 to 2014 allowing for a greater analysis of local energy use trends.

The reported data contains information which pertains only to the community of Beatrice. This distinction allows for a better look at the energy use within the city. Energy use is divided into several user groups or categories;

- Residential Sales
- Residential Heating Sales
- Commercial Sales
- Commercial Heating Sales
- General Service Demand
- Large Light and Power
- Public Street and Highway Lighting
- Interdepartmental Sales
- Security Lighting Sales, and
- Beatrice State Development Center (BSDC)

ENERGY USE BY USER TYPE

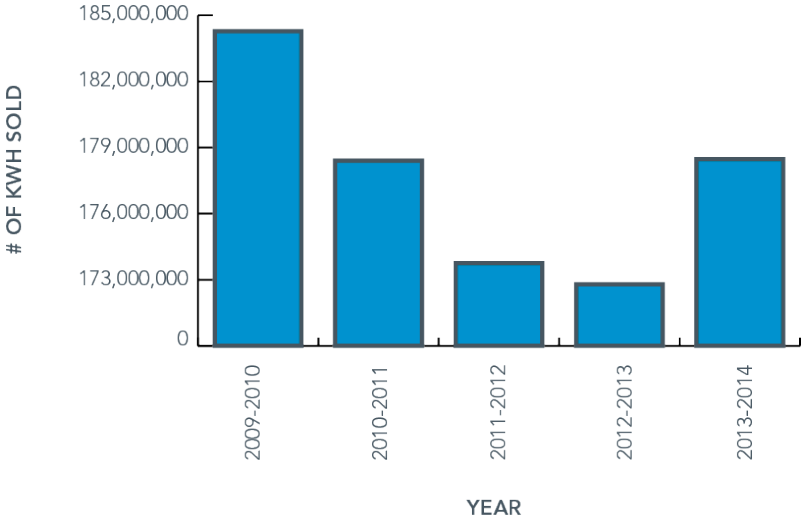
Figure 7 | Beatrice Energy Use by User Type; Beatrice Public Works (2014)



The amount of energy purchased by Beatrice users has been fairly stable from 2009 to 2014 *(Figure 7)*. In fact the overall usage of energy measured by kWh sold has gone down by approximately -3.15%. Of all reported user types only two showed an increase in energy sold from 2009 to 2014; Commercial Sales *(+11.95%)* and Commercial Heating *(+3.58%)*. All other user types experienced a decrease in energy use from 2009 to 2014. The five users groups with the largest decrease in kWh sold include; BSDC billing *(-23.96%)*, General Service Demand *(-5.46%)*, Residential Heating Sales *(-4.27%)*, and Interdepartmental Sales *(-3.44%)* and Public Street and Highway Lighting *(-3.29%)*.

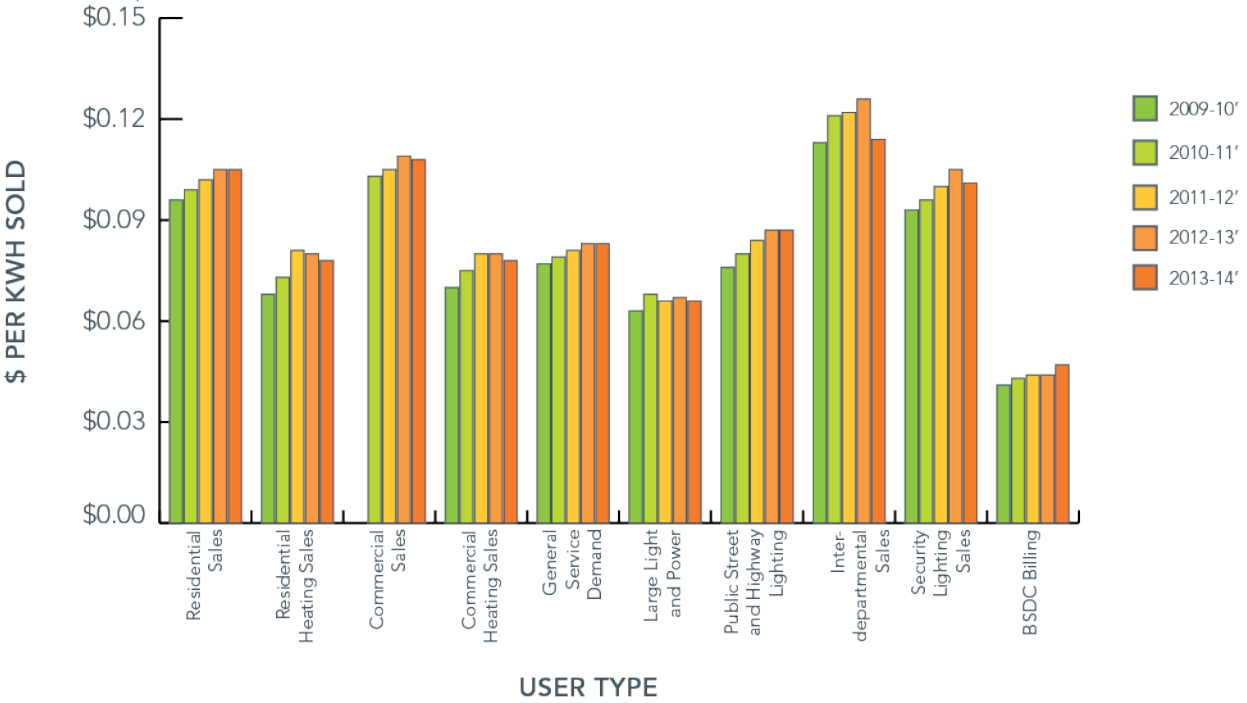
As a measure of total energy sales from 2009 to 2014 *(Figure 8)* energy sales peaked in 2009-2010 at 184,275,823 kWh sold. This amount of total energy sold experienced a continual decrease until 2012-2013 when BPW reported a total of 172,796,050 kWh sold. In year 2013-2014 the BPW reported an increase in total energy sold of 178,471,706. Overall, the reported five year period shows a decrease in energy sold by -3.15% or 5,804,117 kWh.

FIGURE 8 | TOTAL ENERGY SALES 2009-2014; BEATRICE PUBLIC WORKS (2014)



ENERGY PRICE BY USER TYPE

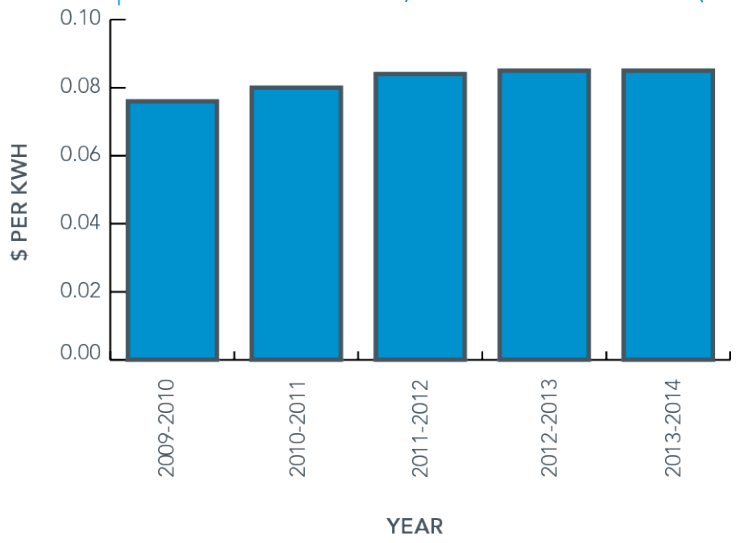
FIGURE 9 | COST OF ENERGY BY USER TYPE; BEATRICE PUBLIC WORKS (2014)



The cost of energy purchased by the community of Beatrice has experienced a slow but steady increase from 2009 to 2014. From 2009 to 2014 every user type experienced an increase in the price per kWh sold. The five largest increases occurred within the following user types; Residential Heating *(+15.03%)*, BSDC Billing *(+14.89%)*, Public Street and Highway Lighting *(+14.39%)*, Commercial Heating Sales *(+11.56%)*, and Residential Sales *(+10.23)*. The lowest increase in price per kWh sold occurred in the following five categories; Interdepartmental Sales *(+0.76%)*, Large Light and Power *(5.12%)*, General Service Demand *(+7.67%)*, Commercial Sales *(+8.15)*, and Security Lighting Sales *(+8.42%)*.

The average cost for all user types, for kWh sold in Beatrice shows a general increase from 2009 to 2014. For this period, 2009-2010 billing period recorded the lowest cost per kWh sold *($0.76)*. The highest price was recorded in the 2012-2013 billing period *($0.85)*. During the reported five year period the cost per kWh sold increased by $0.09 or 10.55% of the 2009-2010 price point.

FIGURE 10 | AVERAGE COST PER KWH; BEATRICE PUBLIC WORKS (2014)



ENERGY USE PER CAPITA

A measurement of the population as a function of energy use is useful to analysis. This measurement can help to shed light on the rise or fall of energy use. Many factors can influence energy use such as the general strength of the economy, a more or less severe summer or winter, or some other factor which might somehow impact how much energy the community needs. The number of persons living in Beatrice is another factor of energy use. The process of creating this measure involves the comparison of the number of persons reported as residents of Beatrice and the corresponding number of kWh sold. This ratio for the period from 2009 to 2014 is reported below.

The first step in creating a per capita measure of energy use in Beatrice was to collect data pertaining to the local population. This process is simplified by the US Census and its reported data. The Census reports population counts for the years 2010 through 2013. The year 2010 count was provided as a part of the Decennial Census. The years 2011 through 2013 are also reported by the Census as a part of the American Community Survey estimates. This left just one year left to estimate; year 2014. To this end this report employed a straight line estimate based upon the years 2010 through 2013. The resulting population counts and estimates for Beatrice are provided in Figure 11.

Once local population can be estimated the number of kWh sold is divided by the population. This division results in the number of kWh sold per user type for each resident for a given year.

Based upon a measure of kWh sold per resident, General Service Demand consistently comprises the single largest user type. Residential Heating Sales and Residential Sales are the second and third largest categories, respectively *(Figure 12)*.

FIGURE 11 | BEATRICE POPULATION CHANGE 2010-2014; US CENSUS 2009-2013 ACS

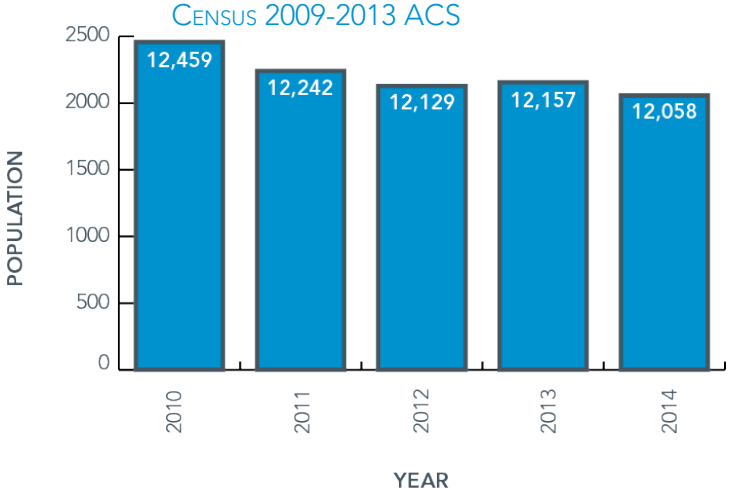
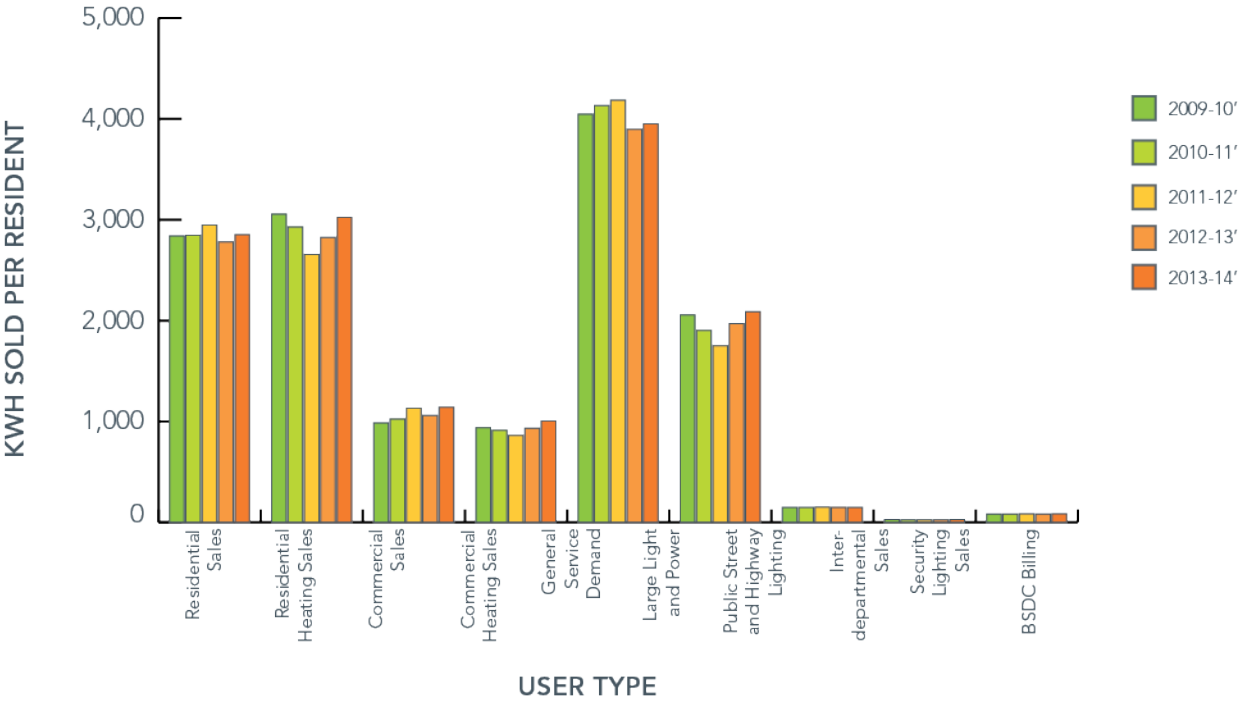


FIGURE 12 | ENERGY USE PER CAPITA; BEATRICE PUBLIC WORKS (2014)



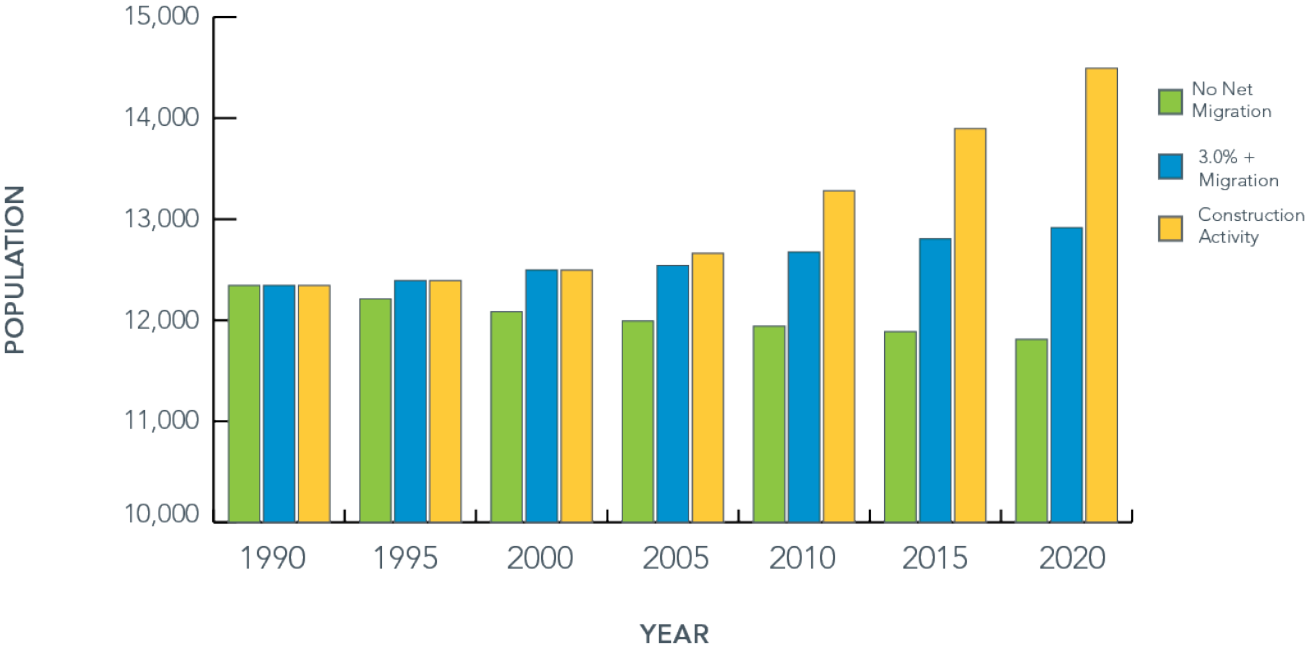
An alternative analysis of energy use per capita is a review of the total kWh sold in relation to the population of Beatrice *(Figure 13)*. From 2009 to 2013 the amount of energy sold per Beatrice resident fell, more or less in relation to the falling population count for community residents. However, in the billing period 2013-2014 the amount of energy sold per resident rose sharply. As mentioned earlier, there are many potential factors which can affect the amount of energy used within any one area. Nevertheless, this simple measurement of energy sold compared to local population suggests that Beatrice might be using a greater amount of energy and potentially achieving lower levels of energy efficiency in the 2013 to 2014 period.

FIGURE 13 | TOTAL ENERGY USE PER CAPITA; BEATRICE PUBLIC WORKS (2014)

City of Beatrice Energy Use Projection

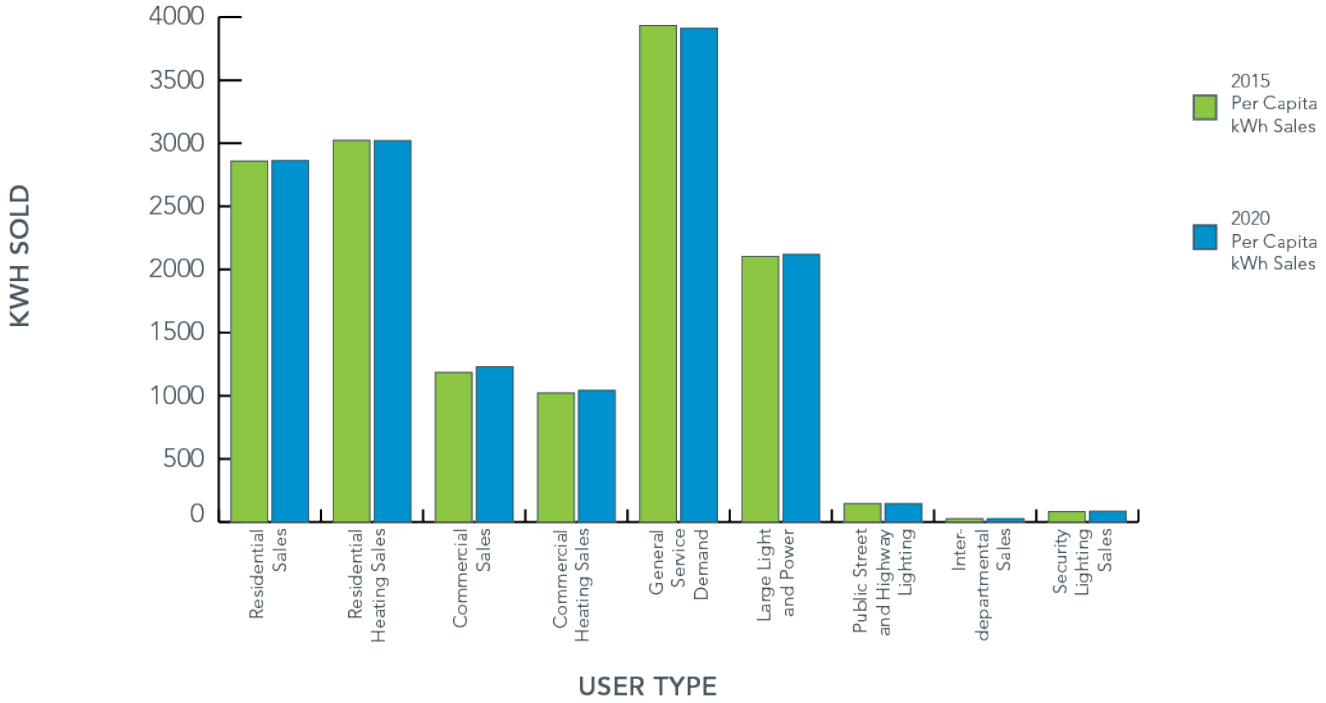
A projection of energy use can be useful for city officials to help plan for the future. This measure can help to provide insight into the future needs of the community and allow for consideration of the existing energy system's ability to serve now and in the future. The current comprehensive plan which was last updated in 2006 provides a projection of the Beatrice population. A re-production of this data is provided in Figure 14.

FIGURE 14 | 2006 BEATRICE POPULATION PROJECTIONS; BEATRICE COMPREHENSIVE PLAN



The population projection for Beatrice includes the provision of multiple scenarios for population change. The 2006 Beatrice Comprehensive Plan recommends that the city plan for a future population scenario that includes 3.0% In-Migration. This scenario assumes that the community will grow at a rate equal to the natural growth expected from local residents as well as a number of new residents moving into Beatrice at a rate of approximately 3.0% annually. This assumption regarding population change in Beatrice projects a 2015 population of 12,806 residents and a 2020 population of 12,915 residents. These figures were utilized for the purpose of projecting future energy use.

FIGURE 15 | PROJECTED KWH SOLD PER CAPITA



Given that energy use by user type has been fairly stable during the period 2009 – 2014 and that the projected population growth from 2015 to 2020 is also fairly stable the projected energy use for the years 2015 and 2020 is equally stable. The total, projected kWh sold for 2015 and 2020 are 184,243,952 kWh and 186,673,983, respectively. This increase constitutes an approximate 0.46% annual increase.

Nebraska Energy Code

Nebraska has adopted the 2009 International Energy Conservation Code *(IEEC)*, effective August 2011. Cities and counties may adopt codes that differ from the Nebraska Energy Code, but state law requires the adopted code to be equivalent to the Nebraska Energy Code. For existing buildings only those renovations that will cost more than 50% of the replacement cost of the building must comply with the code. Additional information regarding the Nebraska Energy Code can be found at the Nebraska Energy Office website.

Because consumers have an expectation that newly constructed houses and buildings meet uniform energy standards, the Legislature adopted the IEEC in order to:

1. Ensure that a minimum energy efficiency standard is maintained throughout the state;
2. Harmonize and clarify energy building code statutory references;
3. Ensure compliance with the National Energy Policy Act of 1992;
4. Increase energy savings for all Nebraska consumers, especially low-income Nebraskans;
5. Reduce the cost of state programs that provide assistance to low-income Nebraskans;
6. Reduce the amount of money expended to import energy;
7. Reduce the growth of energy consumption;
8. Lessen the need for new power plants; and
9. Provide training for local code officials and residential and commercial builders who implement the 2009 IEEC.

Renewable Energy Types

SOLAR AND WIND EASEMENTS, LOCAL OPTIONS, AND SEVERABILITY

In 1979 the State of Nebraska created a policy which creates binding solar and wind easements for the purpose of protecting and maintaining proper access to sunlight and wind for property owners *(N.R.S. 66-901 et seq)*. The creation of these binding easements may not exceed 40 years and will terminate if construction of the solar and/or wind generation site does not commence prior to 10 years after the effective date of the easement. Any easement may be extended if all parties involved agree. Local governments are given broad discretion to ensure solar and wind energy resources. Counties and municipal governments are permitted to develop zoning regulations, ordinances, or development plans that protect access to solar and wind energy resources. The provision of solar and wind easements can be provided via the provision of zoning variances, so long as the variance is not detrimental to the public good.

Additional information can be obtained from http://www.revenue.ne.gov

RENEWABLE ENERGY RESOURCES

Increasingly, the provision of renewable energy resources is seen as a desirable alternative to the generation of power from fossil fuels. Many renewable projects promise the possibility of bringing new jobs, increasing local economic investment, and avoiding or offsetting pollution from non-renewable

sources. However, the provision of renewable energy can be negatively affected by the economics of its implementation. The organization of electric power generation and distribution in the State of Nebraska provides a unique scenario for the provision of renewable energy resources. Nebraska is the only state in the union which is entirely provided with electric power by public utilities. These entities are structured in such a way as to reduce or remove all profits. This business model has helped to provide the state with some of the lowest prices for electric power in the nation. This scenario has also made renewable energy projects more difficult to implement since the potential cost savings from utilizing renewable energy are mitigated in part or whole by the low cost of non-renewable energy distributed by the public utilities. Due to this reality it is very important that any organization or municipality looking to develop renewable energy resources understands the economic impact of its installation. Below is a list and brief description of renewable energy resources for Beatrice.

WIND POWER

According to the American Wind Energy Association *(AWEA)*, the major types of wind power are: utility-scale wind, distributed or "small" wind, and offshore wind. Of the first two options utility-scale wind generation is defined as being larger than 100 kilowatts, typically developed and maintained by electric utilities. The second option is defined as being smaller than 100 kilowatts. These small wind options typically power a home, farm, or small business as its primary use.

The United States has approximately 60,000 megawatts of wind capacity installed. According to the AWEA, this capacity is facilitated by the nearly 45,100 large scale wind turbines, with the power equivalent of over 15 million American homes. Nevertheless, this capacity represents less than 1 percent of the estimated total wind energy resources, from land-based wind energy, in the United States of over 10 million megawatts. As of the third quarter of 2014, AWEA reports that within the state of Nebraska, 811 megawatts of wind energy has been installed making Nebraska the 18th largest producer of wind energy in all of the 50 states. According to the National Renewable Energy Laboratory *(NREL)*, Nebraska is capable of producing 917,999 megawatts of wind energy.

NREL has collected wind speed data for Nebraska. The result provides an estimate of the suitability of wind energy generation through the state. This data was prepared for three specific scenarios; utility-scale wind turbines, community-scale wind turbines, and residential-scale wind turbines. The three separate scenarios are distinguished by the typical height of the installed wind turbine. Utility-scale projects are between 80 to 100 meters in height, community-scale projects are greater than 50 meter in height, and residential-scale projects are typically less than 30 meters. At these three heights, the NREL reports that the areas in the Beatrice vicinity provide suitable wind speeds for all three wind project types. The most suitable of these three is the residential-scale project and the least suitable is the community-scale project.

SOLAR POWER

Solar power generation is generally separated into two types; passive and active solar. This distinction is based upon the way that the energy from the sun is captured, converted, and distributed as usable energy. Passive solar techniques include orienting a building to utilize the sun for lighting/heating purposes and using building materials which also promote the creation of lighting/heating of an interior space. Active solar technologies include installations which employ solar collectors for the conversion of sunlight into electricity. The conversion of sunlight into electricity is done either by using photovoltaics *(PV)* or concentrated solar power *(CSP)*. PV solar systems utilize technology which can directly convert sunlight into electricity using semiconductors. CSP solar systems employ a series of mirrors to concentrate sunlight to drive a heat engine which in-turn generates electricity.

NREL has conducted a spatial analysis of each of the 50 states, identifying the amount of sunlight available and those sites best suited to capture this potential energy. By this measure the NREL has

identified the State of Nebraska as having the 13th largest potential for Rural Utility-scale Photovoltaic power generation. The NREL estimates that Nebraska could potentially generate approximately 9,266,757 GWh per year.

A special consideration for the implementation of solar power in Beatrice is the cost associated. The price of solar, particularly the price of Utility-scale PV projects have decreased. Under the SunShot Initiative, the NREL has a set a goal of providing solar power at 6 cents per kWh. The NREL reports that from 2010 to 2013 the price of solar has decreased every year from a high of 21.4 centers per kWh in 2010 to a price of 11.2 cents per kWh. During the same time period the costs associated with the hardware have decreased by approximately 48 percent while the costs associated with permitting, inspection, and installation have decreased by only 30 percent. While there are existing Federal and State incentives are already in place, additional financial assistance may be required to encourage solar power in Beatrice. In the end, the economics of solar power and zoning regulations will help to determine the amount of solar which may be implemented in Beatrice.

BIOMASS POWER

Biomass is defined as biological materials which either are or were recently living organisms. As an energy source Biomass can be converted directly into energy by burning the materials to produce heat or indirectly by converting biomass materials into some kind of fuel. Examples of direct-source biomass include; agricultural residues, wood residues, or municipal discards. Indirect biomass sources include; switchgrass, hemp, corn, soy, sorghum, sugarcane, bamboo, and a variety of other plant species. Indirect energy generation from biomass can result in a number of fuel types. Some of the most well-known include ethanol, biodiesel, and methane gas. Both ethanol and biodiesel can be produced by a process of fermentation of various types of land based agriculture such as corn and soy. Additionally, methane gas can be collected from rotting garbage, agricultural waste, and human waste.
NREL reports that Nebraska could potentially generate approximately 14,792,723 tons annually. The calculated potential energy generation is assumed at 1.1 MWh/ton of Biomass. By this measurement, the State of Nebraska would be the 4th largest generator of biomass energy.

GEOTHERMAL

Geothermal energy is energy that is stored in the earth. Geopower can be cost effective and environmentally friendly. However, this type of renewable energy has been traditionally limited to areas near tectonic plate boundaries. Recent technological advances have dramatically expanded the range and size of viable resources, especially for applications such as home heating. The earth's geothermal resources are theoretically more than adequate to supply humanity's energy needs, but only a very small fraction may be profitably exploited. Drilling and exploration for deep resources is very expensive. Small-scale geothermal application would be the most appropriate and practical for Beatrice residents. One example of small-scale geothermal power is a residential heat pump. This type of energy generation moves fluids through continuous pipeline loops that are buried underground at depths where the temperature does not fluctuate much. Heat picked up by the circulating fluid can be delivered to a building by a traditional central heating system. Heat pumps discharge waste heat into the ground in the summer months and extract heat from the ground in the winter months.

Funding Sources

RENEWABLE ENERGY TAX CREDIT (CORPORATE)

This tax credit provides for corporate entities to reduce the Nebraska income tax liability or to obtain a refund of state sales and use taxes paid by the corporate entity which implements an eligible renewable technology. Said eligible technologies include; solar, landfill gas, wind, hydroelectric, geothermal electric, fuel cells, anaerobic digestion, and fuel cells using renewable fuels. This corporate tax credit can be applied to; commercial, industrial, residential, or agricultural land or establishments.

Additional information can be obtained from http://www.revenue.ne.gov/.

RENEWABLE ENERGY TAX CREDIT (PERSONAL)

Much like the above referenced Corporate Energy Tax Credit, this tax credit allows for private citizens of Nebraska to reduce Nebraska income tax liability or to obtain a refund of state sales and use taxes paid by the private citizen which implements an eligible renewable technology. Eligible technologies are the same for this personal energy tax credit as those referenced in the corporate tax credit.

Additional information can be obtained from http://www.revenue.ne.gov/.

PROPERTY TAX EXEMPTION FOR WIND ENERGY GENERATION FACILITIES

In 2010 Nebraska state legislature passed L.B. 1048 which allows for a tax exemption for all "Real Property" directly associated with the generation of wind power. Only renewable energy generated via wind power are eligible for this tax exemption. As stated within L.B. 1048, Real Property is defined as those lands "associated with wind energy generation include*(ing)*, but not limited to, concrete pads, foundations, operations and maintenance buildings, road construction, leasehold value, and lease payments."

Additional information can be obtained from http://www.revenue.state.ne.us/.

SALES AND USE TAX EXEMPTION FOR COMMUNITY RENEWABLE ENERGY PROJECTS

In 2007 Nebraska state legislature passed L.B. 402 which establishes an exemption from sales and use tax from the sale, lease, or rental of personal property for use in a community-based energy development *(C-BED)* project. An eligible project includes any new energy generation using wind, solar, biomass, or landfill gas that has at least 25 percent of the gross power purchase agreement to the property owner or owners as payment to the local community.

Additional information can be obtained from http://www.revenue.ne.gov/.

SALES AND USE TAX EXEMPTION FOR RENEWABLE ENERGY PROPERTY

In 2013 Nebraska State Legislature passed L.B. 104 which allows for the refund of sales and use taxes for a renewable energy system used to produce electricity for sale. Eligible projects must include investments of at least $20 million. Eligible sources of renewable energy include; but are not limited to, wind, solar, geothermal, hydroelectric, biomass, and transmutation of elements.

Additional information can be obtained from http://www.revenue.ne.gov/.

DOLLAR AND ENERGY SAVINGS LOANS

In 1990 Nebraska State Legislature created the Nebraska Dollar and Energy Savings Loan program which makes available low-interest loans for residential and commercial energy efficiency improvements and renewable energy projects. Eligibility for these low-interest loans is based upon two circumstances; first, a project may be eligible if it includes implementation of prequalified improvements or second,

a project may be eligible if an energy audit is created which verifies that the project will have a reasonable payback period.

Additional information can be obtained from http://www.neo.ne.gov/loan/.

NEBRASKA PUBLIC POWER DISTRICT (NPPD) - COMMERCIAL ENERGY EFFICIENCY REBATE PROGRAMS
NPPD offers multiple rebates for commercial, agricultural, and industrial customers to save energy in eligible facilities. Eligible rebates are available for lighting, heat pumps, central air conditioners, energy management systems/building controls, motor variable frequency drives *(VFDs)*, HVAC optimization, irrigation pumps, etc. The rebate is available to users categorized as commercial, industrial, nonprofit, local government, state government, and federal government.

Additional information can be obtained from http://www.nppd. Com/save-energy/for-your-business/.

NEBRASKA PUBLIC POWER DISTRICT (NPPD) – RESIDENTIAL ENERGY EFFICIENCY REBATE PROGRAMS
NPPD offers additional rebates for residential customers. These rebates can be applied to the implementation of heat pumps, building insulation, and cooling system tune-ups. These rebates can apply to both the individual homeowners as well as the installing contractor.

Additional information can be obtained from http://www.nppd. Com/save-energy/for-your-home/.

Utilities Location Analysis

Improved energy conservation within Beatrice can be achieved through the implementation of practices and programs discussed throughout this report thus far. However, it is also important to understand the existing infrastructure which supplies the city with resources, vital to the provision of basic public services. To that end, three of the city's utility systems have been analyzed. This analysis was focused on the location of existing facilities located within the city of Beatrice and those areas within 2 miles of the city limits. In this way, the community can be evaluated to determine which areas are near or far away from these infrastructure elements. The approximate distance of any area to the existing utilities provides an indication of the amount of time, money and resources that will be needed to facilitate these utilities for future development.

Targeted Beatrice utilities were analyzed by first identifying and categorizing utility line segments based upon voltage carried *(for the electrical network)* and upon line diameter *(for the water network)*. This utility categorization is intended to provide a relative estimate of capacity. Each of the two utilities was placed in two groups; one which can provide a higher capacity and another which can provide a lower utility capacity for future development. A subsequent spatial analysis was performed to identify those areas of Beatrice radiating outward from utility segments in .5 mile intervals to a maximum of 1.5 miles. Once these areas were created areas were assigned a rank based upon the distance from the utility and the relative size of the utility. Areas closest to the largest capacity utility were assigned a rank of 1 - 3, areas closest to the lower level capacity utility were assigned a rank of 2 – 4, and all land further than 1 .5 mile away from the utility was assigned a rank of 5. The resultant system of ranking identifies areas whose relative distance to existing utility segments are "Best", "Better", "Good", "Fair", or "Poor" for new development. Additional considerations were made to identify and exclude those areas already developed and those areas impacted by the 100 year floodplain. The specific methodology used to rank areas in relation to the both the electric and water utilities is described below.

ELECTRIC

Electric energy is supplied to Beatrice by the NPPD. Access to NPPD supplied power is provided via two NPPD substations. The first is located near the intersection of SW 32nd Road and Sargent Road in the northwest of Beatrice. The second is located on South 1st Road approximately .5 mile south of West Lilac Road. The provision of electric power via two substations allows for an increased level of energy security due to this redundancy. Once the power is delivered to each of the two NPPD substations, it is distributed to all users in the local Beatrice area via the local electric service provider; Norris Public Power District. The electrical network operated and maintained by NPPD includes a network of electric lines and nine local substations. These local substations provide a connection between the NPPD substations and different parts of the electrical grid. They also are utilized to 'step-down' or reduce the voltage carried by transmission lines to a voltage level more appropriate for end users.

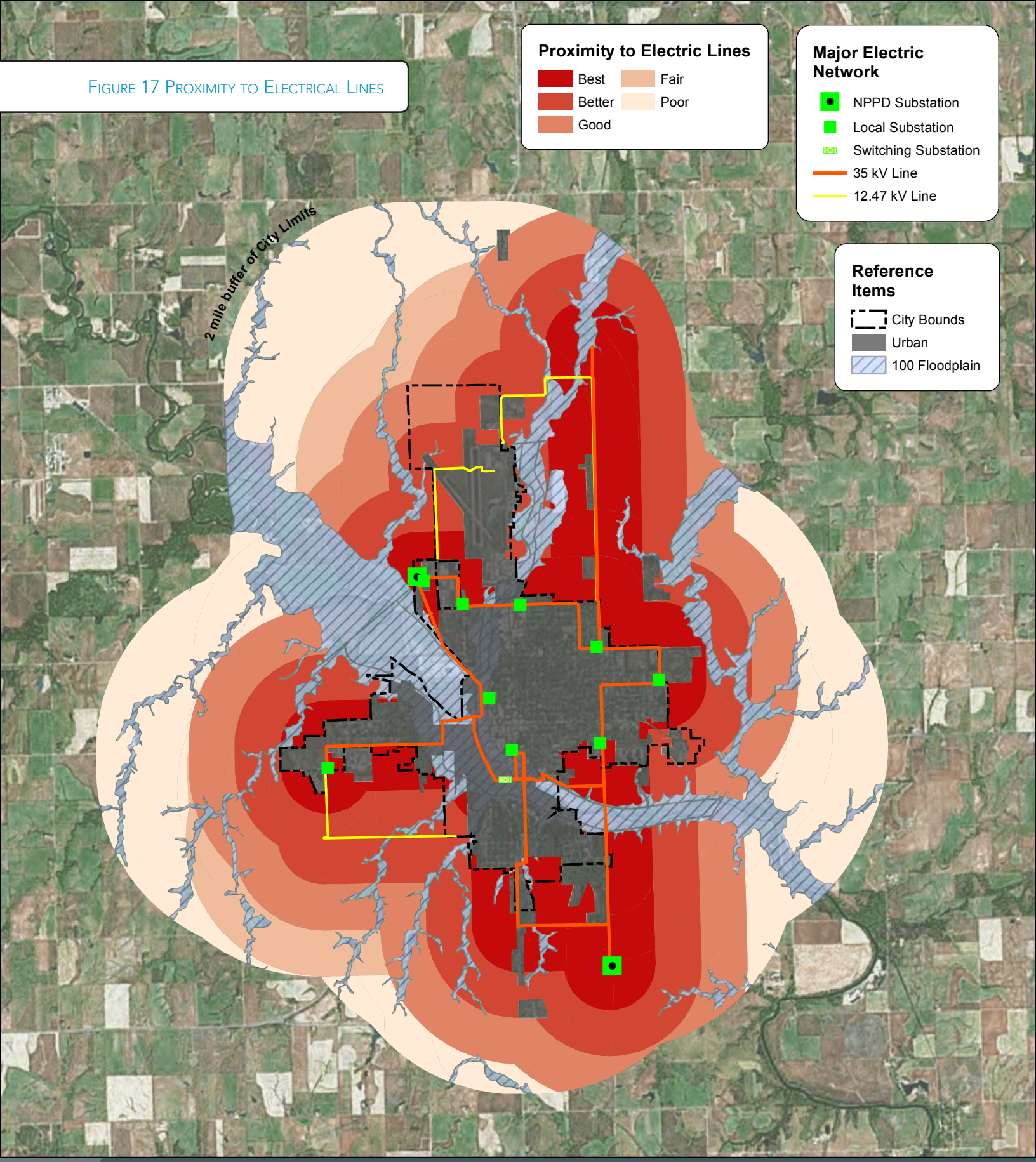
For the purpose of this study the electrical network in Beatrice was generalized into three different categories; electric lines carrying 35 kV, electric lines carrying 12.47 kV, and electric lines which act as service outlets connecting directly to the system to the end user. This distinction of the electrical system was created to identify those elements of the electrical system that will be utilized in the provision of future development *(i.e. the 35 kV and 12.47 kV lines)* and those elements which do not *(i.e. all service outlets)*. The 35 kV lines are generally referred to as "subtransmission" lines. The source for these subtransmission lines are the two NPPD substations located in the northwest and south of Beatrice. Generally speaking, the existing configuration of the electrical grid could allow for the creation of a new substation anywhere along the 35 kV lines for the implementation of new development. Estimation of the practical capacity provided for by these lines might be between 10 to 15 MW. Any potential development requiring more power will require an upgrade or upgrades to the system. The 12.47 kV lines are generally referred to as "distribution" lines. The sources for these lines are local substations. The distribution lines could likely provide sufficient electrical capacity to facilitate a new development of between 1 to 5 MW. Any development along these lines needing power in excess of 5 MW will likely require additional electrical lines and/or a new substation.

The locational analysis of the electrical grid identifies those areas nearest to the 35 kV and 12.47 kV electrical lines. Specific ranking is provided in Figure 16 on the right.

FIGURE 16 | RANKING METHODOLOGY FOR ELECTRIC LINES

35 kV line	.5 mile radius	1
	1 mile radius	2
	1.5 mile radius	3
35 kV line	.5 mile radius	2
	1 mile radius	3
	1.5 mile radius	4
	all other areas	5

Figure 17 illustrates those areas within the City of Beatrice plus areas within two miles of the city which are nearest electrical utility lines, located within generally undeveloped land, and are areas which are not impacted by the 100 year floodplain. Using this distinction those areas best suited for future development, as function of electrical utility access include those areas either within the city limits or nearest to the city limits. Additionally, areas outside of city limits to the northeast and southeast are in close proximity to high level electrical utility lines. Alternatively, those areas with the lowest ranking include those areas to the extreme northwest, west, and east of Beatrice.



Proximity to Major Electric Lines

Comprehensive Plan - Energy Element
City of Beatrice January, 2015

N

0 0.75 1.5 3 Miles

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WATER

The water utility is owned and operated by the Beatrice Public Works *(BPW)* department. This is a city-owned utility and is maintained with local tax revenue. The BPW was formed in 1947. The city water is currently supplied via 10 city wells; four drilled prior to the formation of the BPW, four more created in 1965, and two additional wells were added in 1990. The Water system has a storage capacity of 9.5 million gallons facilitated by both overhead and underground storage systems. This amount of storage capacity provides the city with a two day supply in the event of a system failure. This water is of high quality and no treatment is necessary with today's regulations.

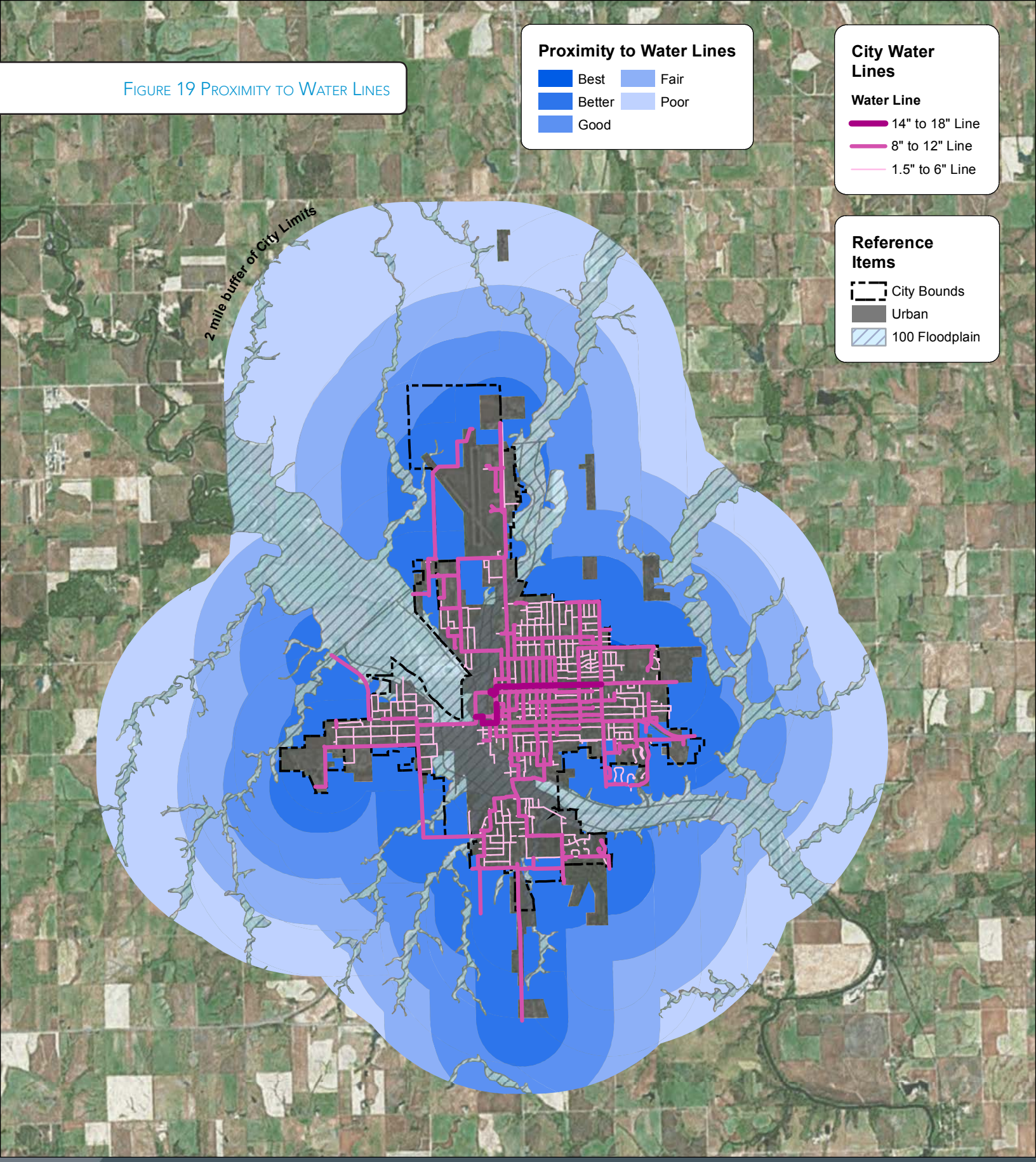
For the purpose of this study the water system in Beatrice was generalized into three different categories; water lines with a diameter of between 14 to 18 inches, water lines with a diameter of between 8 to 12 inches, water lines with a diameter of between 1.5 to 6 inches. This distinction of the water system was created to identify those elements that will be utilized in the provision of future development with large water needs *(i.e. water lines 14 to 18")* and future developments with moderate water needs *(i.e. water lines 8 to 12")*. Water lines equal to or smaller than six inches were excluded from spatial analysis due to the limited ability of these utility segments to facilitate significant future development.

The locational analysis of the water utility identifies those areas nearest to the large water lines, moderate sized lines, and the smaller water lines. Specific ranking is provided in Figure 18 on the right.

FIGURE 18 | RANKING METHODOLOGY FOR WATER LINES

14-18" lines	.5 mile radius	1
	1 mile radius	2
	1.5 mile radius	3
8-12" lines	.5 mile radius	2
	1 mile radius	3
	1.5 mile radius	4
	all other areas	5

Figure 19 illustrates those areas within the City of Beatrice plus areas within two miles of the city which are nearest water utility lines, located within generally undeveloped land, and are areas which are not impacted by the 100 year floodplain. Using this distinction those areas best suited for future development, as function of the water utility access include those areas either within the city limits or nearest to the city limits. Additionally, areas outside of city limits to the south are in close proximity to high level water utility lines. Alternatively, those areas with the lowest ranking include those areas to the extreme north, west, and east of Beatrice.



Proximity to City Water Lines

Comprehensive Plan - Energy Element
City of Beatrice January, 2015

N

0 0.75 1.5 3 Miles

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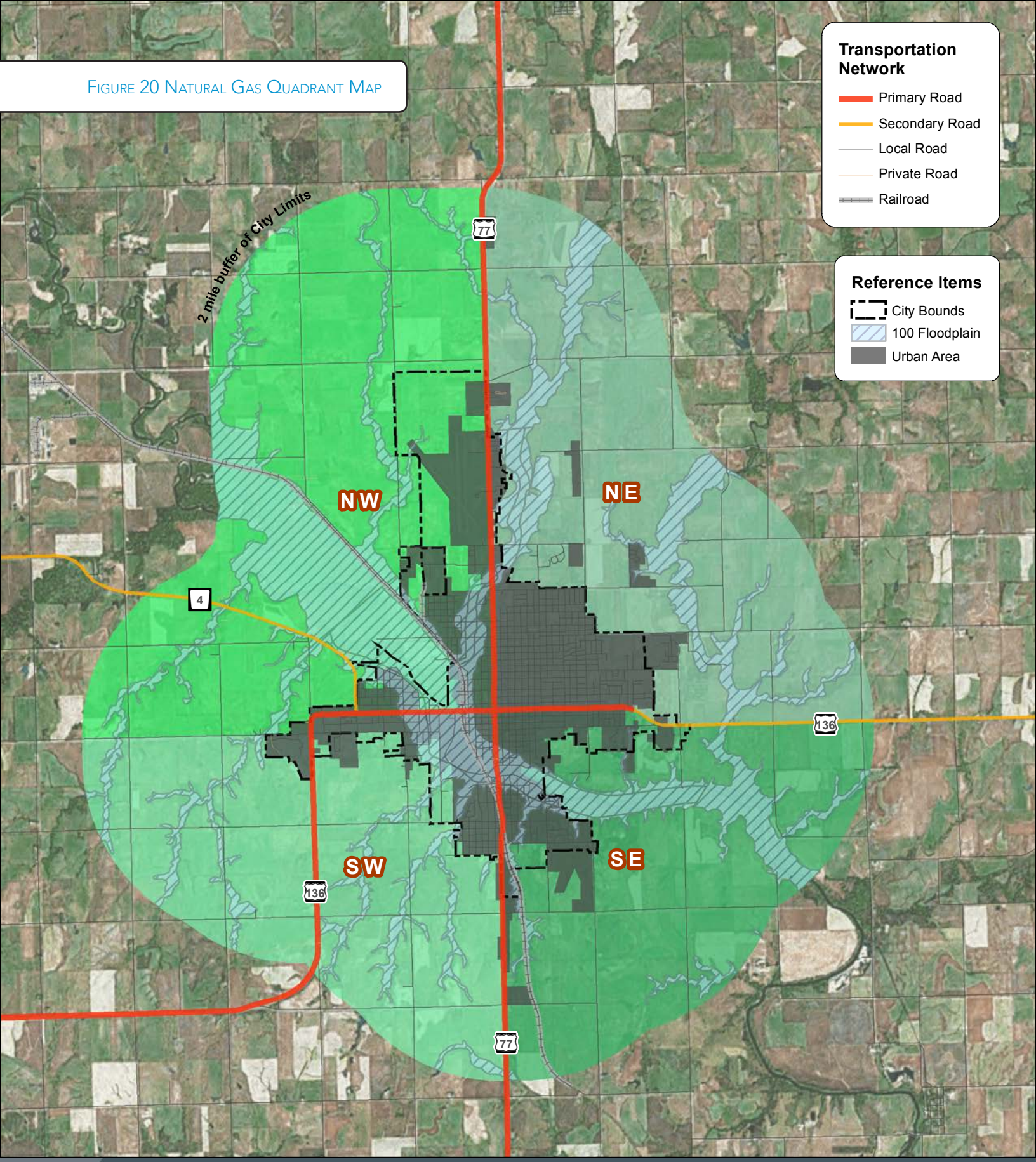
NATURAL GAS

Natural Gas is transported to Beatrice by two natural gas service providers. Access to natural gas via these two service providers creates a double feed into the City, allowing for increased service and availability, as well as potential energy security and redundancy. The Natural Gas Pipeline Company of America *(NGPL)* has a main line feed into Beatrice from the general northwest area of the City, and Northern Natural *(NN)* from the general southeast area. Both main line feeds enter Beatrice through a town boarder station *(TBS)*. Once Natural Gas arrives at the TBS the pressure of the Natural Gas must be reduced so that it can be transferred to make available for local use. Black Hills Energy operates this local system. The local system of natural gas infrastructure includes a network of pipeline located throughout Beatrice, as well as eleven operating district regulators. These regulators cut the distribution pressure of the natural gas in the local network to the maximum allowable operating pressure for the specific end user.

Due to security concerns, specific locations of both natural gas main lines as well as the local natural gas network operated by Black Hills were not made available for this study. In lieu of a map of natural gas infrastructure, a representative of Black Hills provided generalized data about the local network indicating how the existing network might be utilized for future development. To illustrate natural gas service in Beatrice, data regarding the local network was be divided into four service quadrants *(See Figure 18)*. The bounds of these four quadrants are defined by the major transportation network in Beatrice; United States Highways 77 and 136.

The natural gas system throughout Beatrice is currently structured to easily allow for future growth and expansion. As of 2015, the residential lines located in the west area of the City could handle an increased capacity of up to 12 pounds, and the south area up to 10 pounds, based on growth and demand. Extensions are also available to the south area for additional commercial land use, north to the industrial park, and east *(north of Highway 136, past the school building)* for an increased capacity of up to 70 pounds as requested. The current budget *(for Black Hills Energy)* includes a proposed new distribution line to cross the Big Blue River towards the west, and a new district regulator (*to be located near the school building)* to cut pressure from 70 to 12 pounds for future growth and development. The proposed new distribution line could also be extended to accommodate 70 pounds for future commercial growth requests.



Natural Gas Quadrant Map

Comprehensive Plan - Energy Element
City of Beatrice January, 2015

N

0 0.75 1.5 3 Miles

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Goals and Strategies

GOAL: INCREASE THE PERCENTAGE OF RENEWABLE ENERGY USED BY BEATRICE RESIDENTS

Strategies and Actions

- Conduct a review of existing zoning code pertaining to the implementation of small-scale wind and solar generation. Where existing code requires a special use permit create construction parameters for the implementation of small-scale wind and solar which can be generally permitted and do not require a special use permit.
- Develop zoning regulations, ordinances, or development plans that protect access to solar and wind energy resources. Nebraska's solar and wind easement provisions allow property owners to create binding solar and wind easements for the purpose of protecting and maintaining proper access to sunlight and wind.
- Identify specific neighborhoods or subareas of Beatrice that are best suited for either wind or solar power generation and develop local incentives for residents of these areas to implement these renewable energy sources.
- Conduct future studies to identify sites within the Beatrice extraterritorial jurisdiction which would be appropriate for the provision of large scale wind or solar power generation.

GOAL: INCREASE ENERGY EFFICIENCY IN BEATRICE THROUGH THE IMPLEMENTATION OF CONSERVATION METHODS.

Strategies and Actions

- Cooperate with the Nebraska Public Power District *(NPPD)* on educational programs to communicate with Beatrice residents and businesses regarding energy saving opportunities and sustainability goals. Work with NPPD and other potential partners in energy conservation to further publicize existing programs that provide residents with low-cost or free energy audits for residential buildings
- The City of Beatrice should create water usage policy and practices for the purpose of advancing conservation and efficiency. These practices should identify potential uses for non-potable water on both public and private properties
- Explore the opportunities of federally funded energy efficiency program grants. For example, as part of an Energy Efficiency and Conservation Block Grant; Tecumseh, Nebraska won partial funding for an $187,000 project to, in part, install 95 new LED light fixtures across that community. Through this one measure, Tecumseh city officials expect to save more than $6,000 annually.
- The city should continue the policy of installing LED light fixtures throughout the city.
- The City of Beatrice should implement energy efficiency consultation services for all public services buildings for the purpose of increasing the efficiency of heating/cooling systems as well as improving the behavior of those using these facilities. Beatrice Public Schools has already received energy consultation services.

GOAL: ENSURE THAT BEATRICE HAS AND CAN MAINTAIN ENERGY SECURITY BY PROVIDING REDUNDANT ENERGY SYSTEMS

Strategies and Actions

- Provide for an annual review of Beatrice energy systems to evaluate if these systems provide access from no less than two distinct and separate source points. The identified energy systems included in this review should include, at a minimum the Electrical and Natural Gas energy sources.

- Identify Beatrice public services which are essential to the daily health, safety, and public welfare of its residents and provide where necessary emergency energy generators to be employed in case of a loss of power.
- Create an emergency management plan, specifically identifying a location or locations where local residents can be given short-term, emergency shelter. Ensure that this location or locations have access to emergency energy generation systems.

GOAL: BEATRICE SHOULD TARGET FUTURE DEVELOPMENT IN AREAS THAT CAN ACCOMMODATE NEW DEVELOPMENT WITH MINIMAL EXTENSION OF SERVICES

Strategies and Actions:

- Target the city's Industrial Park for the provision of utilities which can support major industrial development.
- Discourage residential development in areas which are not contiguous with existing development.