



Johnston

2030

Comprehensive Plan

December 6, 2010

Resolution No. 10-220

City of Johnston, Iowa
www.cityofjohnston.com

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RESOLUTION NO. 10-220

A RESOLUTION APPROVING AND ADOPTING THE JOHNSTON 2030 COMPREHENSIVE PLAN

WHEREAS, by on July 6, 2009, the city did enter into an agreement with Hoisington Koegler Group, Inc. to complete an update to the City's Comprehensive Plan; and,

WHEREAS, after research and public input in the form of a design charrette, website, presentations, JEDCO tours and forums, the Farmers Market, water bill inserts, open houses and public meetings, a draft has been prepared for consideration; and,

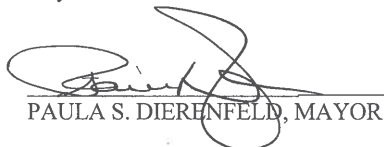
WHEREAS, the Comprehensive Plan Advisory Board reviewed the draft Johnston 2030 Plan and recommended approval at their regular meeting on November 10, 2010; and,

WHEREAS, the Planning & Zoning Commission reviewed the draft Johnston 2030 Plan and recommended approval at their regular meeting on November 10, 2010.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JOHNSTON, IOWA, that:

The Johnston 2030 Comprehensive Plan, as prepared by Hoisington Koegler Group, Inc. is here by approved and adopted.

PASSED AND APPROVED this 6th day of December 2010.


PAULA S. DIERENFELD, MAYOR

ATTEST:

CYNDEE D. RHAMES, CITY CLERK

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Northland Securities, Inc.



Introduction 1

Looking Back – A Brief History of Johnston ¹

The Johnston area got its start in 1846 when Ezekiel Hunt “came west” with his family and established a sawmill near N.W. 58th Street and N.W. Beaver Drive at the present location of the Hawkeye Pallet Company. Over the years, the area had names such as Beaver Creek Settlement, Ridgedale and Huntsville. In later years, the expanded area became known as Johnston Station, named after John Johnston, one of the station agents for the Inter-Urban Railroad, which was developed in 1906.

In 1888 school was held in two locations. Valley School was located one mile east of the present Lawson Elementary School and Ridgedale School was across from the Hyperion Country Club. The Hyperion Field Club was organized in 1900 as a social club. The golf course and clubhouse were added later. The original clubhouse had sleeping quarters in the upper level, “so the gentlemen could enjoy a weekend in the country.”

In the 1920s, experiments with hybridizing corn, conducted by Henry A. Wallace, led to the beginning of Pioneer Hi-Bred Corn Company. By the middle of the 20th century, Pioneer was becoming the leading seed corn producer in the world. The company owned and maintained cornfields and utilized large portions of their land holdings for beef cattle. By the mid-1970s, Pioneer abandoned their beef operation and initiated a land development arm of the business. In the late 1970s, the Green Meadows Planned Unit Development established a mix of homes, businesses and park and open space areas in central Johnston. In 1999, Pioneer Hi-Bred International was acquired by Dupont. Despite the role of Green Meadows in “urbanizing” Johnston, the presence of Pioneer continues to serve as a reminder of the agricultural heritage of the area. In addition to Pioneer, Johnston is the home of a number of landscaping nurseries, the headquarters of the Men’s Garden Club of America and the home of John Deere Credit.

Johnston has a long history of neighborhoods. In 1908, Fruitland Drive (55th Street) and Brennan Drive (57th Street) were constructed. After the roadways were completed and houses were built, the Fruitland Brennan League was formed in 1915 as the first neighborhood association in the area. Scattered residential growth occurred over the next several decades and by 1960, the population in the Johnston area was estimated at 1,460.

Camp Dodge was established in 1909 as a training site for the Iowa Militia. It was named for Major General Grenville M. Dodge of Council Bluffs, Iowa’s most famous Civil War commander. Originally constructed on a 78-acre tract of land, the post had been expanded



Camp Dodge Red Cross Building - circa 1917

¹Sources: History of Johnston, Johnston City Clerk -The Historical and Architectural Development of Camp Dodge, Iowa. Barbara Beving Long - Johnston (Station) Historical Society - The Building of Camp Dodge, History of The Iowa National Guard, CW2 David L. Snook



Camp Dodge Hospital - circa 1917



Camp Dodge Entrance - 2010

to 570 acres by 1917. On June 15, 1917, a delegation from the U. S. Army Selection Board chose Camp Dodge as one of sixteen regional training camps for the National Army of the United States. Expanded, through lease options, to 6,400 acres, Camp Dodge provided initial military training to recruits (both volunteers and draftees) from Iowa, Nebraska, Minnesota, and North and South Dakota.

From July to November of 1917, thirty barracks were built, each a two-story building, 140 feet long, 43 feet wide, and able to accommodate 150 men. Each barracks included a mess hall and an assembly hall. Two headquarters buildings, a 3,000-seat auditorium, a base hospital, three fire stations, post offices, libraries, and railroad depots were also constructed. In addition, there were eight YMCA halls, a YWCA auditorium, a YWCA Hostess House, and centers for such organizations as the Knights of Columbus, the Lutheran Brotherhood, and the Jewish Welfare Service. At peak capacity, Camp Dodge was a self-sufficient community of approximately 40,000 people.

With the end of the war, Camp Dodge had outlived its purpose. Within a few months after the Armistice was signed, only Iowa National Guard members remained at the camp to utilize the facilities. In 1921, the federal government sold much of the camp to the Northwest Lumber and Wrecking Company from Minneapolis. The firm paid \$251,000 for approximately 1,200 buildings. Seven miles of hastily constructed barracks fell to the wrecking ball.

Since World War I, Camp Dodge has continued to serve as the headquarters for the Iowa National Guard. Currently, Camp Dodge is in the midst of another period of expansion. The 1990s saw the construction of the United States Army's National Maintenance Training Center, the new, \$16 million State Area Command (STARC) Armory complex, a new direct support maintenance company training center, a physical fitness center, a 640-soldier battalion support complex, a new maintenance company armory, a regional equipment paint facility, and a new post exchange.

Today, Camp Dodge serves as a major troop training facility covering over 4,300 acres. Because a substantial portion of Camp Dodge remains in a natural state, it doubles as the eleventh largest wildlife refuge in the State of Iowa.

Looking Forward – Johnston 2030 Comprehensive Plan

The comprehensive plan for Johnston confirms a vision for the community that has been carried forward for over 40 years. Established in 1969, Johnston has grown to a population of over 16,000. The growth of the community has been guided by a comprehensive plan since the first plan was drafted in 1974. That plan saw minor updates in 1984 and again in 1992 and then was rewritten in 1998. Minor updates to the 1998 plan occurred in 2003 and 2006.

The Johnston 2030 Comprehensive Plan continues many of the community's past planning traditions and initiatives but also furthers new ideas and directions. The comprehensive plan serves as a guide for the ultimate growth and development of the community and it outlines the set of tools needed to move Johnston toward achieving consistency with its vision. The focus of Johnston's comprehensive plan is on the area defined by current boundaries and anticipated future annexation areas. It also recognizes Johnston's place in the Des Moines Metropolitan Region and reflects regional development objectives, policies and investments. The plan is organized in the following manner:

1. *Introduction – provides an introduction to the comprehensive plan, a brief look at Johnston's history, a discussion of Iowa Smart Planning and information on the public's involvement in the planning process.*
2. *Johnston in 2030 – presents Johnston's vision and guiding principles which serve as a basis for the remainder of the plan.*

3. *Community Context – provides a summary of the social, economic and physical features and forces that influence land use and community development patterns.*
4. *Natural Resources – presents information on Johnston's land and water features.*
5. *Land Use – describes the community's desired land use and development patterns and looks in more detail at specific focus areas located throughout the community.*
6. *Transportation – addresses road and transit improvements required to accommodate Johnston's next decade of growth.*
7. *Housing – presents information on Johnston's housing supply and plan recommendations to meet existing and future needs.*
8. *Parks and Recreation – presents an analysis of Johnston's park system with specific recommendations for future neighborhood and community parks.*
9. *Utilities – outlines needed improvements to Johnston's sanitary sewer, water and storm water systems.*
10. *Implementation – identifies how the plan will be implemented to achieve the community's vision by identifying strategic actions.*

Why is the 2030 Comprehensive Plan Important?

As the primary guide for community growth, the comprehensive plan is the single-most important collection of policies and action steps that help guide local decisions. It is intended to be a dynamic document that is regularly reviewed and updated. The comprehensive plan:

- » *Establishes a future vision based on a thorough community input process.*
- » *Influences the form, pace and location of new development.*
- » *Protects property investments by ensuring consistency and compatibility of land uses and development policies.*
- » *Promotes the maintenance and enhancement of existing neighborhoods and commercial districts.*
- » *Determines and reinforces approaches for protecting natural resources and open space.*
- » *Guides the community in investment decisions for capital expenditures related to roads, utilities and parks.*
- » *Provides the basis for zoning regulations, subdivision ordinances and other land use and development related controls.*

Johnston's commitment to its comprehensive plan goes beyond the practices of most communities. The Johnston Comprehensive Plan Advisory Board is an appointed citizen commission charged with oversight of the plan. The Board played a key role in the preparation of the 2030 Comprehensive Plan and will be involved in the review of any future amendments and the formulation of recommendations to the Planning and Zoning Commission and City Council.

Iowa Smart Planning

Comprehensive Planning Principles

The Iowa Smart Planning bill was signed into law in 2010. The bill articulates 10 Iowa Smart Planning Principles for application in local comprehensive plan development and



'Help Wanted' flyer invited Johnston residents to participate in the planning process in October of 2009.



'Take a Look' flyer invited Johnston residents to offer input on the comprehensive plan in March of 2010.

public decision-making. It also provides comprehensive planning guidance for cities and counties. Included below are the ten principles and a commentary on Johnston's inclusion of the principles in the Johnston 2030 Comprehensive Plan.

1. Iowa Smart Growth Principle - Collaboration

Governmental, community and individual stakeholders, including those outside the jurisdiction are encouraged to be involved and provide comments during the deliberation of planning, zoning, development and resource management decisions and during implementation of such decisions.

Johnston's 2030 Plan Addresses Collaboration

Johnston's comprehensive planning process actively sought input from a wide variety of stakeholders, both within and outside of the community. Additionally, key elements of the plan were reviewed with adjacent communities as well as county and state agencies. Input during the planning process was gathered in community meetings, on-line surveys, written comment cards and communications involving social networking including Twitter.

2. Iowa Smart Growth Principle – Efficiency, Transparency and Consistency

Planning, zoning, development and resource management should be undertaken to provide efficient, transparent and consistent outcomes.

Johnston's 2030 Plan Addresses Efficiency, Transparency and Consistency

Johnston clearly articulated its vision for the future in the early stages of the comprehensive plan. The community's review and support of the vision and guiding principles was accomplished in a transparent process that allowed continuous review, input and modification. The vision and guiding principles set the stage for the specific elements of the comprehensive plan that collectively promote future development of the community in a manner that equitably benefits all residents and local businesses.

3. Iowa Smart Growth Principle – Clean, Renewable and Energy Efficient

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

Johnston's 2030 Plan Addresses Clean, Renewable and Energy Efficiency

The Johnston 2030 Comprehensive Plan focuses on energy efficiency by seeking to establish a long-term land use pattern that efficiently connects the places where people live, play and work. The plan advocates an efficient mix of future housing densities and the strategic placement of land uses interconnected by roads, transit and non-motorized means of travel.

4. Iowa Smart Planning Principle - Occupational Diversity

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

Johnston's 2030 Plan Addresses Occupational Diversity

Johnston supports and encourages occupational diversity. The comprehensive plan

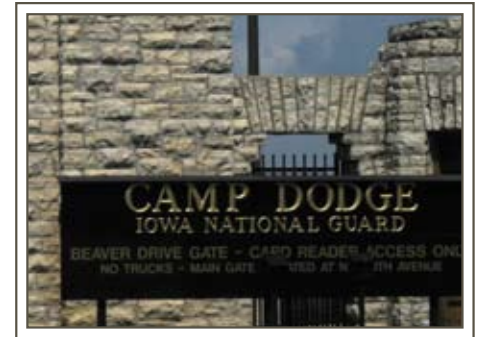
allocates land that is suitable in size and location for a variety of different types of businesses and services. Business locations are connected to residential areas by an extensive planned network of trails and walkways.

5. Iowa Smart Planning Principle - Revitalization

Planning, zoning, development and resource management should facilitate the revitalization of established town centers and neighborhoods by promoting development that conserves land, protects historic resources, promotes pedestrian accessibility, and integrates different uses of property. Remediation and reuse of existing sites, structures, and infrastructure is preferred over new construction in undeveloped areas.

Johnston's 2030 Plan Addresses Revitalization

Johnston's oldest commercial and residential neighborhoods lie along and east of Merle Hay Road. Revitalizing core commercial business areas and enhancing the vitality of older residential neighborhoods is a major initiative of this plan. Johnston will continue to focus on needed revitalization efforts while ensuring efficient development of vacant land.



Stonework - Camp Dodge Entrance sign

6. Iowa Smart Planning Principle – Housing Diversity

Planning, zoning, development and resource management should encourage diversity in the types of available housing, support the rehabilitation of existing housing, and promote the location of housing near public transportation and employment centers.

Johnston's 2030 Plan Addresses Housing Diversity

The Housing section of this plan clearly articulates the city's interest in maintaining a diverse base of housing that meets the needs of both existing and future Johnston residents. Since Johnston is only provided minimal regional public transportation at the present time, the city will work with Des Moines Area Regional Transit (DART) to expand service as warranted by resident and employer/employee needs.

7. Iowa Smart Planning Principle – Community Character

Planning, zoning, development and resource management should promote activities and development that are consistent with the character and architectural style of the community and should respond to local values regarding the physical character of the community.

Johnston's 2030 Plan Addresses Community Character

Community character can be conveyed in a number of ways. Johnston's 1998 Comprehensive Plan identified themes for much of Johnston's public realm – entries, boulevards, medians, intersections, etc. Identified improvements draw from some of the elements of Johnston's history such as stone abutments at Camp Dodge and the agricultural heritage of the community represented by Pioneer Hi-Bred International's research fields. Policies in the current plan continue to emphasize and expand these community character elements. Johnston's Green Days celebration will also continue to serve as a reminder of the historic agricultural roots of the community.



City intersection marker

8. Iowa Smart Planning Principle – Natural Resources and Agricultural Protection

Planning, zoning, development and resource management should emphasize protection, preservation, and restoration of natural resources, agricultural land, and cultural and historic landscapes, and should increase the availability of open spaces and recreational facilities.



City entry sign

Johnston's 2030 Plan Addresses Natural Resources and Agricultural Protection

Two chapters of the Johnston 2030 Comprehensive Plan directly address this principle. The Natural Resources chapter contains background information and policies supporting the preservation and enhancement of natural resources. The Parks and Recreation chapter of the plan calls for expanded parks and open space as the community grows in the future.

9. Iowa Smart Planning Principle – Sustainable Design

Planning, zoning, development and resource management should promote developments, buildings, and infrastructure that utilize sustainable design and construction standards and conserve natural resources by reducing waste and pollution through the efficient use of land, energy, water, air and materials.

Johnston's 2030 Plan Addresses Sustainable Design

Policies and action steps in the Johnston 2030 Comprehensive Plan advocate sustainable design. Specific action steps address the use of new green building materials and technologies, promoting recycling, and sustainability evaluations addressing materials, energy use, operating costs and lifecycle replacement costs for new facilities.

10. Iowa Smart Planning Principle – Transportation Diversity

Planning, zoning, development and resource management should promote expanded transportation options for residents of the community. Consideration should be given to transportation options that maximize mobility, reduce congestion, conserve fuel and improve air quality.

Johnston's 2030 Plan Addresses Transportation Diversity

The Transportation, Land Use, and Parks and Recreation chapters of the Johnston 2030 Comprehensive Plan work together to ensure development of a diverse transportation system. The plan highlights required roadway improvements to relieve congestion, addresses an expanded future transit system and identifies approximately 26 miles of new trails that will connect to the 32 miles of trails that exist in the community today. The plan also encourages expansion of Johnston's current 52 mile sidewalk system.

Comprehensive Plan Elements

In addition to the 10 Iowa Smart Planning Principles, the legislation also outlines 13 elements that may be included in a comprehensive plan. The elements are:

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

The Johnston 2030 Comprehensive Plan directly and/or indirectly includes all of these optional comprehensive plan elements.

Planning Process

The Johnston 2030 Comprehensive Plan is as much about the planning process as it is the printed plan itself. Attitudes and opinions change over time as does the direction from political leadership. If the planning process has involved the full community, the comprehensive plan becomes stronger in its application. It is unrealistic to expect that every land use or development decision will receive complete agreement from all affected parties. Because the planning process was all inclusive and included a wide range of opinions, the comprehensive plan becomes the unifying element for such decisions. The following is a brief overview of the planning process.

Organize the Effort: One of the initial tasks oriented various participants in the planning process and began collecting information about Johnston. This task included initial guidance from Johnston's Comprehensive Plan Advisory Board and Planning and Zoning Commission; collectively, the 20+ member steering committee for the effort. The steering committee met almost monthly throughout duration of the planning process. An initial community open house was held in the Johnston Public Library on October 27, 2009, to explain the process and solicit initial ideas about the future growth of the community. A project specific website was established and updated throughout the process and Twitter was used to reach wider segments of Johnston's population.

Define the Context: The second major task focused on developing an understanding of the physical, economic, social and natural forces that influence Johnston. Understanding Johnston's position in the greater Des Moines Metropolitan Area was also a key part of this task.

Explore and Define the Vision: This task involved the collection of opinions in face to face meetings as well as from web-based input. Using the Vision and Guiding Principles articulated in the 1998 Comprehensive Plan as a base, the Vision and Guiding Principles were evaluated and modified by the Comprehensive Plan Advisory Board and Planning and Zoning Commission with concurrence by the Johnston City Council.

Explore the Possibilities for Future Growth: This task included the preparation and analysis of alternative future growth scenarios stemming from community input and the examination of the land and forces influencing future development. Land use, transportation, natural resources, market conditions, parks and open space, topography and employment opportunities were all considered in drafting the scenarios. This task featured a project design charrette including representatives of the project consulting team, city staff and members of Johnston's City Council, Planning and Zoning Commission, Comprehensive Plan Advisory Board and Park Advisory Board.

Converge on a Preferred Alternative: Alternative concepts and ideas were presented at a public open house on March 30, 2010, which was attended by approximately 100 people. Using input from this meeting as well as web-based feedback, guidance from the Comprehensive Plan Advisory Board and the Planning and Zoning Commission as well as additional technical analyses, a preferred alternative was selected for development as Johnston's 2030 Land Use Plan.

Prepare the Final Plan – Seek Approvals: This final task included assembling a complete draft of the plan for public review. Reviews included those conducted by the Comprehensive Plan Advisory Board and Planning and Zoning Commission, City Council and the Park Advisory Board. A community open house was held on October 21, 2010, prior to final modifications, a formal public hearing and adoption by the Johnston City Council.



Community Meeting #1



Design charrette



Comprehensive plan tent at the Johnston Farmers Market



Johnston in 2030 2

Vision and Guiding Principles

Johnston's first vision statement and guiding principles were drafted as part of the 1998 Comprehensive Plan. They were the result of a significant community engagement effort. Public input was also critical to the assembly of the city's updated vision and guiding principles. In a concise set of statements, they articulate the thoughts and aspirations of Johnston's citizenry as well as its elected and appointed officials. They depict the essence of the community in the future and they serve as a fundamental framework for the preparation of this plan.

Vision Statement - 2030

Johnston is a vibrant, sustainable community that uniquely blends urban, suburban and rural qualities.

Johnston derives its sense of community from the very elements that define its rich heritage - the people, the neighborhoods, the schools, the businesses, the parks, agriculture, Camp Dodge and open space. Johnston respects its natural setting, acknowledges the relevance of its history and eagerly embraces future opportunities.

Community pride is evident everywhere in Johnston. It's known as an unparalleled place to raise a family, run a business, age in place and enjoy recreation.

Guiding Principles

» *An atmosphere that captures a spirit that is uniquely Johnston*

Johnston will set itself apart by promoting the use of land in a manner that uniquely blends development and natural areas. The community will maintain an economically and ecologically sustainable environment that appropriately places jobs, parks, schools and businesses in locations that are convenient to one another.

» *Housing that reflects a full range of choices*

Johnston will continue to offer housing choices that serve a broad range of incomes, lifestyles and age groups. The community's housing stock will allow people to be life-long Johnston residents affording opportunities to move into alternative forms of housing as the needs of residents change over time.

» *A place for people to gather*

Johnston will provide a space and/or a series of spaces that accommodates and encourages gatherings of people.





» ***A fiscally sustainable community***

Johnston will place a strong emphasis on fiscal sustainability by proactively investing in its future. The community's strong and diversified tax base will continue to support a vibrant local business climate and high-quality jobs.

» ***A proactive position on future growth***

Johnston will continue to maintain strong design standards and proactive planning. The comprehensive plan in tandem with the community's codes and ordinances will establish locations and rates of future growth and development. Future growth will be phased to maintain pace with the services and facilities necessary for its support.

» ***An identity that reflects the place***

Johnston will present a clear community identity that includes a common "green" theme depicted in consistent, visible ways. Elements of the community's heritage including Camp Dodge, the Des Moines River, Saylorville Lake, Pioneer, and Johnston Station will be used to foster a distinctive and unique place.

» ***A built environment in harmony with the natural environment***

The built environment in Johnston will express integrity, quality and diversity while respecting the patterns of the natural environment. Open space areas and stormwater systems will be integrated with development to preserve significant natural resources and provide habitat for wildlife.

» ***Efficient infrastructure***

Johnston will maintain a high quality, efficient infrastructure system. Utility and service delivery systems will be designed to serve both the present and future needs of the community. Infrastructure expenditures will be made on the basis of long-term cost and benefit rather than initial cost.

» ***Recreation opportunities for residents and visitors***

Johnston will provide a balanced system of parks and open spaces, connected by a trail network within the city with links to regional points of interest. Johnston's recreation system will promote individual wellness and fitness.

» ***Made in Johnston***

Johnston will continue to accommodate the local production of goods and the provision of local services. Land use planning will allocate an adequate supply of land to accommodate the continued growth of existing businesses and the establishment of new business opportunities.

» ***Transportation Linkages***

The transportation needs of Johnston's businesses and residents will be supported by a local and regional transportation system that provides a variety of efficient, flexible transportation options. Roads, sidewalks, trails, and mass transit will be the basis of a system that provides safe, convenient connections throughout the community and the surrounding area.

» ***Community Involvement***

Johnston is an inclusive and welcoming community. The city values and promotes citizen involvement, it stresses open communication and it encourages volunteerism.





Community Context 3

Demographics

Part of the framework for the Johnston Comprehensive Plan is an analysis of population, household and economic trends. Demographic data available for the preparation of this plan is from the 2000 census, data that is ten years old. Although dated, information from 1990 and 2000 can still serve as an indicator of future influencing factors.

In order to portray a more accurate depiction of contemporary trends, the 2008 American Community Survey (ACS), prepared by the U.S. Census Bureau was utilized to compare the Johnston area with Polk County and Des Moines. The ACS data corresponds to the boundaries of the Johnston Community School District which is a different geographic area than the City of Johnston (see Figure 3.1). Johnston's population accounts for 52% of the school district's population.

Since the 2000 census, there has been a significant change in the nation's economy. The economic downturn has influenced recent housing and economic trends. Going forward, Johnston will consider future data sources such as the 2010 census as they become available to better inform future planning decisions.

Population

Johnston has nearly doubled in size since 2000, growing from 8,650 to 15,700 (see Table 3.1). Neighboring communities such as Grimes, Urbandale and Ankeny have also seen significant increases in population. However, Des Moines has seen little change in population. Johnston's population growth in the last ten years can be linked to significant new housing construction and the continued attraction of major employers. Continuation of the rapid growth that has occurred over the past decade may present challenges in the future (i.e. housing, employment, schools and public services).

Johnston can expect to continue to grow over the next 25 years as indicated by the forecasts provided by the Des Moines Area Metropolitan Planning Organization (MPO) (see Table 3.2). These forecasts represent Johnston and portions of its neighboring communities (see Figure 3.1).

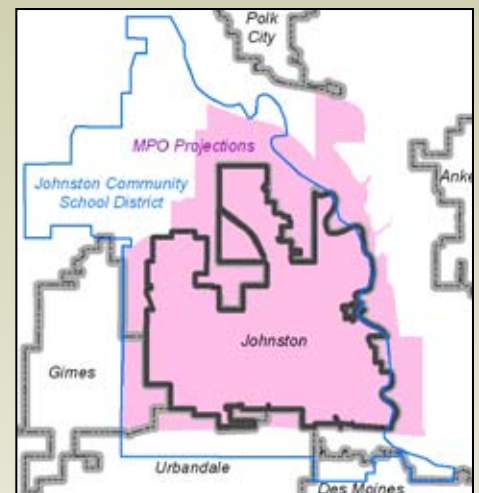


Figure 3.1 - Study Area

Geographic Area	2000 Census	Population Estimates (7/1/2008)	Percentage Change
Johnston	8,649	15,691	81%
Des Moines	198,682	197,052	-1%
Grimes	5,098	8,419	65%
Urbandale	29,072	38,369	32%
Ankeny	27,117	42,287	56%

Table 3.1 - Population (Source: U.S. Census)

Forecasts (MPO)	Population	Housing	Employment
2005	14,372	5,927	11,419
2010	16,856	6,902	12,487
2015	19,112	7,785	13,334
2025	22,812	9,236	14,643
2035	27,148	11,250	15,654
Change 2010-2035	10,292	4,348	3,167

Table 3.2 - Forecasts (Source: Des Moines Area MPO - Traffic Analysis Zones)

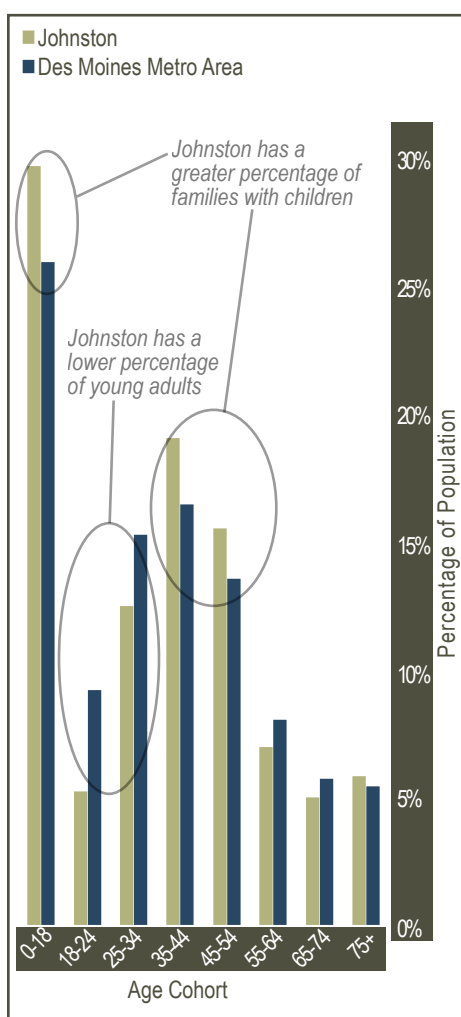


Figure 3.2 - Population by Age Group-2000
Johnston vs. Des Moines Metro Area
(Source: U.S. Census, Joe Urban, Inc.)

2008 ACS	Johnston School District	Polk Co.	Des Moines	Percent Johnston School Dist.	Percent Polk Co.	Percent Des Moines
Under 5 years	2,731	34,408	16,635	9%	8%	8%
5 to 9 years	2,461	32,065	14,787	8%	8%	7%
10 to 14 years	2,477	29,484	12,049	8%	7%	6%
15 to 19 years	1,791	26,607	14,307	6%	6%	7%
20 to 24 years	1,119	25,667	13,815	4%	6%	7%
25 to 34 years	4,042	58,438	29,030	14%	14%	15%
35 to 44 years	4,659	64,958	28,870	16%	15%	14%
45 to 54 years	5,034	60,612	27,002	17%	14%	14%
55 to 59 years	1,677	25,344	11,487	6%	6%	6%
60 to 64 years	1,067	19,929	9,619	4%	5%	5%
65 to 74 years	1,435	24,210	10,424	5%	6%	5%
75 to 84 years	847	16,620	8,571	3%	4%	4%
85 years and over	539	6,436	3,414	2%	2%	2%
Total	29,879	424,778	200,010	100%	100%	100%
<i>Baby Boom (45 to 64 years)</i>	<i>7,778</i>	<i>105,885</i>	<i>48,108</i>	<i>26%</i>	<i>25%</i>	<i>24%</i>

Table 3.3 - Age Cohorts (Source: 2008 American Community Survey)

Age

Johnston is considered a developing community and as such, it has attracted a large proportion of young families. This trend has been occurring since 2000 (see Figure 3.2 & 3.3). The trends have shown a high proportion of people between the ages of 35 and 54, in addition to a large population under the age of 18. The 2008 ACS data indicates that 76% of the Johnston area households are family households, 67% which are married couples with children under the age of 18.

The Baby Boom Generation is a group that has had a profound impact in this country over the past two decades. Baby boomers are 45 to 64 years in age and were born post World War II. They make up a significant portion of the United States population. The 2008 ACS estimates show that this age group makes up approximately 25% of the Johnston Community School District, Polk County and the City of Des Moines (see Table 3.3).

A mix of age groups adds diversity to a community. Johnston should recognize the groups that exist today as well as changes that are likely to occur in the future. In order to accommodate the needs of future generations, diverse living and service options may need to be available. This diversity may need to include life-cycle housing, recreational amenities, health services and employment opportunities.

Housing

Nationally, statistics show an overabundance of single-family detached housing units. A study entitled "Leadership in a New Era," by A.C. Nelson found that the United States has already met its single-family housing demand for the next twenty years (see Figure 3.3). Data from the study indicates that in order to meet future needs, the U.S. would need to accommodate 35 million new small lots and attached units by 2025. An overabundance of single-family homes on a national basis doesn't necessarily translate directly to the housing mix in Johnston but it may at least, be indicative of less market interest in the traditional single-family detached home.

Johnston continues to attract younger families with children because of the historically high proportion of single-family homes. Single-family housing units comprise 78% of Johnston's existing housing stock. Consistent with national trends, Johnston has seen

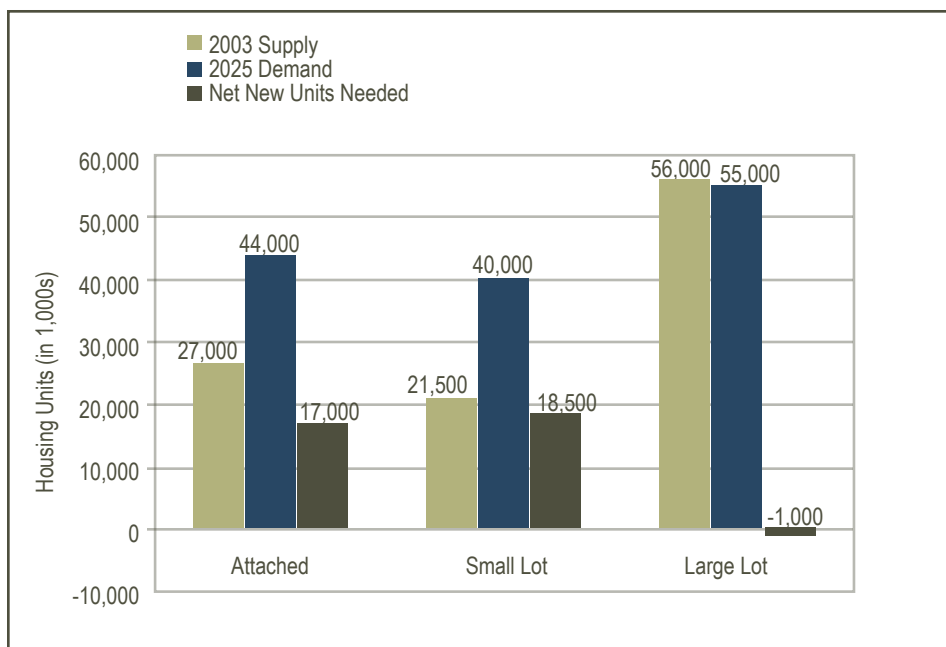


Figure 3.3 - United States 2003 Housing Supply vs. 2025 Housing Demand
(Source: A.C. Nelson, "Leadership in a New Era," Journal of the American Planning Association, Vol. 72, Issue 4, 2006 pp. 393-407)

an increase in townhomes/condo permits in the last ten years, but there have been no multi-family permits since 2003 (see Figure 3.4). While the amount of attached housing in Johnston has grown considerably over the past decade, these uses are still a relatively small percentage of the total housing stock compared to traditional single-family units.

Although Johnston has seen a significant amount of housing growth, there are indications

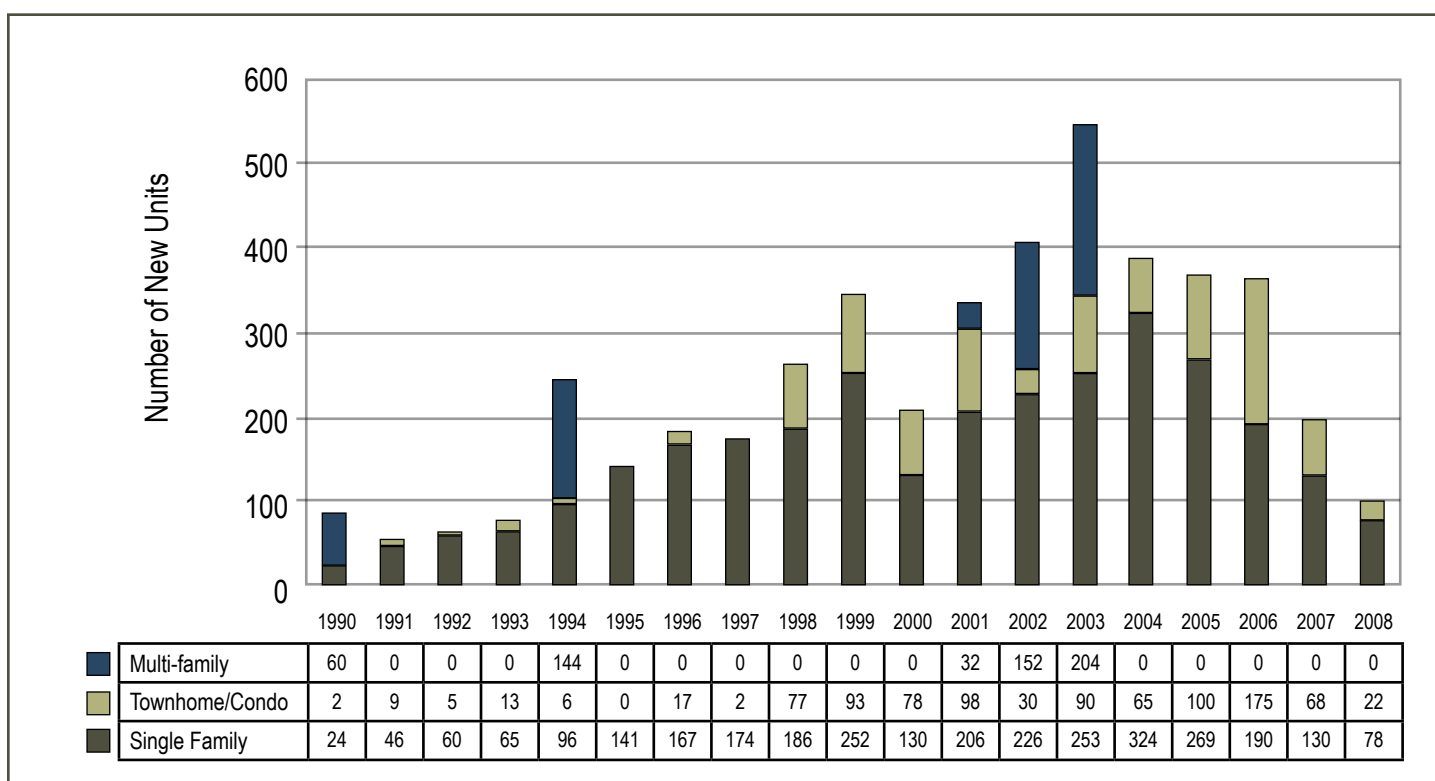


Figure 3.4 - Number of New Dwelling Units Permitted by Dwelling Type, 1990-2008 (Source: City of Johnston)

Area	Median Household Income
Johnston School Dist.	\$ 86,165
Polk County	\$ 56,901
Des Moines	\$ 43,583

Table 3.4 - Median Household Income (Source: 2008 American Community Survey)

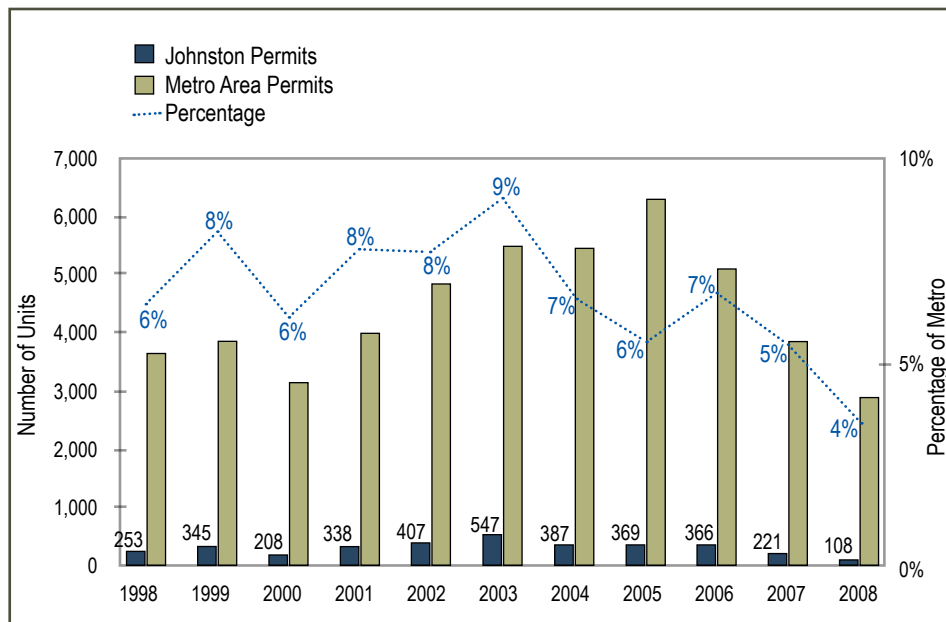


Figure 3.5 - Johnston Housing Permits as Percentage of Metro Area - 1998-2008 (Source: U.S. Census, HUD, Joe Urban, Inc.)

2008 ACS	Owned Housing	Rental Housing	Total
Johnston School District	8,986	2,003	10,989
Polk County	121,189	49,033	170,222
Des Moines	53,929	28,996	82,925
Percent Johnston School District	82%	18%	100%
Percent Polk County	71%	29%	100%
Percent Des Moines	65%	35%	100%

Table 3.5 - Owner Occupied (Source: 2008 American Community Survey)

that the growth rate may be slowing. Figure 3.5 shows that Johnston has typically absorbed about 8% of the total housing permits pulled within the Des Moines metro area. In the last three years that number has dropped to about 4%. This decrease in growth may be associated with development occurring elsewhere or given recent market conditions, Johnston may no longer be able to absorb as much new housing.

The Des Moines Area MPO projects that Johnston will continue to grow by an additional 4,348 units by the year 2035. Future housing will need to be carefully balanced to match future demographics. For instance, households will become smaller as the Baby Boom Generation ages in place. This shift is likely to lead to increased demand for smaller, maintenance free housing options. It is also important to recognize the large number of children under the age of 18 that will eventually be seeking their own homes as they reach an age of independence. In order to provide housing for this segment of the market, Johnston will need to consider housing forms that are affordable to lower income, starter households.

Household Characteristics

The 2008 ACS estimates place the Johnston household size at approximately 2.76 people per unit, which is slightly higher than Polk County (2.59) and Des Moines (2.50). As shown on Table 3.4, households in Johnston have substantially higher incomes than Des Moines and Polk County as a whole. Higher household incomes in Johnston are partially due to the city's higher percentage of dual incomes compared to higher rates of single-wage earner households in other areas. Johnston also has a higher percentage of owner occupied housing. Table 3.5 shows the owner vs. rental statistics of Johnston, Polk County and Des Moines.

Ethnicity

Johnston has seen little change in ethnicity between 1990 and 2000. The population in the area is primarily white with a small percentage of African Americans and Asians.

This trend may be indicative of an influx of immigration in larger metropolitan areas that are located in the Midwest. Communities such as Kansas City, MO; Omaha, NE; Minneapolis/St. Paul, MN; and Des Moines, IA have all seen a significant increase in immigration in the last ten years. For instance, in 2000 the census counted over 113,000 immigrants in Minneapolis/St. Paul, a 150 percent increase since 1990. The City of Des Moines experienced a large increase in the Hispanic population recording a 65% increase from 2000 to 2008.

2008 ACS	Johnston School District	Polk Co.	Des Moines	Percent Johnston School Dist.	Percent Polk Co.	Percent Des Moines
White	26,629	353,641	146,215	89%	83%	73%
Black or African American	141	22,866	19,638	0%	5%	10%
American Indian and Alaska Native	30	667	582	0%	0%	0%
Asian	1,726	13,400	8,424	6%	3%	4%
Hispanic	946	28,438	21,612	3%	7%	11%
Native Hawaiian and Other Pacific Islander alone	0	237	237	0%	0%	0%
Some other race	36	323	128	0%	0%	0%
Two or more races	371	5,206	3,174	1%	1%	2%
Total:	29,879	424,778	200,010	100%	100%	100%

Table 3.6 - Race (Source: 2008 American Community Survey)

Other Midwestern metropolitan areas have also experienced increases in their Asian and Somali populations.

The 2008 ACS does show that the Johnston area has become slightly more diverse; however, the community is still primarily white (see Table 3.6). As the area becomes more diverse in the future, the city, school district and social service network will need to become more aware of the cultural and lifestyle interests of a changing population.

Educational Attainment

The Johnston area has a high percentage of residents with college or university degrees. 2008 estimates show 55% of the Johnston Community School District population to have obtained an associate degree or higher. This is significantly higher than Polk County (43%) and Des Moines (32%).

School Enrollment

Johnston is located in the Johnston Community School District which includes five elementary schools, two middle schools and a high school. As was stated earlier, Johnston has seen an increase in families with children. The school district attributes this growth to the number of new single-family homes, the quality of education offered and the proximity to Des Moines.

Based on this growth, the school district's 2007 Enrollment Report has identified potential capacity issues at four of the elementary schools and both middle schools. The plan states that the majority of the forecasted growth will be at the elementary grade level, but based on percentages, the largest growth will be at the middle school level. Overall it is anticipated that the school district will see approximately 900 more students, or a 17% increase from 2006/2007 to 2011/2012. This increase in growth will require expansion or new facilities by 2011/2012.

Employment and Workforce

Johnston is home to several major employers, such as Pioneer Hi-Bred International, Inc., Camp Dodge and John Deere Credit. These entities account for a large number of jobs in Johnston. Since 1998, Pioneer Hi-Bred has expanded its workforce from 1,268 full-time employees to approximately 1,600. John Deere opened its doors in 2000, adding approximately 900 jobs to Johnston's economy. Camp Dodge has also seen an increase in employment reporting approximately 700 jobs in 2009.



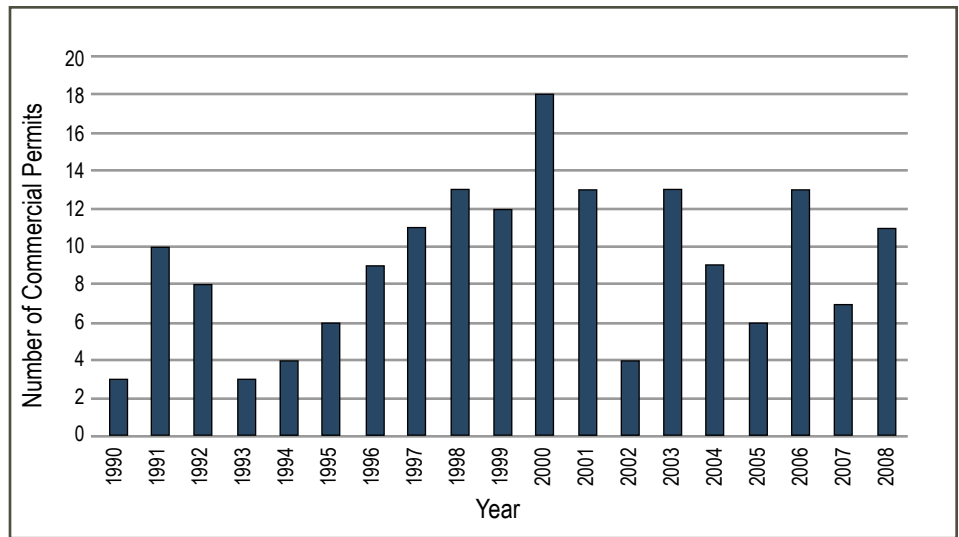


Figure 3.6 - Commercial Permits (Source: City of Johnston)

The expansion of these industries and others has helped Johnston solidify its position as a desirable, growing community. Johnston has seen a steady increase in commercial permits between 1994 and 2000 (see Figure 3.6). Given more recent market fluctuations, there hasn't been a consistent trend in permits since 2000; however, the community has continued to see commercial construction. In the last ten years Johnston has developed 2,200,000 sq. ft. of new commercial development. Nearly half of this development was devoted to office related uses. This construction type is reflected in Johnston's workforce, which is comprised primarily of management, professional and office related occupations (see Table 3.7).

The Johnston area will continue to have new economic opportunities in the future. Des Moines Area MPO forecasts call for 3,167 new jobs in the Johnston area by 2035.

2008 ACS	Johnston School Dist.	Polk Co.	Des Moines
Management, professional, and related occupations	24%	19%	15%
Service occupations	5%	7%	8%
Sales and office occupations	15%	15%	15%
Farming, fishing, and forestry occupations	0%	0%	0%
Construction, extraction, maintenance and repair occupations	2%	4%	4%
Production, transportation, and material moving occupations	4%	5%	7%
Total	100%	100%	100%

Table 3.7 - Workforce (Source: 2008 American Community Survey)

Demographics Summary

It is important to recognize that the trends in demographics, employment, school enrollment or the housing market can significantly influence the dynamics of the community. Johnston will need to consider future data sources, such as the 2010 census to inform future planning decisions. Based on data available at this time, the following are expected to influence Johnston's growth over the next 10 to 20 years:

Population

The Des Moines Area MPO anticipates that Johnston will grow by another 10,000 residents. The local and regional systems (i.e. transportation, parks, trails, infrastructure and land use patterns) will need to be evaluated and planned accordingly to accommodate future growth.

Age

Johnston has a strong presence of younger families, in addition to an aging Baby Boom Generation population. Each age group requires different needs and services within the community. Alternative modes of transportation, housing, recreational needs and employment opportunities should be considered to meet the needs of all ages.

Housing

Households in Johnston can be characterized as being primarily single-family units, owner occupied and high household incomes. Future housing developments should consider a balance of mixed uses that provide opportunities for a variety of lifestyles and income levels.

Ethnicity

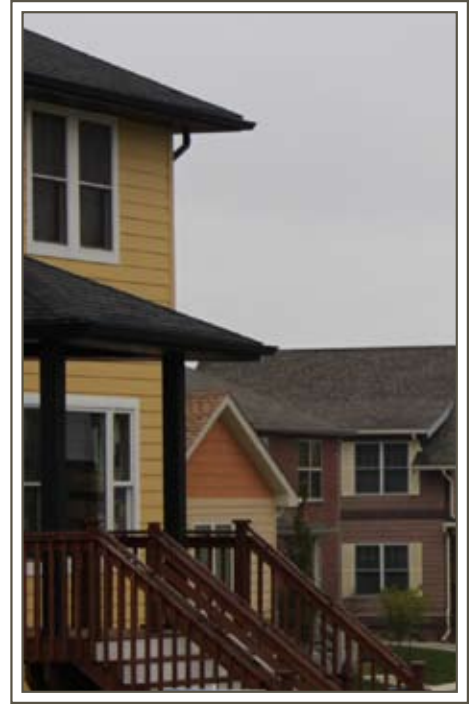
Johnston is slowly becoming more diverse and will need to be more aware of the cultural and lifestyle interests of a changing population.

Education

Recent growth trends have contributed to capacity issues at the elementary schools and middle schools. The city should continue to collaborate with the Johnston school district to examine future enrollment trends and development projections to address facility needs.

Employment and Workforce

Johnston has successfully attracted and retained large employers within the community creating a strong workforce of professional and office positions. Future land use planning should accommodate a diverse economic base that provides a mix of jobs and wages.





Natural Resources 4

Introduction

The Natural Resources chapter begins to highlight some of the unique features that define Johnston's landscape. These natural features continue to serve as important assets to the community and are valued by residents. As Johnston continues to develop, it is important to recognize these assets by finding an appropriate balance between the natural environment and the built environment. In doing so, it is possible to preserve natural resource areas and create a future living environment that integrates the man-made development patterns with the natural characteristics of the landscape.

To ensure that Johnston's natural resources are protected, the comprehensive plan addresses a number of land use and environmental standards that should be maintained to prevent the degradation of these resources. In developing additional regulations, the city should consider the findings in the city's Watershed Assessment and Stormwater Management Plan. In addition to this plan, the following policies and action steps have been established to protect and preserve Johnston's natural resources.

Natural Resources Policies

1. *Promote conservation of key natural resources and open space areas.*
2. *Establish a balance between the protection of natural resources and future urban development.*
3. *Facilitate development in areas with environmental resources to use site and building designs that embrace sustainable practices.*
4. *Preserve sensitive environmental resources as natural open space and greenways.*
5. *Promote strategies and best practices for energy conservation and preventing pollution of the land, water, and air.*
6. *Partner with and support environmental organizations that promote green building practices and standards, such as Leadership in Energy and Environmental Design (LEED).*





Natural Resources Action Steps

In order to enhance natural resource protection, the city will:

1. *Examine specific requirements for environmental protection that may be incorporated into the city's subdivision regulations.*
2. *Emphasize proper management of open space areas in order to preserve the trees, floodplain, steep slopes, water quality and similar environmentally sensitive features.*
3. *Cooperate with the Wastewater Reclamation Authority (WRA) and other levels of Des Moines metropolitan government in promoting the use of innovative sewage treatment systems.*
4. *Encourage tree planting on private property within the city.*
5. *Assist in the preservation of prime agricultural lands to allow areas to be farmed as long as desired by property owners by designating agricultural reserve areas and other mechanisms.*
6. *Require appropriate erosion controls during construction.*
7. *Limit urban development on steep slopes.*
8. *Incorporate select stands of timber into permanent open space areas as part of traditional platting and quality planned unit developments.*
9. *Encourage tree planting along street rights-of-way and other publicly owned land to improve community aesthetics.*
10. *Encourage efforts to preserve wildlife species including preservation of natural habitat areas where feasible.*
11. *Consider public acquisition of select plant and wildlife habitat areas to ensure preservation.*
12. *Maintain compliance with federal, state and local wetland rules and regulations and compliance with air quality, water quality and noise regulations.*
13. *Provide protection of the floodplains of Beaver Creek and the Des Moines River and the erosion-prone drainage courses that are tributary to them.*
14. *Continue participation in the National Flood Insurance Program.*
15. *Sand and gravel deposits are a natural resource. Future reclamation efforts for lands being mined for sand and gravel should be continually monitored and evaluated.*

Existing Conditions

During the 1900s development patterns started to influence the landscape in and around Johnston. The development of Camp Dodge, the railroad and the interstate system fueled development throughout the community. Land that was once rolling prairie hills or cultivated for corn, soybeans and other agricultural goods, now has assumed an urban development pattern. These landscape transformations represent fundamental changes to the area's historic natural landscape.

Development and natural events will continue to influence the landscape. The Land Use chapter provides the foundation necessary to understand how future growth will occur in the next twenty years. This chapter provides an inventory of natural resources (soils, water



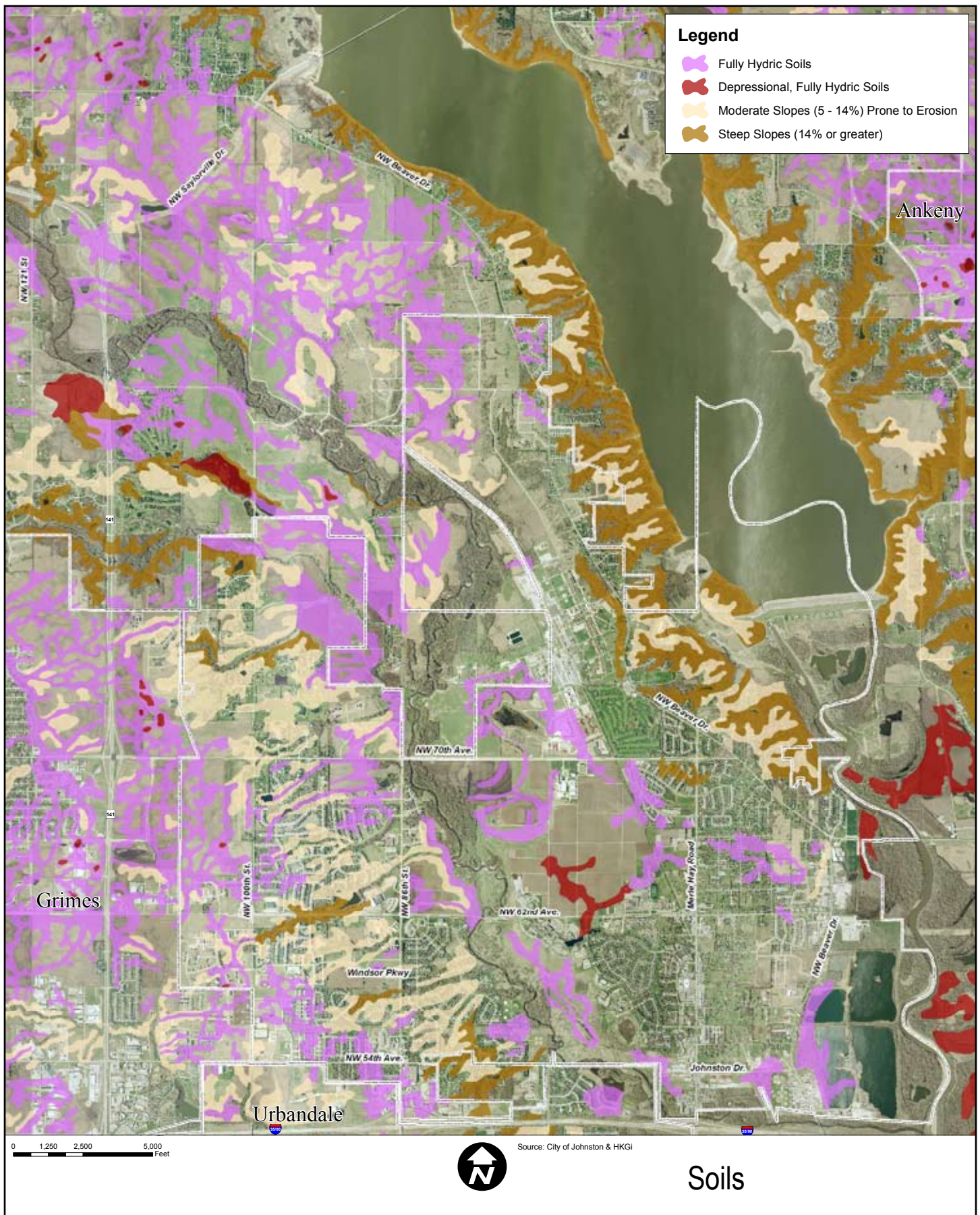


Figure 4.1 - Johnston Soils

features & natural open spaces) that will need to be considered as part of the land use plan. Findings in the City's Watershed Assessment and Stormwater Management Plan that was prepared by Nilles Associates in December of 2009 and other information was used as the basis for this natural resource inventory. The stormwater plan provides an in-depth look at the natural resources within the area, in addition to providing mitigation measures to address watershed and stormwater management issues.

Soils

One of the most reliable and detailed data sets available for soils information is the Soil Survey Geographic Database (SSURGO) prepared by the National Cooperative Soil Survey. This data depicts information about the kinds of soils dispersed throughout the landscape. It is important to be cognizant of these characteristics as certain soil structures can be prone to flooding and erosion. Figure 4.1 highlights key soil conditions within Johnston and the surrounding area. The following soil properties were identified as part of the stormwater plan.

Fully Hydric Soils

These soils often have a shallow watertable and are often located near swales, depressions and flood plains. Special construction practices are often required to construct improvements such as streets, utilities and structures in these areas. These soils may also indicate the presence of jurisdictional wetlands.

Depressional, Fully Hydric Soils

These areas often exist in shallow depressions and are often prone to seasonal shallow flooding. Many of these areas are located along floodplains or were once part of prairie pothole wetlands that were common in Iowa prior to agricultural development. These areas should be reserved from development and are candidates to be re-established as wetlands.

Steep Slopes (14% or greater)

It is difficult to prevent erosion and re-establish stable vegetation on steep slopes disturbed by construction activities. Exposed slopes can be prone to erosion and slope failures potentially causing downstream siltation, erosion and flooding. Structures constructed near the top of steep slopes can be impacted if sufficient separation is not maintained from the base of the structure to the toe of the slope. Construction in these areas can also harm the scenic character of these areas, especially if they are established with quality woodlands or native prairie flowers and grasses. These issues need to be addressed before allowing development on or near these slopes.

Moderate Slopes (5 to 14%) Prone to Erosion

Some soils are more prone to erosion when disturbed than others. Preventing erosion and sediment loss and re-establishing vegetation on these areas when graded may require added silt fencing and other measures. Proper pollution planning and vegetation management will be needed in these areas.

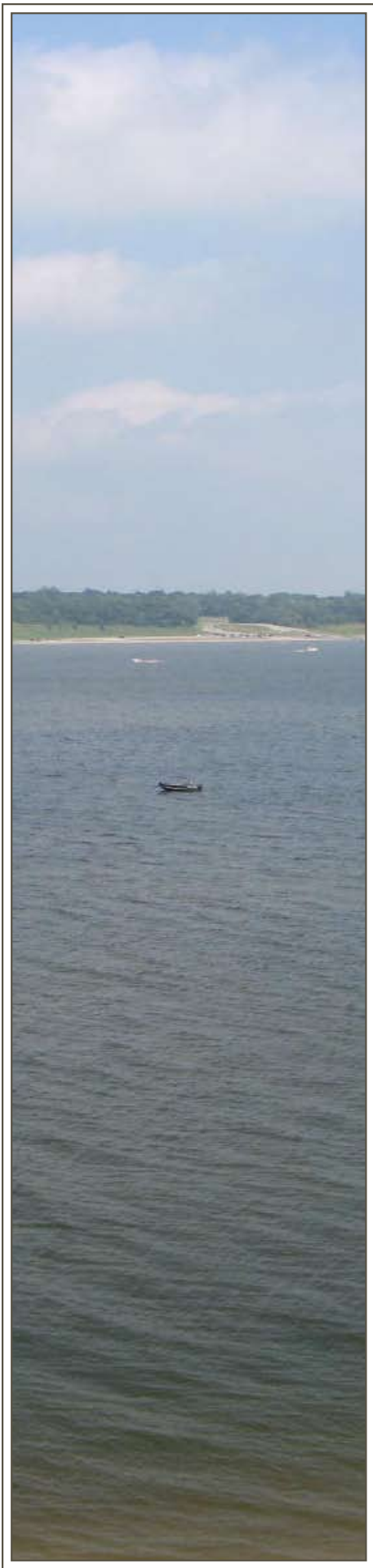
The soil inventory shows a significant portion of the western edge of town to be fully hydric soils and moderate slopes of 5 to 14%. These soil characteristics can be challenging for development. A number of new housing developments have occurred within this area since the release of the SSURGO data in 2005. It is important to understand that these soils do not prohibit development, but require a more in-depth assessment to determine where development is most appropriately placed.

Water Features

Saylorville Lake

One of the most iconic water features in the area is Saylorville Lake. This reservoir plays an important role in the area as it provides capacity to prevent flooding downstream and





river cresting along the Des Moines River. The lake is managed by the U.S. Army Corps of Engineers.

Wetlands

An important part of Johnston's ecosystem is a series of wetlands that are dispersed throughout the community. This system supports wildlife habitat and spawning areas. Alteration of wetlands in the form of filling or draining can have an adverse effect on these systems and increase flooding and runoff in other areas. For this reason, they require special attention. Federal law also can protect wetlands under the regulations administered by the U.S. Army Corps of Engineers. It is necessary to consult with the city and the Army Corps of Engineers before developing near wetlands. Figure 4.2 depicts the National Wetland Inventory (NWI), which includes jurisdictional and non-jurisdictional water bodies.

Rivers, Streams & Creeks

Johnston is part of a complex system of water corridors that includes the Des Moines River, Beaver Creek and Little Beaver Creek. Each of these corridors feed into a number of smaller streams that contribute to a natural greenway system. This system is discussed in more detail under the Natural Open Space section.

These waterways play a vital role in capturing stormwater runoff thereby preventing flooding and enhancing water quality. Preserving these corridors is beneficial from a public investment standpoint as it reduces storm sewer and other capital improvement cost. The stormwater plan has identified three types of streams within the area and each is defined below. Each of these streams requires a different level of protection and maintenance. The plan provides guidance and mitigation measures on how to preserve and protect these natural waterways.

Type I Streams

These streams include Beaver Creek, Little Beaver Creek and the Des Moines River. Type I streams have established flood plains, established baseflows and watershed areas of a much larger scale than most other urban streams. Proper protection is a key concern for these streams.

Type II Streams

Type II streams do not usually have established floodplains, but often have established baseflows in urban areas. These streams often have watersheds of 40 – 2,000 acres and likely will require ongoing maintenance to prevent larger erosion issues from being created as development occurs. Such issues are difficult to handle by either a private homeowner or an association of local property owners.

Type III Streams

Type III streams may or may not have established baseflows and usually have watershed areas of less than 80 acres. These corridors should be protected or enhanced through the site development process, but likely could be maintained by a private entity as long as maintenance access is available through appropriate building setbacks and required easements. Public or private ownership of these watercourses could be considered on a case by case basis at the site development stage.

Floodplains

Like many communities along the Des Moines River, Johnston has suffered property damage from flooding. The last major floods occurred in 1993 and 2008. Flood events have primarily occurred along the Des Moines River and Beaver Creek during the early

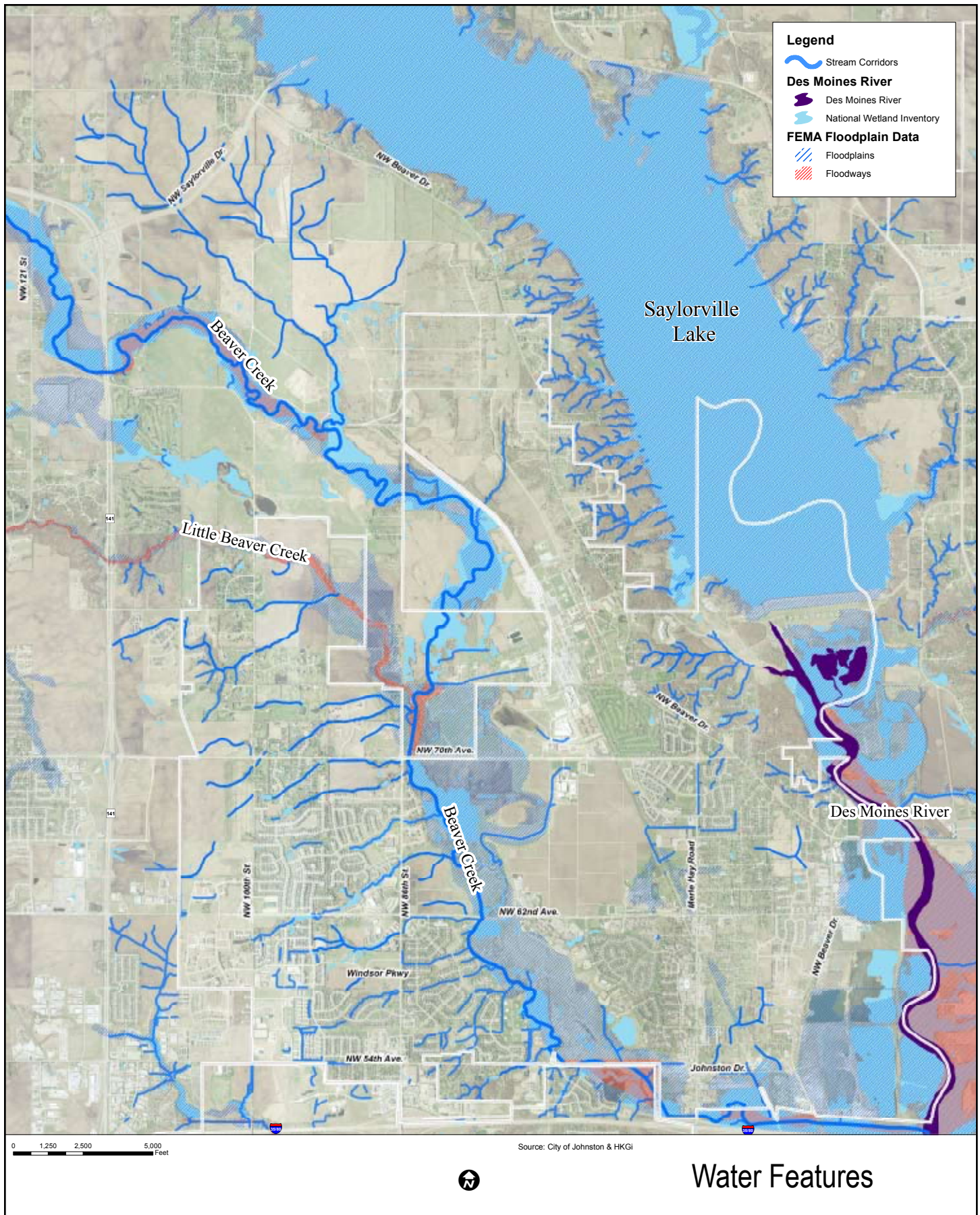


Figure 4.2 - Johnston's Water Features



months of spring and summer. The most up-to-date Federal Management Emergency Agency (FEMA) and Flood Insurance Rate Maps (FIRM) should be consulted to identify properties that may be subject to flooding prior to development. In addition to these resources, zoning provisions have been set by the city to regulate development within the floodplains to ensure the public's safety and minimize future property damage.

Natural Open Spaces

Open spaces and greenways are a valuable component for both functional and aesthetic purposes. They offer a range of opportunities to improve water quality, habitat and recreation. Johnston's landscape already provides a number of interconnected waterways with open spaces, forming a natural greenway system (see Figure 4.3). The backbone to these systems is the Des Moines River and Beaver Creek. Intermingled along these corridors are pockets of vegetation, wetlands and open spaces. Protecting these lands is important to ensure that the greenway functions as a corridor, not just as an assembly of isolated patches of natural areas. A fully interconnected system will require the coordination and collaboration between private landowners and public agencies. The following natural areas are identified in the stormwater plan and makeup the components of Johnston's greenway system.

Quality Wooded Areas

Well-managed tree areas, especially those with mature native trees provide important habitat for a variety of birds, insects and animals. Wooded areas reduce rainfall runoff and protect surface soils from erosion caused by rainfall.

Prairie Remnants

Existing prairies can prevent erosion, absorb pollutants and reduce stormwater runoff. They also provide a valuable seedbank for native flowers and grasses that can help to add diversity to any native planted areas constructed nearby. They also provide important habitat to a wide variety of species.

Stream Corridors

Maintaining a healthy buffer along both small and large streams offer the following benefits:

- » *Absorption and filtration of stormwater runoff.*
- » *Establishment and protection of wildlife habitat.*
- » *Reduced streamflow velocities and streambank erosion.*
- » *Provision for safe storage and conveyance of large storm runoff.*
- » *Moderation of downstream flooding.*

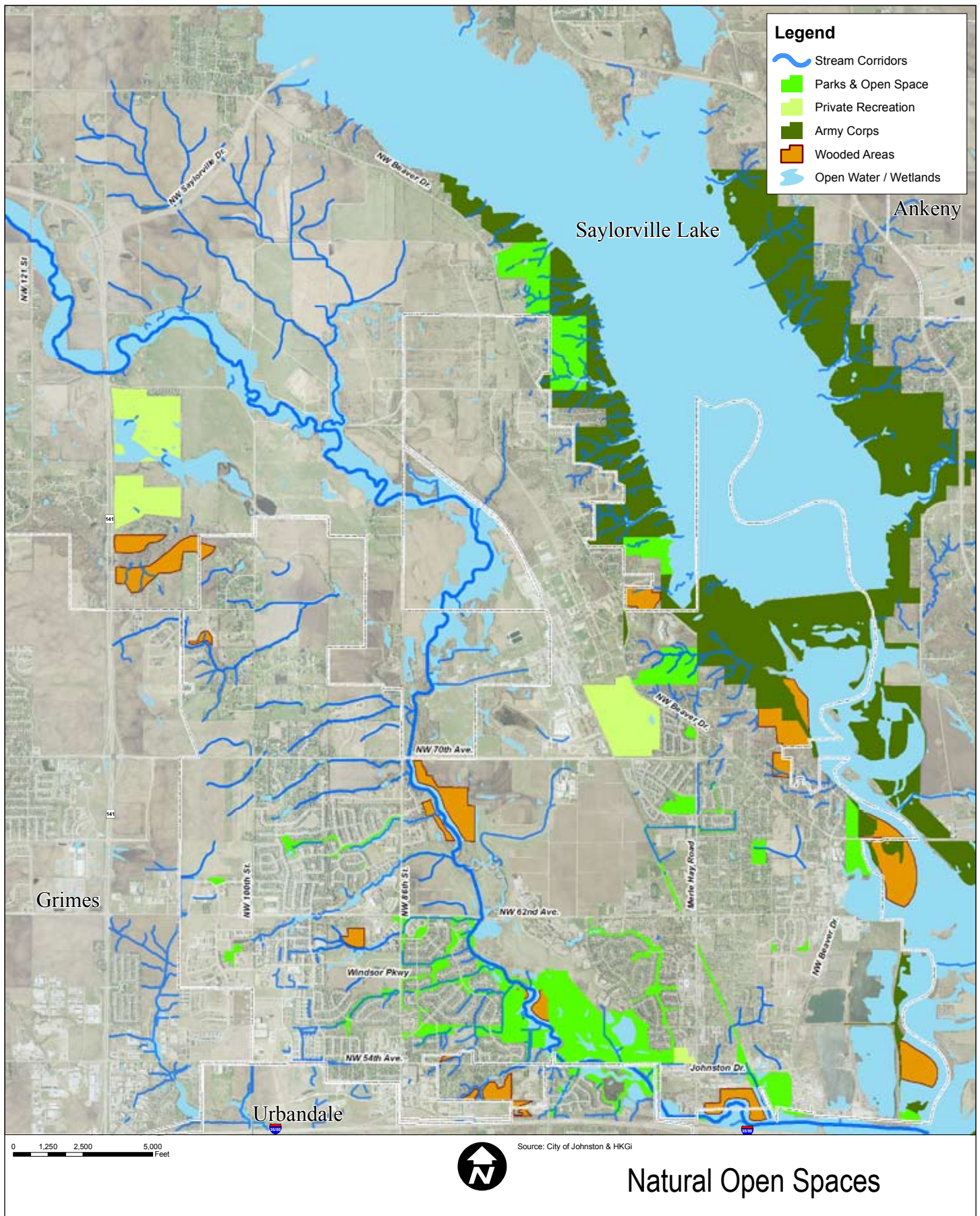


Figure 4.3 - Natural Open Spaces



Land Use 5

Johnston's Vision and Guiding Principles found in Chapter 2 provide the foundation for the comprehensive plan and specifically, the Land Use Plan. The Land Use Plan provides the framework for the future use of land. It seeks to reinforce desirable land use patterns, identify places where change is needed and it guides the location and form of future growth.

The Guiding Principles call for Johnston to take a "proactive position on future growth". Proactively addressing future growth continues the approach that Johnston has taken over the past two decades. The Land Use Plan outlined in this chapter focuses on community growth over the next two decades, from now through 2030.

Johnston's Land Use Plan was shaped by a number of factors including:

- » *Vision and Guiding Principles described in Chapter 2.*
- » *Existing Community Context found in Chapter 3.*
- » *Community input gathered through community meetings, workshops and surveys.*
- » *Task force input and direction of the process.*
- » *Review and feedback from the Johnston Comprehensive Plan Advisory Board, City Council and Planning and Zoning Commission.*
- » *A careful examination and analysis of the physical landscape in and around Johnston.*

A History of Rapid Growth

Johnston's last comprehensive plan was completed in 1998. Since that time, the city has grown from a population of approximately 7,000 to almost 17,000 residents, a 243% increase, placing Johnston in the top 5 growing communities in the Des Moines Metropolitan Area. Employment growth has surged as well with the addition of new office and retail uses including the development of the John Deere Credit campus. Hometown business Pioneer Hi-Bred International, Inc., continues to expand its operations in Johnston.

Johnston's residential growth has continued to follow parallel linear paths flanking Beaver Creek and Camp Dodge (Figure 5.1). New residential neighborhoods have been created between NW 86th Street and NW 100th Street. Within this area, new elementary and middle schools have been built to serve Johnston's new families. While the majority of new growth has occurred on the west side, growth on the east side has been significant as well. On the east, new residential neighborhoods have been created on either side of NW 62nd Avenue and flanking the intersection of Merle Hay Road and NW 70th Avenue.

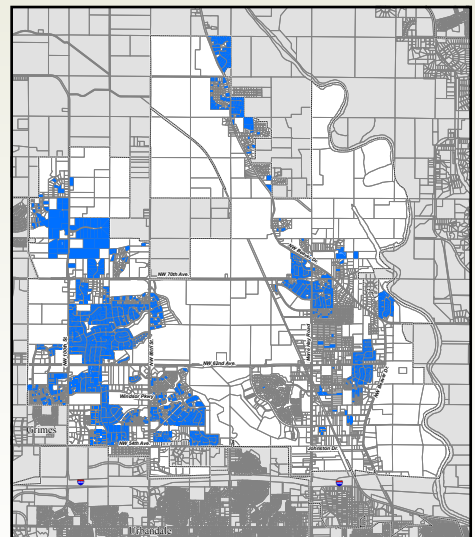


Figure 5.1 - Residential Development 1996-2008

Organization of the Land Use Plan

The Land Use Plan outlined in this chapter includes the following:

- » **Existing Land Use** summarizes Johnston's land use pattern in 2010. It provides a breakdown of acreage by land use categories. It also looks at the important role of open space in Johnston and provides commentary on the challenges and opportunities created by some of Johnston's larger land users.
- » **Land Use Categories** provides general descriptions of the categories that are being used in the 2030 Future Land Use Plan.
- » **2030 Land Use Plan** shows the land uses assigned to each parcel of land. It is the basis for establishing subsequent zoning district boundaries and regulatory tools.
- » **Future Land Use Plan** discusses the characteristics of each land use type and includes corresponding Policies and Action Steps.
- » **Focus Areas** provide a more detailed discussion of the characteristics and plans for specific areas of the community. The focus areas were identified based on planning issues that have arisen since completion of the last Comprehensive Plan in 1998 as well as issues that were identified during the discovery portion of this planning process.

Existing Land Use	Acres	Percent
Agricultural	1,988	17%
Single Family Residential	2,320	20%
Multi-Family Residential	270	2%
High Density Residential	50	0%
Commercial	168	1%
Office	259	2%
Industrial	275	2%
Public	247	2%
Semi-Public	68	1%
Camp Dodge	1,494	13%
Army Corp	430	4%
Parks & Open Space	550	5%
Private Recreation	121	1%
ROW & Easements	804	7%
Open Water	1,810	15%
Vacant Land	927	8%
Total:	11,781	100%

Table 5.1 - Existing Land Use (Source: City of Johnston, Polk County, HKGi)

Residential growth has also occurred along NW Beaver Drive lying between Camp Dodge and Saylorville Lake.

Will Johnston's growth over the next twenty years match that of the past two decades? Indicators suggest that the city is likely to continue to see significant growth over the next 20 years, however, perhaps at a slightly less rapid pace. According to population projections by the Des Moines Area MPO, Johnston's population will increase by another 10,000 residents by 2030. The city's growth rate will ultimately be influenced by the economy, the desires of local land owners and developers and the city's ability to extend municipal services to accommodate future growth.

Existing Land Use

Johnston was first established in the early 1900s as a railroad and farming community. The land was primarily used for agricultural purposes prior to the community's incorporation in 1969. Since that time there has been a steady decline in agricultural uses as commercial and residential developments have become more prominent.

To some degree, Johnston is landlocked with the presence of Saylorville Lake, Interstate 35/80, Camp Dodge and the Des Moines River. These features have influenced development patterns, infrastructure and the transportation network; but they continue to serve as assets to the community. Johnston's built environment has embraced these assets and they are reflected in the development patterns that exist today.

Johnston is 11,785 acres in size (see Table 5.1). Figure 5.2 (ELU Map) is a snapshot of land uses in 2009. This map is intended to illustrate the overall land use patterns that exist today; a breakdown of which is shown in the column on the left.

Agricultural Uses

Agricultural uses still make up a significant portion of Johnston's land area. However, a large portion of the agricultural land that existed in 1998 has been developed for other uses, primarily residential. Agricultural land uses are located on the western edge of town and north of NW 62nd Avenue. Approximately 50% of what is shown as agricultural today



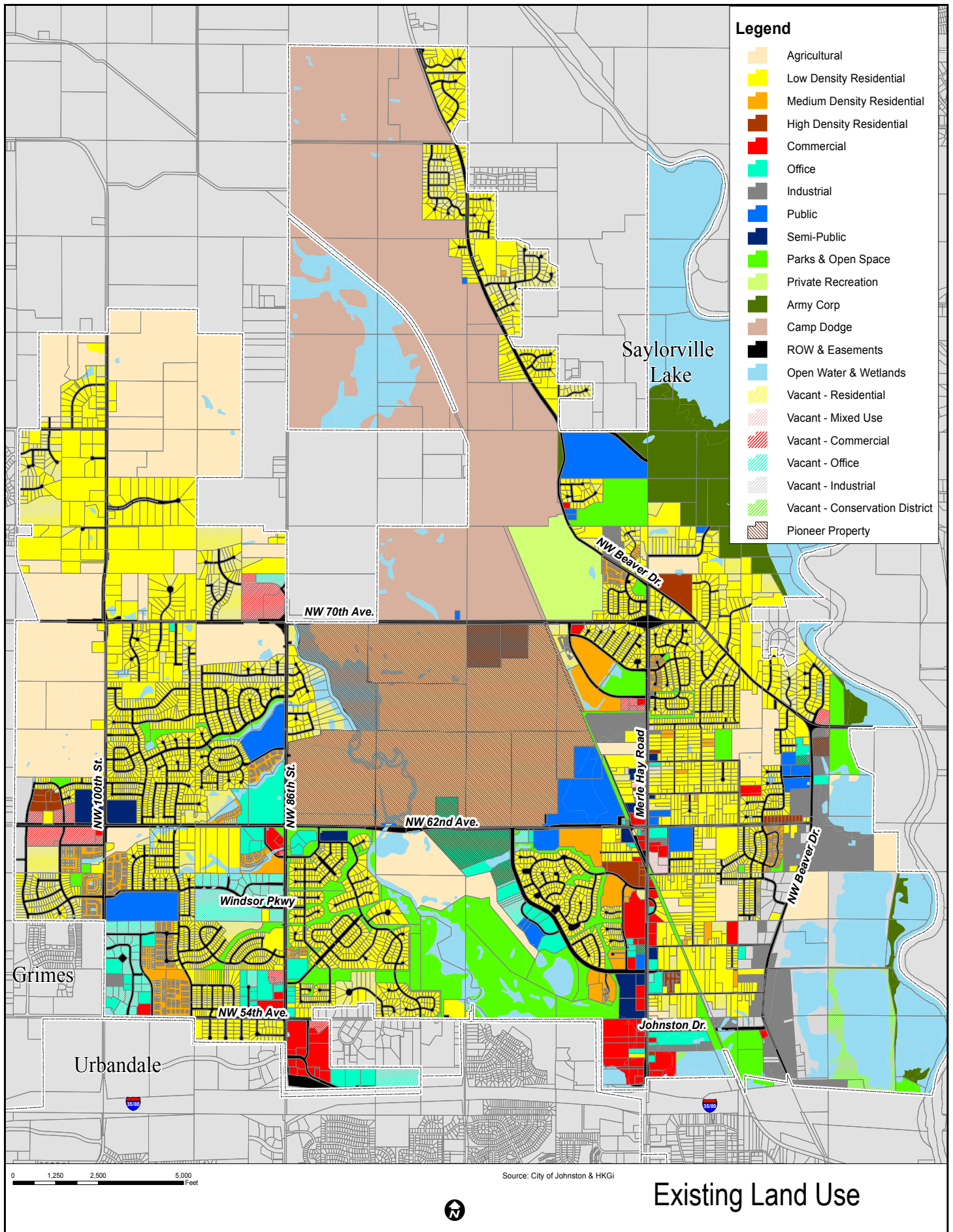


Figure 5.2 - Existing Land Use

is owned by Pioneer Hi-Bred International, Inc., and used as part of their corporate crop research.



Residential Uses

Single-family residential uses make up the single largest land use category in Johnston (see Figure 5.3). This development pattern primarily evolved since 1980. Between 1980 and 2009, 80% of Johnston's single-family homes were built (see Figure 5.4). The remaining housing stock was primarily built between 1940 and 1980.

Housing that was before 1980 is largely located on the eastern edge of the community along the Des Moines River and Beaver Drive. Newer housing has occurred in this area, but larger residential developments have occurred on the western edge. There is a slight disparity in estimated market value between the two sides of town (see Figure 5.5). The homes in eastern Johnston tend to be smaller in size and correspondingly, have lower market values.

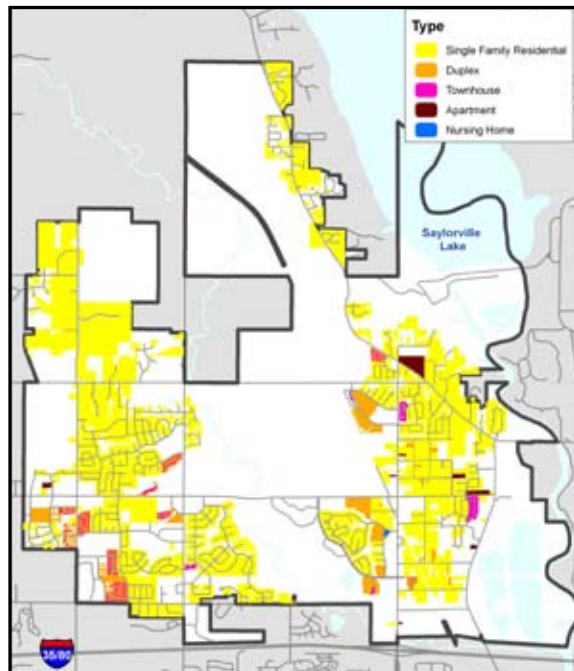


Figure 5.3 - Residential Uses

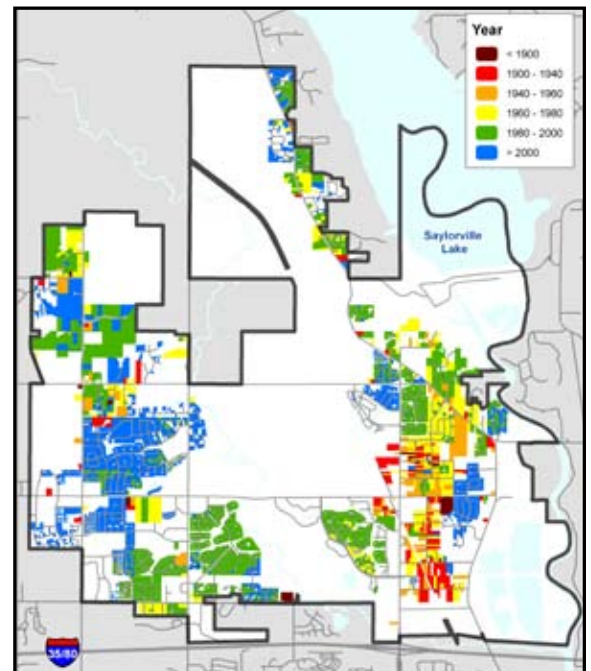


Figure 5.4 - Year Built

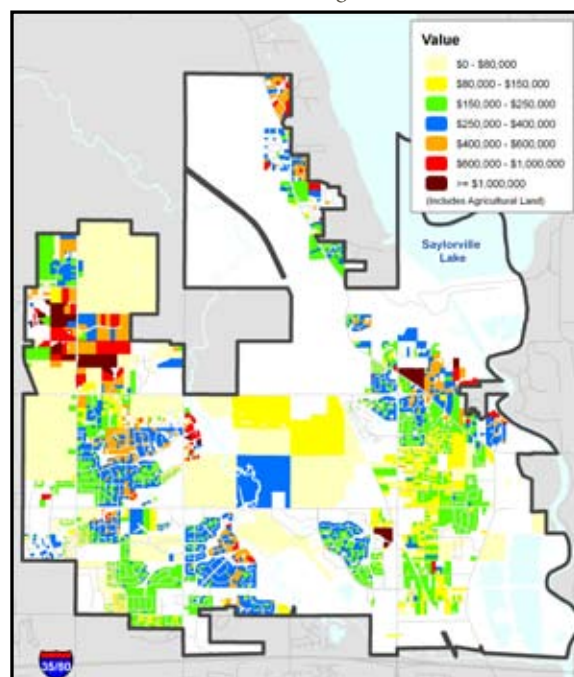


Figure 5.5 - Est. Market Value

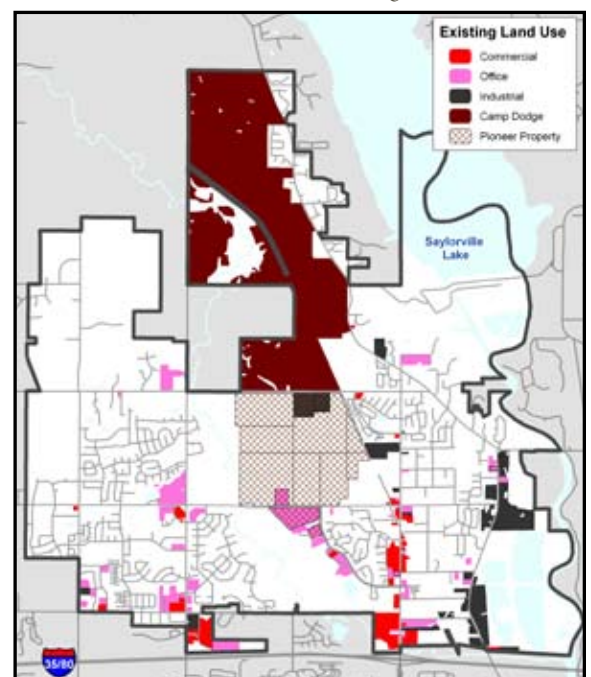


Figure 5.6 - Commercial Uses

Multi-family and high density residential uses also have a presence in Johnston and typically consist of duplexes and townhomes (see Figure 5.3). A majority of these uses were built in the last decade and are located south of NW 62nd Avenue.

Commercial, Office & Industrial Uses

Johnston offers a variety of employment opportunities and is home to Pioneer Hi-Bred International, Inc., John Deere Credit, Camp Dodge and Iowa Public Television. These industries have a large presence in Johnston, but are not the only sources of employment. Commercial and industrial uses include shopping centers, restaurants, hotels, a movie theater, asphalt plants and warehousing (see Figure 5.6). A number of these uses are located along Merle Hay Road which serves as a commercial corridor connecting to Interstate 35/80 and Des Moines.

In recent years, land around NW 62nd Avenue and Merle Hay Road has been identified as an area for redevelopment and infill. In 2007, a redevelopment study was conducted laying the framework for redevelopment over time. In conjunction with this study, a market analysis was completed to assess development potential along the corridor. These studies triggered land use amendments to the 1998 Comprehensive Plan.

Parks, Greenways and Open Space

Johnston has embraced its natural environment. A large percentage of the land in Johnston (25%) is dedicated to open space, parks, greenways and open water bodies (see Figure 5.7). Water bodies such as Beaver Creek have been incorporated into development patterns by preserving land around the creek to form greenways and connecting open spaces. This is clearly seen in the development patterns west of the Beaver Creek Natural Resource Area.

The Des Moines River and Saylorville Lake are unique Johnston assets. Land abutting the Des Moines River has been preserved by the city or is currently owned by the Army Corps of Engineers. These natural areas offer the community recreational amenities, aesthetic value and a refuge for wildlife.

Assets and Barriers

Johnston's land use pattern has been and will continue to be influenced by a number of factors outside of the city's direct control. The location of Camp Dodge, Beaver Creek and large property holdings by Pioneer Hi-Bred International, Inc. (see Figure 5.8), have split Johnston into two parts; creating an east/west divide. The largest single barrier is Camp Dodge which encompasses approximately 13% of Johnston's land area and extends outside the city limits totaling approximately 4,300 acres in size. The majority of the Camp Dodge property is used to train military personnel and about 650 acres is leased for agricultural uses. Despite its intense use, the camp contains areas that are rich in natural amenities.

Pioneer Hi-Bred International, Inc., owns approximately 780 acres south of Camp Dodge. Their property holdings extend from Camp Dodge to NW 62nd Avenue, and their offices and greenhouses are set among an extensive range of growing fields. Preservation of the agricultural fields is vital to Pioneer Hi-Bred International, Inc.'s, operations since they continue to monitor long-term growing conditions as part of their research efforts.

Beaver Creek runs along the eastern side of both Camp Dodge and Pioneer Hi-Bred International, Inc., along NW 86th Street and Foxboro Road meandering southeast through the community. The waterway and its associated floodplain areas further accentuate the east/west divide.

The combination of Beaver Creek, Camp Dodge and Pioneer's operations establishes a permanent green swath through the city of Johnston that creates a disconnect between

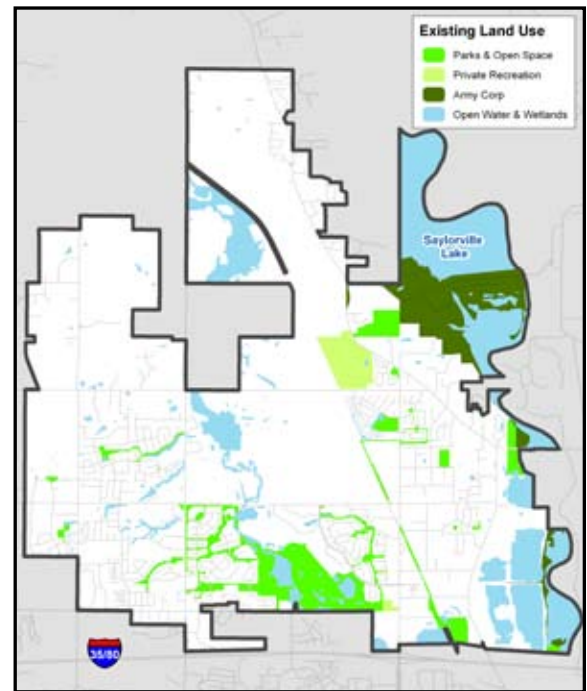


Figure 5.7 - Parks & Open Space

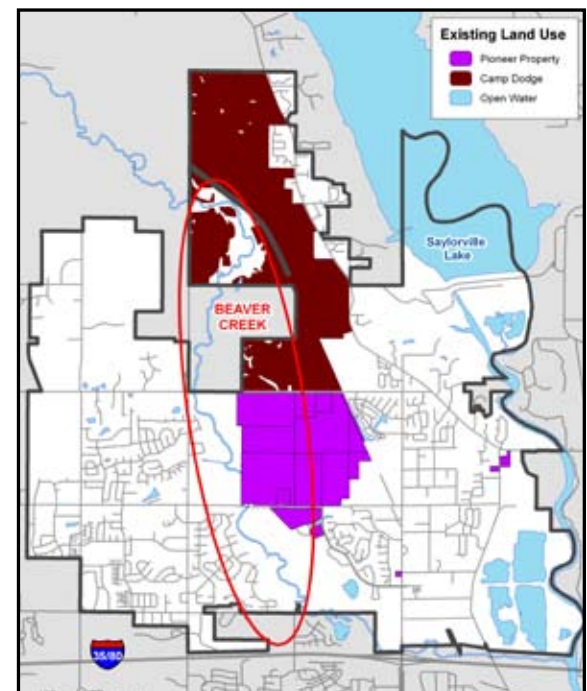


Figure 5.8 - Assets & Barriers

the eastern and western portions of the community. Three transportation corridors (NW 70th Ave., NW 62nd Ave. and Interstate 35/80) help bridge this divide.

Land Use Categories

The Land Use Plan contains a variety of categories to address the full range of land use types found in Johnston today as well as those likely to occur in the future. The categories used in this plan are similar to those used in the 1998 Comprehensive Plan with the exception that the residential categories have been expanded to reflect a wider range of densities. The land use categories include:

- » **Rural Density Residential (RDR)** includes single-family detached housing at a density not to exceed two units per acre. Neighborhoods within this area consist of large lot, estate-type housing with private on-site septic and well systems prior to the extension of municipal water and sanitary sewer. Limited agriculture and/or hobby farm uses may occur in land designated as RDR.



- » **Low Density Residential (LDR)** includes housing with densities that generally range from two to five units per acre. Neighborhood areas classified as LDR will typically be predominately single-family detached units with the potential for some doubles and other lower density attached housing products.



- » **Medium Density Residential (MDR)** includes residential uses at densities that range from five to eight units per acre. MDR accommodates a mix of housing types including single-family detached, townhomes, and lower density townhomes.



Note: Photos used are illustrative of land use types, not necessarily buildings found in Johnston.

- » **High Density Residential (HDR)** includes multi-family housing at densities exceeding eight units per acre. Uses in this category include townhouses, row houses, apartments, condominium buildings and senior housing.



- » **Commercial (C)** - The commercial land use category includes retail and service commercial land uses that serve neighborhood, community and regional markets. The areas are located to provide convenient access for customers. Community and regional commercial has higher demands for traffic and accessibility, and are suitable for only certain areas, because they rely upon customers from outside the community.



- » **Office (O)** - The office land use category includes lots or parcels that contain professional offices and services such as medical, law, real estate and financial businesses. In the 2030 Land Use Plan, office uses are designated along Merle Hay Road and other major road corridors as well as within the Business Park classification.



- » **Neighborhood Mixed Use (NMU)** – Neighborhood mixed-use areas are intended to provide a smaller scale, mix of commercial, residential, public and related uses in a pedestrian friendly environment. They may include a mix of retail and service commercial, office, institutional, higher density residential, public uses and/or park and recreation uses. Uses can be integrated either vertically or horizontally.



- » **Community Mixed Use (CMU)** – Community mixed-use areas are intended to provide a unique mix of commercial, residential, public and related uses in a pedestrian friendly environment. It is envisioned that CMU areas will include a mix of retail and service commercial, office, institutional, higher density residential, public uses and/or park and recreation uses. CMU areas are expected to be integrated both vertically and horizontally.



- » **Business Park (BP)** - Business park areas include lots or parcels containing showrooms, warehousing, storage and light industrial uses with associated office functions. Business park developments are usually designed in a unified manner and feature landscaped open areas and roadway edges, consistent lighting, and entry monumentation.



- » **Industrial (I)** - The industrial category includes lots or parcels containing light manufacturing, goods movement, wholesale trade, and similar uses. Industrial land uses differ from business park uses, generally due to scale and an emphasis on individual industrial sites rather than larger scale, planned office/industrial environments.



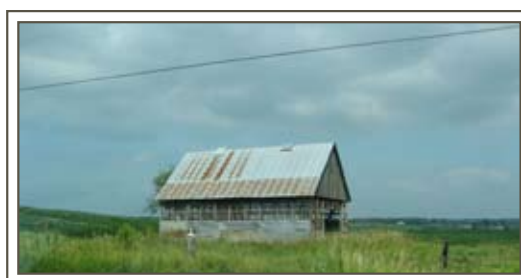
- » **Public and Quasi-Public (P/QP)** - Public and quasi-public uses in Johnston include churches, schools, cemeteries, golf courses, local government facilities and other parcels that are owned by a public or quasi-public entity. This category does not include parks and recreation areas.



- » **Park/Open Space (P/OS)** - The park and open space category includes land owned by the City of Johnston. Parks and open space are discussed in detail in the Parks and Recreation chapter of this plan.



- » **Agriculture (AG)** - Permanent agriculture fields are a separate designation because they support agriculture research and contribute visually to the rural character of the community. Pioneer Hi-Bred International, Inc., maintains an active research component adjacent to their corporate campus.



- » **Army Corps (AC)** - When Saylorville Lake was established, the Army Corps of Engineers acquired a substantial amount of land in and around Johnston. Property designated as Army Corps primarily includes recreational areas and open space on the periphery of Saylorville Lake.



- » **Camp Dodge (CD)** - Camp Dodge is the single largest land use category on the future land use plan map. Camp Dodge has a major impact on the City of Johnston, both as a land use type and its benefits including employment opportunities and preservation of an expansive open space system with pockets of unique natural resources.



2030 Land Use

Land Use Category	Acres	Percent
Agricultural	799	4%
Rural Residential	492	2%
Low Density Residential	4,091	18%
Medium Density Res.	494	2%
High Density Residential	227	1%
Commercial	271	1%
Community Mixed Use	118	1%
Neighborhood Mixed Use	46	0%
Office	160	1%
Business Park	592	3%
Industrial	475	2%
Camp Dodge	3,747	17%
Public	238	1%
Quasi-Public	503	2%
Parks & Open Space	1,223	5%
Army Corps	1,888	8%
Open Water	6,006	27%
ROW & Easements	1,231	5%
Total:	22,582	100%

Table 5.2 - 2030 Land Use



2030 Land Use Plan

Figure 5.9 is Johnston's Future Land Use Plan. The Future Land Use Plan depicts a pattern that is expected to evolve in and around the City of Johnston over the next twenty years. Future land use designations are the product of both past, present and anticipated future influences. The Future Land Use Plan is intended to serve as a guide for land use decisions and it provides the basis for establishing and modifying zoning district boundaries. Additionally, it is intended to help direct public investments in infrastructure including roads and utility system expansions. Any changes to the Future Land Use Plan map should only occur after careful analysis and examination against the broader community vision, guiding principles and policies found within all of the sections of this plan.

Future Land Use Plan

The 2030 Land Use Plan map shows the pattern of anticipated land uses in Johnston over the next twenty years. In order to provide a broad range of living and work opportunities, the plan includes a number of types of residential uses and a variety of non-residential uses. Along with public uses and park and open space areas, they create a tapestry that reflects Johnston's historical roots while embracing future development opportunities. The following is an overview of the future pattern of land use in Johnston and the policies and action steps that help guide their physical form.

Rural Density Residential (RDR)

Rural Density Residential (RDR) occurs primarily in two areas on the 2030 Plan, north of NW 70th Avenue flanking NW 100th Street and in the northwest future growth area which lies northwest of the intersection of Highway 141 and NW Saylorville Drive. Both of these areas are discussed in more detail in the Focus Areas portion of this chapter.

Property designated rural density residential is either part of an existing area of large lots and on-site services or new areas on the periphery of future areas of Johnston where abutting densities are low and/or nearby uses are agricultural. Although properties designated as RDR may have on-site sanitary systems and wells on an interim basis, long-term plans are to provide full municipal services to these areas. This fact should be considered as property is platted and developed. RDR allows densities up to two units per acre.

Rural Density Residential Policies:

RDP.1. Maintain the rural character of existing neighborhoods and anticipate intensified development in agricultural areas.

RDP.2. Accommodate infill development that is consistent with existing development patterns and densities where existing topography and soils are appropriate.

RDP.3. Continue to design and fund sanitary sewer service and other capital improvements to the area. New development shall be served by municipal sanitary sewer.

RDP.4. Create a quality living environment that is adapted to the natural environment.

Rural Density Residential Action Steps:

RDA.1. Discourage non-residential and/or non-local traffic on local streets.

RDA.2. Limit housing to single-family, detached homes.

RDA.3. Encourage the placement of housing units in a manner that preserves significant natural resources through the encouragement of cluster practices and other mechanisms.

RDA.4. Allow accessory structures consistent with rural residential and hobby farm principal uses.

RDA.5. Prohibit commercial or industrial uses in residential areas including home occupations that involve exterior storage.

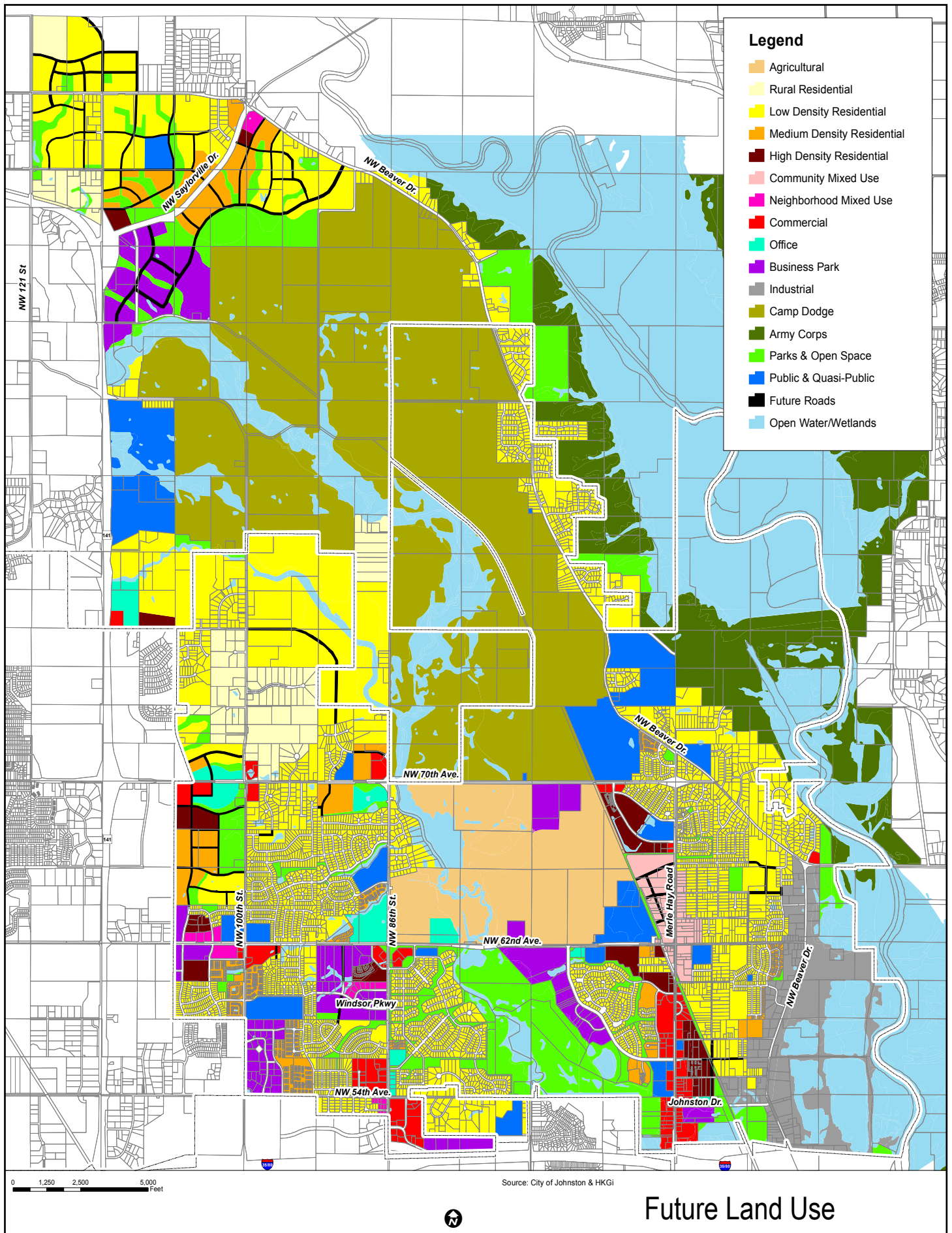


Figure 5.9 - 2030 Future Land Use Plan

RDA.6. Work with Polk County to establish periodic monitoring requirements for existing on-site sewage treatment systems.

RDA.7. Cooperate with Polk County to encourage preservation of agricultural lands surrounding the City of Johnston.

RDA.8. Cooperate with adjoining communities and Camp Dodge to encourage compatible land use development.

Note: Additional Action Steps regarding the RDR area located north of NW 70th Avenue flanking NW 100th Street are found in the Focus Area section of this chapter.

Low Density Residential (LDR) and Medium Density Residential (MDR)

Areas of Johnston earmarked for Low Density Residential (LDR) and Medium Density Residential (MDR) uses make up the vast majority Johnston's supply of residential land. Accordingly, they are discussed together and have a common set of policies and action steps.

Johnston is viewed as being primarily a detached single-family home community. Although large single-family detached neighborhoods occur throughout Johnston, the city also features a broad array of housing styles and densities. With the LDR/MDR combined density range of two to eight units per acre, Johnston has the ability to continue to offer single-family homes, duplexes, triplexes, row townhomes, manor homes and future housing products that fall within the stipulated density range.

Low Density Residential and Medium Density Residential Policies:

L/MDP.1. Allow residential densities that are related to the future capacity of utility systems and physical site characteristics and limitations.

L/MDP.2. Encourage a variety of housing types to support the diverse needs of the residential population.

L/MDP.3. Allow infill development in a manner that protects the character of existing residential neighborhoods.

L/MDP.4. Maintain a circulation system that connects neighborhood areas while emphasizing a system of local and collector roadways to accommodate vehicular movements.

L/MDP.5. Create planned neighborhoods with common facilities and amenities that establish a sense of identity that helps promote long-term value stability.

Low Density Residential and Medium Density Residential Action Steps:

L/MDA.1. Insure that new development areas are compatible in size and scale with existing, adjacent neighborhoods.

L/MDA.2. Require urban services for all new low and medium density residential developments including sanitary sewer, municipal water and storm sewer systems.

L/MDA.3. Provide appropriate buffers to allow density transitions and to accommodate a range of housing types.

L/MDA.4. Promote programs and enforce codes that encourage the maintenance of the existing housing.

L/MDA.5. Encourage rehabilitation of deteriorating housing.

L/MDA.6. Improve or upgrade neighborhood infrastructure on an as-needed basis. In the established areas of Johnston, the existing development pattern may warrant the use of standards that differ from those used in the newly developing portion of the community.



L/MDA.7. Reflect the history and character of existing residential neighborhoods in future developments within those neighborhoods.

L/MDA.8. Provide commercial services that are convenient to neighborhood areas.

L/MDA.9. Provide appropriate density transitions in the area east of Merle Hay Road to ensure the integrity of existing larger lot residential developments.

L/MDA.10. Utilize natural features including floodplain areas as connecting links between neighborhood areas.

L/MDA.11. Collaborate with Polk County to establish inspection requirements for on-site sewage treatment systems.

High Density Residential (HDR)

Residential units in the High Density Residential (HDR) category will generally include apartment buildings, condominium buildings and some higher density townhouses. HDR will also accommodate senior housing. Land designated as high density occurs throughout the community with a concentrations along Merle Hay Road, at Johnston Commons, along the city's western border with Grimes and in the northwest future growth area.

High Density Residential Policies:

HDP.1. Encourage a balance of attached forms of housing as an alternative to single-family detached homes.

HDP.2. Provide sites for higher density housing in locations that are convenient to commercial services, major roadways and park and recreation areas.

High Density Residential Action Steps:

HDA.1. Provide appropriate land use transitions at the edges of high density residential areas to buffer noise and screen undesirable views from abutting roadways.

HDA.2. Require sidewalks and trails that provide pedestrian links to the community-wide trail system.

HAD.3. Require quality building materials for multi-family housing that minimizes required ongoing maintenance.

Commercial (C)

Commercial (C) land uses in Johnston provide residents with a variety of goods and services. As a land use category, commercial includes retail and service businesses. Typical commercial uses include grocery stores, gas stations, restaurants, banks, dry cleaners, daycares, and drug stores. Historically, Merle Hay Road has been Johnston's primary commercial corridor. Over time, larger scale commercial uses in nearby Urbandale and Ankeny have weakened the local market for smaller business operations. As a result, some properties along Merle Hay Road have become vacant or have seen frequent changes in use.

Responding to this situation, Johnston prepared a redevelopment plan for Merle Hay Road in 2008 that addresses the northern portion of the corridor. The Merle Hay Road redevelopment area is discussed in more detail in the Focus Area portion of this chapter. The southern stretch of Merle Hay Road from Winwood Drive to I-80 remains commercial. This area which is referred to in this plan as the Gateway Area is also addressed in the Focus Area portion of this chapter.

Because of the existing land use pattern and competition from retail in adjacent communities, Johnston is not expected to see a significant amount of new "big box" retail commercial uses in the future. Some potential for big box retail does exist in the western part of the community abutting Grimes. Grimes has big box retail uses along NW 70th Street just outside of Johnston's border.



The scale of Johnston's commercial uses in the future will likely relate to its customer orientation. Neighborhood scale uses will appeal to nearby residents. Community scale commercial will appeal primarily to Johnston residents and regional scale commercial will attract customers from a broader geographic area.

Commercial Policies:

CAP.1. Provide neighborhood commercial areas to supply convenience goods and services principally for residents of Johnston neighborhoods.

CAP.2. Provide community commercial areas to supply goods and services that appeal to the community at-large.

CAP.3. Provide convenience shopping nodes that offer goods and services for visitors to the community including recreational traffic associated with Saylorville Lake.

CAP.4. Encourage commercial developments to locate along major collector and arterial streets.

CAP.5. Encourage clustering of commercial uses as opposed to strip commercial development lining major roadways.

Commercial Action Steps:

CAA.1. Require appropriate land use transitions at the edges of residential neighborhoods through the regulation of setbacks and the placement of screening, buffering and fencing.

CAA.2. Enact and enforce land use controls that limit the scale of commercial development in residential neighborhoods.

CAA.3. In neighborhood commercial areas, place strict limitations on lighting, vehicular access and other site planning elements in order to alleviate conflicts with abutting residential uses.

CAA.4. Facilitate development and redevelopment in areas along Merle Hay Road consistent with the Merle Hay Road Redevelopment Plan.

CAA.5. Encourage convenient parking locations that are buffered with landscaping to soften their appearance from abutting roadways.

CAA.6. Provide safe and convenient pedestrian access within and connecting to commercial areas.

CAA.7. Require high quality building materials in commercial areas.

CAA.8. Adopt and enforce landscaping standards for commercial businesses that are compatible with existing and planned landscaping improvements along abutting roadways.

Office (O)

The Office (O) land use category includes parcels that contain professional offices and services such as medical, law, real estate and financial businesses. The 2030 Future Land Use Plan includes office uses along Merle Hay Road and at other locations throughout Johnston. A planned node of office use is located just west of the intersection of NW 70th Avenue and NW 100th Street.

Johnston is also the home of two major corporate campuses, Pioneer Hi-Bred International, Inc., and John Deere Credit. The majority of the Pioneer campus south of NW 62nd Avenue is categorized as Business Park due to the varied nature of both office and research facilities. Pioneer has offices on the north side of NW 62nd Avenue in buildings that are leased from a private owner. All of the John Deere Credit facility is categorized as office. The plan also includes one new corporate campus site shown as office in the southwest quadrant of the intersection of NW 70th Avenue and NW 86th Street.



Office Policies:

OAP.1. Create areas of office development to provide employment opportunities in the community and high quality commercial land uses.

OAP.2. Create distinct office areas with direct access to the transportation network to minimize impacts on existing and future residential areas.

Office Action Steps:

OAA.1. Reserve land designated as office for office uses. In some cases, the designation of property as office may prolong the absorption rate compared to other possible land use designations.

OAA.2. Connect office areas to the community-wide trail network to encourage pedestrian movement from residential areas to employment locations.



Community Mixed Use (CMU) and Neighborhood Mixed Use (NMU)

The 2030 Land Use Plan includes two categories of mixed use, one with a community-wide focus and the other a tighter, neighborhood focus. The Merle Hay Road redevelopment area is the only Community Mixed Use (CMU) shown on the plan. It has the potential to be the commercial focal point of Johnston, a place where people can come together to work, shop and live. A Neighborhood Mixed Use (NMU) area is located at the corner of NW 54th Avenue and NW 86th Street. Given the location of this site on a busy street, commercial uses in the area may include a mix of those that appeal to area residents as well as those that appeal to more regional traffic that uses NW 86th Street.

Community and Neighborhood Mixed Use Policies:

MUP.1. Provide a unique mix of commercial, residential, public and related uses in a pedestrian friendly environment.

MUP.2. Separate schools and commercial uses with adequate buffer areas.

Mixed Use Action Steps:

MUA.1. Enact zoning modifications necessary to facilitate a mixed use development pattern.

MUA.2. Provide walkway and trail linkages to other public recreational facilities in the area.

MUA.3. Encourage consistent design standards that serve as a framework for both public and private improvements addressing streets, lighting, landscaping, building materials and building placement

MUA.4. Limit commercial uses to those that provide goods and services at a community or neighborhood scale.

Business Park (BP)

The 2030 Land Use Plan identifies Business Park (BP) uses in four primary locations. As was noted previously, the Pioneer Hi-Bred International, Inc., campus is predominately identified as business park. The Windsor Office Park area located southwest of the intersection of NW 62nd Avenue and NW 86th Street and Johnston Commerce Park located northeast of the intersection of NW 54th Avenue and NW 100th Street are two existing business parks with land to accommodate new buildings. A substantial new business park area is located in the northwest growth area, just southeast of the intersection of Highway 141 and NW Saylorville Drive. This new site is further discussed in the Focus Area section of this chapter.

Business Park Policies:

BPP.1. Provide opportunities for new industrial development and expanded employment opportunities in Johnston.

BPP.2. Provide attractive, planned environments as means to induce employers to locate within the City.

Business Park Action Steps:

BPA.1. Enact standards for industrial developments to establish and maintain a high level of appearance and character.

BPA.2. Provide public services and infrastructure to encourage expansion and support the needs of existing and prospective employers.

BPA.3. Require that all storage be enclosed within buildings or screened from view from roadways.

BPA.4. Adopt design guidelines addressing signage, landscaping, lighting, building materials and other site improvements.

BPA.5. Work with Johnston Economic Development Corporation (JEDCO) to attract businesses to Johnston's business park areas.

Industrial (I)

The 2030 Land Use Plan does not show any substantial new industrial areas in Johnston. All industrial property is located on the east side of the community abutting NW Beaver Drive and Johnston Drive. Some expansion and infill of industrial is shown on the plan along the northern portion of Beaver Drive. As classified in the plan, industrial land uses include light manufacturing, storage, wholesale trade and similar uses on individual parcels, rather than as part of a larger scale planned industrial (business) park.

Industrial Policies:

IAP.1. Provide opportunities for new industrial development, expansion of existing uses and the redevelopment of existing industrial uses to expand employment opportunities and to serve existing businesses in the community.

IAP.2. Continue to improve the appearance of existing industrial areas thereby improving the community's image and development potential.

Industrial Action Steps:

IAA.1. Promote the improvement of existing industrial areas over time using redevelopment tools and applicable financial incentives.

IAA.2. Enact standards for new industrial developments that are in keeping with the need to improve the overall appearance of the community.

IAA.3. Require landscaped buffers between dissimilar land uses to enhance compatibility.

IAA.4. Work with property owners and other governmental jurisdictions in formulating and implementing a plan for the re-use of the gravel pit areas in eastern Johnston along the Des Moines River.

Camp Dodge (CD)



Camp Dodge (CD) is the single largest land use category on the 2030 Land Use Plan. Correspondingly, it has a major impact on the City of Johnston, both as a land use type and as a draw for the community. Camp Dodge has acquired substantial amounts of property since Johnston completed its 1998 Comprehensive Plan. It is believed that the camp would be interested in acquiring even more property in the future as buffer if the right parcels become available.

The location of the camp impacts the future orderly development of land lying northwest of the current city limits. Although it presents challenges in long-term utility extensions, the camp provides a wide range of benefits to the community. Benefits include employment opportunities, public use of recreational facilities and preservation of an expansive open

space system with pockets of unique natural resources. The public's ability to overlook the camp along NW Beaver Drive also plays a substantial role in the impression that Johnston makes on visitors passing through the community.

Camp Dodge Policies:

CDP.1. Support continued operations at Camp Dodge within the existing boundaries of the property.

Camp Dodge Action Steps:

CDA.1. Maintain land use and zoning practices on surrounding land parcels that recognizes the uses of the Camp Dodge property.

CDA.2. Cooperate with Camp Dodge in coordinating required infrastructure to serve Camp operations including the roadway network and utility systems.

CDA.3. Cooperate with Camp Dodge to ensure that adequate buffer areas exist around the Camp without federal acquisition of property slated for future residential and business park development.

Army Corps (AC)

The Army Corps of Engineers owns a significant amount of land around Saylorville Lake. The Corps' land holdings include open space and developed recreation areas. These areas provide camping, fishing and water access to Johnston residents as well as most of central Iowa.

Army Corps Policies:

ACP.1. Collaborate with the Army Corps to ensure that existing recreational resources are operated in perpetuity.

Army Corps Action Steps:

ACA.1. Collaborate with the Army Corps on infrastructure improvements that benefit both parties.



Public and Quasi-Public (P/QP)

Public and Quasi-Public (P/QP) uses in Johnston include churches, buildings, land adjacent to schools, cemeteries, local government facilities, golf courses and other parcels that are owned by a public or semi-public entity. The public & quasi-public category does not include parks and recreation areas. They are classified separately under this plan and discussed in the Parks and Recreation section.

The most prominent public and quasi-public land uses in Johnston include schools, golf courses and local government facilities. Schools include elementary, middle and the high school operated by the Johnston Community School District. Local government facilities include city hall, the public works complex, fire station, library and Crown Point Community Center. Johnston is the home of two golf courses, one public course and the Hyperion Club which is a private facility.

Public and Quasi-Public Area Policies:

PQ/PP.1. Provide needed public facilities and services for existing and future Johnston residents.

PQ/PP.2. Interconnect the city's most important public facilities including schools via open space corridors.

Public and Quasi-Public Action Steps:

PQ/PA.1. Continue to cooperate with the local school district in the joint use of facilities.

PQ/PA.2. Provide sufficient land to meet the public service needs of the community.

Park and Open Space (P/OS)

Park and open space areas are addressed in the Parks and Recreation section of this plan.

Focus Areas

The 2030 Land Use Plan covers all of Johnston's 18+ square miles as well as areas that are intended to be annexed in the future. To better understand the unique characteristics of some of the areas addressed in the 2030 Plan, a number of focus areas were identified. These areas are being specifically called out to allow a more detailed presentation and discussion of future plans and policies. Of the seven focus areas identified below, three of them resulted from planning efforts that took place after adoption of Johnston's 1998 Comprehensive Plan and prior to this comprehensive plan update. The remaining four focus areas we're identified as part of this planning process.



Figure 5.10 Roughwood

Roughwood

The Roughwood neighborhood which is generally located around the intersection of NW 54th Avenue and NW 86th Street was developed in unincorporated Polk County on septic systems and with a private water supply. It encompasses approximately 33 acres and contains 62 single family lots. In 1995, the City of Johnston annexed the area. The opening of the NW 86th Street interchange at I-35/80 significantly changed the dynamics of the NW 86th Street corridor and added traffic and congestion around the Roughwood neighborhood.

In response to the change in conditions, the city undertook a study of the area in 2009. That study included an analysis of extending utilities to the area to replace the on-site treatment systems. Public water and sanitary sewer are available immediately adjacent to the Roughwood subdivision. The neighborhood is served by private water service through Thorpe Water Development Company, which does not provide fire protection or hydrants internal to the subdivision. All of the homes in the area currently have on-site septic systems. Sanitary sewer can be extended into the neighborhood via an extension from the NW 86th Street/NW 54th Avenue intersection area. The city completed a feasibility study addressing the extension of sanitary sewer service in 2004 but to date, the required 60% support for the project has not been achieved within the neighborhood so the improvements have not been completed.

In 2009, the city amended the comprehensive plan to reflect the land use pattern shown on Figure 5.11. The plan creates a Neighborhood Mixed Use area at the corner of NW 54th Avenue and NW 86th Street. The amendment also established the following specific policies and action steps for the Roughwood area.

Roughwood Area Policies:

RWP.1. Facilitate the extension of municipal utilities (water and sanitary sewer) to the Roughwood subdivision, both to the potential redevelopment areas and the existing single family residential areas.

RWP.2. Accommodate redevelopment that is consistent with the existing development and traffic patterns along NW 54th Avenue/NW 86th Street but that also maintains and protects the adjacent single family residential uses.

RWP.3. Ensure adequate traffic patterns and movements are maintained along NW 54th Avenue and NW 86th Street.

Roughwood Area Action Steps:

RWA.1. Consider the rezoning of properties within the Roughwood subdivision that would facilitate redevelopment to commercial, office or high density residential uses as depicted

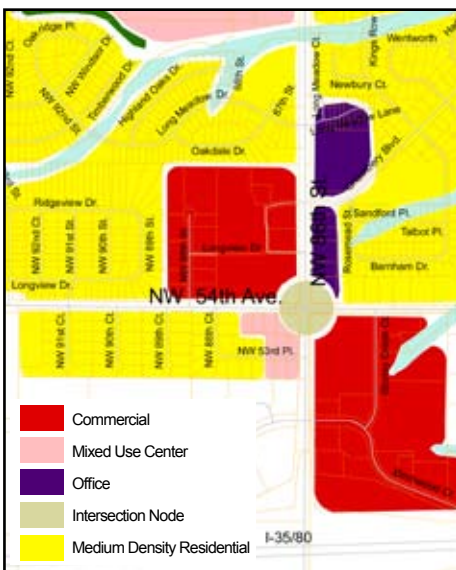


Figure 5.11 Roughwood Sub Area Scenario
Adopted Planned Land Use, April 2009

in the 2030 Land Use Plan. Due to the likely phased redevelopment of the Roughwood areas, such rezonings should be sufficiently sized so as to provide sufficient developable area to meet all zoning ordinance bulk requirements, including adequate buffering, traffic access and open space.

RWA.2. As part of the rezoning of any parcels, the following items should be addressed:

- a. Specific buffer and screening standards shall be required between commercial and existing residential uses, even if such residential units are identified as commercial or office uses in the future.
- b. Commercial uses that are less compatible with residential neighbors, such as convenience stores, car washes and fast food restaurants with drive through windows shall not be permitted.
- c. Sites shall be designed in a manner which orients the active portions of the site away from the adjacent single family residential uses. As such traffic movements, parking lots, lighting and other active uses should be oriented to NW 86th Street or NW 54th Avenue while open spaces and landscaping are oriented to the boundary with existing residential uses. This type of site design may require flexibility in setbacks and other bulk requirements.
- d. A traffic study shall be conducted that analyzes the development impact on NW 54th Avenue/NW 86th Street and the overall transportation system in the area. This study should also address the appropriate locations and restrictions on any proposed driveways or street connections.
- e. The city will continue to monitor the Roughwood area in the future to determine if the impacts of traffic and other factors make it appropriate to expand the boundaries of the portion of the neighborhood currently designated as Mixed Use.

RWA.3. Any development or redevelopment within the Roughwood area shall extend and connect to the city's sanitary sewer and water systems, including fire protection.

RWA.4. Upon majority request of the property owners or other regulatory mandate, city sanitary sewer and water service, including fire protection, shall be extended into the single family residential areas. These services would be funded through traditional funding methods including property assessments or connection fees.



Northwest Area

The Northwest Area lies southwest of Camp Dodge, west of NW 86th Street and north of NW 70th Avenue. A comprehensive plan amendment in 2006 addressed the area as follows:

Background

In 1990, Polk County initiated efforts to apply new zoning within the Northwest Area. At the time, 1-acre parcels were being created which complied with the zoning then in place. The zoning was subsequently amended to a minimum of 3-acre lot size to slow growth. The result was the establishment of numerous 3-acre lots in the area. In the mid 1990s, the physical boundaries of Camp Dodge were expanded.

In 1995, Johnston and Grimes reached agreement on an annexation moratorium agreement that established NW 107th Street as the future boundary between the communities south of NW 78th Avenue and Highway 141 as the boundary north of NW 78th Avenue. The agreement specified that neither city would voluntarily or involuntarily annex on the opposite side of the dividing line.

In 1997, the city established the NW Expansion Area Water District. Establishment of the

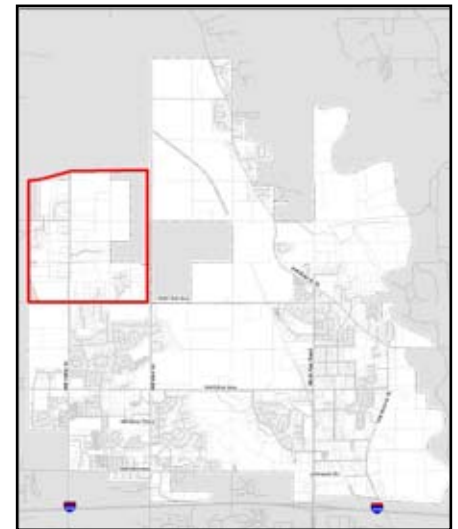


Figure 5.12 Northwest Planning Area

district was precipitated by several proposed subdivisions desiring to develop on private wells. In lieu of wells, the city created a plan to extend a water mains into the area with developers agreeing to finance the early indebtedness of the project. The subdivisions included Candleridge Estates in Johnston, and Pinecrest Estates and Myra Lynn Estates in Polk County.

Irrevocable Petitions for Annexation were put in place in as part of the agreement to provide municipal water service. The properties would have been annexed except that they were not contiguous to the city at the time. The petitions constituted an agreement that initiated annexation when the properties became contiguous. A water connection district was created to provide collections for retiring the remainder of the debt for the installed water main. A per-acre fee was established based on the minimum parcel size allowed by the zoning. This was done to permit larger acreages to pay a minimum fee based upon the usage, and not the total parcel area. However, the agreement stipulated that if a property subdivided into additional parcels, the payment of the connection fee would also be due. The water service was subsequently extended to NW 78th Avenue, and west along NW 78th Avenue. A large portion of the Northwest Area was annexed, including the existing residential areas, in 2008.

During the update of the Johnston Comprehensive Plan in 1996 - 1998, the Northwest Area was the subject of a special meeting to address the particular needs of the area. The 1998 Plan took the position that rural lots may be the future direction of the area. This conclusion was influenced by the desire by residents to maintain that minimum lot size, and what appeared to be a high cost of extending sanitary sewer to the area.

In 2004, the City Council authorized completion of the Northwest Area Utility Service Master Plan. The master plan addressed water supply, sanitary sewer service, and storm drainage. However, the primary focus was on sanitary sewer. The City Council also adopted the Northwest Sanitary Sewer District.

Factors Influencing Future Development Patterns

The predominant land use in the Northwest Area has historically been agriculture with increasing amounts of large-lot residential. Development in the northwest area has focused along NW 100th Street which bisects the area. Camp Dodge lies immediately north and east of the Northwest Area. Abutting Camp Dodge on the east is the Beaver Creek Golf Course. The other business area is the commercial development in the southwest quadrant of NW 70th Avenue and Highway 141 in Grimes. Much of the existing residential development flanking NW 100th Street is low intensity development and the area has a rural character.

Natural features can also influence the extent and character of development. They can represent constraints to development or opportunities for future development. Both exist within the northwest area. The existing 1998 Johnston Comprehensive Plan included an examination of natural features for the entire city and its environs. A more site-specific look at natural resources occurred as part of the Northwest Area study.

Land Use Plan (2006) and 2030 Land Use Plan

In 2006, Johnston amended its comprehensive plan by incorporating the 2006 Land Use Plan shown as Figure 5.13. That plan included the following land use categories:

LDR2 – The Low Density Residential 2 category included single-family detached homes at a density of .34 du/ac (3-acre lots). LDR2 areas were to be assigned the Estates District classification when incorporated into the city.

LDR – The Low Density Residential category included housing with a lot size of one acre or larger.

MDR – The Medium Density Residential category accommodated residential uses at a density ranging from one to six units per acre.

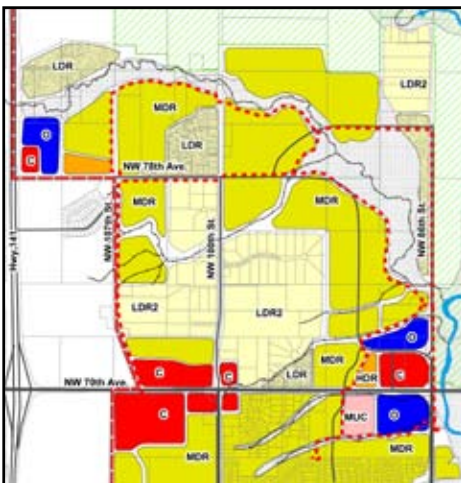


Figure 5.13 - 2006 Johnston Land Use Plan

HDR – The High Density Residential category accommodated multi-family housing at densities exceeding six units per acre. High density uses were further limited to eight units per acre per the plan amendment that was put into place in 2006.

Commercial – This category included retail and service commercial uses that serve neighborhood, community and regional markets.

Office – This category includes professional offices and services such as medical, law, real estate and financial businesses.

The 2030 Land Use Plan which is shown in Figure 5.14 retains the general land use directions adopted by the city in 2006 with some minor changes. One of those changes is the land use categories. A detailed breakdown of the land use categories associated with the 2030 Land Use Plan can be found in Table 5.2. The following is a brief summary of those categories applicable to the Northwest Area.

RDR - Rural Density Residential includes single-family detached housing at a density not to exceed two units per acre. The previous LDR2 category used in the 2006 plan is consistent with the new RDR category.

LDR - Low Density Residential includes housing with densities that generally range from two to five units per acre. The MDR category used in the 2006 plan is largely consistent with the new LDR category (1 to 6 units per acre compared to 2 to 5 units per acre).

MDR - Medium Density Residential includes residential uses at densities that range from five to eight units per acre. The new MDR category largely incorporates the previous MDR category (5 to 8 units per acre compared to 1 to 6 units per acre). The new MDR category was refined to better define densities for attached housing products.

HDR - High Density Residential includes multi-family housing at densities exceeding eight units per acre. The 2006 HDR category limited development at 8 units per acre.

Commercial - The commercial land use category includes retail and service commercial land uses that serve neighborhood, community and regional markets. This category remains unchanged from the 2006 amendment.

Office - The office land use category includes lots or parcels that contain professional offices and services such as medical, law, real estate and financial businesses. This category remains unchanged from the 2006 amendment.

Public and Quasi-Public (P/QP)- Public and quasi-public uses include churches, schools, cemeteries, golf courses, local government facilities and other parcels that are owned by a public or quasi-public entity.

Park/Open Space (P/OS) - The park and open space category includes land owned by the City of Johnston. Parks and open space are discussed in detail in the Parks and Recreation chapter of this plan.

The primary changes included in the 2030 Land Use Plan as compared to the Land Use Plan prepared in 2006 involve the areas immediately north of NW 70th Avenue at NW 100th Street and immediately northwest of the intersection of NW 70th Avenue and NW 86th Street. The 2030 Land Use Plan retains the direction established in 2006 for residential properties.

North of NW 70th Avenue at NW 100th Street, the new plan refines the former commercial area by breaking it down into a tier of office use abutting NW 70th and a small area of medium density housing and park/open space to the north. Further east along NW 70th Avenue at NW 86th Street, the plan refines the area in the northwest and southwest quadrants of the intersection as shown.

The policies and action steps below are in addition to or to supplement those contained in

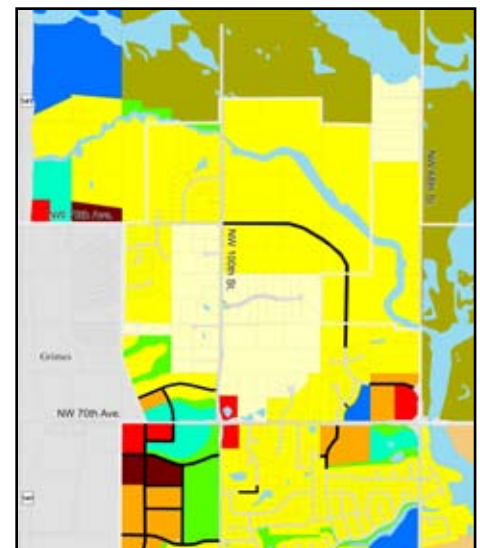


Figure 5.14 - 2030
Johnston Land Use
Plan



this Plan. They are unique to the Northwest Area.

Northwest Policies

NWAP.1. Maintain rural neighborhoods and anticipate intensified development in agricultural areas.

NWAP.2. Accommodate infill development that is consistent with existing development patterns and density where existing topography and soils are appropriate.

NWAP.3. Continue to design and fund sanitary sewer service and other capital improvements to the area. New development shall be served by sanitary sewer service.

NWAP.4. Create a quality living environment that is adapted to the natural environment.

Northwest Action Steps

NWA.1. The 2030 Land Use Plan shall direct the future development of the area. LDR generally follows the sanitary sewer corridor. The density in LDR is variable (2 to 5 du/ac) and affected by the proximity of existing rural development that requires feathering of lot sizes (see transitions below-item e.), and the Little Beaver Creek floodplain that is the dominant feature in the area. It is therefore impractical to assign a maximum density to these areas.

The 2030 Land Use Plan is further refined to direct future growth in the Northwest Area, including the LDR designation as follows:

a. Along Little Beaver Creek a buffer of 100 feet on either side of the streambed of plant material specifically designed to remove stormwater pollutants before the surface water flow enters the creek. Along lesser tributaries to Little Beaver Creek and Beaver Creek, a buffer of 50 feet should be provided.

b. RDR in the Northwest area shall have a density of 0.34 du/acre (equivalent to a 3-acre lot).

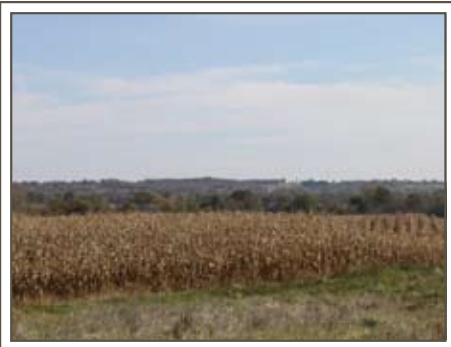
c. HDR shall be limited to a density of 8 du/acre.

d. The LDR designation in the Northwest Area is unique due to the many design influences that exist. The overall average density is envisioned to be approximately 2.0 DU/AC. Exceptions may be made provided that the transitions noted in paragraph e. are met. The exceptions may be made based on exemplary efforts to incorporate the following:

- » *The addition of neighborhood focal point central to the Little Beaver Creek valley, such as a lake or park land provided.*
- » *The preservation of natural features and conservation design techniques, or*
- » *The incorporation of high quality design through amenities provided or alternative lifestyle opportunities.*

e. Transitions shall be provided when development is proposed adjacent to the two LDR areas that were formerly classified as LDR (Figure 5.13 compared to Figure 5.14). The transitions shall be implemented as part of annexation agreements, development agreements, planned unit development ordinances, or any subdivision plat contiguous to an area designated LDR in the 2006 Land Use Plan. The transition would be accomplished either through the use of natural buffers such as changes in topography or natural vegetation or the following performance measures to cause lot sizes to change gradually:

- » *New lots created contiguous to an existing area within a 3-acre lot designation (RDR) shall be no less than 1.5-acres in size. The minimum setback adjacent to an RDR designated area shall be 120 feet.*
- » *New lots created contiguous to an existing 1-acre lot designation (LDR in the 2006 Land Use Plan – Figure 5.13) shall be no less than 20,000 sq. ft. in size.*



- » New lots created opposite a public street from existing 3-acre lots designated RRD shall be no less than 1.5 acres in size and shall provide the same front yard setback as the opposing district requires.

NWA.2. Future development shall reflect the policies and recommendations found in the Watershed Assessment and Stormwater Management Plan, December 2009.

NWA.3. Consider amending the zoning ordinance to provide a clustering provision in Districts in addition to District RE (3-acre minimum) to allow flexibility in lot design.

NWA.4. Natural resources in the Northwest Area shall be preserved. The wooded areas and steep slopes on the west should be retained. New development shall preserve significant natural resources through the use of cluster and other mechanisms. The city shall obtain conservation easements or accept dedication of environmentally sensitive areas where its disturbance may adversely affect water quality or the scenic quality of the area.

Merle Hay Road Redevelopment Area

The Merle Hay Road Redevelopment Study was completed by RDG Planning and Design in 2007. Text in this section of the comprehensive plan is largely taken directly from the study and is intended to endorse the study's recommendations as part of this comprehensive plan.

The redevelopment study contained an analysis of existing conditions and specifically, existing land uses along Merle Hay Road. Figure 5.16 depicts the current usage in the corridor. Many of the Merle Hay Road frontage parcels north of 62nd Avenue remain in

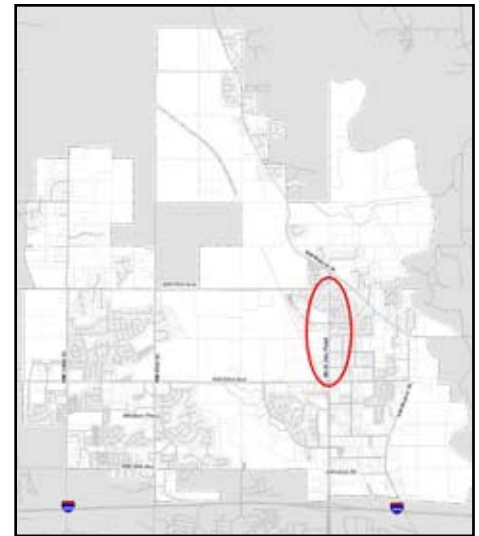


Figure 5.15 Merle Hay Road Redevelopment Area

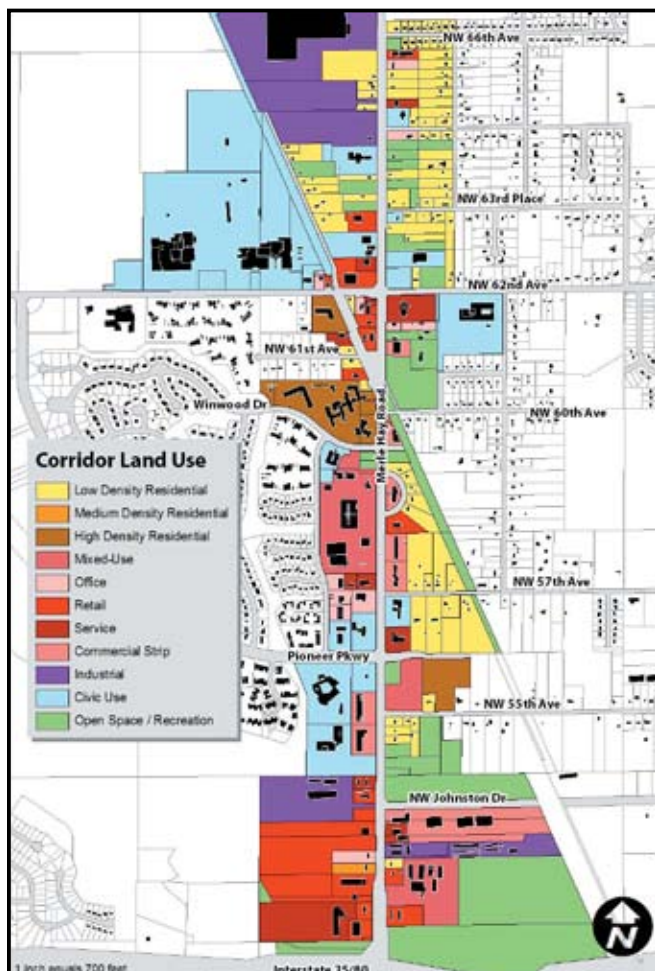


Figure 5.16 Merle Hay Road Existing Land Use 2007

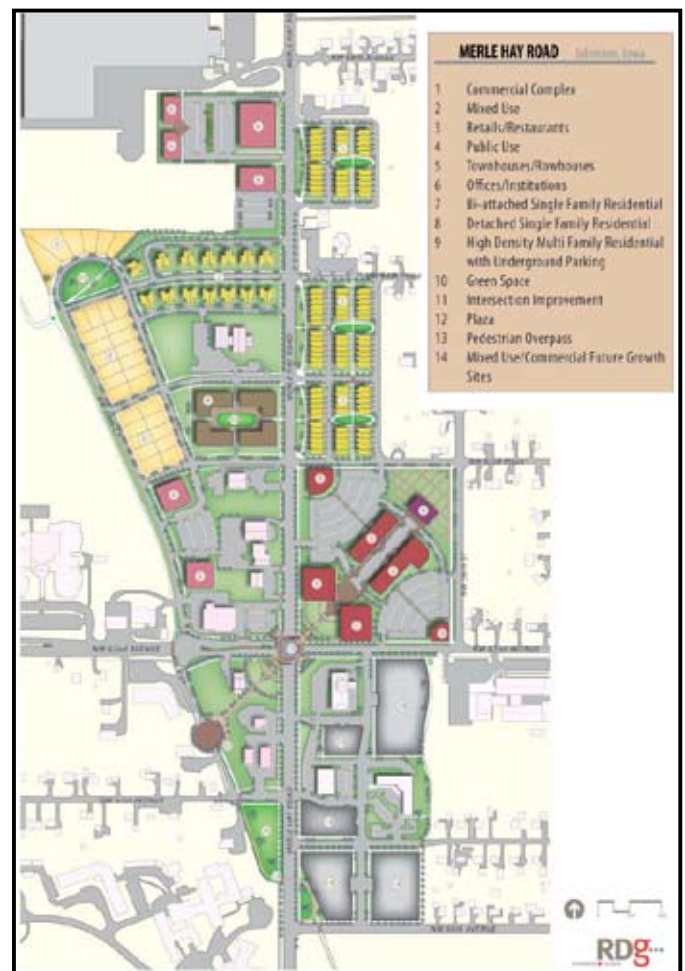


Figure 5.17 - Merle Hay Road Mixed Use Center Plan Components



vacant or single-family use, while south of 62nd Avenue, few such uses remain. Single-family uses typically represent an under-utilization of land along an arterial corridor such as Merle Hay Road and, over time, these uses south of 62nd have converted to a variety of higher intensity uses.

South of 62nd Avenue, this conversion process has resulted in a mixed use land use pattern including commercial, office, and high density residential uses. Typical of most contemporary development, these uses have been predominantly auto-oriented. Maurice's warehouse, at the far northwest corner of the project area, stands out as a seemingly out of place light industrial warehouse use in a predominantly residential area. The area to the north was also zoned industrial, but was rezoned when the Johnston Commons project was approved.

In order to inform the process of preparing a redevelopment plan for the area, existing building conditions, property ownership, and potential redevelopment sites were analyzed. The resulting plan calls for redevelopment of the area into a mixed use center containing a vertical and horizontal mix of various business, civic and residential uses. Components of the redevelopment plan are shown on Figure 5.17.

The Merle Hay Road Redevelopment Study addressed implementation of the plan over time. It addresses:

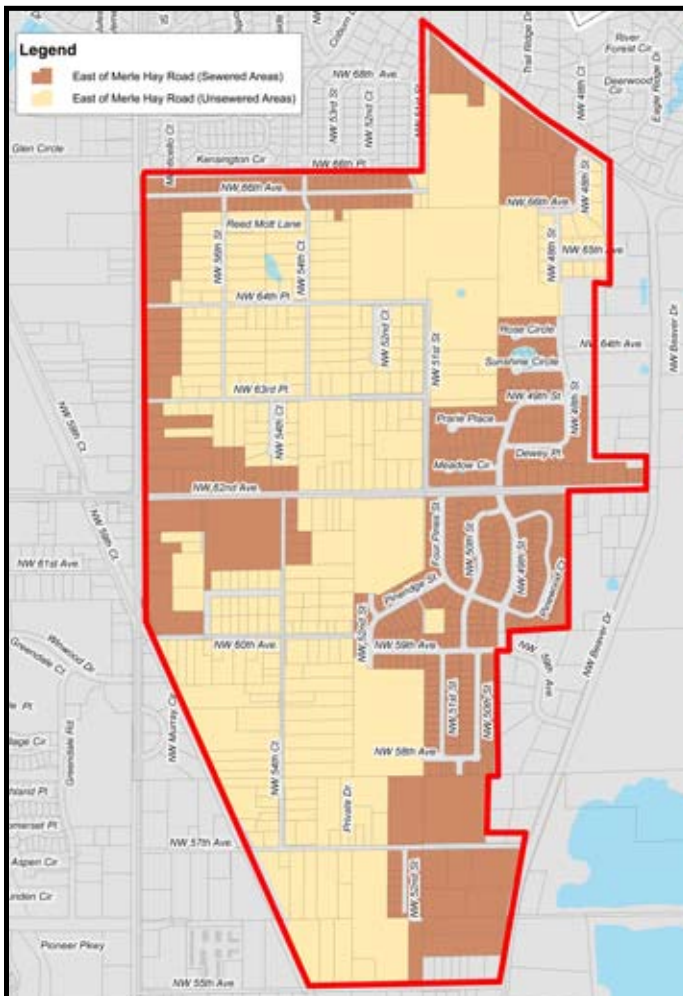
- » *Property ownership and level of city involvement*
- » *Regulatory revisions*
- » *Development incentives*
- » *Streetscape and trail improvements*

» *Infrastructure improvements*

Development of the new mixed use center consistent with the plan will provide Johnston with an exciting new focal point for the community. It is wholly consistent with the Vision and Guiding Principles that serve as a framework for this comprehensive plan and it will further reinforce the uniqueness of the Johnston community.

The 2030 Land Use Plan classifies the Merle Hay Road Redevelopment Study area as Community Mixed Use (CMU).

Figure 5.18 East of Merle Hay Road
Neighborhood Boundary and Unsewered Area



East of Merle Hay Road

Some of Johnston's early housing was built in the area referred to as East of Merle Hay Road. The area generally stretches from Johnston Drive on the south to approximately NW 66th Avenue on the north with Merle Hay Road forming the western boundary and NW Beaver Drive defining the eastern edge. East of Merle Hay Road is approximately 560 acres in size. The neighborhood boundary is shown on Figure 5.18. Housing in the area has been constructed at various times over the past 100 years (Figure 5.19).

East of Merle Hay is a unique Johnston neighborhood with qualities not found in areas that have been constructed more recently. Housing in the area includes a mix of styles with many of the units being more affordable. Some locations within this neighborhood have an almost pastoral setting due to larger lots and open spaces. The area remains one of the few locations in the City that property owners can still have horses. The Interurban trail provides excellent connectivity for

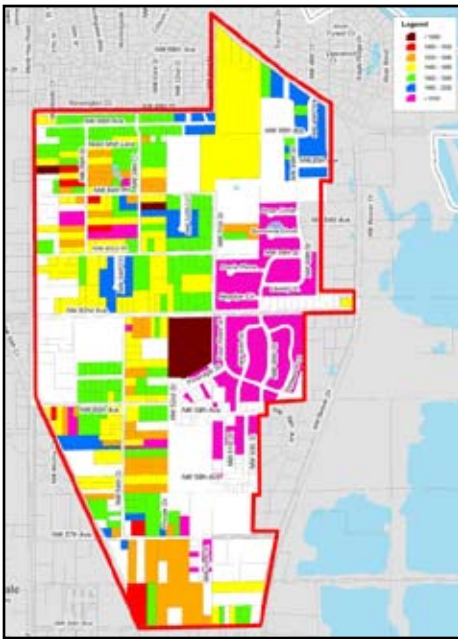


Figure 5.19 Housing Construction Dates

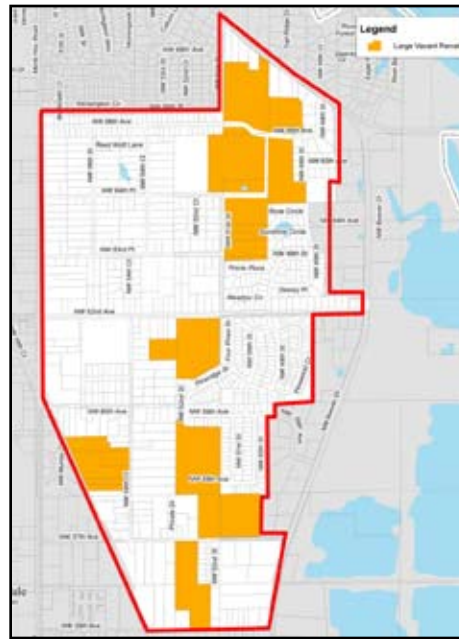


Figure 5.20 Map of Large Vacant Parcels



Figure 5.21 Land Use Plan Map

the southern portion of the neighborhood.

Much of the East of Merle Hay Road area lacks sanitary and storm sewer and some of the local streets are in need of major repair or reconstruction. Given the size of the currently unsewered portion of the neighborhood (Figure 5.18), any future upgrading of the infrastructure is likely to occur over an extended period of time. At the present time, there are no definitive plans to provide infrastructure improvements in the area. Plans for infrastructure improvements will be completed either when the neighborhood desires city services or if on-site systems fail causing environmental and/or health concerns.

Given the wide range of lot sizes and existing lot configurations, future infill development in the area may occur in two ways. First, some of the neighborhood's larger vacant parcels may be developed. These areas which generally are five acres in size or larger lend themselves to logical lot patterns and streets that in many cases; connect to adjacent existing streets.

The second type of development that may be seen in the East of Merle Hay neighborhood involves smaller parcels. Smaller parcels generally five acres in size or less will pose more development challenges. The dimensions of existing lots and the placement of existing homes will require more creativity and flexibility in the subdivision design process. Johnston's current City Code has two important provisions that accommodate this needed flexibility. The Code allows flag lots and through lots in addition to traditional side by side lot configurations. Additionally, the Code allows lots to be served by private easements and private streets rather than a publicly dedicated right-of-way and public streets. While these tools can be used effectively to accommodate local subdivision interests, the issue of private streets can pose problems. In order to ensure the long-term integrity of private streets, they should be constructed to public street standards, at least with regard to base preparations and pavement sections. The width of private streets should correspond to the number of residences served while ensuring proper access for emergency vehicles.

Large vacant parcels within the neighborhood (Figure 5.21) total approximately 118 acres. Based on the Low Density Residential designation in the 2030 Land Use Plan (Figure 5.22), these parcels could account for an additional 236 to 590 units of new housing in the future. Future smaller lot subdivisions are more difficult to estimate due to parcel configurations and the personal choice of property owners. Further subdivision of smaller lots will be at the sole discretion of the property owners. In the long-term, some may elect to subdivide



Horses are allowed in portions of the neighborhood.



Some residential buildings are in disrepair.



Sidewalk connections are incomplete.



Larger vacant parcels will likely see future development.



Streets in the neighborhood are in need of reconstruction.

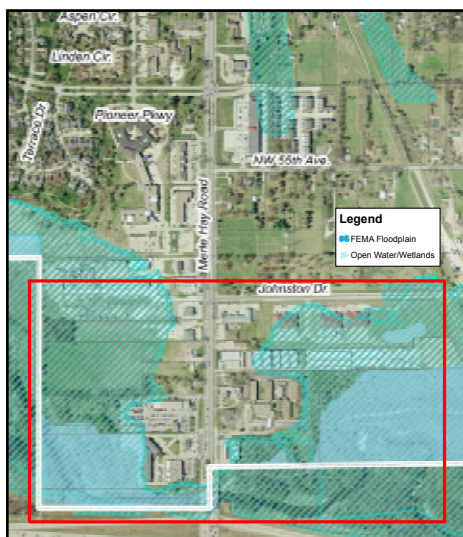


Figure 5.22 Merle Hay Road Gateway Boundary map



Buildings on the west sit below Merle Hay Road.

while others elect to remain on larger lots. Based on an analysis of smaller parcels, future subdivisions could create an additional 220 housing units. Again, the actual number of units is likely to be less due to the interests of the individual property owners.

The East of Merle Hay Road neighborhood had its origins in the platting and creation of the Fruitland Brennan Neighborhood Association in 1915. In the decades ahead, this neighborhood area will continue to evolve and see opportunities for infill housing. The rate of change in the area will be determined by the desires and interests of the current property owners. The actions of those owners may be influenced by the future implementation of the Merle Hay Road Redevelopment Plan.

East of Merle Hay Policies:

EMHP.1. The city will support improving the East of Merle Hay Road neighborhood by providing utility and street improvements throughout the area when desired by neighborhood residents or when prompted by on-site treatment system failures.

EMHP.2. The city recognizes that the East of Merle Hay Road neighborhood has existing conditions and issues that warrant special considerations as property is subdivided in the future.

East of Merle Hay Action Steps:

EMHA.1. Street connections should be made throughout the neighborhood as new streets are designed and constructed in larger vacant parcels.

EMHA.2. The city will use flexible design techniques in the current City Code and consider additional measures as might be necessary in the future to accommodate the subdivision of smaller parcels in a creative manner while retaining the open space character of the area.

EMHA.3. Private streets constructed on private easements should be built to city standards to ensure their long-term integrity.

EMHA.4. Sidewalks should be installed throughout the neighborhood as appropriate to provide connections to Lawson Elementary School, Dewey Park, the Interurban Trail and other area destinations.

EMHA.5. The city will seek out and promote loan and grant programs that help facilitate the improvement and long-term maintenance of the neighborhood's housing stock.

Merle Hay Road Gateway

Merle Hay Road is a significant north/south corridor in the Des Moines Metropolitan Area. It passes through the southern half of Johnston from Interstate 80 to NW Beaver Drive. The central portion of Johnston's frontage along Merle Hay Road is the subject of a redevelopment plan that is summarized in Merle Hay Road Redevelopment Area focus area. The extreme southern end of the corridor lying just north of Interstate 80 is referred to as Johnston's Merle Hay Road gateway. The boundaries of the area are shown on Figure 5.22.

The 1999 Comprehensive Plan addressed the physical appearance of the roadway as it enters Johnston. Roadway, bridge, entry signage and landscaping improvements completed since that time have created an attractive entrance to the community and one which accommodates large volumes of traffic exiting Interstate 80. Beyond the road improvements, however, the presence of the vacant, deteriorating motel/restaurant building and the general scattered nature of businesses in the area creates a less than desirable "front door" entrance into Johnston.

The 2030 Land Use Plan seeks to guide change in the area over the next decade (Figure 5.23). The hotel/restaurant building has outlived its useful life and needs to be demolished.

The complex of metal storage and service/warehouse buildings on the west side of Merle Hay Road, just below the tier of frontage businesses is also not viewed as a long-term land use. The complex of metal, self-storage buildings on the east side of the area is viewed similarly. Small older commercial buildings, some former houses, need to be replaced over time by larger, more permanent commercial uses.

Redevelopment of the Merle Hay Road Gateway area is complicated due to a number of factors including multiple property ownerships, the designated floodplain that largely surrounds the area, periodic flooding, and market conditions. Flood-prone areas greatly impact the land use pattern and the viability of certain parcels to see significant future real estate investments. The city should consider the construction of a loop road off of Merle Hay Road. A similar approach should be investigated for the east side of Merle Hay Road. New loop roads could be constructed at an elevation that would actually establish a levee that creates a hard edge between the developed property and the flood prone areas. A new loop road on the west could actually create lots along Merle Hay Road with more depth thereby supporting larger new commercial uses. The loop road concept is shown on Figure 5.24.

The market for additional commercial businesses in Johnston is not unlimited. In order to meet overall community goals, development in the Merle Hay Road Gateway should not overly compete with redevelopment planned for the area around the intersection of NW 62nd Avenue and Merle Hay Road. The Merle Hay Road Redevelopment Area is more oriented to pedestrian scale development. The Merle Hay Road Gateway will always have more of an auto orientation and may see larger scale users in the future.

Merle Hay Road Gateway Policies:

MHRGP.1. Actively promote and support redevelopment efforts in the Merle Hay Road Gateway that improve the function and appearance of the area consistent with the 2030 Land Use Plan.

Merle Hay Road Action Steps:

MHRGA.1. Support immediate demolition of the vacant hotel/restaurant building and redevelop with office and other high traffic commercial uses.

MHRGA.2. Encourage and support the consolidation of small parcels to create larger scale development opportunities.

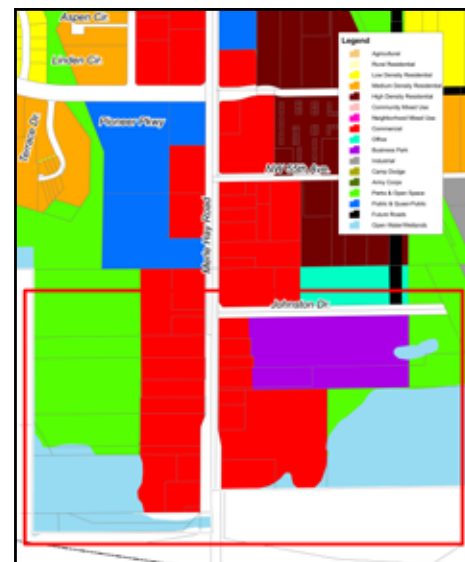


Figure 5.23 2030 Land Use Plan Map



Newer development on east side



Storage facility east of Merle Hay Road.

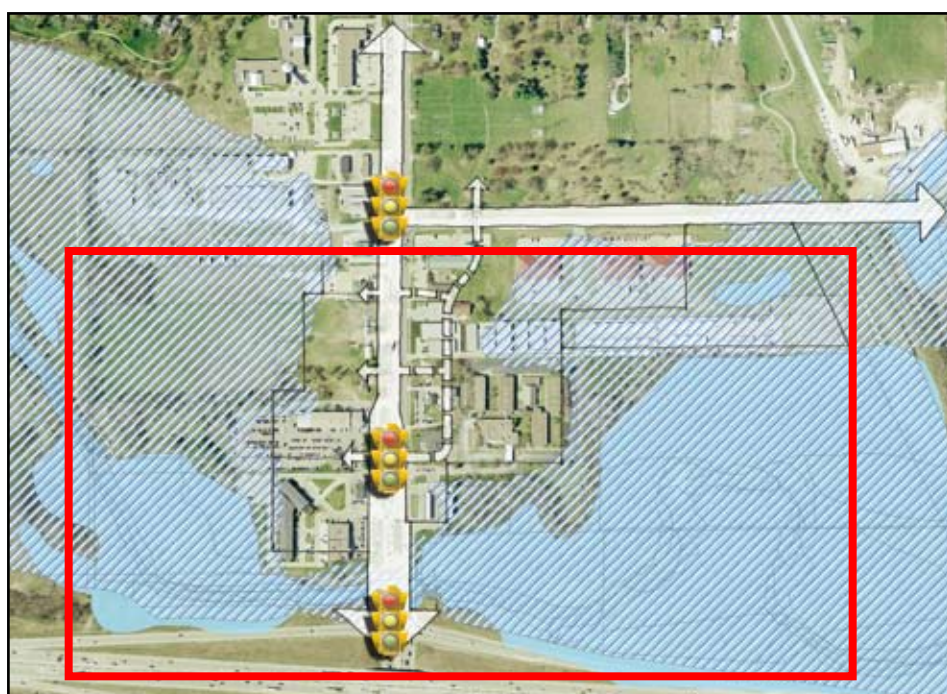
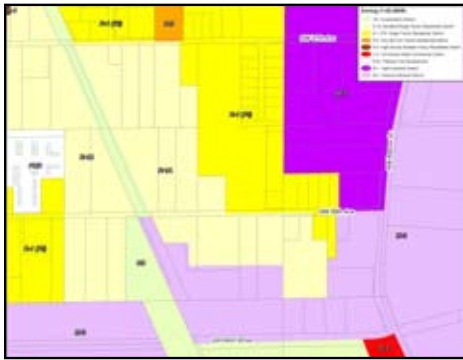


Figure 5.24 Loop Road Concept



Open storage on west side

Figure 5.25 ZoningMap



Zoning (1-02-2009)

- CD: Conservation District
- R-1A: Modified Single Family Residential District
- R-1 (75): Single Family Residential District
- R-2: One and Two Family Residential District
- R-4: High Density Multiple Family Residential District
- C-2: Community Retail Commercial District
- PUD: Planned Unit Development
- M-1: Light Industrial District
- M-2: General Industrial District

MHRGA.3. Investigate the long-term construction of new loop roads on either side of Merle Hay Road to clearly define and separate redevelopment areas from the floodplain area.

MHRGA.4. Examine the potential of creating access to the Beaver Creek Natural Area from the Merle Hay Road Gateway.

NW 55th Avenue

An area along NW 55th Avenue has been designated as a focus area to more closely examine the current and long-term relationships between industrial and residential uses. The area generally is bounded by Johnston Drive on the south, NW Beaver Drive on the east, land lying just north of NW 55th Avenue on the north and the Interurban trail on the west.

Figure 5.25 shows the existing zoning in the area which includes a mix of low density residential (R-1 and R-1A), light industrial (M-1) and general industrial (M-2). Current land uses closely parallel the current zoning designations. Acco Unlimited Corporation is the

most prominent industrial use in the area. The owner of Acco also owns additional property along NW 55th Avenue. Access to the Acco site occurs off of Johnston Drive as well as off of NW 55th Avenue to the north. The Acco access on NW 55th Avenue is the only industrial site in the area that is currently accessed off of the otherwise residential street. Industrial uses on the east side have access exclusively off of NW Beaver Drive.

The Future Land Use map in Johnston's 1999 Comprehensive Plan called for the area to contain a mix of medium density residential and industrial (see Figure 5.26). These designations recognized the area's adjacency to existing industrial property, the fact that parcels south of NW 55th Avenue are large in size and the fact that these same parcels overlook the Acco site as well as industrial sites along NW Beaver Drive, south of Johnston Drive.

As future land use was being considered for this plan update, neighborhood residents supported the continuation of the existing low density, residential housing pattern. After review, the current pattern of low density residential development has been shown on the Future Land Use Plan in the Johnston 2030 Comprehensive Plan with the exception of the properties on the south side of NW 55th Avenue which are generally under common ownership. This land use pattern recognizes that much of the land is currently used for residential purposes.

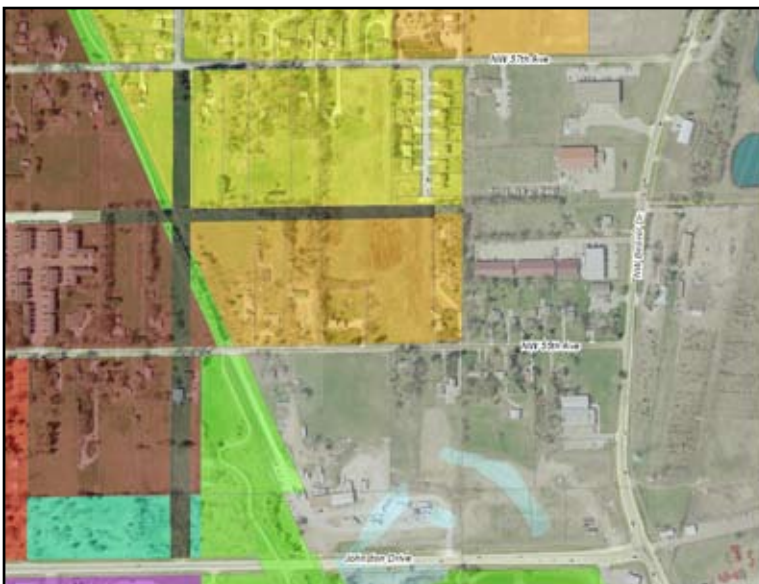


Figure 5.26 Planned Land Use Map (1999 Comp Plan)

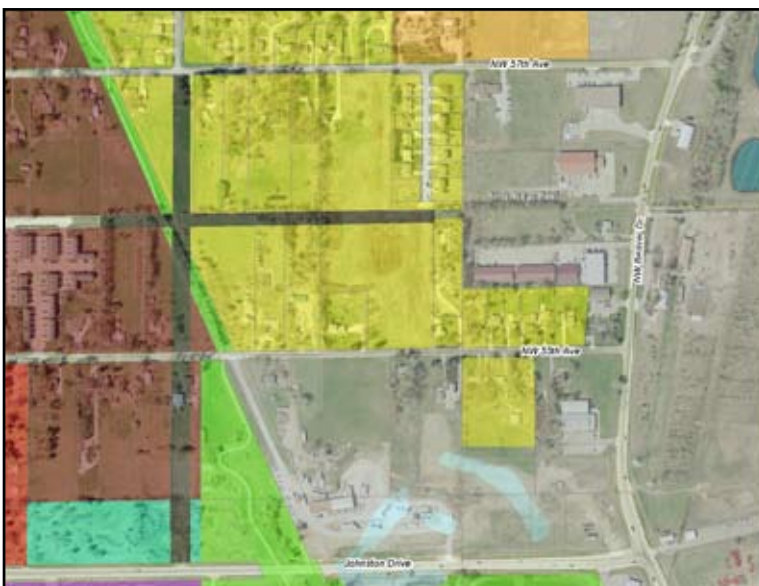


Figure 5.27 New Future Land Use Map

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Commercial
- Office
- Business Park
- Industrial
- Parks & Open Space
- Future ROW
- Open Water

NW 55th Avenue Policies:

NW55P.1. The city of Johnston will continue to support the existing low density, single-family residential pattern along NW 55th Avenue.

NW55P.2. Like the remainder of the area East of Merle Hay Road, the city recognizes that the NW 55th Avenue area has existing conditions and issues that may warrant special considerations based on the unique characteristics of the area.

NW 55th Avenue Action Steps:

NW55A.1. No additional access to industrial properties will be allowed along NW 55th Avenue until such time as the Future Land Use Plan and zoning designations are changed and improvements are made to NW 55th Avenue.

NW55A.2. Future land use changes will be considered when proposed by property owners in the area.

NW Saylorville Drive Expansion Area

As growth over the next decade begins to absorb Johnston's current supply of developable land, the community will need to expand its boundaries. The area identified as the next logical step in the growth of Johnston is the NW Saylorville Drive Expansion Area. Expansion in this direction is consistent with the policies and recommendations that were contained within the 1999 Comprehensive Plan.

As shown on Figure 5.28, the NW Saylorville Drive Expansion Area encompasses approximately 1,616 acres. Located around the intersection of Iowa 141 and NW Saylorville Drive, it is separated from the remainder of Johnston by Camp Dodge. Future land uses envisioned for the area include a mix of residential densities, limited commercial and/or mixed use at the intersection of NW Beaver Drive and NW Saylorville Drive and a large business park along the east side of the Iowa 141 frontage. Interspersed among this pattern of uses are park and open space areas. A future elementary school is also likely in the area. A tabulation of anticipated acreages of each use is shown on Table 5.3.

One of the most prominent new uses in this area is the planned business park. Given the development pattern within Johnston's current boundaries, the city has limited opportunities for new business park uses. The NW Saylorville Drive Expansion Area business park is envisioned as a location for office, research, warehouse, distribution and light assembly uses within a high amenity, landscaped, park-like environment. It has the potential to be the home of a significant number of future jobs in Johnston. The business park is shown in concept reflecting a number of significant natural drainageways that connect to Beaver Creek. These areas can be functional in the treatment and conveyance of stormwater but can also serve as an amenity for the workforce population as well as habitat for wildlife.

The 2030 Land Use Plan also calls for additional open space abutting Camp Dodge. This location was selected primarily due to topography and due to the presence of natural depressions that retain and treat stormwater. The open space will provide an additional buffer between Camp Dodge and the future uses to the north.

The timing of Johnston's expansion into the NW Saylorville Drive Expansion Area will be determined by the pace of development in the existing parts of Johnston. In order not to unduly influence the supply and cost of land in the city, annexation efforts will need to occur prior to the time that Johnston's current supply of vacant land is fully absorbed. It is generally felt that annexation of all or portions of the NW Saylorville Drive Expansion Area will begin within the next decade.

NW Saylorville Drive Expansion Policies:

NAP.1. Johnston will expand its city limits into the NW Saylorville Drive Expansion Area as growth begins to absorb the current supply of vacant, developable land.

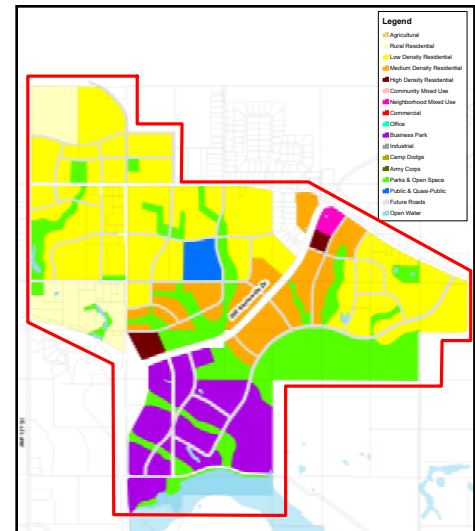


Figure 5.28 2030 Land Use Plan Map

NW Saylorville Dr Area

Land Use Category	Acres
Rural Residential	71
LDR	554
MDR	163
HDR	16
Commercial	0
Neighborhood Mixed Use	9
Office	0
Business Park	191
Industrial	0
Camp Dodge	0
Public	0
Quasi-Public	24
Parks & Open Space	313
Army Corps	0
Open Water	47
Existing ROW & Easements	228
Total:	1,616

Table 5.3 NW Saylorville Drive Expansion Area Land Use Acreages

NAP.2. The city will proactively plan for utilities and improvements needed to support future development in the Northwest Area.

NAP.3. Create a quality living environment that reflects the area's natural resources as well as the character elements that define the existing City of Johnston.

NW Saylorville Drive Expansion Action Steps:

NAA.1. New development should preserve significant natural resources.

NAA.2. Conduct more detailed feasibility studies to examine the routing, cost and financing mechanisms for the extension of utilities to the area and the construction of future roads.

NAA.3. Future annexation areas should have the zoning established consistent with the adopted 2030 Land Use Plan or be designated as Agricultural Reserve (AR) until such time as the property develops.

NAA.4. Johnston should use its extraterritorial review authority to help ensure that new developments conform to the city's long-term vision for the area.



Portions of the area are owned by developers.

River East

When Johnston examined potential future growth areas, the area east of the Des Moines River was considered in addition to the Northwest Area previously discussed. During the planning process, this area was referred to as River East. The area considered as a possible future addition to Johnston is shown on Figure 5.29. Encompassed within this area is a total of over 3,500 acres of land, of which, as little as 280 acres are actually developable. Figure 5.30 identifies the portion of the study area that is encumbered by either flood restrictions or under the ownership of the U.S. Army Corps of Engineers. Because so much of this area is largely undevelopable, River East did not emerge as a high priority for Johnston's future growth.

Despite the fact that only a fraction of the River East area is suitable for future development, the concept plan shown on Figure 5.31 illustrates that the area can contain a mix of low density residential and business park uses as well as park and open space areas. Based on the concept plan, the residential portion of the area could add approximately 280 new homes and a significant amount of new business and industrial uses.

Policies and action steps addressing the River East area are not included in this plan since expansion into the area is addressed only as a future concept. Growth to the east should be addressed in a more definitive manner when Johnston next updates its comprehensive plan.

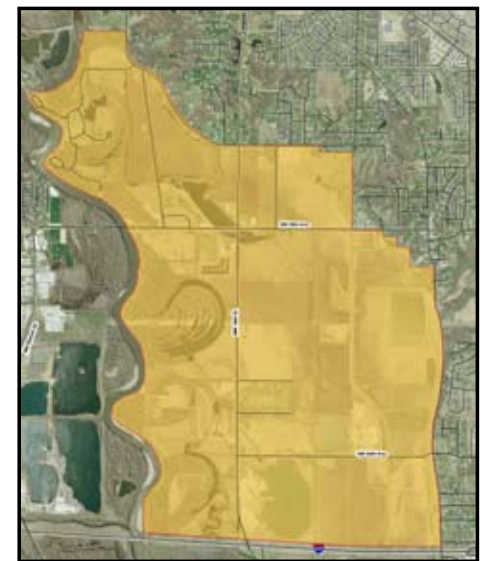


Figure 5.29 River East Boundary Area

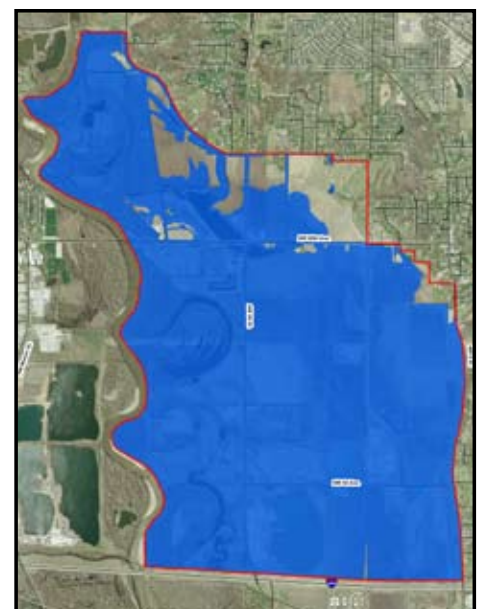


Figure 5.30 Map showing boundaries of flooding and Corps ownership

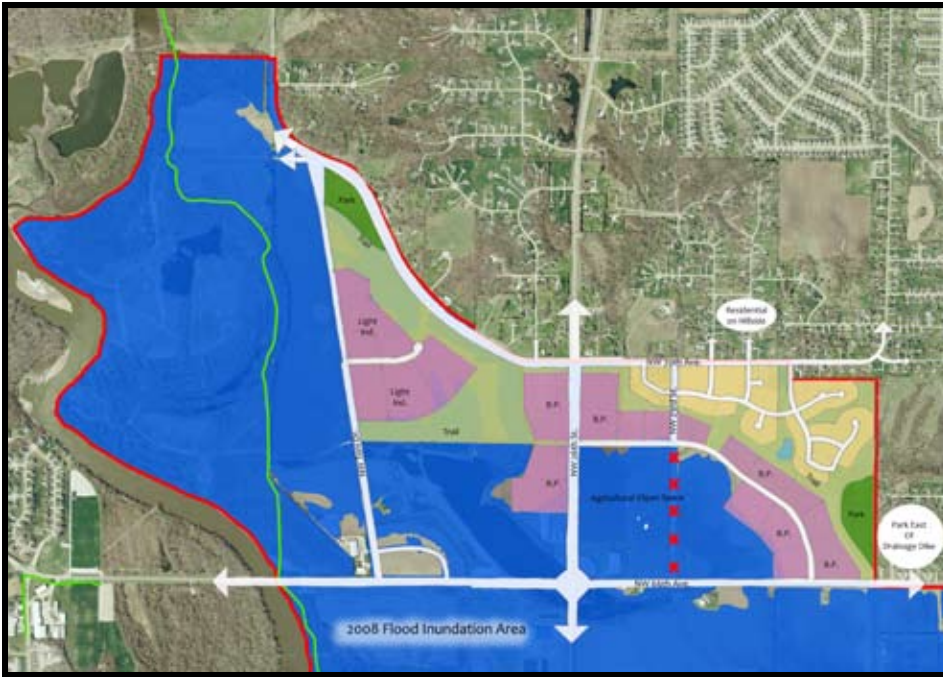


Figure 5.31 Concept development plan



Mining is active in portions of the River East area.



Transportation 6

Introduction

As the City of Johnston continues to grow the demand placed on the transportation network will increase as well. The ability of the network to handle this increased demand will have a direct effect on the city's ability to provide a high quality of life for its residents. A well-maintained and connected transportation network provides a community with safe, efficient, and affordable travel. Johnston's transportation decision making must be cognizant of the travel demands throughout the community while at the same time consider linkages to the surrounding metropolitan area as many residents commute to work outside of Johnston.

Transportation planning has been a key element of all past Johnston Comprehensive Plans. As a result, major roadway improvements have occurred in recent years including NW 86th Street from I-35/80 to NW 70th Avenue, the construction of Johnston Drive, and the reconstruction of Merle Hay Road from I-80/I-35 to NW Beaver Drive. Continued planning efforts will allow the City of Johnston to proactively address transportation issues. This will create an attractive environment for quality residential, commercial, and industrial growth.





Transportation Policies and Action Steps

The formation of clear and relevant policy that is embraced by the community will allow the City of Johnston to develop a successful transportation system. Listed below are the three transportation policies along with the attributed action steps.

1. Cooperate with county, regional and state government agencies to create a multi-modal transportation system that provides for the safe, efficient and effective movement of people and goods.

Action Steps

- a). Conform to the transportation Smart Planning Principles adopted by the State of Iowa in April 2010.
 - » *Planning, zoning, development, and resource management should promote expanded transportation options for residents of the community. Consideration should be given to transportation options that maximize mobility, reduce congestion, conserve fuel, and improve air quality.*
- b). Implement a plan for sidewalks and trails that provides safe pedestrian circulation for both commuter travel and recreation.
 - » *Strive to maximize multi-use trail linkages.*
 - » *Retrofit all non-ADA compliant pedestrian infrastructure.*
- c). Encourage multiple use right-of-way areas that accommodate appropriate modes of transportation.
 - » *Identify bicycle corridors that can function as recreational or commuter routes.*
 - » *Utilize shared lane road markings along bicycle corridors if appropriate for commuter bicycle travelers.*
 - » *Ensure that new right-of-way acquisition has ample width for bicycle and pedestrian facilities (separate trails or shared bike lanes) and bus stop infrastructure.*
- d). Cooperate with Des Moines Area Regional Transit (DART) in providing transit service that meets the needs of the City of Johnston's residents and persons employed within the city limits.
 - » *Identify transit dependant populations within Johnston.*
 - » *Investigate alternatives to traditional bus service, such as park-and-ride facilities.*
 - » *Continue to work with DART to evaluate bicycle and pedestrian connections to transit and the adequacy and future needs of these facilities in the community, including local infrastructure such as bus shelters, benches, bus bike racks, and updated route information and signage.*

2. Provide a local transportation system that is consistent with the overall growth policies of the City of Johnston.

Action Steps

- a). Residential areas and local streets should be protected from the impact of truck traffic by designating truck routes in the city that correspond to roadways that are classified as municipal arterials or higher.
 - » *Designate established, well-denoted truck routes through Johnston.*
 - » *Designate pre-planned emergency detour routes that avoid residential areas and local streets as much as possible.*

b). Provide flexibility for future modification of the transportation system by determining right-of-way requirements based on an evaluation of future transportation needs.

- » *Incorporate transportation right-of-way as part of future land use and growth corridor plans.*
- » *Discourage use of cul-de-sac and loop street development, as these developments limit flexibility within a street network.*

c). Modify standard roadway sections as needed to preserve significant resources such as wooded areas.

- » *Identify areas containing significant natural resources.*
- » *Include areas containing significant resources in transportation infrastructure decisions.*

3. Utilize design standards to improve traffic flow and offer modal choice.

Action Steps

a). Driveways on collector and arterial streets should be spaced to minimize hazardous traffic situations and maintain traffic carrying capacities.

- » *Set standards for all new development along collector and arterial streets.*
- » *Seek solutions for and fix identified problem areas.*

b). Private streets should conform to the City of Johnston's adopted public street design standards and guidelines.

- » *Private streets may eventually become public streets. The City of Johnston will not be responsible for upgrading any design or maintenance deficiencies that will occur with private streets to ensure proper and safe access for public works and emergency vehicles.*
- » *Developers will be notified of public street development requirements upon application for subdivision or plat review.*

c). Provide safe and convenient connections between the roadway system and major commercial areas, industrial uses and residential neighborhoods.

- » *Design roadway facilities to accommodate different travel movements.*
- » *Ensure intersections are well marked and clear of visual clutter.*

d). Unify major roadway corridors with appropriate design guidelines and consistent landscaping and signage improvements.

- » *Identify transportation corridors of importance.*
- » *Ensure signage is informative as well as aesthetically pleasing.*
- » *Utilize low maintenance landscaping techniques that will not interfere with drivers, cyclists, and pedestrians ability to safely travel.*

¹ The six recognizable stages in most trips include: main movement, transition, distribution, collection, access, and termination. AASHTO Green Book. Pg. 1. 2004

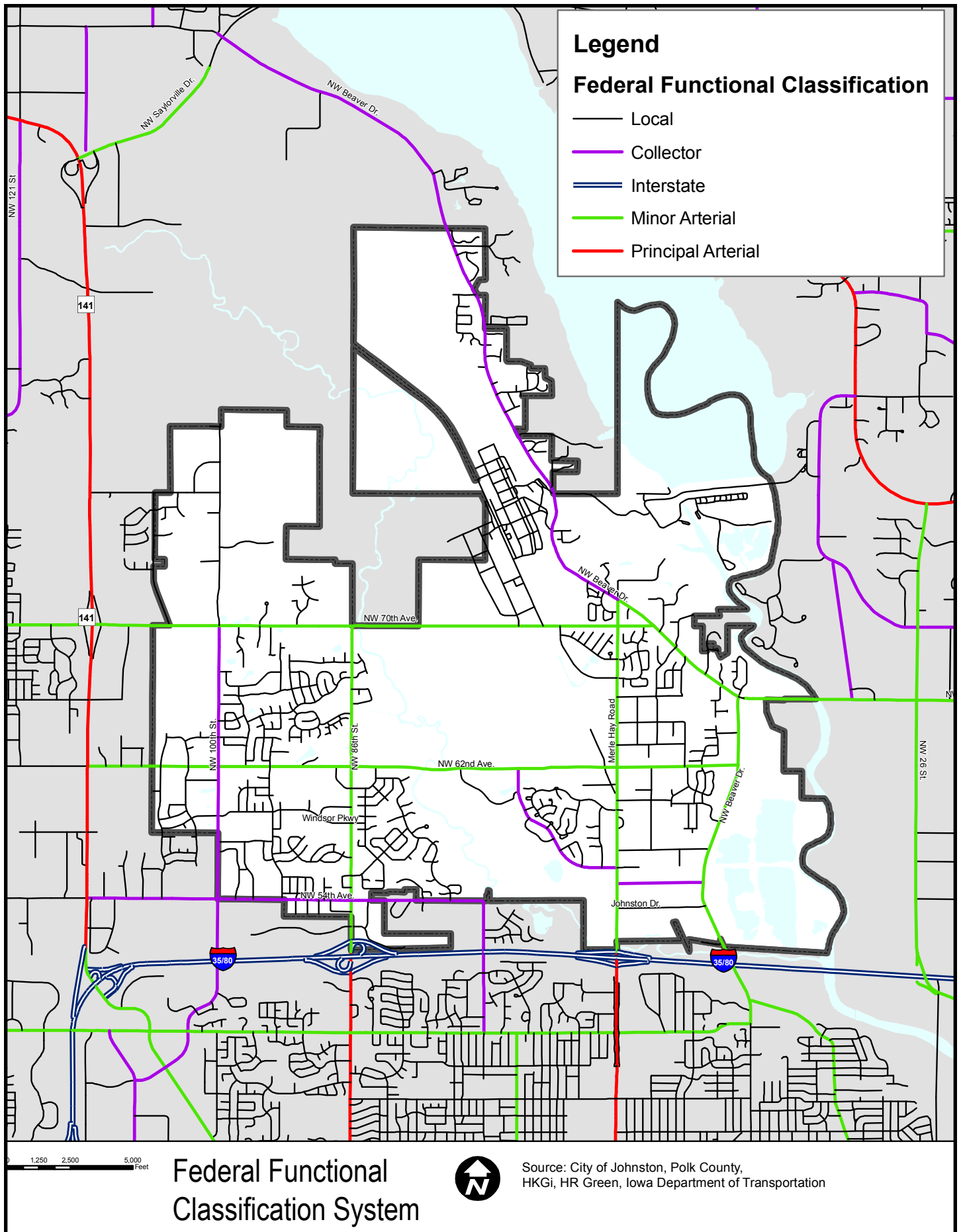


Figure 6.1 - Future Functional Classification System

Existing Federal Functional Classification

The U.S. Department of Transportation identifies a functional classification system for all highways, roads and streets according to the character of service that they provide. The classification of streets and roads in each county is periodically updated by the state to maintain consistency with city boundary changes and functional changes in streets. The classification system serves as a basis for determining future priorities, funding distributions and jurisdiction over certain roadways.

Functional classification information has limited application to Johnston and is contained in this plan for informational purposes only. The system is based on how particular roadways function in relation to the community and surrounding metro area. Figure 6.1 illustrates the existing (2010) Federal Functional Classification system for Johnston.

Roadways in Johnston are classified into a four (4) categories² depending on their function. Classifications of various roadways include the following:

Interstate

The interstate system includes roads connecting and serving the major urban and regional areas of the state with high volume and long distance traffic movements. On the southern border of Johnston, I-80/I-35 is functionally classified as part of the federal Interstate System.

Minor Arterial

The minor arterial system includes arterials not classified as Principal Arterials, containing facilities that place more emphasis on land access and offering lower levels of traffic mobility than a principal arterial roadway. Johnston has a number of routes that are designated as minor arterials including Merle Hay Road, NW 66th Avenue, NW Beaver Drive (south of NW 70th Avenue), NW 86th Street, NW 62nd Avenue, and NW Saylorville Drive.

Collector

The municipal collector system includes those streets within municipalities that collect traffic from the municipal service system and connect to other systems. Municipal collectors in Johnston include Pioneer Parkway, NW 54th Avenue, Johnston Drive, NW 100th Street, and NW Beaver Drive.

Local Street System

The local street system comprises all facilities not on one of the higher systems. It serves primarily to provide direct access to abutting land and access to higher order systems. These streets offer the lowest level of mobility and usually do not have bus service. Through traffic movements are possible, but often deliberately discouraged.

Future Functional Classifications

As roadway capacity and connection improvements occur, it is appropriate to periodically revisit the designated functional classifications to confirm that the future roadway function aligns with the designated classification. In Johnston, major street improvements will occur that suggest future capacity and connectivity improvements will require such a reevaluation (see Major Street Improvement Plan in this chapter).



NW 66th Avenue



NW Beaver Drive



NW 70th Avenue



NW 100th Street



NW 62nd Avenue

²Principal Arterial-classified roadways border, but do not enter, the city limits of Johnston; however they have a significant impact on the ability to deliver a desired level of service for municipal streets.

Traffic Generators

The link between traffic generation and land use has been well-documented. Studies have shown that type and intensity of development will dictate the scale of transportation infrastructure needed to provide an adequate level of service. Likewise, higher traffic volumes that originate from traffic generators that increase the demands on the roadway system require a greater degree of access management along with additional capacity to ensure that traveler mobility and safety is not compromised.

Residential

Traffic generated by residential land uses can vary greatly dependent on the density of development. Low density single family detached housing may only produce five (5) daily vehicle trips per acre per day. A high density high rise development is capable of producing four hundred (400) trips per acre per day.

Commercial

Depending on the type of commercial development, the number of trips generated by the commercial use can vary widely. Uses such as drive through coffee shops, gas stations and supermarkets often generate high volumes of traffic upwards of 130 trips per 1,000 square feet. Single-tenant office buildings, small specialty service shops, or highway related commercial uses may only generate 10 trips per 1,000 square feet. Given the wide variation in traffic generation between commercial uses, the City of Johnston must carefully analyze each new commercial development to ensure the segments of the current and future transportation network is not unduly stressed.

Industrial

Industrial land use traffic generation is closely related to the level of employment. The number of trips generated by an industrial use is often lower than commercial or residential land uses. However, Industrial land uses create very high levels of traffic over short specific times of day, most often at the beginning and end of work shifts. These sharp peaks are capable of creating more serious traffic problems than commercial or residential land uses. The City of Johnston must properly plan and design a road network around industrial land uses to safely and efficiently disperse traffic during these peak periods.

Transportation studies indicate that the lowest street classification describes a street that serves 25 dwelling units or less. A low density residential street which serves 25 dwellings or less would generate an average of 250 or less vehicle trips per day. Low density residential streets may provide parking on one side of the street and one traffic lane. Given the low levels of travel on these streets sufficient gaps would be present to accommodate two-way traffic. These streets are often cul-de-sac or loop streets connecting to a single street. Cul-de-sac and loop street development should be discouraged in the future by the City of Johnston. These developments force higher levels of traffic onto the collector street system and create more locations where turning movements are frequent. These two characteristics lead to higher levels of congestion and lower travel speeds.

Streets serving more than 25 dwellings, creating 250 trips per day, require two open lanes of traffic in order to facilitate two-way traffic. Streets with trip generation rates of greater than 250 and less than 1500 can often be adequately serviced with speed limits of 25 or 30 miles per hour (mph). These streets may utilize 10 foot travel lanes and allow eight (8) feet for on street parking. As traffic volumes become greater than 1500 (servicing more than 150 households) wider lane widths of 12 feet should be used to safely accommodate the higher number of potential conflicts between vehicles. Traffic volumes in the range between 5,000 and 10,000 vehicles per day are considered sufficient to require four traffic lanes, although if points of access are minimized, a two-lane facility (with turning lane

improvements at major intersections) can also adequately serve travel demand needs for traffic volumes in a similar range.

Functional Classification	Average Daily Traffic (ADT)
Local Service	Less than 1,500
Collector	1,500-2,500
Major Collector	2,500-5,000
Minor and Principal Arterial	5,000 and over

The most heavily traveled roadways in Johnston include Merle Hay Road, NW Beaver Drive, NW 86th Street, NW 62nd Avenue, Pioneer Parkway and NW 70th Avenue. Major traffic generators creating traffic flow in the city include Interstate 80/35 on the southern boundary, commercial developments along NW 86th Street and Merle Hay Road, and local traffic to traveling to and from the Des Moines and Urbandale areas. Recreational traffic using Saylorville Lake also generates seasonal traffic along NW Beaver Drive, Merle Hay Road and NW 66th Avenue.

Figure 6.2 illustrates current (2008) average annual daily traffic volumes in Johnston. Forecasted traffic volumes are illustrated on Figure 6.3. These traffic volumes were prepared in 2010 by DMAMPO for the Horizon Year 2035 DMAMPO Transportation Plan using updated land use data provided by the City of Johnston. Traffic growth is evident along the major corridors in Johnston, notably NW 86th Street, NW Beaver Drive, NW 62nd Avenue, and NW 70th Avenue.

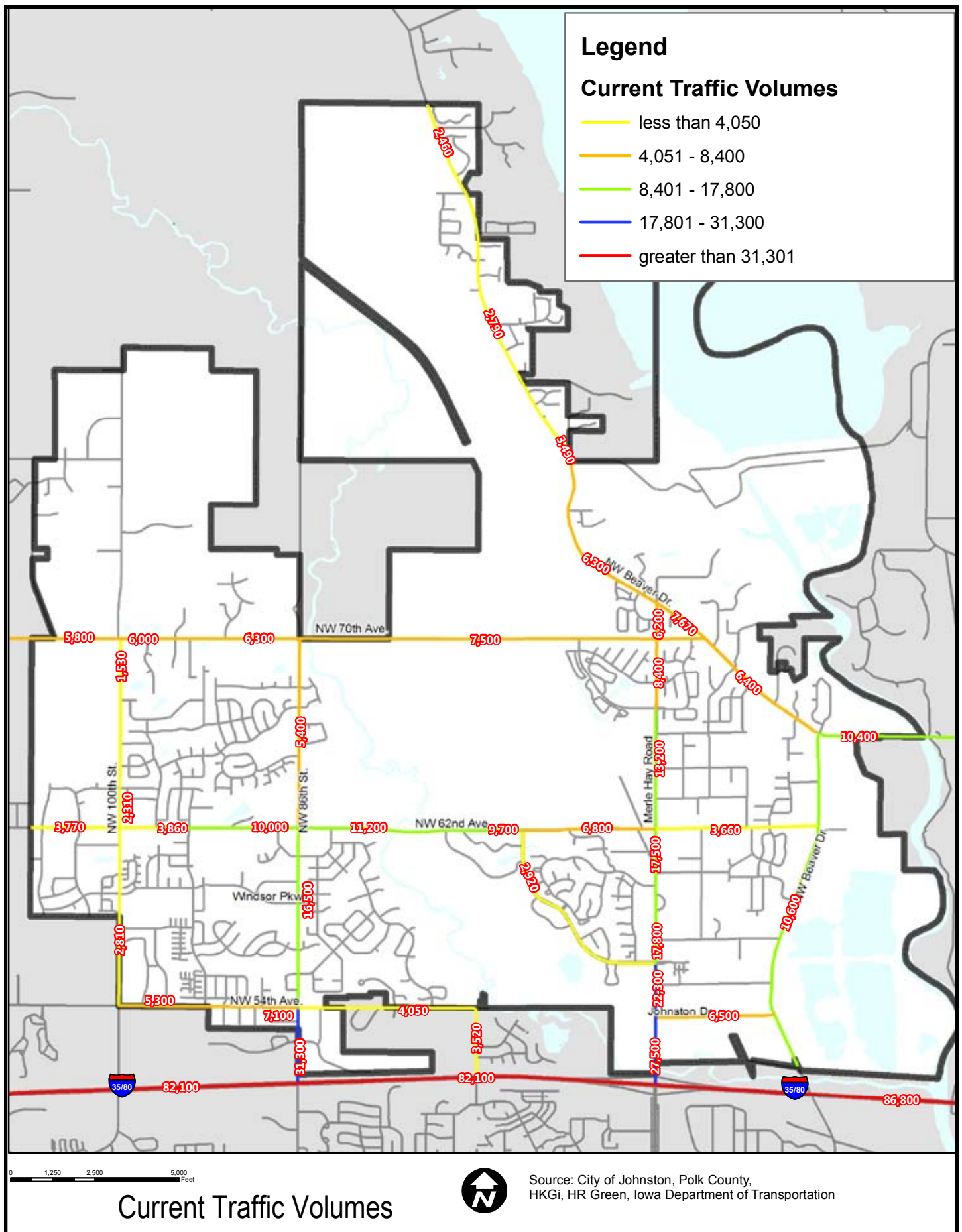
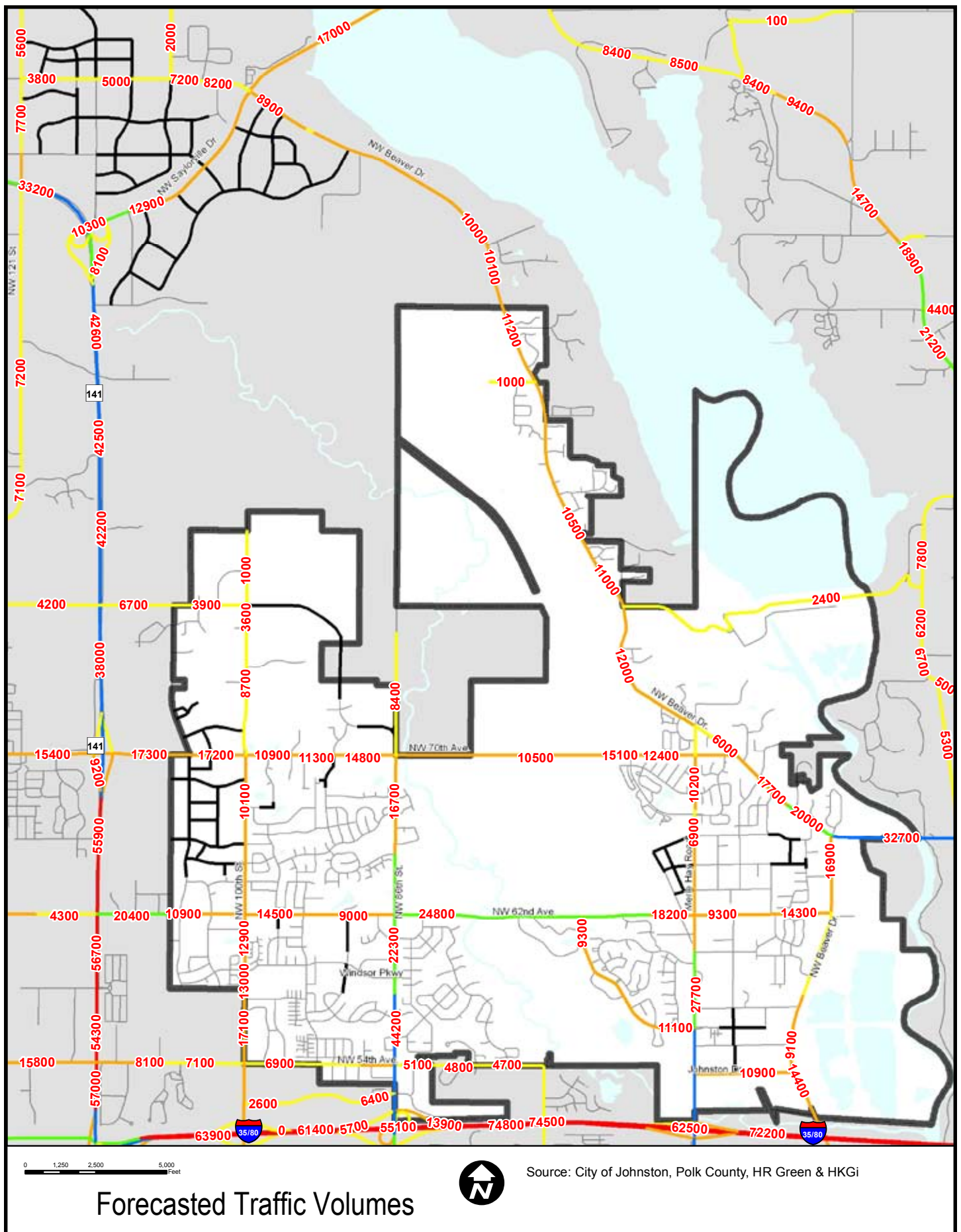


Figure 6.2 - Current Traffic Volumes



Capacity and Safety

In the community of Johnston, roadway capacity concerns arise from primarily two-lane roadways with traffic volumes that may exceed the roadway's ability to safely accommodate travelers. Traffic volumes in excess of 7,500 vehicles per day on a two-lane facility will begin to erode not only traveler mobility, but also safety. Safety concerns arise when excessive points of private property access is permitted on a higher traffic volume roadway or when roadway or intersection design issues that can be corrected are found to be a contributor to vehicular crashes. Safety concerns also arise from bicycles and pedestrians that use undesignated facilities (such as shoulders or edge of pavement) for access. NW Beaver Drive, north of its intersection with NW 66th Avenue and south of its intersection with NW 62nd Avenue, is an example in the community where traffic volumes are approaching street capacity, and combined with multiple points of access and bicycle/pedestrian activity, creates concern for all modes of traveler safety. Other two-lane roadways in the community not currently programmed for improvements with emerging capacity and safety concerns include NW 100th Street, and NW 62nd Avenue (between NW Beaver Drive and Merle Hay Road).

Figure 6.4 illustrates recorded crashes between 2001 and 2009 for Johnston. The vast majority of recorded crashes in Johnston are "Property Damage Only" and are considered typical for a community the size of Johnston. Most of these crashes are low-speed, "fender bender" type incidents that result from driver error rather than problems with transportation facilities. The most recent fatalities recorded during this period are resultant from a very small percentage of the vehicle mix in the community (motorcycle driver errors and a military vehicle driver's medical condition) and not as a result of roadway geometry concerns or newly reconstructed roadways. Other fatalities recorded in the early part of the crash history will most likely be corrected by street improvements made or planned in the short term (such as NW 70th Avenue and NW 62nd Avenue). These capacity and safety corrections are expected to further reduce the number of incidents where injuries or fatalities may otherwise occur.

Connectivity

Roadway connectivity has historically been an issue in Johnston due to the large expanses of land that are owned or operated for public or research uses. Natural and human environment barriers create challenges for connecting the roadway network in Johnston. The location of Camp Dodge, Pioneer Hi-bred International Inc.'s research fields, and significant natural resources limit options to extend and connect roadways in Johnston, including limited options to add or connect new north/south or east/west arterial roadways. At the present time, NW 62nd Avenue and NW 70th Avenue are the only continuous east/west arterials that traverse the length of the community. NW 100th Street, NW 86th Street and Merle Hay Road are the only continuous north/south arterials in the community, although NW 100th and NW 86th Streets currently end and are truncated from extending northward by Camp Dodge property. In addition, there are a number of connecting streets needed in the established parts of the community east of Merle Hay Road to better distribute local travel through existing and new neighborhoods that have been constructed over the past 10 years.

Street Design Standards

In Johnston, in addition to designing new streets according to current standards, there is also a need to reconstruct older neighborhood streets using the same standards. To ensure

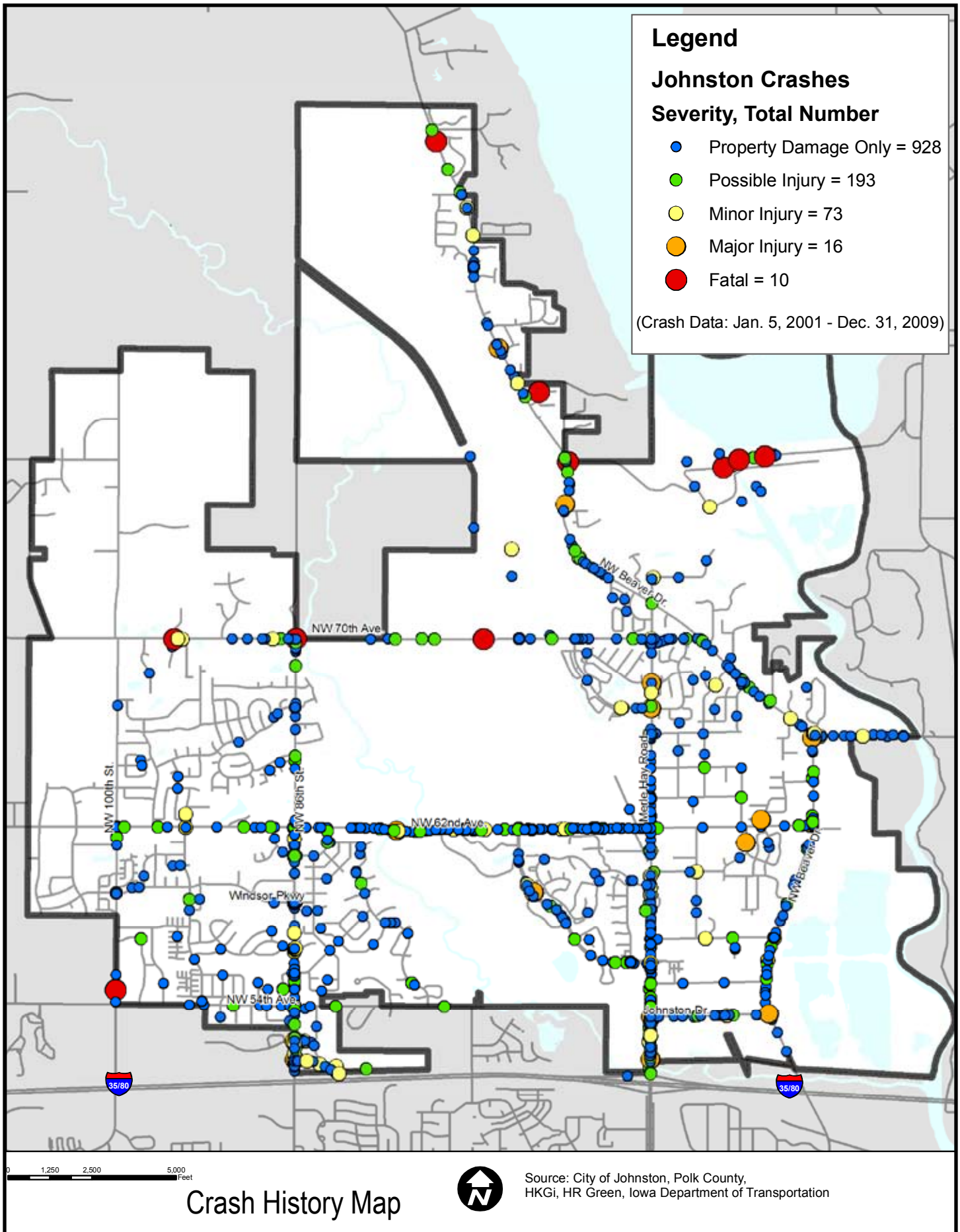


Figure 6.4 - Crash History Map

safety, proper right of way width, as well as uniformity within the City of Johnston, the metropolitan region, and the State of Iowa, it is important that Johnston consistently follow the street design standards set forth by the Iowa Statewide Urban Design and Standards Manual (SUDAS). SUDAS standards primary consideration is that all new roadways and major reconstruction of existing corridors provide for safe, efficient and economic transportation throughout the design life of the roadway. The values contained in the SUDAS manual are to be considered basic design guidelines which will serve as framework for satisfactory design of new street and highway facilities. The SUDAS standards are found on the internet at <http://www.iowasudas.org/design/Chapter05/5A-1-09.pdf>.

As water, sewer, and storm drainage utilities are replaced in neighborhoods in the eastern part of the community, for example, streets will need to be reconstructed to meet SUDAS standards.

An illustration of the current SUDAS standards that the City of Johnston uses is shown in Figure 6.5.

Major Street Improvement Plan

In 2005, the City of Johnston conducted a transportation planning study to examine the capacity needs of major streets in the western part of the community, from NW 86th Street to the Grimes city limits, encompassing NW 54th, NW 62nd, NW 70th, NW 86th, and NW 100th Avenues. The study conducted traffic forecasts and anticipated various types of roadway geometry need for these corridors. The comprehensive plan recognizes this study and updates its analysis with future land use planning and the illustrative 2035 traffic forecasts that were prepared by the Des Moines Area MPO in 2010 for the community. Major corridors east of NW 86th (and not included in the 2005 study) have also been analyzed by the comprehensive plan.

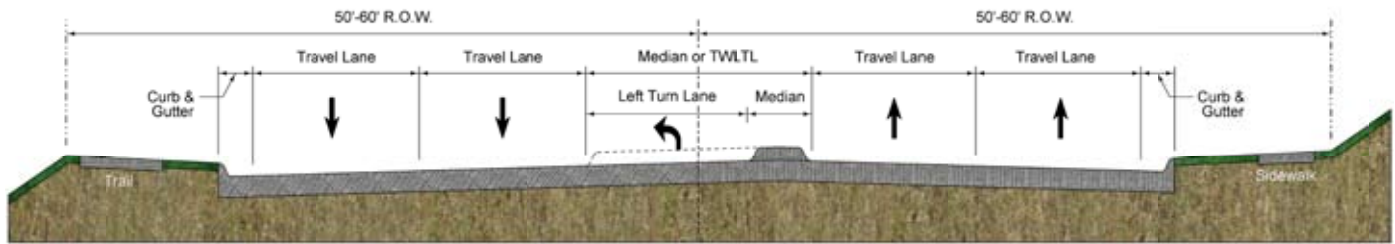
The major street improvement plan contains a number of recommendations for future improvements to collector and arterial roadways in Johnston. Figure 6.6 illustrates these improvements according to anticipated five year increment sequencing, depending on development-driven growth.

NW 62nd Avenue (East of Pioneer Parkway and East of Merle Hay Road)

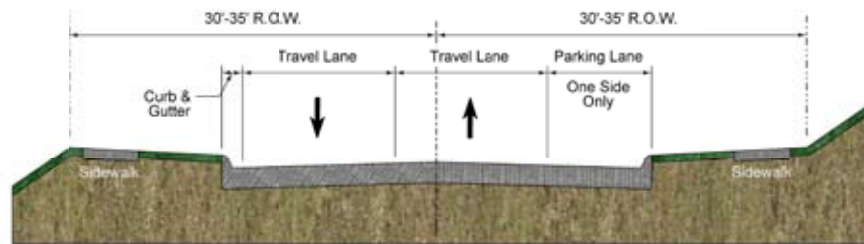
NW 62nd Avenue will continue to serve as a major east/west roadway in Johnston during the planning horizon. This route provides not only connections across the natural areas of the community but also links existing and planned mixed land use areas along Merle Hay Road and NW 86th Street. Because of the expanse of the Beaver Creek floodplain, NW 62nd Avenue is a significant connection to link Johnston's east and west sides. Improvements are planned to upgrade the current two-lane roadway from NW 86th Street to Pioneer Parkway, including a new adjacent bridge crossing for westbound lanes over Beaver Creek and traffic signal at Pioneer Parkway. The land use plan identifies character elements that need to be included in plans to upgrade NW 62nd Avenue. The continued growth of Pioneer Hi-Bred International, Inc. and additional residential growth in western Johnston contribute to the need for an upgraded, continuous four-lane roadway. To complement recent improvements west of 86th Street and planned improvements on either side of Beaver Creek, further improvements to address peak period congestion at the Johnston Middle and High Schools campus and accommodate forecasted traffic volumes, continued capacity and safety improvements on NW 62nd Avenue east of Pioneer Parkway and between Merle Hay Road and NW Beaver Drive should be studied. With forecasted traffic volumes exceeding 12,000-15,000 trips per day, a four-lane divided median facility with turn lanes or a five-lane section with continuous center left turn lane should be considered.

Typical Roadway Sections

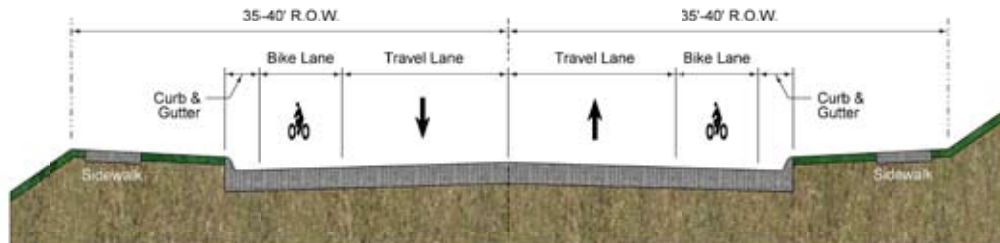
Arterial Street



Local Street



Collector Street Option 1



Collector Street Option 2

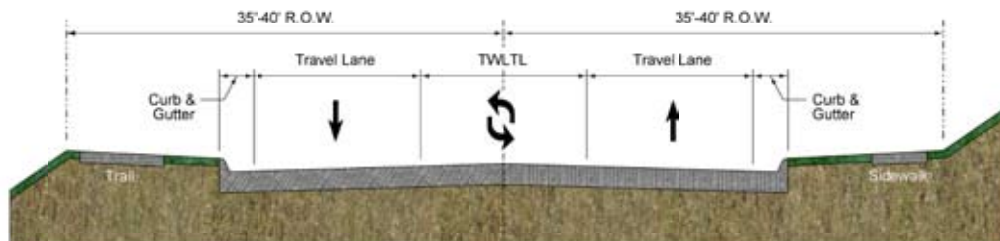


Figure 6.5 - Typical Roadway Sections

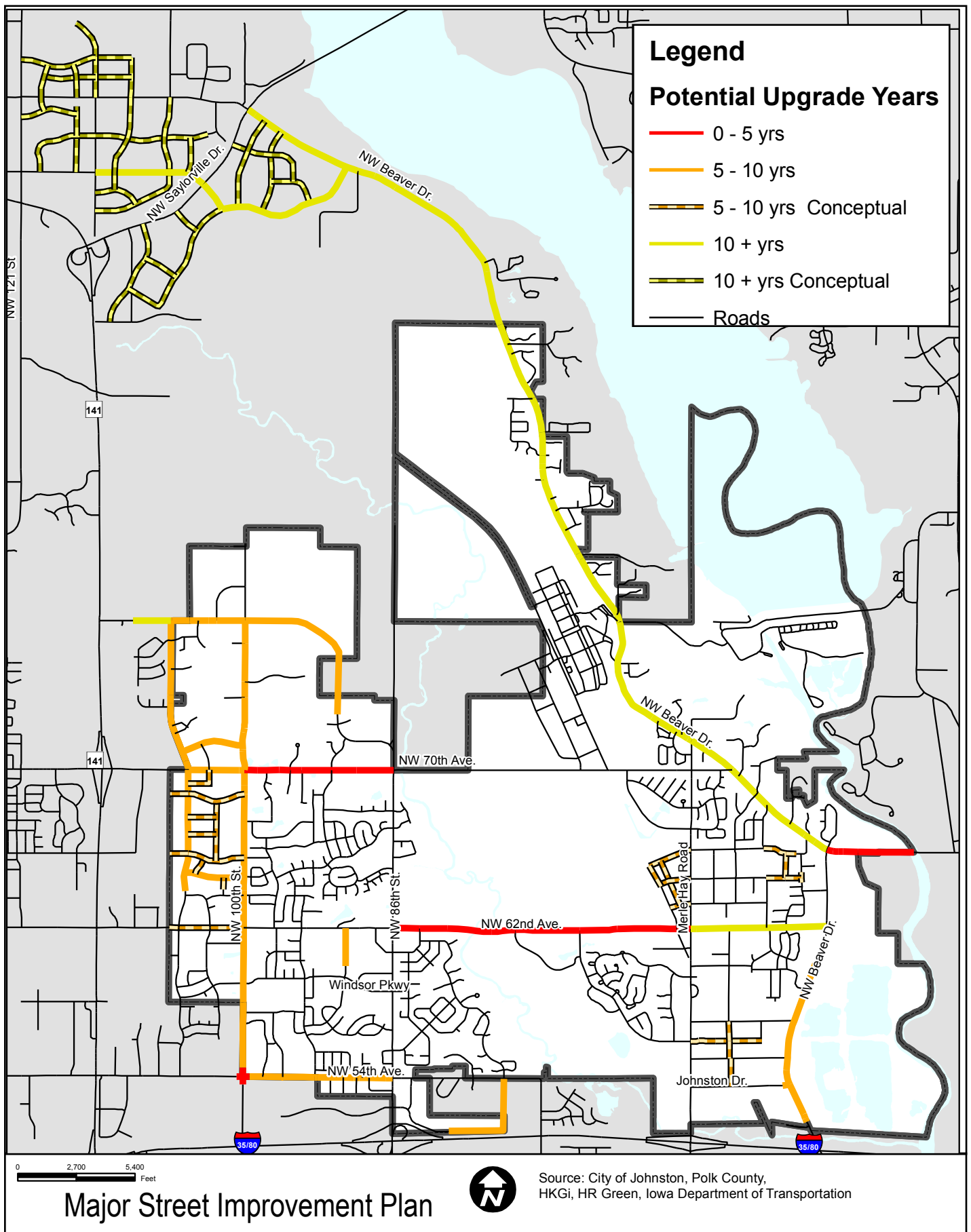


Figure 6.6 - Major Street Improvement Plan

NW 70th Avenue

NW 70th Avenue was recently reconstructed as a four-lane facility between NW 86th Street and Merle Hay Road. As one of only two continuous east-west corridors in the community, it is in a position to help address new traffic growth that will occur in the northern part of the community over the planning period as well as continue to serve Camp Dodge traffic.

A four-lane improvement of NW 70th is planned between the Grimes city limits and NW 86th Street to address traffic growth. A short three-lane section of NW 70th exists east of Merle Hay Road and intersects with NW Beaver Drive. While the short segment's capacity appears to be adequate for forecasted traffic volumes, the current intersection between these two streets is unsafe due to the skew angle at which these roads intersect. A reconstruction of the roadway skew is needed to improve driver sight distance and general visibility for all modes of travel using the corridor. The intersection reconstruction may also benefit from a reconfiguration to provide a more continuous traffic flow between NW 70th Avenue and NW Beaver Drive.

NW Beaver Drive

NW Beaver Drive is a rural roadway, serving the community of Johnston well over the years. It is a unique roadway in the Des Moines Metropolitan Area, located adjacent to Saylorville Lake and the Des Moines River. Much of NW Beaver Drive historically provided access for military vehicles and today provides both mobility and access for motorists, bicyclists, and pedestrians. However, its current design does not reflect modern standards due to deficient shoulders, drainage, horizontal and vertical curvature, and a lack of multimodal (bicycle and pedestrian) facilities.

North of its intersection with Merle Hay Road, NW Beaver Drive presents a long-range potential safety, rather than capacity concern, and that portion of the roadway should be monitored for possible isolated safety improvements that can be made to address problems associated with the current roadway's design. As the NW Saylorville Drive Expansion Area develops, more significant reconstruction projects along NW Beaver Drive will likely be needed as older infrastructure becomes obsolete or unsafe, and must be replaced. Because of the physical constraints of Camp Dodge and Saylorville Lake, all adjacent residential development must use NW Beaver Drive for private property access. This duality of uses, access and mobility, on NW Beaver Drive creates a potentially dangerous conflict situation between driver turning and through movements. NW Beaver Drive's location relative to Saylorville Lake also requires that road service seasonal recreational travel. This recreational travel leads to peaks of large vehicles pulling trailers and boats especially during the weekends. Additionally, NW Beaver Drive is a common route for bicyclists, especially in the summer months and on weekends.

Capacity, in addition to safety, is a concern south of the NW 70th Avenue intersection. The southern section of NW Beaver Drive, as of 2008, has an average daily traffic volume of 10,600. According to the Des Moines Area MPO Horizon Year 2035 Transportation Plan, NW Beaver Drive will have sections south of the intersection of NW 70th Avenue with forecasted traffic volumes approaching 16,000 vehicles per day. These forecasts are due in large part to a new Des Moines River bridge planned for NW 66th Avenue and additional local and regional roadway capacity improvements associated with a potential new I-80/35 interchange at NW 26th Street east of the Des Moines River. This increase in traffic demand will require an increase in NW Beaver Drive's capacity and up to a five-lane roadway section should be considered for this segment of NW Beaver Drive. When consideration is given to upgrade NW Beaver Drive to modern roadway design standards, urban infrastructure systems such as curb and gutter, storm sewer, bike lanes or separate paths should also be considered while planning capacity improvements for its connection with the new roadway and bridge crossing improvements along NW 66th Avenue.



NW 100th Street

NW 100th Street, between NW 54th Avenue and NW 70th Avenue, is currently a two-lane roadway. Intersection capacity improvements are needed in the short-term (0-5 years) at the NW 100th Street and NW 54th Avenue intersection. At NW 62nd Avenue, intersection improvements have been made; however, the general capacity of the roadway to accommodate forecasted growth will be surpassed in the planning horizon with traffic volumes exceeding 10,000 vehicles per day south of the NW 54th Avenue intersection and new traffic generated by planned future land uses. Additional intersection improvements at NW 100th Street and NW 70th Avenue will also be needed. A four-lane divided facility with median and turn lanes or a five-lane section with continuous center left turn lane should be considered as the primary roadway design for segments of NW 100th Street between major intersections.

In addition, a potential new interchange with I-80/35 at NW 100th Street is being considered (see Figure 6.6). The Des Moines Area MPO's travel demand model includes forecasted traffic volumes with the assumption that by 2035, this facility will be constructed. This potential interchange is in the early stages of development and has not yet been approved for construction by the Iowa DOT or Federal Highway Administration at this time. If this facility is constructed, the City of Johnston will continue discussions and coordination with the City of Urbandale to ensure that roadway capacity and design considerations are consistent between the two communities as improvements are planned and programmed near the NW 100th Street/NW 54th Avenue intersection.

Conceptual Streets

The City of Johnston will encourage street connections and logical termini when reviewing site plans so that appropriate connections between streets, bicycle and pedestrian, and transit facilities can be facilitated.

NW Saylorville Drive Expansion Area Streets

The installation of new streets and the upgrading of existing roadways will occur as the NW Saylorville Drive Expansion Area develops. As development proposals are considered, it will be important to consider functional classification map amendments and discussions on the impact of these needs with neighboring jurisdictions, including Granger, Polk City, and Polk County. The Des Moines Area MPO added this area to the regional travel demand model for the 2030 Johnston Comprehensive Plan using land use forecast assumptions for illustrative purposes, and therefore, the effects on the Greater Des Moines regional roadway system have not yet been fully evaluated. However, it does appear that forecast traffic volumes on NW Saylorville Drive will exceed 12,000 vpd and such an increase will warrant possible consideration of a three-to-five lane section of roadway using the SUDAS standards between Highway 141 and the Mile-long bridge over Saylorville Lake. Intersection improvements at NW Beaver Drive will also need to be reconsidered at that time.

New Beaver Creek Crossing Analysis

The previous Johnston comprehensive plan explored the establishment of a new Beaver Creek crossing as a third east/west travel corridor spanning the southern portion of the community. The plan was adopted in 1998 with the recommendation that this crossing be included for future implementation. In 1999, an engineering feasibility study of a new Beaver Creek crossing that would align a connection between NW 54th Avenue at NW 72nd Avenue Street and Johnston Drive was prepared. After consideration, on September 7, 1999, the Johnston City Council amended its comprehensive plan to remove this crossing.

As a part of the plan update in 2009-2010 and as the wishes of the community were being explored, including surveyed desires for better east-west connectivity and efficient transportation systems between the developed areas of the community, members of the Johnston Comprehensive Plan Advisory Board and Planning and Zoning Commissions decided to revisit the issue of a possible new Beaver Creek crossing in February 2010. The purpose of revisiting this issue was to update the crossing study with consideration for changes that have occurred in the community since the last comprehensive plan was prepared, to consider it in context with other recommendations of the 2030 comprehensive plan update, and to gauge current community sentiment on the issue.

A graphic illustrating a general alignment in a similar location as had been previously studied in 1999 for a future Beaver Creek crossing was prepared, and opportunities and constraints were summarized to help balance the discussion if such a crossing were to be implemented. Opportunities and constraints included anticipated effects of the street connection on activity nodes clustered north of I-80/35 along Merle Hay Road and NW 86th Street, issues related to bridges and supporting infrastructure needed in the Beaver Creek floodplain, and the effects of such a project on the natural environment, traffic safety, and the community. These effects were summarized at a planning (i.e. high) level and reviewed with the public at an open house held in March 2010. At that time, members of the public expressed concerns in response to the constraints presented by the potential crossing, including environmental impacts to the Beaver Creek floodplain, social environment concerns (private property losses, property valuation impacts, traffic and noise), and related costs, as well as intergovernmental agency issues and concerns.

To balance community connectivity desires and to help manage expected growth in traffic levels city-wide with a desire to find a more socially- and environmentally-sensitive future crossing, in April 2010, the City Council requested that additional crossing alternatives be studied.

To supplement the original concept connecting NW 54th Avenue with Johnston Drive, two additional Beaver Creek crossings were studied and discussed with the Comprehensive Plan Advisory Board and Planning and Zoning Commission. A crossing alternative for a future connection to Pioneer Parkway was briefly examined but dismissed prior to public review as unreasonable for future consideration due to a combination of natural or built environment constraints, particularly in relationship to potential impacts to the Beaver Creek Natural Resource Area. A second alternative was studied and termed “the South Crossing”, with the goal of minimizing natural and human environment impacts by using primarily existing Iowa DOT right of way from I-80/I-35. The South Crossing would have principally served as a freeway frontage road by connecting the existing Johnston Drive/ Merle Hay Road intersection on the east with Birchwood Court on the west, which connects to NW 86th Street. Because future traffic volumes on I-80/I-35 will be approaching nearly 150,000 vehicles per day according to Des Moines Area MPO forecasts, the Iowa DOT indicated it does support local systems projects that can remove or reduce local trips from using the freeway. However, the Iowa DOT did not support further study of the South Crossing, which, if constructed, could have precluded the State’s options for the long-term reconstruction of I-80/I-35 in the shared designation section of the two Interstate highways in Polk County. The South Crossing was therefore removed from further consideration by the City of Johnston in September 2010.

Only the original crossing remained as a possible alternative. Hearing no further comments at the time in fall 2010, the Comprehensive Plan Advisory Board and Planning and Zoning Commission decided to include the original potential crossing alternative as a 10 year plus conceptual improvement in the comprehensive plan update, which would allow it to remain as a future east-west community roadway preservation option with a low priority and the possibility that it may not be constructed. The DMAMPO provided an

updated traffic forecast for the community including forecasted traffic volumes including the potential new crossing. By the Year 2035, the crossing would be expected to carry 4,800 vehicles per day, according to the illustrative travel demand forecasts prepared by the Des Moines Area MPO. The future crossing would have also been expected to reduce the number of future (2035) traffic volumes north of I-80/I-35 on Merle Hay Road and NW 86th Street by approximately 20 percent, providing some traffic congestion relief. No further details related to design or cost estimates were prepared.

The potential Beaver Creek Crossing was presented at a Comprehensive Plan open house and public hearing held respectively in October and November 2010. The concept of the crossing proved to be a very difficult issue for the community for some of the following reasons: financial considerations due to the expense of constructing an elevated road system over a flood plain without opportunity for property tax revenue; the effect the proposed road would have on already delicate wetlands and watershed (on which flooding frequency has increased in the past decade); the environmental impact that such a road would have on Johnston's natural resources, wildlife, and adjacent parks; the increased truck traffic through the neighborhood and safety concerns in proximity to the Timberidge Elementary; the increased noise pollution in addition to the existing interstate noise; and concerns of private property losses as well as negative property valuation impacts on residents in the area. Paired with feedback received from constituents and as recommended by the Comprehensive Plan Advisory Board and Planning and Zoning Commission, the City Council ultimately approved the Johnston 2030 Comprehensive Plan without the provision to include the potential Beaver Creek Crossing as a 10 plus year conceptual roadway. Further documentation on this issue, including discussion points, sketches, meeting minutes and public comments received is available for review from the City of Johnston.

Other Transportation Modes

According to Iowa's recently adopted smart planning legislation, "Planning...should promote expanded transportation options for residents of the community. Consideration should be given to transportation options that maximize mobility, reduce congestions, conserve fuel, and improve air quality."³ According to the American Public Transportation Association, public transportation... "Enhances personal opportunities, reduces congestion, provides economic opportunities, and reduces gasoline consumption."⁴

Des Moines Area Regional Transit Authority (DART) is the transit service provider for the City of Johnston. DART also provides demand responsive paratransit and on-call service for senior citizens and persons with disabilities. Currently, fixed route service is provided along two routes, DART Routes 91 and 93. Regular and Express routes and current/potential park and ride locations are illustrated in Figure 6.7.

With officials at DART, the City of Johnston will continue to monitor transit mobility needs of the community and partner on opportunities to introduce transit-friendly developments in appropriate areas of the community. Needs and opportunities in the future may include new or revised transit service routes (regular and express), paratransit and senior services, new locations for carpool/park and ride facilities and infrastructure, and multimodal connections such as linkages between bicycle and pedestrian facilities.

³Smart growth legislation (SF2389, Division VII, Sections 17-25)

⁴American Public Transportation Association. 1666 K Street NW, Washington, DC 20006. Public Transportation Benefits. <http://www.apta.com/mediacenter/ptbenefits/Pages/default.aspx>. 9/19/2010

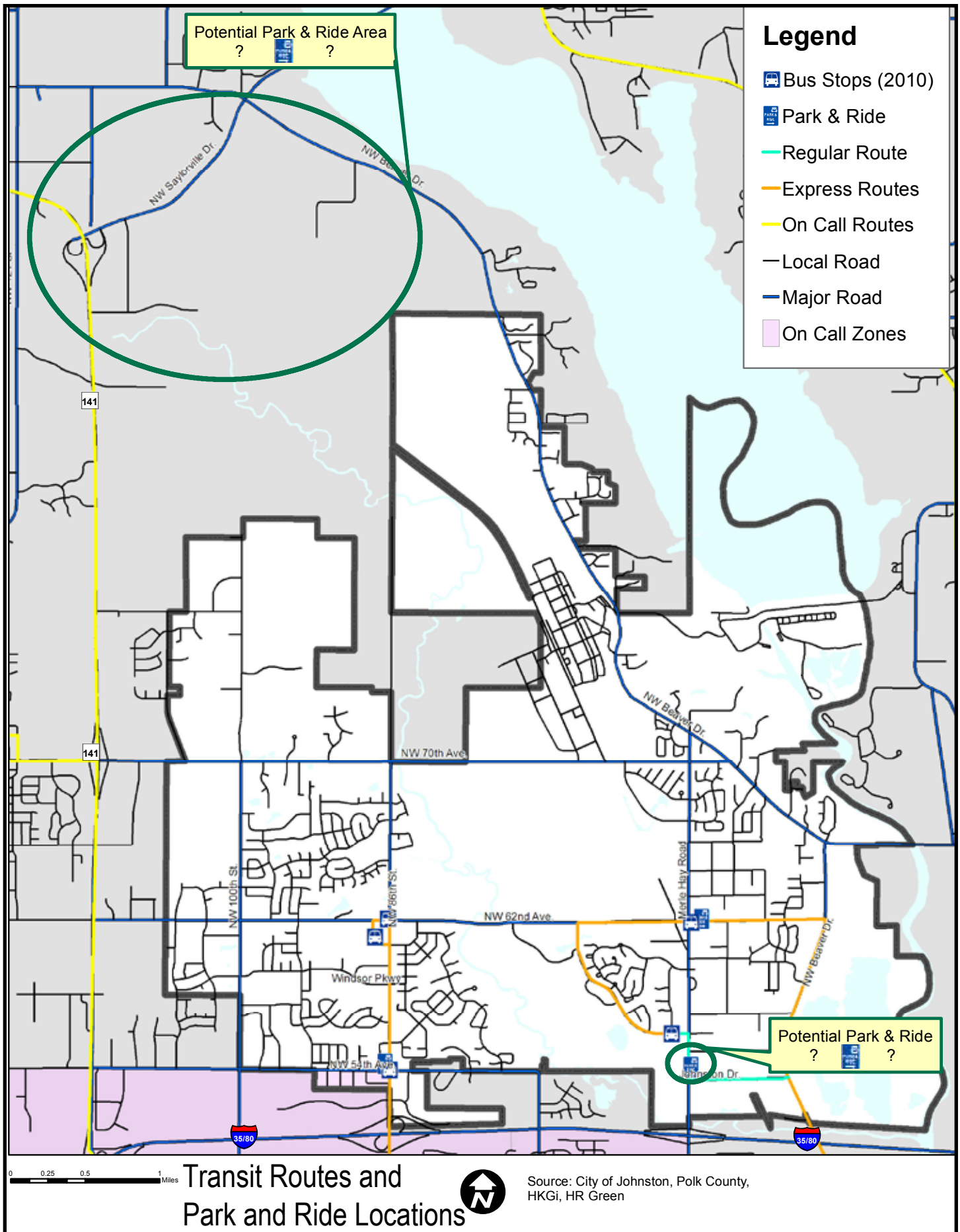


Figure 6.7 - Transit Routes and Park and Ride Locations





Housing 7

Introduction

Housing is the dominant form of development in Johnston. Almost 60% of Johnston's 2030 Land Use Plan is earmarked for residential uses. The housing supply plays an important role in shaping the community. To a large degree, the size, form and type of housing units determines who lives in Johnston. The quality and character of Johnston's neighborhoods plays an important role in shaping the identity of the community and its stature as a place to live in the greater Des Moines Metropolitan Area.

Including housing policies and initiatives in the comprehensive plan is appropriate for two reasons. First, the housing needs of a community are not completely met by private market forces, land use planning and land use controls. Community plans and ordinance controls create the framework for private land development; land development that is almost universally profit-driven. Private market forces need to be supplemented by programs and funding sources that bridge the financial gaps of providing housing for segments of the community that can't afford market-rate housing. Accordingly, this chapter can help identify housing needs and provide a foundation for local decision making to guide residential development and redevelopment efforts in Johnston.

The second reason that housing is addressed in this plan is to meet the intent of recent Iowa Smart Planning legislation enacted by the Iowa Legislature. The Smart Planning legislation defines components that are suggested content for comprehensive plans. These components are presented as ten Smart Planning principles, one of which addresses housing. The housing principle addresses housing diversity. It states, "planning, zoning, development and resource management should encourage diversity in the types of available housing, support the rehabilitation of existing housing, and promote the location of housing near public transportation and employment centers."

The legislation further states that when developing or amending a comprehensive plan, "objectives, policies and programs to further the vitality and character of established residential neighborhoods and new residential neighborhoods and plans to ensure an adequate supply of housing that meets both the existing and forecasted housing demand. The comprehensive plan or land development regulations may include an inventory and analysis of the local housing stock and may include specific information such as age, condition, type, market value, occupancy, and historical characteristics of all the housing within the municipality. The comprehensive plan or land development regulations may identify specific policies and programs that promote the development of new housing and maintenance or rehabilitation of existing housing that provide a range of housing choices that meet the needs of the residents of the municipality."



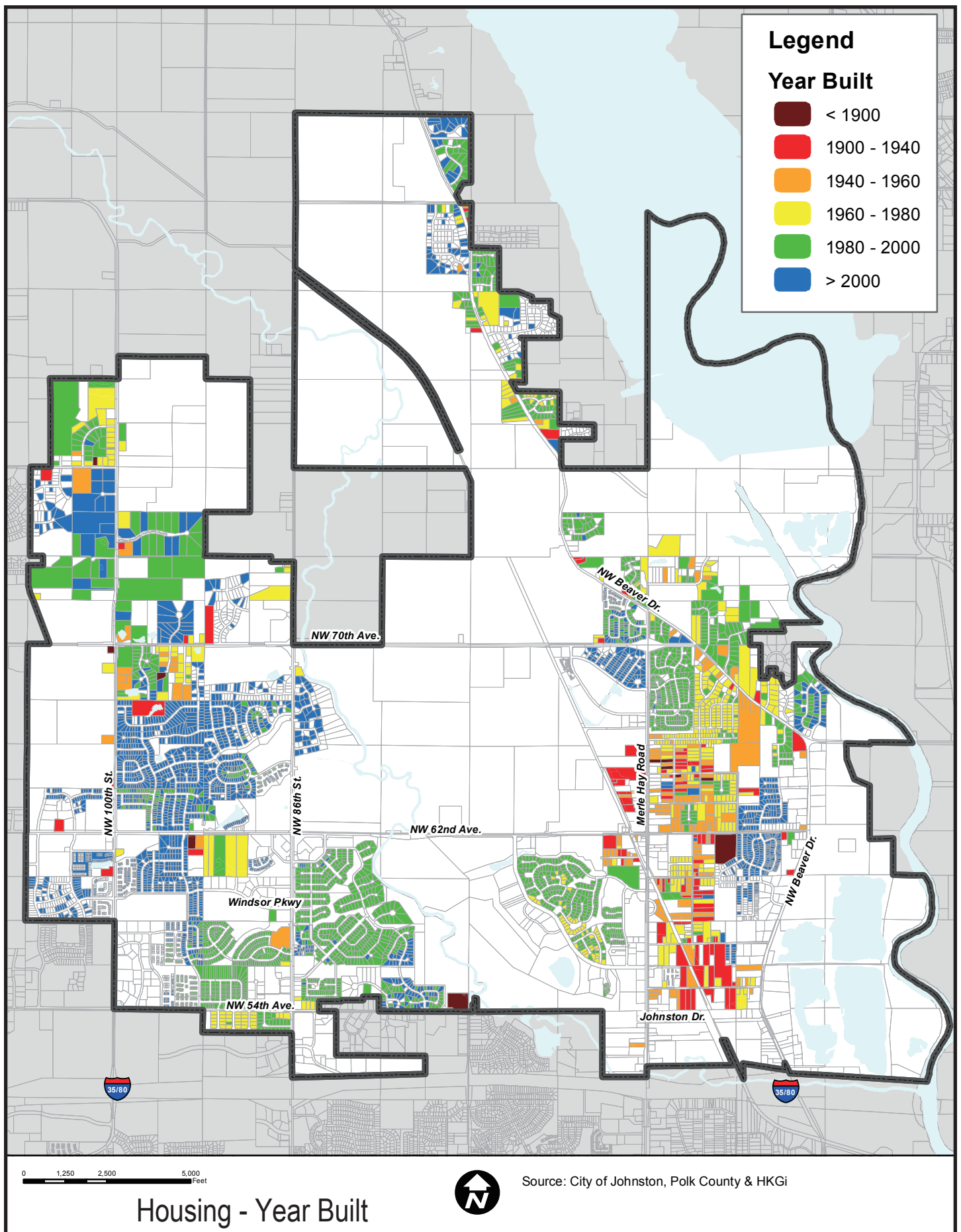


Figure 7.1 - Housing - Year Built

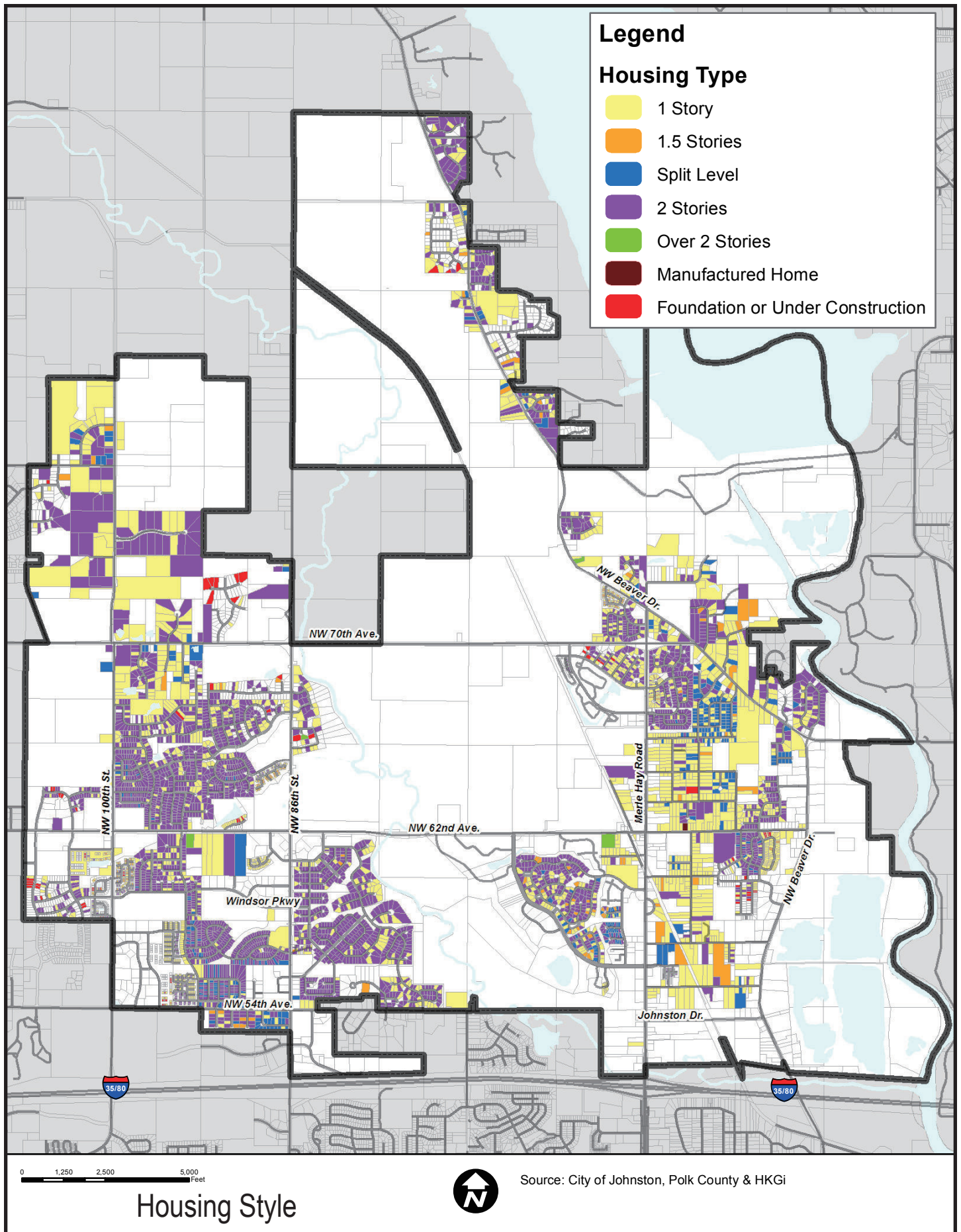


Figure 7.2 - Housing Style

Characteristics of the Existing Housing Supply

Assessed Value

Table 7.1 shows the assessed value of residential properties in Johnston according to 2010 Polk County Assessors data. Approximately 70% of Johnston's housing has an assessed value between \$150,000 and \$350,000. In most cases, the assessed value of a given home closely correlates to its age of construction. Residential units lying west of Merle Hay Road have generally higher assessed values than properties lying east of Merle Hay Road. Residential units with the highest assessed value are concentrated north of NW 70th Avenue, west of NW 86th Street and along NW Beaver Drive in the northern portion of the city.

Year Built

Johnston's housing stock is relatively new with 85% of the total units being constructed since 1980 (see Table 7.2). Only 4% of the total housing stock was built prior to 1960. From 2000 to 2010, much, but not all, of Johnston's new housing growth has occurred on the west side of town. Figure 7.1 shows the distribution of housing units in the community by year of construction. Of note is the amount of new home construction that has taken place in Johnston's older neighborhood areas east of Merle Hay Road. Although the total number of homes constructed prior to 1960 is relatively small, units of this vintage will require increasing amounts of ongoing maintenance. The city will need to continually monitor overall housing quality to ensure the long-term integrity of neighborhood areas.

Style of Housing

Housing styles change with the times. For the past couple of decades, two story homes have been a strong form of new housing. Two story structures account for over half of Johnston's housing stock and can be found throughout the community (Table 7.3 and Figure 7.2). As the population continues to age, some residents will seek other housing choices that offer one level living. Anticipated decreases in family size as well as the preferences of younger buyers may also impact the future marketability of this common form of housing.

Housing Issues

Given the fact that most of Johnston's housing has been built since 1980, the community has not experienced many of the general housing issues that older communities have seen. Two issues are evident at this time. The issue of foreclosures is one which should abate gradually as the economy improves; however, maintenance concerns will continue to be present and will grow over time as Johnston's housing supply ages.

Foreclosures

Residential foreclosures in Johnston have and are occurring throughout the community but not in any concentrated areas. The numbers of foreclosures in Johnston are difficult to specifically track but are generally felt to be consistent with foreclosure rates in other Des Moines area communities. Fortunately, few properties have become maintenance concerns. Establishment of a system to track and monitor foreclosures could help prevent maintenance problems with vacant properties while helping to ensure the integrity of the surrounding neighborhood.

Maintenance

Johnston has reached a population threshold at which the city will be preparing and adopting a housing maintenance code. The maintenance code will require inspection of rental properties and will also set standards for maintenance of all residential structures. The City will continue to use Metro Help and other programs that provide grant and loan funding to assist qualifying owners of properties with maintenance and repair concerns.

Assessed Value	Units	Percent
< \$75,000	131	3%
\$75,000 - \$150,000	707	14%
\$150,000 - \$250,000	2,270	45%
\$250,000 - \$350,000	1,241	25%
\$350,000 - \$500,000	495	10%
\$500,000 - \$1,000,000	175	3%
> \$1,000,000	15	0%

Table 7.1 - Assessed Value of Housing

Year Built	Units	Percent
< 1900	4	0%
1900 - 1920	21	0%
1920 - 1940	68	1%
1940 - 1960	160	3%
1960 - 1980	458	9%
1980 - 2000	1,783	35%
2000 - 2008	2,534	50%

Table 7.2 - Housing Year Built

Style of Housing	Units	Percent
1 Story	1,636	32%
1.5 Story	207	4%
2 Story	2,778	55%
2+ Story	5	0%
Split Level	325	6%
Manufactured Home	1	0%
Under Construction/ Foundation	83	2%

Table 7.3 - Housing Style

Housing Policies

1. *Maintain a balanced housing supply with housing available for people at all income levels and unit types that meet the varying life-cycle needs of Johnston residents.*
2. *Promote ongoing maintenance of owner occupied and rental housing units.*
3. *Establish a housing pattern that respects the natural environment while striving to meet local housing needs and the community's share of metropolitan area housing growth.*
4. *Establish a community of well-maintained housing and neighborhoods including ownership and rental housing.*
5. *Improve access and linkage between housing, employment and retail centers in Johnston.*
6. *Work to integrate affordable workforce housing into the community.*

Housing Action Steps

In order to promote the identified housing policies, the City of Johnston will:

1. *Maintain zoning and subdivision regulations allowing for the construction of a variety of housing types and price ranges.*
2. *Continue to utilize city ordinances that allow planned unit developments that provide a mixture of housing types.*
3. *Promote the development of multi-family housing in areas that are physically suited to higher densities.*
4. *Require the integration of open spaces within residential developments in order to maintain a living environment that is consistent with the city's vision and guiding principles.*
5. *Promote higher density housing in the mixed use area of the city.*
6. *Explore new approaches to provide affordable housing.*
7. *Continue to use the 2030 Comprehensive Plan and other tools to promote quality housing developments that respect encourage resident health and conserve energy.*
8. *Continue to work collaboratively with property owners, builders, lenders and other stakeholders to meet local housing needs.*
9. *Use GIS and other data sources to monitor conditions and trends in the housing stock, including ownership status, values, sales and improvements.*
10. *Explore ways to protect neighborhoods from the negative impacts of foreclosure, including the creation and maintenance of a foreclosure list, maintaining contact with owners, mortgage companies, builders or other responsible parties about security and maintenance issues and monitoring of the properties.*
11. *Encourage the formation of neighborhood associations to address long-term maintenance of landscaping and other neighborhood improvements.*





Housing Plan

In community meetings held during the beginning of the comprehensive planning process, housing was an issue of concern to residents, but not a major concern. Specific issues raised focused on a number of housing topics such as maintaining a balanced housing supply, retaining a variety of housing types, maintaining the community's housing stock over an extended period of time, developing new housing that is integrated into the natural environment and improving the linkage between housing and employment. These issues form the basis for the housing plan.

A Balanced Supply of Housing

The City of Johnston strives for a balanced mix of housing to sufficiently provide for the needs of current and future residents and existing residents' housing needs as they move through different stages of the life cycle. At the present time (2010), the city's housing mix - single-family versus multi-family - consists of 68 percent single-family and 32 percent multi-family. There has been a significant amount of multi-family housing constructed in the city since the completion of the last comprehensive plan in 1998. The addition of the multi-family housing was in response to market trends. Because of the city's availability of land for housing development and the tradition of strong single-family detached neighborhoods, there will be pressure to develop additional single-family housing.

As the population of Johnston continues to age and young buyers seek different forms of housing, the demand for multi-family housing is likely to continue to be strong. As a result, over the next ten to twenty years, the amount of multi-family housing in the community as a percentage of total housing may increase.

In response to maintaining a balance of housing in the community, the future land use plan designates land to accommodate a variety of housing types and densities.

A Variety of Housing Types

The city has a variety of types and styles of housing including traditional single-family, large lot single-family, duplex (twinhome), townhomes, condominiums and apartments. In addition, recent development has added several different styles of townhome units to the housing stock.

In the future, Johnston is likely to see interest in developing small-lot single-family homes. This product type is being designed to appeal to mid-age and older adults with no children as well as young seniors seeking to downsize from a larger single-family home.

The majority of the city's housing stock remains newer, having been built after 1980. As such, Johnston has fewer issues with housing stock renewal and replacement than older communities, but more issues with maintaining the balance of the housing stock as it pertains to intensity of land use and product design for lifestyle needs.

Development in Johnston over the past ten years has resulted in a mixture of housing types that were built in response to market conditions. Traditional single-family detached housing has always been a strong component of the community's housing stock. Because of market interest and tax and finance issues, multi-family housing complexes have been built at different times. During the 1980s and into the 1990s, Green Meadows established itself as a large scale planned unit development with a variety of housing types and densities. As the community looks forward to the next two decades, this comprehensive plan assumes that efforts will be made to maintain housing diversity.

Future housing constructed in Johnston will either occur as infill housing in the developed portion of the community or new housing in the developing, west and northwest area of the city. In infill situations, housing types will be dependent on compatibility with surrounding housing types and lot sizes. In the developing area, more flexibility exists.

The land use pattern in the community promotes housing diversity. The mixed use center at Merle Hay Road and NW 62nd Avenue will contain higher density housing within a



development pattern that also accommodates small scale retail commercial and offices. Throughout most of Johnston, the medium density land use pattern will accommodate developments that have a gross density of up to eight units per acre. This density range allows the integration of townhouse developments with traditional single family detached housing neighborhoods.

A Community of Well Maintained Housing

An analysis of the age of Johnston's housing stock revealed that the majority of the housing in the community was built after 1980, nearly 85%. The comparative newness of the city's housing indicates that there should be relatively few concerns with deterioration of the existing housing stock.

Although the number of deteriorating housing units is very low in Johnston, it is possible that some deteriorating housing units may be located in prominent locations. Johnston, like many communities, has areas that are zoned commercial but currently contain residential uses. In such areas, the residential structures are non-conforming and can typically only be maintained rather than expanded or significantly improved. In such cases, owners of property sometimes defer required maintenance because the use is intended to change in the future. The future in such cases, however, may be ten, twenty or thirty years away. As a result, such properties sometimes deteriorate and negatively impact the image of the community.

Communities have a limited number of alternatives in order to minimize deterioration as a result of zoning practices. They can enforce the non-conforming use provisions of the applicable code which typically allows normal maintenance such as painting, roofing, etc. or they can take an active role in facilitating development and redevelopment that will result in desired long term uses thereby minimizing the amount of non-conforming situations.

Johnston should continue to provide for ongoing monitoring of the housing stock to identify issues with physical deterioration of specific units or in specific areas of the city. In the near future, these issues are likely to be minimal. Efforts should also concentrate on property maintenance. Neighborhood deterioration due to abandoned vehicles, peeling paint, junk storage, etc. can be addressed in property maintenance standards.

Housing Development that Respects the Natural Environment

The City of Johnston has topography that provides unique physical features including slopes, woodlands and wetlands. Environmental regulations in addition to public consensus strives to protect these features as distinct benefits for "quality of life." In addition, a significant amount of land lying northwest of the city is slated to be developed with large-lot single-family housing, designed in a manner to preserve and protect natural features. This "estate" residential area is expected to remain substantially less dense than the rest of the city, in part, because of the excessive costs associated with extending utilities to this area in the future. Also, the city is committed to preserving the existing character of the estate area through less intensive land development.

Natural features need to be considered in the design of all densities of housing in Johnston. The fingers of open space that are part of the Beaver Creek corridor will extend and become linking elements in many of the future housing areas in the community. These open space corridors and trails within them can be strong physical and visual connections that can tie together different neighborhoods and even different land uses.

Improvement of Linkages Between Housing and Employment and the Provision of Services to Residents

Johnston is a community with strong north-south transportation corridors. Merle Hay Road, NW Beaver Drive, NW 86th Street and NW 100th Street are all significant north-south roadways. Most of the commercial uses in the city have located along Merle Hay Road. Industrial employment is scattered along NW Beaver Drive. Concentrations of office



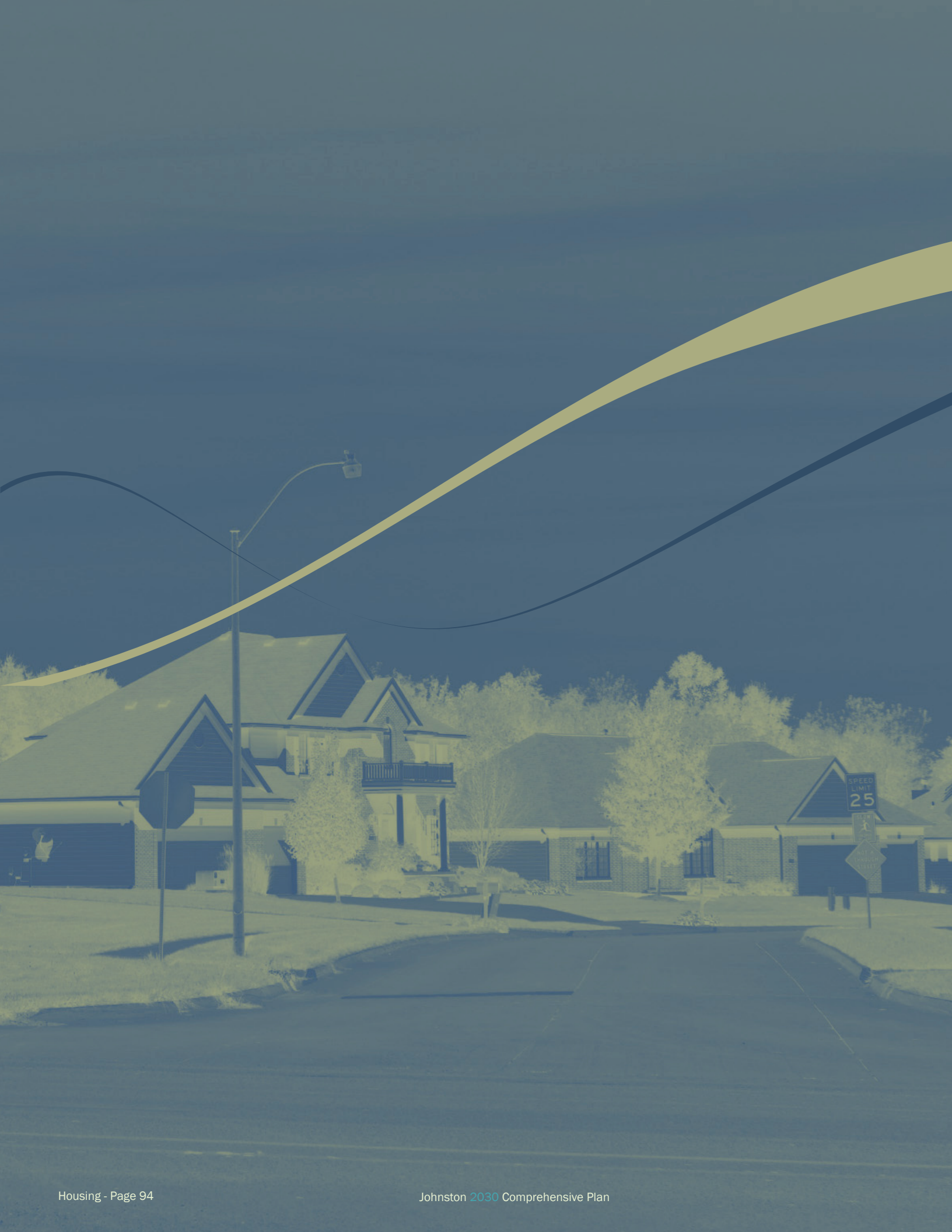
employment occur along NW 62nd Street, west of NW 86th Street and along Merle Hay Road.

East-west connections across the city are more limited and relatively undeveloped. Most traffic is oriented north-south which tends to divide Johnston and cause a portion of residents to funnel out of the city for retail goods and services.

This comprehensive plan emphasizes efforts to improve east-west connections throughout the city in order to enhance through traffic and create better linkages between employment, services and transportation. As additional housing development continues, NW 70th Avenue, NW 62nd Avenue and NW 54th Avenue will enhance linkages and access between housing, employment and services.

Because of the existing land use pattern as well as the natural characteristics of the community, it is difficult to integrate employment and housing in Johnston on a large-scale basis. Because the highest residential densities are scattered throughout the community and the employment growth will be predominately in the western section of the city, the roadway system and local and regional trails will be the primary means of linking the residential population to the employment base. The transportation section of the comprehensive plan seeks to establish an adequate roadway system to ensure appropriate access to local businesses. Additionally, transit may provide access to some employment destinations in the future. Over the course of the next 10 to 20 years, increasing numbers of people will be working out of their homes because of technological advances and changes in employment practices.





Parks and Recreation 8

Parks and Recreation

Introduction

Past versions of the Johnston Comprehensive Plan have addressed parks and recreation in a fairly traditional manner by analyzing the components of the park system and making recommendations to meet future needs. This version of the plan retains this analytical approach while seeking to position Johnston to truly integrate parks and recreation into the daily lives of Johnston's residents. This integration is known as active living.

Active living is integrating physical activity into daily life. This integration is becoming more important than ever given on-going increases in adult and child obesity rates. Adult obesity rates increased in 28 states from 2009 to 2010 and declined only in the District of Columbia according to *F as in Fat: How Obesity Threatens America's Future 2010*, a report from the Trust for America's Health and the Robert Wood Johnson Foundation. More than two-thirds of the states (38) have adult obesity rates above 25 percent. In 1991, no state had an obesity rate above 20 percent.

Iowa is representative of these statistics for the adult population. From 2007 to 2009, 27.6% of Iowa's adults were considered obese. The state ranked 22nd in adult obesity. Fortunately, the obese and overweight rate for Iowa's children aged 10 to 17 was only 11.2% compared to the national average of 31.7%. Iowa was ranked #46 in child obesity.

Obesity rates are only one indicator of a society that has become more sedentary. Today, parks and playfields compete with interactive gaming and other media opportunities. "Playing a game" today is far more likely to mean some type of interactive, computer driven competition than it is to refer to baseball, soccer or some other active sporting activity. Active living is not about forcing people to participate in more active pursuits but rather, it seeks to make it possible for people to be more active in their typical daily, weekly and monthly routines.

Today, walking and biking are two of the most popular ways to participate in active living. In addition to supporting active living, providing facilities that support walking and biking have a number of social, health, economic, and environmental benefits including:

Social and Health Benefits:

- » *A healthier and more physically active population*
- » *Improved mental health*
- » *Lower health care costs*
- » *Improved quality of life*

- » *Safer streets*
- » *More independent and active seniors and youth*
- » *Increased opportunities for social contact which strengthens sense of community and place*

Economic Benefits:

- » *Reduced dependence on fossil fuels*
- » *More options for commuting and daily transportation*
- » *More affordable travel options and reduced dependency on automobile ownership*
- » *Improved livability – a positive factor in attracting residents, businesses and workers*

Environmental Benefits:

- » *Walking and biking can reduce energy consumption which results in less pollution and less generation of greenhouse gasses*



Resident Input

At the community meetings held at the beginning of the planning process, residents offered a number of thoughts about the future of Johnston that directly link to active living. They said that Johnston...

- » *truly needs to be a multi-modal community that includes trails, sidewalks and a transit station.*
- » *needs to be pedestrian friendly.*
- » *needs to add bike and walking trails throughout the community.*
- » *should provide better connections to parks.*
- » *should have a healthy lifestyle – be a community that supports walking.*
- » *should be a gateway to regional trails.*
- » *should preserve natural areas*

Recreational Trends

Recreational trends change over time as a result of demographic, social, economic and cultural changes. Changes in recreation trends affect park and recreation facility needs. A number of significant recreational trends are likely to have an impact on the City of Johnston:

- » *Trails tend to be the most popular recreation facility of all age groups. Walking, running, biking and in-line skating occur on paved trails. People of all ages and abilities use trails. Natural surface trails are also popular with walkers, hikers, nature enthusiasts and cross country skiers.*
- » *Diversity of park users - As the population becomes more diverse, there tends to be a greater diversity of park users. Use of parks and services differ by ethnic and cultural groups and from traditional users. For example, immigrant groups often have larger families and larger family gatherings, needing larger shelters in parks.*
- » *Active living movement - The rates of obesity are increasing across all age groups and with it the associated health risks, such as high blood pressure and diabetes. As a result, there has been an increased awareness of the benefits of exercise, walking and biking - active living. Local corporations like Hy-Vee fund wellness programs.*
- » *Economic trends including rising health care costs, anti-tax sentiments, increasing*

fuel and material costs, and expectations of higher efficiencies may affect the resources available to provide park and recreation improvement and upkeep.

- » *Demand for indoor recreation facilities. In part due, to a desire for quality indoor recreation facilities and a desire for community gathering places, many cities including Johnston are finding residents desiring a community center. Other indoor demands include: gym space, field house, indoor ice, meeting rooms, teen centers and fitness centers, theaters, etc.*
- » *The demand for quality fields and facilities is increasing, i.e., artificial turf fields, year-round sports training, etc.*
- » *Emerging sports such as lacrosse, field hockey, rugby, cricket, and Ultimate Frisbee® are competing for turf field use with more traditional sports.*
- » *Non-traditional recreation and individual sports, such as skateboarding, in-line skating, BMX biking, geo-caching, and disc golf, are also increasing in popularity.*
- » *Requests for recreation support facilities are growing – i.e., restrooms, concessions stands, batting cages, etc.*
- » *Time constraints on families are impacting recreational choices. This is reflected in part with the decline in golf and tennis participation. People are looking for an efficient close-to-home use of recreation time. Due to time constraints, program offerings that are shorter in duration tend to be more popular.*
- » *More leisure time, especially among youth, is spent enjoying a multitude of media, technology and entertainment options that compete with traditional recreation opportunities.*
- » *Nature deficit - A growing number of people are increasingly alienated from the natural world.*
- » *Participation in adult and senior programs and sports has increased, in part due to the aging of the population. Adult programming such as nature study, gardening and fitness tend to be popular.*
- » *Off-leash dog areas are very popular in many communities.*
- » *The public perception of safety and crime has changed such that some families no longer feel it is safe to send children to parks without parental supervision.*
- » *Increasing sensitivity to ecological issues: use of pesticides, native plants, water, etc., and greater demand for environmental sustainability.*
- » *Climate change. The warm winters and more variable precipitation rates of the past decade have affected outdoor winter sports like skating, hockey and cross country skiing. It has also raised people's interest in environmental sustainability and energy efficiency.*



Implication of Trends to Johnston

The implications of these trends for the city and the parks system are:

- » *The aging population will result in more adult participation and programming for seniors.*
- » *Demand for passive recreational opportunities, trails, places to sit, interest in the arts, gardening and sustainability will be greater in the future.*
- » *Needs and expectations of adults over the age of 50 will vary greatly depending on health and levels of fitness. There will be a greater need for access to park and recreation facilities by the mobility impaired.*
- » *Increasing numbers of new families moving into Johnston will come from diverse cultural backgrounds. These residents may have larger families with children and may be less involved in recreation programs and are more likely*

to use the park system differently than traditional park users.

- » Demand for playlots and active recreation may diminish over time, however, despite the aging trend, the number of family households with children will remain strong in Johnston over the next 10 years.
- » Interest in trail connectivity and looped trails will continue to grow.
- » Demand for passive and natural resource based recreation such as hiking, nature study and bird watching will continue to grow, especially as the Baby Boom Generation ages. Access to conservation and natural resource sites will be needed to accommodate these activities.
- » Need for additional safety and security measures in parks.
- » Need for greater management of natural resources.
- » Need for greater environmental sustainability of parks, facilities and operations.
- » Need for a dog park in Johnston.
- » Need for more nature based programming and access to natural resources.
- » Need for new partnerships and other creative ways to increase the quality and quantity of recreational facilities.
- » Additional recreation facilities may be needed to meet demands imposed by demographic changes and emerging recreation trends such as large picnic shelters, more shade, added seating areas in parks and parks designed for elderly users.
- » The city will need to monitor recreation trends to work with residents and user-groups to provide appropriate facilities.
- » Need for additional youth sports fields and adult recreation programs.



Park Classifications and Standards

Park Classifications

Johnston has a variety of different types of parks that are components of the overall park system. In order to examine existing parks and to project future park needs, a uniform classification system is used in this plan. Additionally, the plan uses standards for neighborhood and community parks to assess the adequacy of both the existing and future supply of such facilities. The following provides information on each of the park categories.

Neighborhood Parks

Description: Neighborhood parks are the basic unit of the park system and will serve as the recreational focus of the neighborhood. Focus is on informal active and passive recreation.

Location Criteria: ¼ to ½ mile distance and uninterrupted by non-residential roads and other physical barriers.

Size Criteria: Usually between 5 and 10 acres.

Standard: 5 acres per 1,000 people

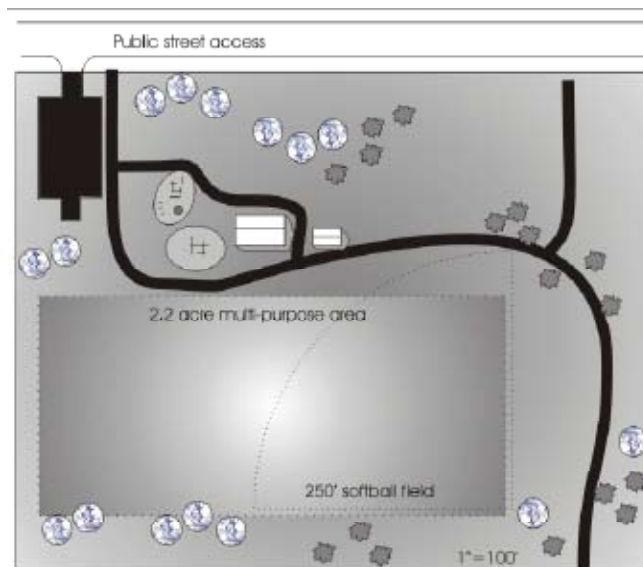
Application of the Standard: The City of Johnston's 2010 population is estimated to be 16,856 which, based on the standard identified above, would require 84 acres of neighborhood parks. Based on the adjusted population projections completed by the Des Moines Area MPO for 2030, the forecasted population of 24,980 will require 125 acres of neighborhood parks. At the present time (2010), Johnston has a total of 40 acres of neighborhood parks.

resulting in a current deficiency of approximately 44 acres. By 2030, the deficiency rises to 85 acres. A further analysis of the park districts, using the park standards is included in Park and Open Space Analysis and Recommendations section of this plan.

Typical Facilities: For general planning purposes, the Johnston Park Advisory Board has established a list of “typical” recreational facilities that may be found in neighborhood parks. This listing contains only potential facilities and does not imply that all of the items listed are appropriate for every park within the city. The locational characteristics and physical properties of each site, combined with the needs of the anticipated users, will determine which facilities are appropriate for specific parks.

A typical neighborhood park may include the following:

- » *Play Equipment*
- » *Baseball/Softball Backstop*
- » *Tennis Courts*
- » *Off-Street Parking*
- » *Open Field Area*
- » *Restrooms*
- » *Trails*
- » *Picnic Tables*
- » *Picnic Shelters (small)*
- » *Basketball*
- » *Volleyball*
- » *Sledding*



Typical Neighborhood Park

School Parks

Description: Combining parks with school sites can fulfill the space requirements for other classes of parks such as neighborhood, community, sports complex and special use.

Location Criteria: Determined by location of school district property.

Size Criteria: Variable

Community Parks/Sports Complex

Description: Serves a broader purpose than neighborhood parks. Focus is on meeting community-based recreational needs as well as preserving unique open space. Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites.

Location Criteria: Determined by the quantity and usability of the site.

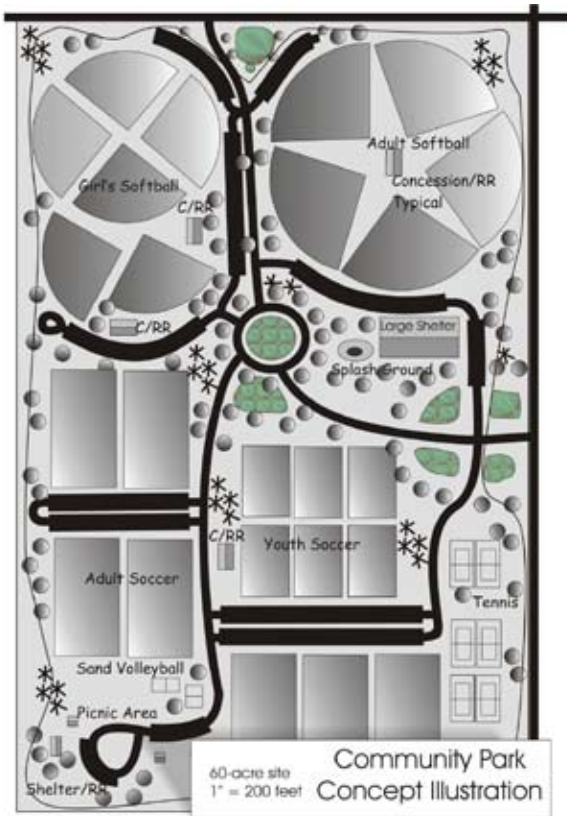
Size Criteria: Usually between 30 and 80 acres.

Standard: 7 acres per 1,000 people

Application of the Standard: The City of Johnston's 2010 population is estimated to be 16,856 which based on the standard identified above, would require 118 acres of community parks. Based on the adjusted population projections completed by the Des Moines Area MPO for 2030, the forecasted population of 24,980 will require 175 acres of community parks. At the present time (2010), Johnston has a total of 83 acres of community parks resulting in a current excess supply of approximately 35 acres. By 2030, however, the deficiency of community park land is 57 acres. A further analysis of the park districts, using the park standards is included in Park and Open Space Analysis and Recommendations section of this plan.

Typical Facilities: For general planning purposes, the Johnston Park Advisory Board has established a list of “typical” recreational facilities that may be found in community parks. Community parks are recreational facilities that serve as focal points of community recreational systems. Activities may include athletic complexes, archery, fishing, nature study, hiking, picnicking and other uses. Community parks commonly contain facilities that are designed to appeal to both active and passive users within one park site. The listing below contains only potential facilities and does not imply that all of the items listed are appropriate for every community park within the city. The locational characteristics and physical properties of each site combined with the needs of the anticipated needs of the entire Johnston community will determine which facilities are appropriate for specific parks.

A typical Community Park/Sports Complex may include the following:



Typical Community Park

- » Play Equipment
- » Baseball/Softball Fields
- » Soccer Fields
- » Tennis Courts
- » Off-Street Parking
- » Open Field Area
- » Restrooms
- » Trails
- » Picnic Tables
- » Picnic Shelters (small and large)
- » Basketball
- » Volleyball
- » Sledding
- » Concession Stands
- » Football Fields
- » Amphitheaters
- » Swimming Pools/Splash Pads
- » Special Use Facilities (Skate Park, Dog Park, etc.)
- » Lighted Athletic Fields

Natural Resource Areas

Description: Lands set aside for preservation of significant natural resources, remnant landscapes, open space and visual aesthetics.

Location Criteria: Depends on resource availability and opportunity.

Size Criteria: Variable

Greenways and Linear Trail Connections

Description: Land used to effectively tie park system components together to form a continuous park environment.

Location Criteria: Depends on resource and availability and opportunity.

Size Criteria: Variable

Private Park and Recreation Facilities

Description: Parks and recreation facilities that are privately owned yet contribute to the public park system. Private facilities can offer either indoor or outdoor recreation opportunities, usually on a membership or fee basis.

Location Criteria: Variable, depends on specific use.

Size Criteria: Variable

Indoor Park/Recreation Facility

Description: Indoor recreational facilities that are open to the general public and operated by a public entity.

Location Criteria: Typically located on sites with convenient transportation access.

Size Criteria: Variable

Existing Park and Recreation System

Introduction

Johnston has an extensive park system with over 900 acres of parkland and approximately 32 miles of trails along roadways and within greenbelt areas connecting residential neighborhoods with schools, parks, places of employment and natural resources. Johnston's park system has been assembled and developed through park dedication requirements, partnerships with the Johnston Community School District, land donations and land acquisitions.

Regional Setting

Johnston's location in the northwest portion of the Des Moines Metropolitan Area provides convenient access to a number of state, county and local recreational facilities. Saylorville Lake is owned and operated by the Army Corps of Engineers. The 26,000 acre lake extends almost 50 miles up the Des Moines River valley from the dam and spillway in Johnston. Acorn Valley, Walnut Ridge, Lakeview Access and the Bob Shetler Recreation Areas provide camping and hiking opportunities within the Johnston city limits. Other recreational facilities also occur around the Saylorville Lake shoreline. Jester Park, which is operated by Polk County Conservation, is a very popular destination for camping, picnicking and golf. Big Creek State Park which is within a 20 minute drive from most of Johnston also offers picnicking, trails and a swimming beach. Saylorville Lake Marina provides slips and moorings for almost 450 boats.

Beyond the Saylorville Lake area, a number of other state and county parks are conveniently located in Dallas, Boone and Story counties. These parks offer an array of facilities and natural habitats that are within less than an hour's drive from Johnston. Area facilities are shown on the Regional Setting map, Figure 8.1.

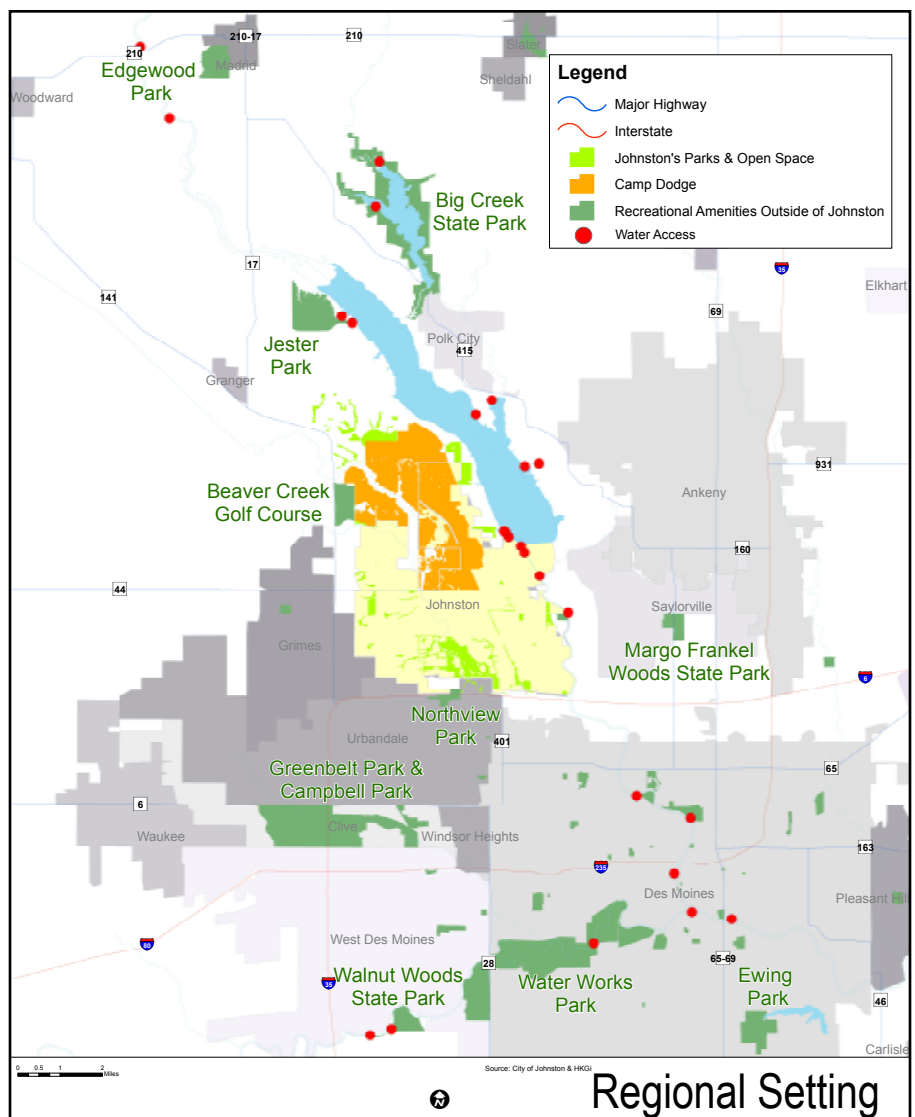


Figure 8.1 Regional Setting



Johnston Soccer Fields

Camp Dodge also needs to be recognized as a major regional resource. Camp Dodge is a 4,300 acre active US Army training facility in the northern portion of Johnston contains hundreds of acres of land which exist as open space providing important wildlife habitat. The camp is the home of the publicly accessible Iowa Gold Star Museum also has meeting and reception spaces that can be reserved by individuals or community groups.

Existing Parks

Johnston's current park system includes eighteen city parks, six public school sites and two major private recreation areas that operate in stand-alone locations. Ojendyk Fields is the home of the Johnston Soccer Club. The Club operates fields on both sides of NW 66th Avenue with the south side facilities being located on land leased from Mid-America Energy. Leagues operated by the Johnston Soccer Club are open to Johnston residents. The Beavertown Little League facility is located along NW Beaver Drive at Johnston Drive. It is privately owned and managed. The Beavertown Little League serves only residents of the Des Moines Area School District; hence, these facilities are not available for Johnston residents.

Table 8.1 lists the characteristics of Johnston's city parks and open space areas. Figure 8.2 identifies Johnston's existing parks and trails.

		Acres	Covered Shelters	Picnic Area	Playground	Restrooms	Concessions	Ball Fields	Soccer	Basketball Courts	Open Field Space	Sand Volleyball Courts	Tennis Court	Trail	Fishing	Nature Area	Parking
Community Parks																	
1	Low Clarkson (formerly Creekside)	56.50	■			■	■	■	■						■		■
2	Crown Point	7.00	■				■						■		■		■
3	Johnston Commons Park	19.40											■		■		■
Neighborhood Parks																	
4	Dewey Park	9.80	■	■	■	■			■	■	■	■			■		■
5	Morningside Park	0.75	■	■	■										■		
6	Pointe Vista Park	8.75	■	■	■	■					■	■			■	■	■
7	Ceres Lake Open Space	2.51															■
8	Ray Schleibs Park	10.52	■	■									■		■		
9	Adventure Ridge Park	5.00	■	■	■	■	■						■		■		■
10	Providence Point Park	2.60	■	■	■	■					■	■			■		
11	Century Trace (Future Park)					■									■		
12	Crosshaven (Future Park)																
Natural Resource Areas																	
13	Terra Lake	35.39	■	■											■		■
14	Beaver Creek Natural Resource Area	160.88											■		■		■
15	Prairie Pointe Crossing	21.25															■
Greenways																	
16	Longmeadow Woods Greenbelt	10.34													■		■
17	Rittgers' Oaks Open Space	3.14											■		■		
18	Green Meadows Greenbelt	22.00				■									■		■
Private Park																	
19	Dover Park (private)	2.00	■										■				
20	Windsor Park (private)	0.50				■						■			■		■
21	Ojendyk Fields (private)							■		■					■		■
Schools																	
22	Johnston High/Middle Schools	58.68	■				■	■	■	■	■	■	■		■	■	■
23	Wallace Elementary	10.01				■							■		■		■
24	Lawson Elementary	11.19				■				■	■	■	■		■		■
25	Beaver Creek Elementary	25.09				■						■	■		■		■
26	Horizon Elementary & Summit Middle Schools	37.29				■				■	■	■	■				■
27	Timber Ridge (Outside City Limits)	21.37				■				■		■	■				■

■ Existing Park Feature
■ Future Park Feature

Table 8.1 - Existing Park and Recreation Facilities

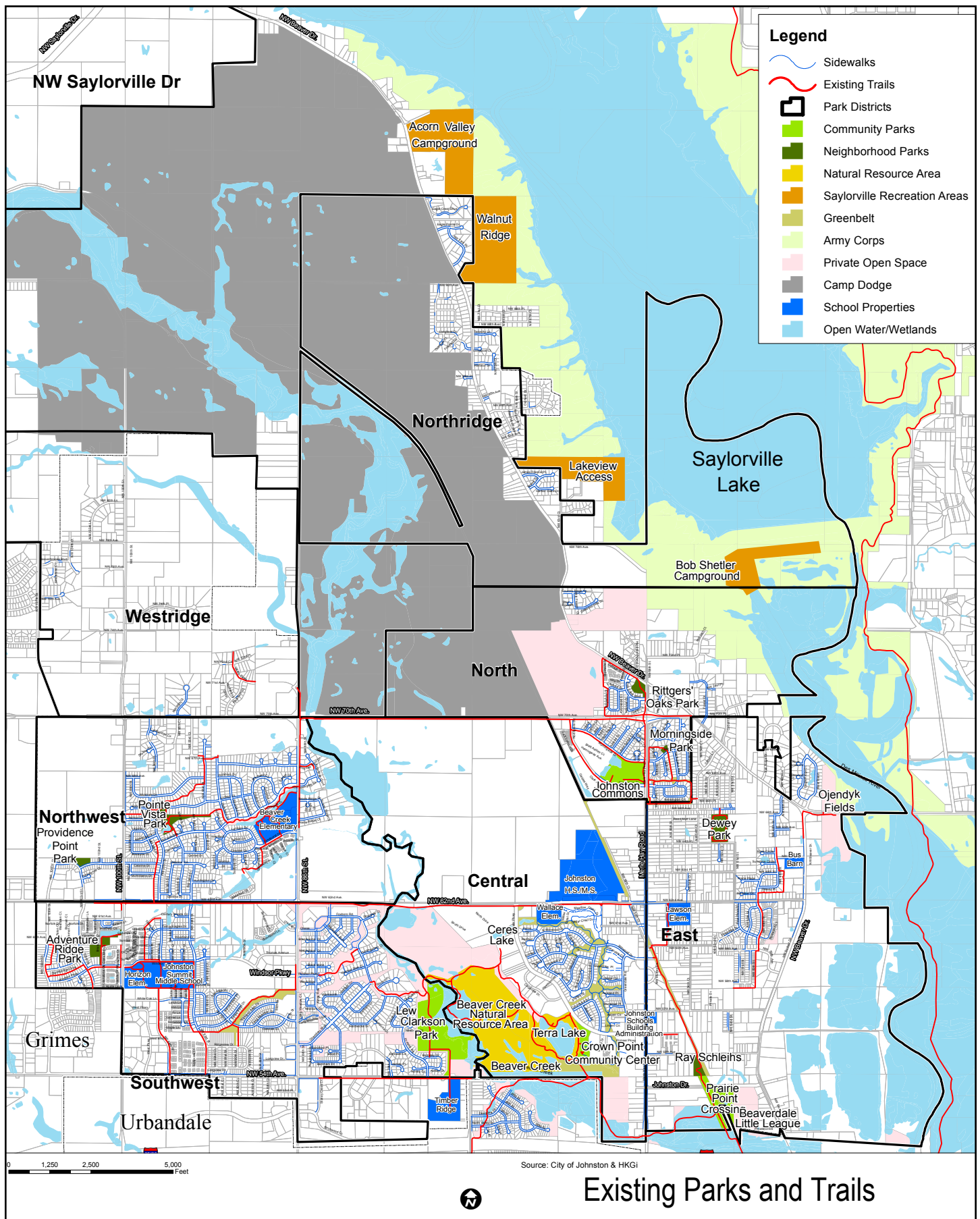


Figure 8.2 - Existing Parks and Trails

Park and Recreation Policies and Action Steps

The following policies and action steps are intended to help guide decisions about Johnston's park system in the years ahead. Policies and action steps contained within the 1998 Comprehensive Plan and the subsequent 2003 plan update were instrumental in helping to establish Johnston's current park and open space system. The policies and action steps that follow are intended to build off of past successes and to help Johnston position itself to address future recreational opportunities and challenges. Policies and corresponding action steps have been organized to address planning, parks, natural open space, sustainability, and active living. Policies and action steps addressing trails are found later in this chapter.

Planning Policies:

PLP1. Implement the recommendations contained within this plan based on the needs of Johnston's population and sustainable development and management practices.

PLP2. Coordinate planning and development of the park and recreation system with other local, county, state and federal governments and agencies.

PLP3. Continually monitor and assess changing demographic trends to assess their impact on long-term park system planning and operations.

Planning Action Steps:

PLA1. Review and update the Parks and Recreation Plan every five to ten years.

PLA2. Conduct periodic needs assessments and user studies to ensure that current park operations meet residents' needs and to expand the base of information for future Parks and Recreation Plan updates.

PLA3. Continue to partner with the Johnston Community School District as appropriate in the planning, development and operation of the Johnston park and recreation system.

PLA4. Provide park and recreation services and facilities in areas identified as deficient in this plan.

PLA5. Collaborate with the private sector where appropriate to provide community recreation services and facilities.

Parks Policies:

PP1. Provide a park and recreation system that meets the needs of a diverse population.

PP2. Provide a park and recreation system that strengthens the image of the city and provides places for social gatherings within neighborhoods and the larger community.

Parks Action Steps:

PA1. Offer a variety of activities in the park and recreation system including active and passive recreation areas, conservation areas, cultural sites and public art.

PA2. Acquire park land and develop existing land into parks at a rate commensurate with the needs of Johnston's growing population.

PA3. Establish and employ high quality design standards in the development of the park system.

PA4. Multi-use park and recreation facilities will be encouraged to maximize accessibility and use by area residents.

PA5. Operate recreational programs that are accessible to all members of the community.

PA6. Continue to coordinate youth athletic programs with local athletic associations.

PA7. Encourage the development of recreational programs that meet the needs of the



Private Park in Green Meadows West

young, seniors, teen and adult populations as well as people with special needs.

PA8. Encourage private play areas to be built and maintained by developers of medium and high-density residential developments.

PA9. Utilize the city's website and other outreach methods to provide information on park and recreation opportunities in Johnston.

PA10. Strive to make city parks accessible by a variety of means of transportation.

Natural Resource Open Space Policies:

NRP1. Preserve and protect the natural environment with an emphasis on the conservation of appropriate natural resources for the present and future benefit of the community.

NRP2. Incorporate natural resources into the overall park and recreation system.

Natural Resource Open Space Action Steps:

NRA1. Conserve and protect natural resource areas including wetlands, groundwater recharge areas, streams, woodlands and drainageways where feasible.

NRA2. Collaborate with federal, state and county agencies to preserve natural resource areas.

NRA3. Integrate natural resource areas as open space in new developments to preserve natural systems and to accommodate wildlife movements.

Sustainability Policies:

SP1. Johnston will establish a park system that is a leader in sustainability and natural resources management.

Sustainability Action Steps:

SA1. Use new green building materials and technologies in park buildings where possible.

SA2. Promote recycling in all parks and public buildings.

SA3. New park facilities and substantial renovations of existing facilities will include a sustainability evaluation of materials, energy use, operating costs and lifecycle replacement costs.

SA4. Use traditional and alternative stormwater management techniques in the development of new parks consistent with Johnston's Watershed Assessment and Stormwater Management Plan.

SA5. Native plants should be used in parks to reduce landscape maintenance requirements, to provide food and shelter for wildlife and to discourage invasive and nuisance species.

SA6. Develop natural resource management plans for natural areas within the Johnston park system.

SA7. Encourage community and neighborhood involvement in the maintenance and management of natural areas.

Active Living Policies:

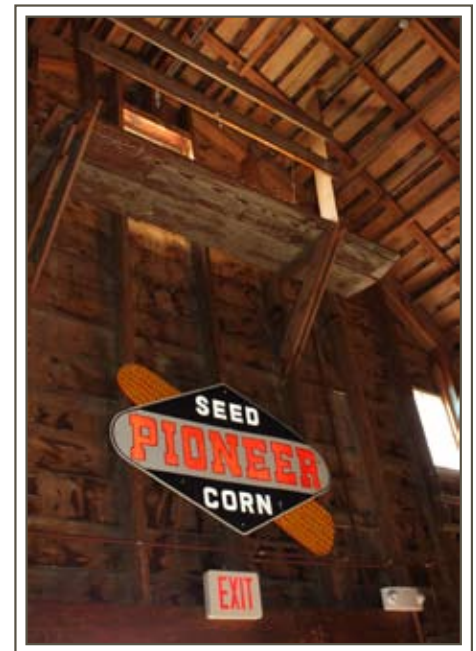
ALP1. Utilize the Johnston park system to promote active healthy living.

Active Living Action Steps:

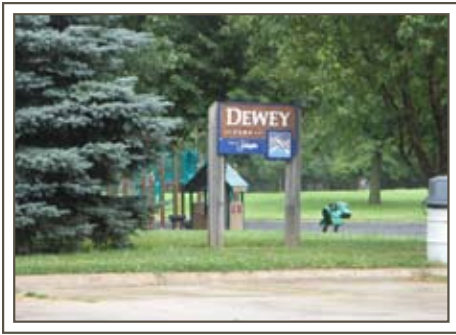
ALA1. Prohibit smoking and tobacco use in parks.

ALA2. Promote convenient and equitable access to parks and recreation facilities by generally locating parks within ½ mile of all residents.

ALA3. Ensure that park and open space areas are accessible consistent with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities.



Simpson Barn Interior



Dewey Park

- ALA4. Provide park and open space areas that provide shade, seating and trail loops of varying lengths to encourage active living for an aging population.
- ALA5. Provide safe walking, wheelchair and biking routes to schools from neighborhoods. Promote "Safe Routes to School."
- ALA6. Provide bicycle parking at park system destinations to encourage bicycle use.
- ALA7. Encourage partnerships with federal, state, regional and county agencies as well as for-profit and non-profit organizations and companies to fund active living initiatives.
- ALA8. Utilize Crime Prevention through Environmental Design (CPTED) principles in the planning and design of new park facilities.
- ALA9. Promote the benefits of active living through Parks and Recreation Department communications.

Park and Open Space Analysis and Recommendations

Neighborhood Parks by District

Introduction

In 1998, the Johnston Park Advisory Board separated the community into four park districts for the basis of planning and financing park improvements. The East, Central, West and Northridge Districts were established to correspond to the existing city boundaries as of 1998. In the 2003 Park Plan update, the Park Advisory Board further separated the community into seven park districts by splitting the West district into the Northwest and Southwest Districts, the Northridge District into the North and Northridge District and adding the Westridge District. Expansions of the Westridge District and West District accommodate both past and future land annexations. Additionally, this plan establishes a new NW Saylorville Drive District which has been identified as a future growth area in the next 10 to 20 years.

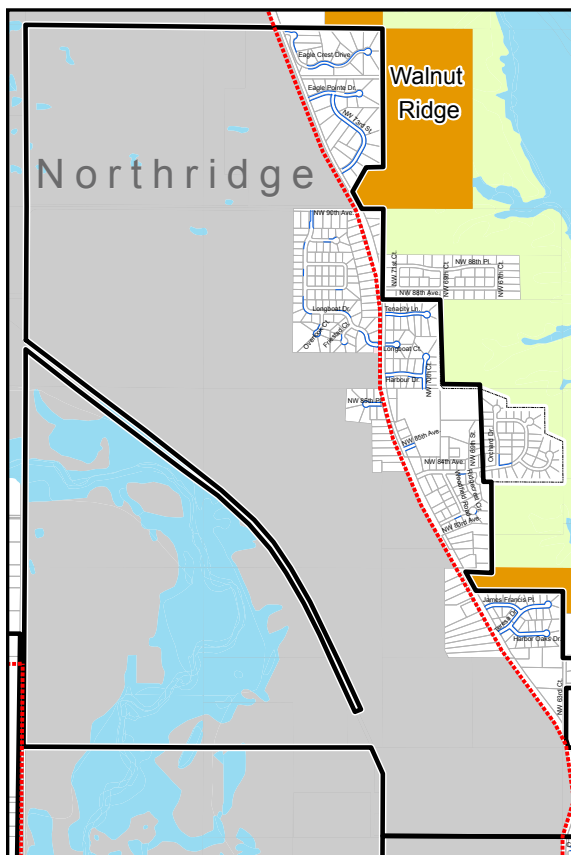
Johnston's neighborhood parks and the service areas that they cover are shown on Figure 8.3.

Northridge District

Overview

The Northridge Park District is perhaps the most unique district in the City of Johnston. The district is located on either side of a ridge along NW Beaver Drive from the STARC Armory north. The area includes approximately 1,300 acres of Camp Dodge and approximately 780 acres of Army Corps of Engineers property, includes a portion of Saylorville Lake and the Saylorville Dam. The entire recreational area around Saylorville Lake is surrounded by well established timber and natural resource areas atop a ridge overlooking Saylorville Lake and the Des Moines River valley. The city currently has no park facilities in the Northridge Park District; however, the district is immediately adjacent to and includes regional park facilities located around Saylorville Lake. The existing park amenities in the Northridge Park District are identified in the Table 8.2. The regional park facilities in the Northridge District serve not only Johnston residents, but recreational users across the metropolitan area and statewide.

The Walnut Ridge area at Saylorville Lake includes many of the amenities commonly found in a neighborhood park including children's play equipment, picnic tables, shelters, barbeque pits and ample open spaces. The Lakeview



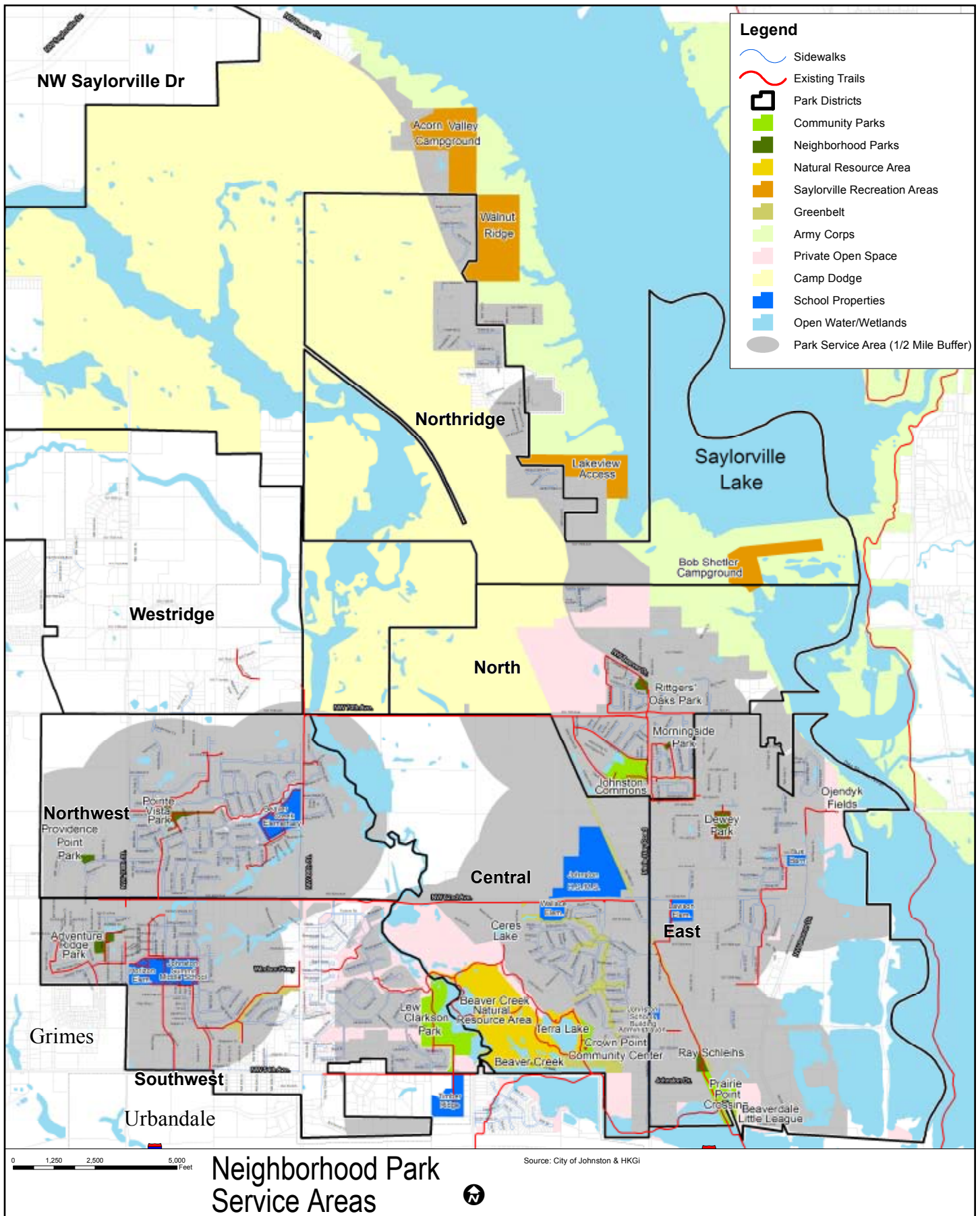


Figure 8.3 - Neighborhood Park Service Areas



Picnic Shelter at Walnut Ridge

Northridge	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Saylorville Lake-Walnut Ridge	200.00			200.00
Saylorville Lake-Lakeview Access	75.00			75.00
Saylorville Lake-Bob Shetler	240.00			240.00
Total:	515.00	0.00	0.00	515.00

Table 8.2 - Northridge District Recreation Facilities

Access area at Saylorville Lake does not include many park amenities but it does include a large parking area and boat launching area for water access onto Saylorville Lake. There are also numerous campground facilities around the west and south sides of Saylorville Lake including more than 170 recreational vehicle camping stalls and 100 tent sites. While the city does not have control of the Saylorville facilities, the improvements within the areas are serving neighborhood park functions for the residents of the Northridge District.

Northridge	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	0
Estimated Existing Population	568
Total Estimated Build Out Population	568
Neighborhood Park Needs at 5 acres/1,000 persons in acres	3
Existing Neighborhood Parks in Acres	0.00
Deficient Neighborhood Parks in Acres	-3

Table 8.3 - Northridge District Population

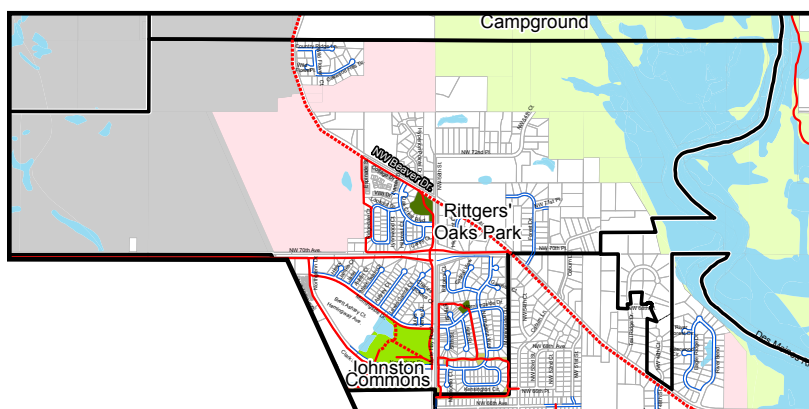
Table 8.3 identifies the population and dwelling units in the Northridge Park District and includes projections. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 3 acres of neighborhood park facilities are needed in the district consistent with future growth projections. Due to the regional Saylorville facilities located adjacent to this park district, the city is assuming these areas are serving the neighborhood park needs. Thus, while there is a deficiency in the number of city park facilities, the recreational needs of the residents are being served by the Saylorville Lake facilities.

Proposed Improvements

The linear nature of the residential development along NW Beaver Drive and the pattern of existing development reasonably precludes additional neighborhood park development. Thus, the city is not proposing to construct additional park facilities in this district. The city should explore the possibility of a partnership with the Army Corps of Engineers to work cooperatively to provide recreation facilities for the residents of the district. Should a parcel of land become available, the city would consider developing a neighborhood park in the area providing that safe connections to the park from nearby neighborhood areas could be established.

There is also a distinct need for trail connections and a trailhead within this district. Due to the terrain of the area, the residential developments on the northeastern side of NW Beaver Drive are constructed along cul-de-sacs or loop drives which do not allow for easy pedestrian access from one area to another. A proposed trail could connect to the existing trail system in Johnston to the residential subdivisions and the regional Saylorville facilities in the area and could eventually extend north to Jester Park. In addition to the trail, the city should work with the Army Corps of Engineers to discuss the possibility of a partnership

to further develop the Walnut Ridge and Lakeview Access areas to further meet the neighborhood park needs. Trail needs are also addressed later in this chapter.



North District

Overview

The North Park District is located immediately south of the Northridge District and is centered around the NW 70th Avenue and Merle Hay Road intersection. The North Park District includes the 170 acre Hyperion Field Club,

approximately 415 acres of Camp Dodge (including the Camp entrance), and approximately 240 acres of Army Corps of Engineers property (including a portion of the Bob Shetler Campground). The existing park facilities in the district are shown in Table 8.4.

The most significant public park/open space in this district is the Johnston Commons Park. Johnston Commons is the home of the Johnston Public Library and the Johnston (Station) Historical Society Century House and the Simpson Barn. It is also the site of Johnston's Green Days celebration. In the future, a portion of the park is likely to be used for a new city hall and/or public safety building. If, and when that occurs, the area will no longer be large enough to host the Green Days celebration.

The barn and historical museum are unique community facilities not often found in community parks. The barn is available to the community for a variety of meetings and receptions.

North	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Corps of Engineers	242.25			
Johnston Commons	19.42	2.00		17.42
Rittgers' Open Space	3.14	2.00		
Greenbelt - Morningside Park	7.72	0.75		
Private Open Space	0.66			
Hyperion Field Club (Private)	171.41			
Total:	444.60	4.75	0.00	17.42

Table 8.4 - North District Facilities

The park includes trails, ponds and other amenities. While most of the improvements in the Johnston Commons Park are meeting the community park facility needs, the open space, trails and other amenities provide neighborhood park facilities, which have been estimated at 2 acres. Also included in this district is public open space in the Rittgers' Oaks development, as well as an extensive greenbelt system through the Northglenn development, which includes Morningside Park. The Rittgers' Oaks open space is currently just over 3 acres in size but has limited use as an active recreational facility due to the configuration of the property, its adjacency to NW Beaver Drive and the presence of an established trail segment.

Table 8.5 identifies the population and dwelling units in the North Park District and includes projections for population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 25 acres of neighborhood park facilities are needed in the district based on the anticipated future growth.

Proposed Improvements

The developed nature of the North District will make it difficult to add neighborhood park land. One of the most pressing needs is for playground equipment within the district. Morningside Park is the only location in this district to offer playground equipment and it is separated from much of the nearby housing by Merle Hay Road and NW 70th Avenue. In addition, trail connections are planned in this area, to expand the trail system around the Johnston Commons Park, and to extend a trail along NW 70th Avenue.

If Johnston Commons becomes the home of a future municipal building, the site should still be sufficient for a smaller community park use. Future facilities might include a public square or gathering place used to link the library to a new city hall. If and when such a change occurs, Johnston will need to find a new home for the Green Days celebration.



Museum and Barn - Johnston Commons



Simpson Barn at Johnston Commons



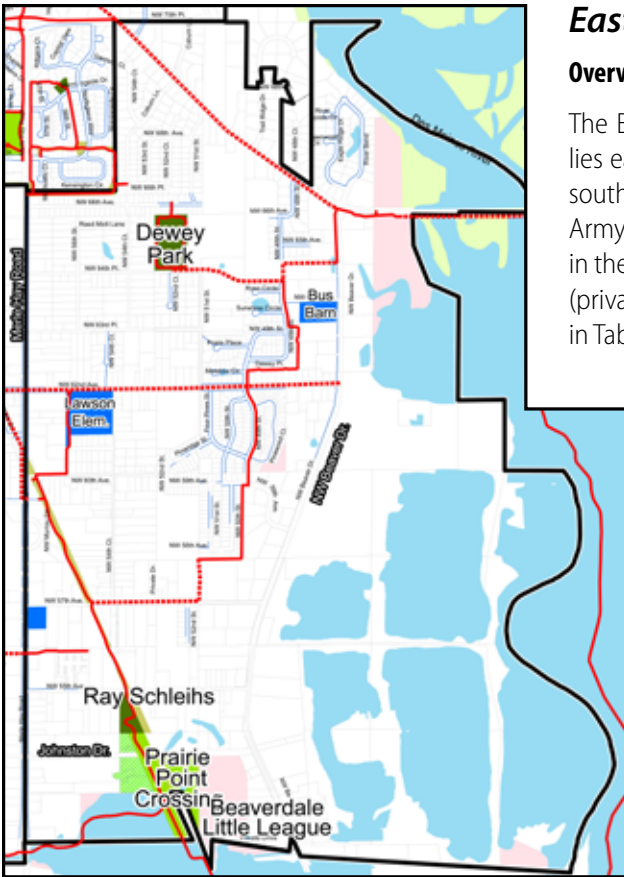
Simpson Barn



Rittgers' Oaks Park

North	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	4,252
Estimated Existing Population	1,654
Total Estimated Build Out Population	5,906
Neighborhood Park Needs at 5 acres/1,000 persons in acres	30
Existing Neighborhood Parks in Acres	4.75
Deficient Neighborhood Parks in Acres	-25

Table 8.5 - North District Population



East District

Overview

The East Park District which includes some of Johnston's earliest neighborhoods lies east of Merle Hay Road, south and west of NW Beaver Drive, and north of the southern Johnston corporate limits. The area includes approximately 40 acres of Army Corps of Engineers property, the Johnston Soccer Club, mountain bike trails in the green belt along the Des Moines River, the Beaverdale Little League complex (private) and Lawson Elementary School. The existing park facilities are identified in Table 8.6.

The most developed park in the East Park District is Dewey Park, one of Johnston's most popular parks, located between NW 64th Place and NW 66th Avenue. Dewey Park includes two shelters, sports play fields, playground equipment, restrooms, trail and a basketball court. Prairie Point Crossing Park is located south of Johnston Drive adjacent to the Interurban Trail and greenbelt. The park is currently planted in native vegetation, is undeveloped and is likely to remain as open space due to frequent flooding of the property. Ray Schleih's Park, a 3.48-acre parcel, is located adjacent to the Johnston Interurban trail.

Table 8.7 identifies the population and dwelling units in the East Park District and includes projections for the future population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 30 acres of neighborhood park facilities are needed in the district based on anticipated future populations. Table 8.7 identifies a total of 17.28 acres of existing neighborhood park facilities.



Neal Smith Trail at Saylorville

Proposed Improvements

Other than a new shelter, Ray Schleih's Park has had minimal improvements to date. A plan for the park will need to be developed to identify needed improvements, which most likely will include play equipment and other amenities. Due to the terrain, a portion of the park will need to be left undisturbed and not developed. The city will also work to acquire additional land, which is currently undeveloped around Dewey Park. The expansion of this popular neighborhood park, will serve the residents of the East Park District as well as the nearby North Park District.



Aerial photo of quarry area

The future Merle Hay Road redevelopment area lies in both the East and Central Districts. This mixed use area will have opportunities for small pockets of potentially both private and public recreation areas. Plazas, fountains and other features; either privately or publicly owned and operated could add vitality to the area and further expand the scope of the Johnston park system.

The East District contains one of the most interesting future park and open space opportunities in Johnston. Extending northward from Johnston's southern boundary is

East	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Dewey Park	9.90	9.90		
Lawson Elementary School	11.19	4.00		
Ray Schleih's Park	3.48	3.48		
Prairie Point Crossing	20.29			20.29
Greenbelt - Des Moines River	140.43			
Private Recreation (Beaverdale Little League & Johnston Soccer Club)	55.69			
Total:	240.98	17.38	0.00	20.29

Table 8.6 - East District Facilities

a series of quarries that are adjacent to the Des Moines River. Although no specific data is yet available, it is generally thought that some or all of these quarry areas are nearing the end of their productive lifespan. The ponds that remain at the conclusion of the mineral extraction operations could provide a backdrop for a truly unique park. Given the size of the area and its potential to attract regional users, Johnston should look to partner with agencies like Polk County Conservation to explore long-term acquisition and development of the quarry sites.

The city has identified various future trail connections throughout the east district to link the existing trail connections. Also identified is the need for a pedestrian/trail crossing at NW 66th Avenue that would tie the city's trail system into the Neal Smith Trail, which runs from Big Creek State Park into downtown Des Moines. The NW 66th Avenue bridge is scheduled for reconstruction affording an opportunity to secure this important trail link. The city anticipates acquiring additional park land as currently vacant land develops.

East	
Person Dwelling Units (D.U.)	2,69
Projected Future Population	2,800
Estimated Existing Population	3,290
Total Estimated Build Out Population	6,090
Neighborhood Park Needs at 5 acres/1,000 persons in acres	30
Existing Neighborhood Parks in Acres	17.38
Deficient Neighborhood Parks in Acres	-13

Table 8.7 - East District Population

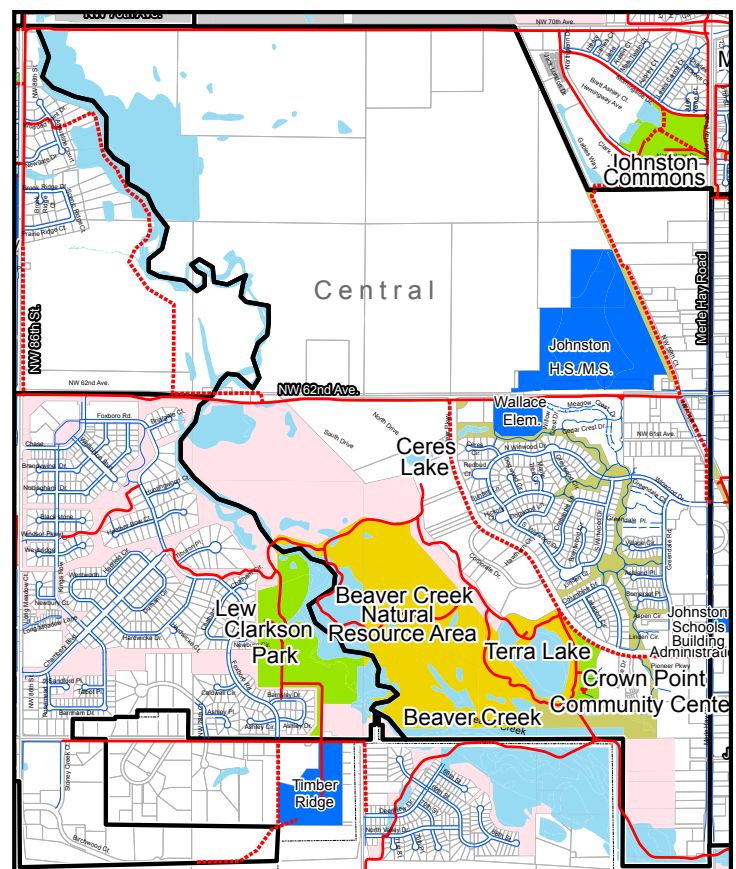
Central District

Overview

The Central Park District is located in the heart of the city, lying west of Merle Hay Road, north of Interstate 35-80, east of Beaver Creek and south of NW 70th Avenue. The district includes a significant amount of the Beaver Creek floodplain, the Pioneer Hi-Bred International, research fields, the Johnston High School and Johnston Middle School, Wallace Elementary School, Terra Lake and the Crown Point Community Center. The existing park facilities are identified in Table 8.8.

The Central Park District has many unique park facilities, including Crown Point Community Center, Beaver Creek Natural Resource Area (BCNRA), and Terra Lake. Open space, trails, shelter and other amenities associated with these facilities is meeting the neighborhood park facility needs for the district. The city also owns an extensive greenbelt and trail system that meanders through the Green Meadows subdivision. Other than the trails and a playground, there are no improvements in the greenbelt.

Table 8.9 identifies the population and dwelling units in the Central Park District and includes projections for the population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 18 acres of neighborhood park facilities are needed in the district based on anticipated future growth.

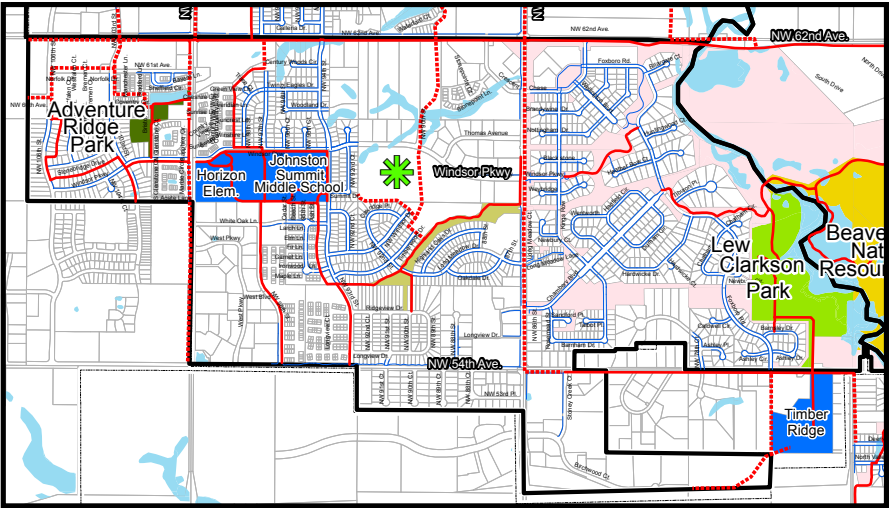


Central	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Crown Point	6.97	2.00		4.97
Wallace Elementary School	10.01	4.00		
Terra Lake	35.39	2.00	33.39	
Ceres Lake Park	2.50	2.50		
Beaver Creek Natural Resource Area	160.88		160.88	
High School and Middle School	68.84			20.00
Green Meadows Greenbelt	40.25			
High School Tennis Courts	2.07			2.07
Other Public Open Space	21.07			
Total:	347.98	10.50	194.27	27.04

Table 8.8 - Central District Facilities

areas for the residents of the subdivision.

The Southwest Park District contains the most active community park in the city--Lew Clarkson Park. It includes 15 baseball/softball fields and restrooms, a shelter and a playground. In addition to the community oriented facilities at the park, it also includes neighborhood park facilities, such as a trailhead and a series of trails connecting to other parts of the community. Additionally, other neighborhood park facility improvements have been identified in the master plan completed for the park. It is estimated that these neighborhood park facilities encompass about five acres of the park. Existing parks are shown on Table 8.10.



Southwest	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Lew Clarkson Park	56.94	5.00		51.50
Longmeadow Greenbelt	10.09	4.00		6.09
Adventure Ridge Park	4.00		4.00	
Windsor Office Park	3.75		3.75	
Horizon Elementary & Summit Middle School	40.00	4.00		33.00
Private Open Space	69.85			
Dover Park (Private)	3.12	3.12		
Windsor (Private)	1.15	1.15		
Total:	188.90	17.27	7.75	90.59



Baseball at Lew Clarkson Park

Table 8.10 - Southwest District Facilities

The Longmeadow Greenbelt follows a drainage way through the Greenwood Hills Subdivision. While most of the greenbelt is not suitable for uses beyond its current open space and trail use, there are areas that may allow for improvements such as play equipment or park benches. It is estimated that four acres of this greenbelt area contribute to meeting the area's neighborhood park needs. Horizon Elementary School and Summit Middle School have a combined open space area of almost 24 acres. The facilities associated with both of the schools are available for neighborhood use during non-school hours. Adventure Ridge Park contains a shelter, picnic area, playground, a trail and open field area.

Table 8.11 identifies the population and dwelling units in the Southwest Park District and includes projections for the population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 28 acres of neighborhood park facilities are needed in the district based on the anticipated future growth. The table identifies 17.27 acres of existing neighborhood parks. Thus, there is a deficit of 11 acres of neighborhood park facilities, based on the anticipated growth by 2030.

Proposed Improvements

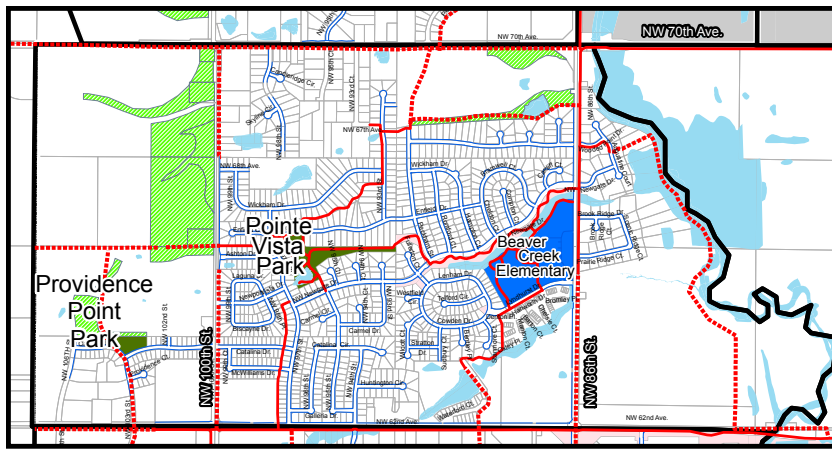
The Southwest Park District has seen major park improvements over the past 10 years. In addition to the existing neighborhood facilities, the plan identifies the addition of a canoe launch at Lew Clarkson Park. Trail connections have been identified to connect the existing trails to other developments in the trail network. The city has development agreements with the property owners of the Windsor Office Park development, ensuring that those future park sites will be acquired within the next few years. Other future neighborhood park sites may need to be acquired as development occurs in the area to ensure that the neighborhood park needs are met within this district.

Southwest	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	351
Estimated Existing Population	5,270
Total Estimated Build Out Population	5,622
Neighborhood Park Needs at 5 acres/1,000 persons in acres	28
Existing Neighborhood Parks in Acres	17.27
Deficient Neighborhood Parks in Acres	-11

Table 8.11 - Southwest District Population



Adventure Ridge Park



West District

Overview

The West Park District is located between NW 62nd Avenue and NW 70th Avenue west of Beaver Creek extending across NW 100th Street up to Johnston's western border. This area saw significant growth and development from 2000 to 2010 and still has vacant land that will accommodate additional future growth. The district contains the Beaver Creek Elementary School, Pointe Vista Park, Providence Point Park and private open space in the Green Meadows North subdivision. Pointe Vista Park is the largest neighborhood park in the district. The park contains trails, a playground area, a shelter, picnicking as well as a small pond. Facilities are shown on Table 8.12.



Pointe Vista Park

Table 8.13 identifies the population and dwelling units in the West Park District and includes projections for the population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 30 acres of neighborhood park facilities are needed in the district based on the anticipated future growth. The table identifies 12.75 acres of existing neighborhood parks. Thus, there is a deficit of 11 acres of neighborhood park facilities, based on the anticipated future growth.

West	Total Recreational Facilities	Neighborhood Facilities	Proposed Sites	Regional Facilities
Beaver Creek Elementary	25.09	4.00		
Pointe Vista Park	8.75	8.75		
Private Open Space	9.45			
Total:	43.29	12.75	0.00	0.00

Table 8.12 - West District Facilities

West	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	2,207
Estimated Existing Population	3,888
Total Estimated Build Out Population	6,095
Neighborhood Park Needs at 5 acres/1,000 persons in acres	30
Existing Neighborhood Parks in Acres	12.75
Deficient Neighborhood Parks in Acres	-18

Table 8.13 - West District Population

Proposed Improvements

Due to the future potential growth in the West Park District, there will continue to be park improvements in this district as well as the acquisition of additional park/open space. Providence Point Park will be developed in the near future. Based on neighborhood input, likely improvements will include a trail, playground area, and a basketball court. Due to the small size of the park, all parking associated with the site will be on-street. As land develops north of Providence Point Park in the future, the city will have opportunities to either expand the park or provide a northern trail connection to other new park facilities.

Additional trail connections have been identified linking the existing trails and park facilities to future developments and the city's trail network. A park site or sites will need to be acquired west of NW 100th Street as development occurs as NW 100th Street will create a barrier between the development and some of the other existing parks in the district.

Westridge	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	945
Estimated Existing Population	831
Total Estimated Build Out Population	1,776
Neighborhood Park Needs at 5 acres/1,000 persons in acres	9
Existing Neighborhood Parks in Acres	0
Deficient Neighborhood Parks in Acres	-9

Table 8.14 - Westridge District Population

Westridge District

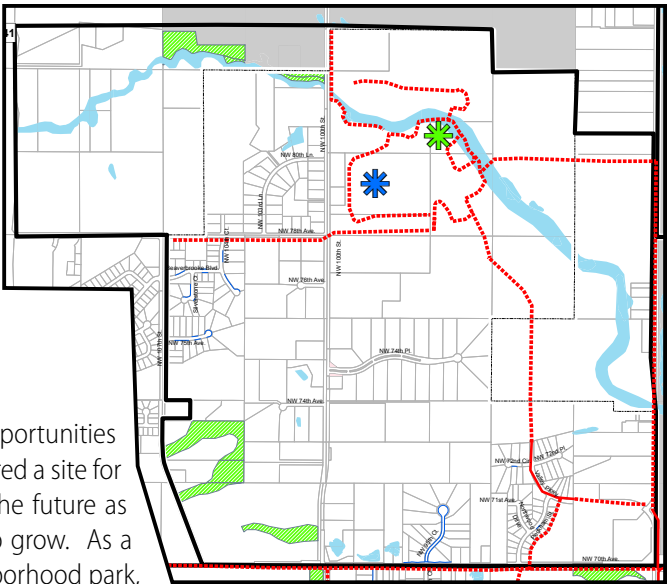
Overview

The Westridge area is located north of NW 70th Avenue extending from Camp Dodge to Johnston's western border. Land within this area is some of the most recently annexed property in Johnston. The density of residential development in the Westridge area is some of the lowest in the city due to platting practices that occurred primarily prior to annexation. However, in the future, the overall density in the area will remain relatively low. Recent development has been in the form of conservation subdivisions which create smaller lots with larger public open space areas.

Table 8.14 identifies the population and dwelling units in the Westridge Park District and includes projections for future population and dwelling units. Based on these projections, and the standards referenced earlier in this plan, it is estimated that a total of 9 acres of neighborhood park facilities are needed in the district based on the anticipated future growth. The Westridge Park District is unique, in that the area is developed and projected to develop in a relatively low density manner, with historic large lots, smaller conservation subdivision lots and ample open space. As a result, the amount of needed neighborhood park space may be over estimated.

Proposed Improvements

Two additional planned facilities will supply future park and open space opportunities for the Westridge District. Johnston Community School District has acquired a site for a new elementary school in the area, one that will be constructed in the future as the residential population in the western part of Johnston continues to grow. As a part of the Crosshaven subdivision, the city will be gaining a new neighborhood park, approximately five acres in size.



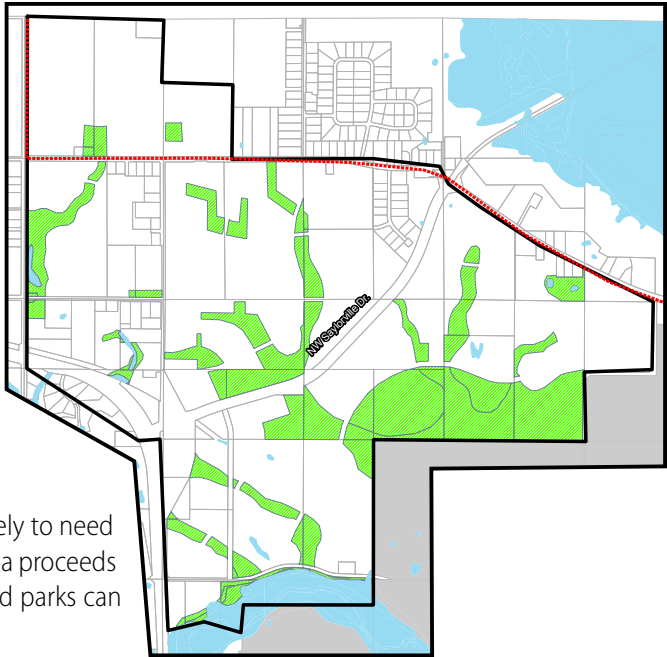
Northwest District

Overview

The NW Saylorville Drive District is not currently in the City of Johnston but is expected to be annexed over the next 10 to 20 years. The anticipated land use pattern in the area includes a mix of residential densities, a neighborhood mixed use area and a significant new business park area. The NW Saylorville Drive District is also expected to include a new elementary school.

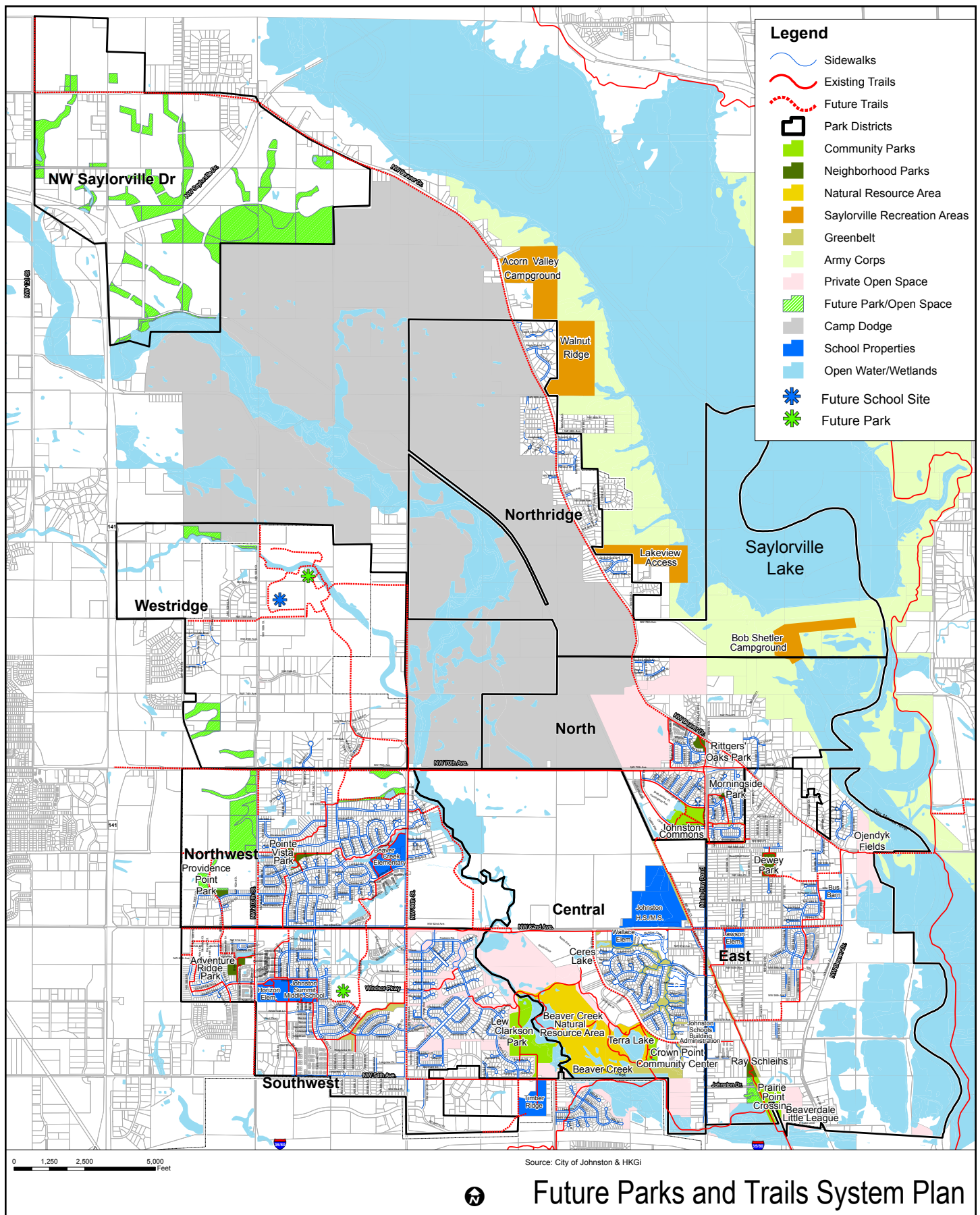
Two factors are expected to influence park development in the area. The primary factor is the presence of a number of drainageways that will allow greenbelt connections between parks and other land uses. These “fingers” of green space generally radiate out from the southeast to the northwest. Another factor influencing open space in the area is the presence of Camp Dodge. The 2030 Land Use Plan shows a significant amount of open space adjacent to Camp Dodge, due to the presence of drainageways and stormwater features as well as interest in creating an additional buffer between future development and the existing boundary of Camp Dodge.

Table 8.15 shows that in the future, the NW Saylorville Drive District is likely to need approximately 33 acres of neighborhood parks. If development of the area proceeds as shown on the 2030 Land Use Plan, that amount of new neighborhood parks can be easily accommodated.



NW Saylorville Drive	
Person Dwelling Units (D.U.)	2.69
Projected Future Population	6,546
Estimated Existing Population	100
Total Estimated Build Out Population	6,646
Neighborhood Park Needs at 5 acres/1,000 persons in acres	33
Existing Neighborhood Parks in Acres	0
Deficient Neighborhood Parks in Acres	-33

Table 8.15 - Northwest District Population



Future Park and Trail System

Johnston's future park and trail system is shown on Figure 8.5.

Community Parks

Introduction

Information presented in the Park Classifications and Standards section of this chapter concluded that Johnston has an oversupply of approximately 35 acres of community park land at the present time. By 2030, the community expects to have a deficiency of at least 57 acres. In 2009, members of the community attempted to address Johnston's long-term community park needs in a comprehensive manner by seeking voter approval of a bond issue for acquisition and development of a new community park as well as other system-wide improvements. The new community park in the West District at a site immediately west of NW 100th Street would have included baseball fields, softball fields, basketball, volleyball, play areas, shelters, concessions, trails, off-street parking and other facilities. The park would have had a direct connection to Providence Point Park. A proposed new elementary school site was located adjacent to the park. The initiative failed to receive the level of voter support required for approval.

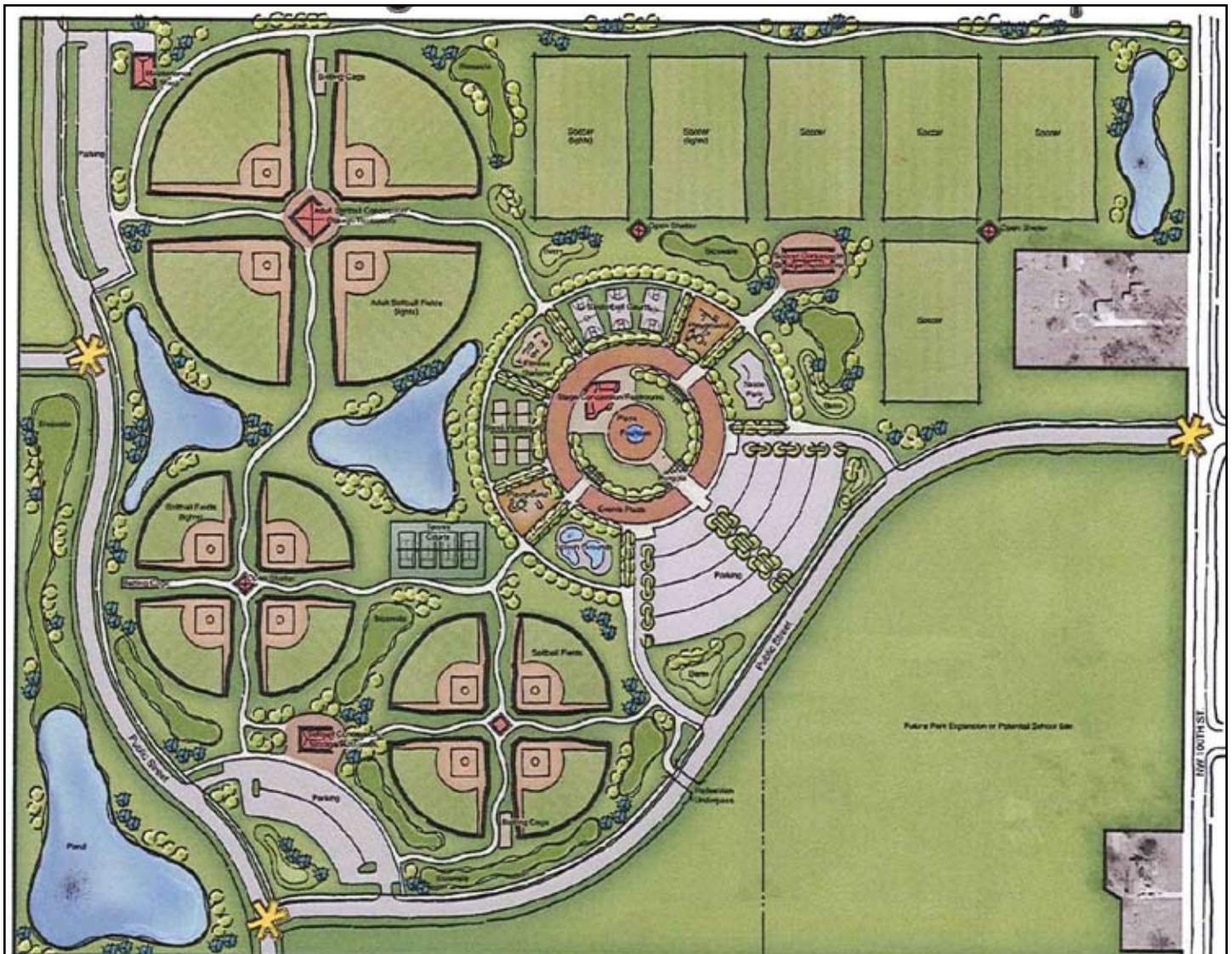


Figure 8.6 - 2009 Referendum-Community Park Concept Plan

Failure of the 2009 referendum effort does not erase the need for more community park land and facilities in Johnston. Two options are available to address the future community park need: 1) seek voter approval at some time in the future for needed community facilities when there seems to be more public support for such an initiative or 2) incrementally, over time, work to acquire land through required dedications and or donations to construct future facilities. A third option may actually combine the first two. Based on future development, the city could acquire land for a scaled down community park through a combination of dedication and land purchase. Then, using funding from a mix of sources potentially including a scaled down referendum development effort, the city could add community park facilities that could at least move it closer to meeting the long-term needs. Ideally, a new community park could contain enough open space to accommodate Johnston's Green Days celebration which may need a new home due to future development at Johnston Commons.

The 2030 Land Use Plan shows a substantial new park west of NW 100th Street generally at the location of the referendum site but reduced in size. As this area develops in the future, the city should make every attempt to acquire as much land as possible for park purposes at this location. Another location that might be considered for an additional new community park is the land presently outside of Johnston's city limits north of NW 70th Avenue and west of NW 86th Street across from Camp Dodge. When land in the Northwest District is developed in the future, this location will feel more connected and centralized within the City of Johnston and may be a candidate location for a new community park.

Community Park Facilities Assessment and Commentary

Baseball - Softball: Johnston currently has 8 baseball fields and 7 softball fields, exclusive of those located on school property, provided principally by two private organizations, the Johnston Little League and Johnston Girls Softball Association. All of the fields are located in Lew Clarkson Park. Together, these two organizations provide the facilities and administration of all local baseball and softball programming. The City of Johnston partners with Johnston Little League and the Johnston Girls Softball Association in the maintenance and improvements to the facilities at Lew Clarkson.

The Johnston Little League and the Johnston Girls Softball program have been experiencing rapid growth-growth that they expect will continue over the next ten years. In the near term, there is a need for additional youth baseball fields. Any additional land acquired for community park use should be used to help meet the future demand for baseball/softball.

Tennis: The city currently has 10 tennis courts, eight of which are located at the high school/middle school campus and two at Crown Point. The courts at Crown Point are a long-term community facility and will be maintained and improved as needed. Since Crown Point became the home of the senior meal site, use of the courts by members of Johnston's senior population has increased. Given the public's current level of interest in tennis, the current supply of courts should be adequate to meet the community's needs throughout the planning period.

Volleyball: Interior volleyball courts are currently available at the high/middle school. The city does not anticipate adding additional volleyball courts in the near future but would likely do so when additional land is acquired for another community park.

Basketball: At the present time, indoor basketball courts are available in the school gyms, however, most usage is for school activities. An outdoor basketball court is located in Dewey Park and a half-court basketball court is located at Pointe Vista Park. The city will likely add new basketball courts in future when additional land is acquired for another community park.

Play Areas: Areas containing play equipment for use by young people ranging in age from 2 through 12 will be needed in a number of locations as the city continues to grow. Because

of the age of the users, location and barriers such as major road crossings are important determinants in the placement of play areas. At the present time, play equipment is located on all of the elementary school sites and in many of the neighborhood parks. As additional neighborhood parks are constructed in the future, additional play areas will be necessary.

Soccer: Nationally, soccer has been growing at a tremendous rate. Johnston has echoed this trend and soccer is extremely popular. Soccer is currently organized and operated by the Johnston Soccer Club at Ojendyk Fields. The city currently has very little organizational involvement in the sport. The most significant current need is for more space to support soccer practice. Additional land for fields as well as lighting improvements would help the soccer association by accommodating tournaments which can be a significant revenue source. As the community continues to grow, even more soccer fields are likely to be needed or at least, providing multi-use turf areas that can accommodate team practice sessions.

Swimming Pool: Johnston residents continue to express interest in expanded swimming and water play opportunities in the community. Johnston will continue to examine the feasibility of swimming facilities within a community center or the possibility of a free-standing splash pool.

Picnic Areas: Johnston has an abundant supply of picnic areas that are accessible to community residents. Neighborhood and community parks can and will offer picnic areas for use by people either as a freestanding activity or in conjunction with other recreational activities such as attendance at baseball or softball games. The facilities in eastern Johnston within the Saylorville Reservoir property offer convenient, abundant and attractive group picnic sites. As a result, implementation of additional picnic areas in the future will be small-scale facilities in neighborhood and community parks.

Other Activities: Other, less “mainstream” recreational activities may be needed in Johnston. Activities such as horseshoes and disk golf appeal to a smaller audience of users and are generally available at the present time. At some point in the future, Johnston will likely be in a position to consider construction of a skate park facility, the most likely location of which will be within a city park. The city also needs to find a location for a dog park.

Additional Park and Recreation Plan Recommendations

Based on the analysis of information presented in the previous sections, input from the general public and the Johnston Park Advisory Board and considering the direction provided by the policies and action steps in this plan, additional plan recommendations have been formulated to guide the future development of the overall park system. They include:

1. *Continue to seek the active support of private organizations and civic organizations in providing and maintaining the Johnston park system. The Johnston Little League, Johnston Girls Softball Association, Johnston Soccer Club and the Johnston Community Education Department of the Johnston Community School District are major partners in providing recreational opportunities for Johnston's youth. The interest shown by these and other groups should be encouraged since it directly involves residents in running the programs and removes some of the financial burdens that would otherwise fall on the city in offering such programs.*
2. *Develop an overall master plan and planting plan for all park facilities.*
3. *Work cooperatively with Polk County, state, and federal agencies on providing recreational opportunities that serve Johnston residents. Facilities owned and operated by the school district and Corps are essential elements of Johnston's park system.*

4. *Implement a trail system that provides pedestrian and bicycle connections throughout the community with links to adjacent regional facilities.*
5. *Continue to assess the needs for a community aquatics center.*
6. *Continue to monitor the changing needs of the population. Planning for the needs of diverse groups of all ages will be the challenge of the park system.*
7. *Continue to work with developers to ensure that sufficient parkland and trail easements are provided as development occurs in order to ensure the parks and recreation policies and needs identified in the plan are fulfilled.*
8. *Develop a community park/sports complex that will better meet the needs for youth facilities and will allow for the development of adult recreational activities such as slow pitch softball.*
9. *Address the needs of the park department as a whole. Implement strategic planning to accommodate growing the parks department staff in order for them to adequately meet maintenance and recreational the needs of the diverse population of Johnston including providing equipment, maintenance facilities and vehicle storage in the western section of the city.*
10. *Direct the Johnston Park Advisory Board to review the 2030 Comprehensive Projects Plan annually to insure timely implementation of all parks and trails projects.*
11. *Be prepared to take advantage of opportunities to expand existing parks with additions of land. Keep strategic plans updated and ready for grant submittals.*
12. *Develop a canoe water trail along the portion of Beaver Creek extending from the intersection of NW 70th Street and NW 86th Avenue to Lew Clarkson Park and possibly beyond to the Des Moines River.*

Trails, Bikeways and Sidewalks

Introduction

During the community meetings held at the beginning of the comprehensive planning process, one of the most frequently mentioned comments was the need for more trails. The popularity and demand for trails and bikeways has increased with community interest in health, fitness and sustainability. Johnston also has a substantial sidewalk network in place serving many of the newer neighborhood areas. Expansion of Johnston's sidewalk network was also identified as a future community need.

The discussion of trails in Johnston has been included within the Parks and Recreation chapter of the comprehensive plan but it also has a strong relationship to the Transportation chapter of the plan. The transportation plan addresses the roadway needs of the community while the trail plan focuses on the non-motorized means of travel throughout the community, as well as connections to the greater Des Moines area and beyond.

Multi-Use Trails

Johnston's present trail system is well established in some existing developed areas, particularly in the West, Central and Southwest Park Districts. Most trails are multi-use facilities accommodating walking, biking and in-line skating. Trails are also important



NW 70th Avenue Trail

components used to provide access for the mobility impaired (motorized and non-motorized wheelchairs) to parks, recreation facilities and natural areas. For most locations, multi-use trails provide an adequate level of safety and service. In some locations that are very popular, the type and amount of use may increase to the point that the city will need to consider options for improving safety. When existing trails are reconstructed, consideration should be given to widening heavily congested trails to accommodate increases in demand.

Sidewalks

Johnston has an established network of sidewalks primarily in the West and Southwest park districts, largely in neighborhoods constructed since the 1980s. Citywide, 70 miles of sidewalks are presently in place. Figure 8.6 identifies gaps in the existing sidewalk system. The largest concentration of gaps in the sidewalk system occurs east of Merle Hay Road extending from Beaver Creek on the south to the Saylorville Dam area on the north. Other gaps occur on the west side of town between NW 62nd Avenue and NW 54th Avenue and north of NW 70th Street. Gaps in the residential sidewalk network also occur along NW Beaver Drive in the northern portion of Johnston abutting Saylorville Lake.

City policies require sidewalks in most new residential areas. Retrofitting existing neighborhoods with sidewalks is challenging due to cost and space constraints. Adding sidewalks to existing neighborhoods is best done in concert with the reconstruction of local streets. Portions of the East District lack city utilities and may be programmed for street reconstruction in the near future. As utility lines are put in to serve the neighborhood and as roads are replaced, the City will have an opportunity to expand the sidewalk system. In the East District, enhancing neighborhood connections to Lawson Elementary is particularly important.

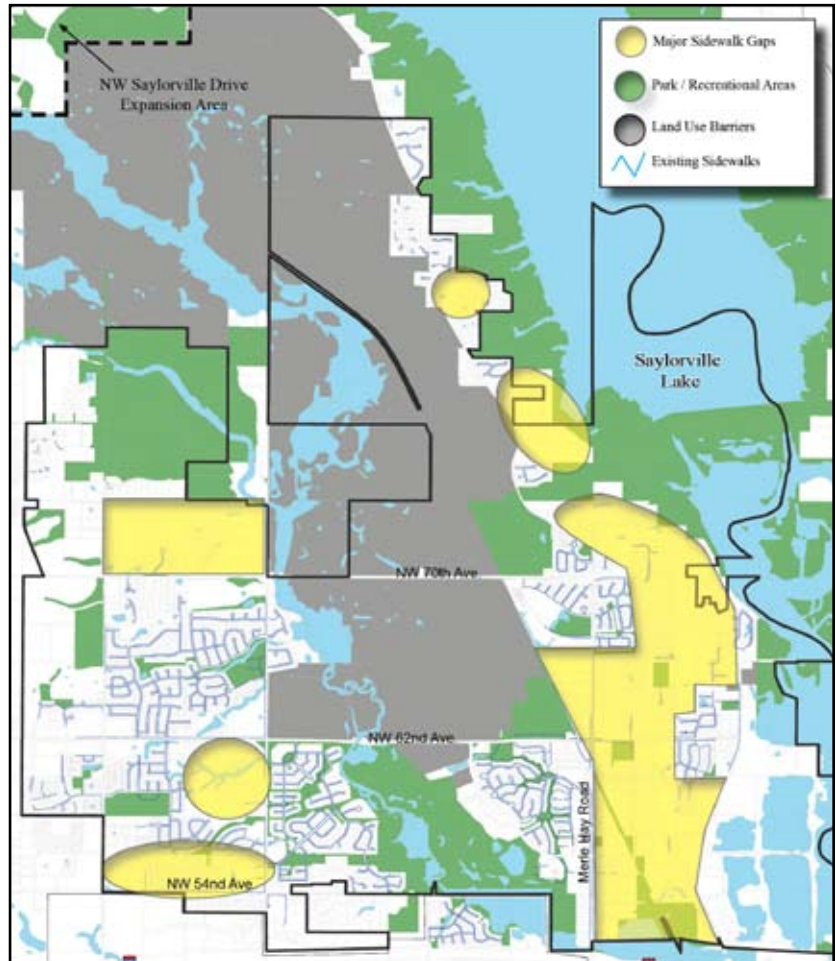


Figure 8.6 Major Sidewalk Gaps

Bike Rider Needs

Travel by bicycle reflects recreation, fitness and transportation needs. Johnston's existing trail system offers significant segments of what will eventually be an overall system that can effectively serve the needs of local bike riders. Bicycle users of the trail system fall into three basic categories:

- » Advanced or experienced riders. These riders operate their bicycles as they would a motor vehicle. They ride for speed and convenience, seeking direct access to destinations with a minimum of detours or delay. Frequently, they use a bicycle as a primary means of commuting from home to job. They are typically comfortable riding with motor vehicles traffic but require sufficient operating space on the roadway to eliminate the need for either themselves or a passing motor vehicle to shift position. On busier streets, many advanced or experience riders will still prefer bike lanes or wide paved shoulders.
- » Basic or less confident adult riders. This category uses bicycles for recreation, fitness and transportation. Basic riders are comfortable riding on neighborhood streets and off-street trails. On busier streets, they prefer designated facilities such as off-street trails or striped bike lanes.



Interurban Trail

- » Children. Children use trails for recreation, play and for travel within neighborhoods and to community destinations such as schools and parks. Residential streets with low motor vehicle speeds and off-street trails are preferred by this group. Although less desirable, on-street bikeways with clear pavement markings will also be used by older children.

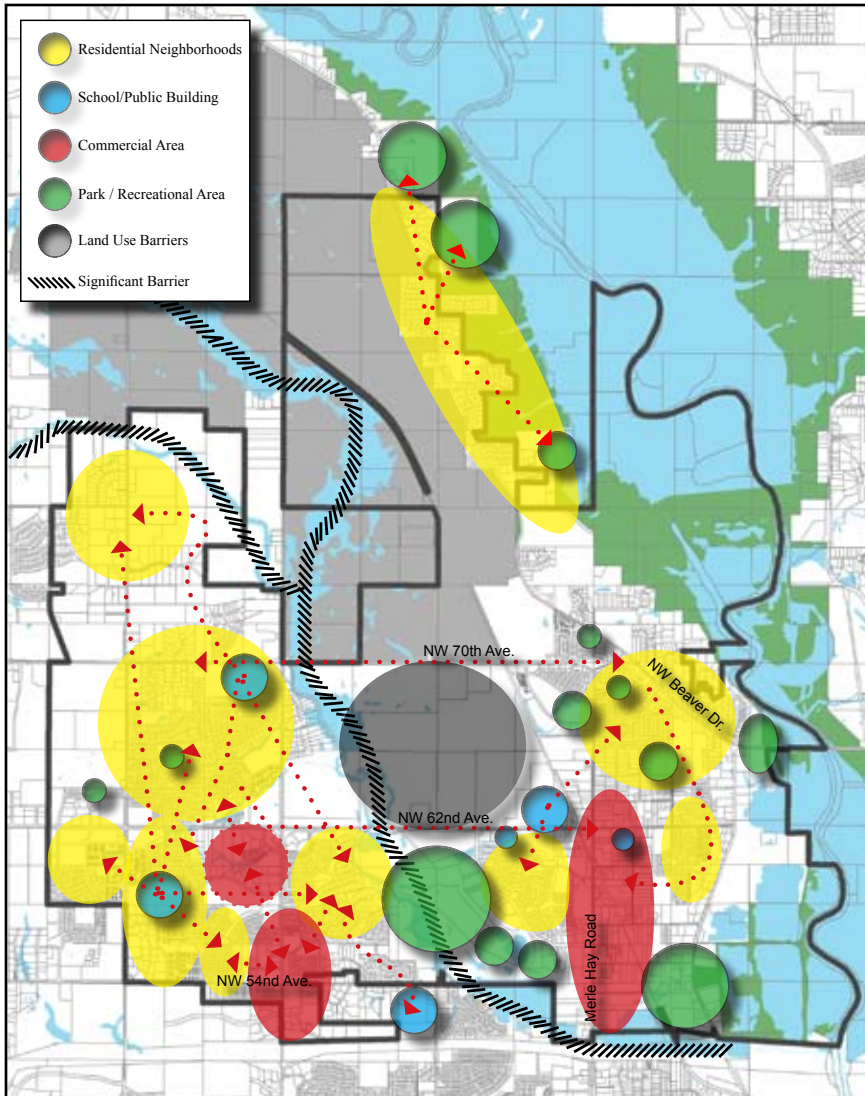


Figure 8.7 Local Connections Diagram

Regional Trails

Johnston has great proximity to a number of area regional trails. Some of the significant area trails include: the Trestle to Trestle Trail that connects from the Interurban Trail in Johnston, south to the City of Des Moines; the Sycamore Trail and Neal Smith Trail that lie on the east side of the Des Moines River and Saylorville Lake; and the Raccoon River Valley Trail that heads west through Dallas County and then meanders north to Jefferson. In addition to these trails, the Iowa DNR has established a trail that connects Big Creek State Park, Ledges State Park and Springbrook State Park. This trail, which is primarily but not exclusively an on-road route, covers 91 miles passing over Saylorville Lake on the Mile-long bridge.

Connectivity

Within the developed portion of the city, gaps exist in the current trail system that need to be filled to provide city-wide connectivity and connections to adjacent communities. New trails in future growth areas are needed to connect to existing trail corridors, to provide access to new neighborhoods and to create connections to community facilities. In the future growth areas, there may be opportunities to create trails in greenway corridors. Trails in greenways provide access to natural resources while providing designed community connections.

Wayfinding

With an existing and future trail system that meanders through natural resources separated from roadways, trail identification and wayfinding improvements are important. A wayfinding system is a coherent, easily understood system of trail names, maps and kiosks that build awareness, identity, safety and ease of use. The city has begun providing some signage in more remote locations like the Beaver Creek Greenbelt Trail as part of the Trail Emergency Access System (TEAS). Additional signage and possibly information kiosks will be needed as improvements of the existing trail system continue and as the system is expanded.

Influencing Factors

The Johnston trail system has been designed to reflect existing and planned land uses and other local and regional influences. The Local Connections Diagram (Figure 8.6) illustrates major connections between different land uses. Factors influencing trails in Johnston include:

Landscape Features: Topography, vegetation and floodplain areas have been considered in determining the locations of trails. The trail system allows access through a number of

different environments in order to provide a diverse recreational experience. In the Beaver Creek floodplain area, trails will meander through the flat lands of the floodway fringe. Trails connecting to the northeast portion of Johnston will rise from the floodplain areas to the higher bluff elevations that provide broad vistas over the western and southwestern portions of the community.

Existing Development Patterns: Placing trails within existing developed areas requires careful review and consideration. Adding trails in areas that were not originally designed to accommodate bicycle and pedestrian movements may require modification of “typical” trail standards. For example, in the neighborhood areas east of Merle Hay Road, future trail connections may need to be on-street, with signage delineating various roadways as bike routes. Off-street trails in existing neighborhood areas may not be feasible because of narrow rights-of-way and existing development obstacles.

Development Trends: As development continues to occur in Johnston, right-of-way and/or easements will be acquired to accommodate the eventual completion of the community-wide trail system. Trail alignments identified in the comprehensive plan need to be accommodated during subdivision design and platting for new development areas.

Existing and Proposed Recreation Areas: The policies contained in the plan stress the need to connect residential areas with existing and future parks. Therefore, existing and future park locations have been identified and trail access to them has been planned.

Linkage with Adjacent Community and Regional Trails: Urbandale and Polk City have existing and planned trail segments. In order for the Johnston trail system to become part of a larger trail network, the identified Johnston trails provide connections to regional trails and trails in adjacent communities. The trail in Johnston that follows the old Interurban Railroad right-of-way forms a spine that will provide connections to Jester Park on the north and to the City of Des Moines to the south.

Trail Policies and Action Steps

The following policies and action steps are intended to help guide decisions about Johnston’s trail system in the years ahead.

Trail Policies:

TP1. Promote safe, convenient and coordinated facilities for alternative means of transportation throughout Johnston.

Trail Action Steps:

TA1. City-wide trails will act as coordinating elements for the Johnston park system.

TA2. The city will plan bicycle and pedestrian access to parks, open space areas, schools and neighborhood commercial areas to accommodate and encourage use of these non-motorized forms of transportation.

TA3. Johnston will encourage utilization of utility easements and transportation rights-of-way and greenways for trail development.

TA4. Trails will be integral to larger scale development and will be installed at the developer’s expense. These trails will connect to the existing and proposed extensions of the Johnston trail system.

TA5. The Johnston trail system will be coordinated with the trail systems of Polk County, the Corps of Engineers and surrounding cities.

TA6. Traffic signal timing will allow adequate time for pedestrians, wheel chairs and bicyclists to safely cross streets.



Greenbelt Trail in Green Meadows West

Trail Types

In Johnston, trails are expected to accommodate a variety of users. Walking, jogging, in-line skating, bicycling and cross-country skiing are some of the uses accommodated on Johnston trails. Trail segments are likely to be one of the following four types:

Sidewalks: Sidewalks compliment the larger trail system by providing connections for pedestrians and light bicycle traffic. Sidewalks are not specifically shown on the trail plan because they require detailed and specific site considerations that are not within the scope of a comprehensive plan. Sidewalks should be planned and developed along with roadway construction and reconstruction projects.

On-Street Trails: In areas where right-of-way and other factors preclude the construction of off-street trails, on-street trails will need to be used. On-street trails can consist of street signage identifying various roadways as bicycle paths or in some cases, an actual designated bicycle lane can be delineated on the paved roadway when paving widths can safely accommodate such uses.

Primary Trails: Primary trails are major trail segments that are expected to carry a significant number of users. Primary trails should be constructed of bituminous surfacing and have a total width of 10 to 12 feet.

Secondary Trails: Secondary trails are significant components of the overall trail system but are those routes that may carry less traffic than the primary trails. Secondary trails should have a minimum width of 8 feet.

Nature Trails: Nature trails are trails intended to provide pedestrian access to natural areas. The surface type and width of nature trails are variable depending on terrain and other factors. In most cases, surfacing is either mowed turf or compacted wood chips.

Trail Design Standards

Trail alignments are shown on the overall Park and Trail plan map. In order to ensure consistency, trails should be designed and constructed using a set of uniform standards. The following standards should be considered in future trail design:

1. *Trails should range in width from 8 to 12 feet depending on the anticipated volume of users. In areas of extremely heavy anticipated pedestrian use, pedestrian and bicycle traffic may need to be separated.*
2. *Where feasible, trails should be constructed as separate facilities. Because of existing conditions, on-street trails will need to be built in some areas.*
3. *Long, steep grades should be avoided where possible. A 6% maximum slope is preferred, an 8% maximum can be used where unavoidable due to existing terrain.*
4. *Grades at intersections should not exceed 2% to allow adequate ability to stop.*
5. *Provide positive drainage away from trails with shallow drainage swales or ditches, culverts, and/or storm sewers as required.*
6. *Avoid sharp or sudden changes in horizontal and vertical alignments. Provide adequate sight distance for bicycles at intersections and on vertical changes in alignment.*
7. *Bicycle trails should be marked and signed in accordance with the latest edition of the manual on Uniform Traffic Control Devices and should assist users, by using uniform signage, in understanding they are on a comprehensive trail system which traverses several Polk County communities*

8. *Minimum standards should conform to current granting authority standards and existing trails should be brought up to current standards as routine maintenance is performed.*
9. *Grade-separated crossings should be considered, particularly involving roadways with high traffic volumes, high speeds and/or high pedestrian volume.*

Trail System Plan

The Future Parks and Trail System map (Figure 8.5) contains existing and proposed trails throughout Johnston and surrounding areas. As areas develop in the future, trails should be planned for and built to provide local connections to the central trail system or to provide access to unique land uses or natural resource areas. The Future Parks and Trail System map identifies approximately 32 miles of existing trails within the comprehensive planning area of the city. The map also identifies approximately 34 miles of proposed trails.



Ceres Lake



Utilities 9

Introduction

The City of Johnston has made significant investments in its sanitary sewer, municipal water, and storm drainage facilities since the completion of its last comprehensive plan, with a focus on implementing master planned utilities in developing growth areas of the community. In addition, the city has recently focused on reinvesting in older, established neighborhoods as existing utilities have become undersized with the community's overall growth, isolated or obsolete due to new development, or that have become a more serious maintenance issue for the community over time. The combination of these efforts are summarized in the comprehensive plan update, as well as recommendations for utility staging and implementation strategies in new growth areas identified by the Comprehensive Plan update reflecting future growth toward the horizon year of 2030.

Also addressed in this chapter are the city's policies and action steps, inventory and recommendations related to public and private utilities in the community owned and regulated by others or in partnership with the City of Johnston, including solid waste, electric transmission and distribution, fiber optics, renewable energy, telecommunications, and natural gas.

General Utility Policies and Action Steps

In order to guide future utility expansions and replacement projects, the following general policies, and coordinating action steps, have been identified.

General Utility Policies

Functional plans will define required levels of utility service for urban and rural areas. The City of Johnston, Des Moines area metropolitan service providers, or private companies will provide facility improvement standards where applicable, specify current and potential funding methods, and schedule facility maintenance and construction through capital improvement programs. The provisions of the Iowa Smart Growth planning principles shall apply to all utility plans and installations, and surface water resource management projects.

Action Steps:

1. Utilities should be designed, located and constructed to avoid significant adverse environmental impacts and to protect valuable environmental features. Siting decisions should include all relevant planning policies, and should include the following actions:
 - a). Necessary improvements should be provided where utilities are inadequate to serve existing development in urban areas. Utility capital improvement programs should give priority to improving systems with significant inadequacies.



b). Utility providers, including the city and Des Moines metropolitan service providers, should plan to eventually serve urban uses and densities throughout all urban areas and those rural areas where the comprehensive plan has determined that urban densities will be appropriate in the future.

c). Standards and plans for utility services in rural areas should be consistent with long-term, low-density development. Facilities that serve urban areas, but must be located in rural areas or resource lands, should be designed and scaled to serve primarily the urban areas.

d). Utilities should make joint use of utility rights-of-way whenever possible. Underground utilities should also be grouped together and easily accessible for maintenance, repairs, and expansions.

e). Above-ground utility installations should be designed and located to minimize unsightly views and environmental impacts. Power and telephone poles should be as far from right-of-way centerlines as possible.

f). Power and communication wires should be installed underground where feasible, particularly in newly-developing and high-density areas.

Sanitary Sewer System

Sanitary Sewer Service Policies



Adequate sewage treatment and disposal are essential to protect the public health and safety, and to maintain a high quality for all water resource users. The City of Johnston's wastewater is treated by a public sewer system which conveys wastewater to the Des Moines Water Reclamation Authority (DMWRA) central plant, where it is treated and released into the Des Moines River. The needs for sewer service are different for urban and rural service areas. The public sewer system can accommodate dense development and large quantities of wastewater. It is a large, complex, and expensive public utility system that can become cost-effective only at urban densities. The presence or absence of a public sewer system is, because of its expense, a major factor in the ability of both urban and rural areas to accommodate growth.

Action Steps

1. Public sewers are the preferred method of wastewater treatment for development in urban service areas. Onsite systems should continue to be monitored and replaced with municipal systems according to public health issues and needs, and as determined appropriate by the City of Johnston.

2. Service areas for sewers should be designated only in urban areas and their identified expansion areas. In designating or adjusting service area boundaries, the following criteria should be applied:

- a). Detailed land use plans and zoning for urban uses and densities support the proposed expansion;
- b). Potential adverse impact of sewers on adjacent rural areas or resource lands, and environmentally sensitive areas will be mitigated;
- c). Sewers are technically feasible within the proposed expansion area;
- d). The proposed expansion can be served by gravity sewer, pressure line or similar approved method, to the existing service area; and
- e). There is sufficient treatment plant capacity and interceptor capacity to serve the entire existing service area as well as the proposed expansion.

4. Onsite wastewater treatment systems should be monitored to protect water quality in the community's rivers, floodplains, wells, and aquifers.

5. The city should continue efforts to reduce the level of residential, commercial, and industrial inflow and infiltration into the sanitary sewer system.
6. Operation and maintenance standards should be established and continue to be reevaluated for both urban and rural service areas. Special programs should be established in areas with a high risk of system failure, depending on utility funding ability.

Existing System

Johnston is a member of the Des Moines Wastewater Reclamation Authority (DMWRA), which provides sanitary sewer services to the Greater Des Moines area. Sanitary sewer service is provided to Johnston's residents, businesses, and public facilities through nearly 64 miles of collection lines and a series of lift stations. The City of Johnston has two connections to the DMWRA sewer, one located west of Merle Hay Road and one located adjacent to the old interurban (abandoned) railroad right of way. The Beaver Creek trunk sewer currently terminates on NW 86th Street approximately 2,000 feet south of NW 70th Avenue. The Beaver Creek trunk sewer provides up to a 24 inch pipe with a capacity of approximately 4.1 million gallons daily (mgd).

As a member of the DMWRA, the City of Johnston pays wastewater collection, operation and maintenance costs on a proportionate basis according to the annual proportional wastewater flows contributed. Johnston's municipal annual flow rate has increased from 261 million gallons per day (mgd) in 2002, to 506 mgd in 2009, a 94 percent increase during a 7-year period. The DMWRA's current agreement with Johnston provides the institutional structure needed to implement the requirements of Section 208 of Public Law 92-500 (duties and responsibilities of each constituent community as well as the proportionate funding for implementing the Des Moines Facilities Plan). The cost for implementation of the Facilities Plan is paid on a proportional basis according to the year 2005 population equivalent of the DMWRA member communities.

Johnston's existing sanitary sewer system is illustrated in Figure 9.1.



Municipal Water System

Municipal Water Service Policies

The City of Johnston provides municipal water service for all residential and commercial customers within the city limits. Federal and State laws govern water quality standards, and the city is responsible for engineering, building and operating a public water supply in conformance with these laws.

Action Steps

1. Level-of-service standards for the water supply assure water quality, adequate municipal supply and fire-flow levels in urban and areas. Level-of-service standards for rural areas must also assure water quality and municipal supply, and provide fire-flow levels consistent with low residential densities.
2. The city should design system improvements and plan future annexations based on the following factors:
 - a). Adequate system capacity to accommodate planned land use intensities in urban areas; and
 - b). The planned area-wide, low residential densities and rural uses in rural areas.
3. The decision to provide municipal water to a local geographic section of a rural area should be based on the following factors:
 - a). The section has been committed to municipal water service through a previous Polk County Comprehensive Plan; or



b). Water quality problems that threaten public health exist which can best be resolved by municipal service.

4. Conservation measures should be included in municipal plans to support planned land uses with reliable service at minimum cost, and to assure maximum net benefit in the allocation of water for municipal and recreational uses.

5. Public watersheds should be managed primarily for the protection of drinking water, but should allow for multiple uses, such as recreation, when such uses do not endanger water quality standards.

Existing System

The City of Johnston constructed its first municipal water system in the mid-1970s. The municipal water system has developed over the past 20 years to serve most of the development within the City of Johnston. The City of Johnston currently purchases water from Des Moines Water Works in accordance with the agreement between the city and Des Moines Water Works. Presently, the city operates and maintains approximately 102 miles of water main distribution, 1,167 hydrants, 2,250 water valves, 1,536 manholes, and two water storage tanks that provide approximately 3 million gallons of municipal water. A third water storage facility has been sited and is under construction.

Johnston's existing municipal water system is illustrated in Figure 9.2.

Storm Drainage Facilities

Storm Drainage and Surface Water Management Service Policies

The management and control of storm and surface water has become more crucial as more of Johnston's land is covered by impervious surfaces such as streets, parking lots, and buildings. The purpose of surface water management is to minimize water quality degradation, flooding, erosion, and attendant property damage. In Johnston, surface water management is addressed through a plan that provides policies and guidance to implement the preservation of watersheds through the city's Community Development and Public Works departments that develops functional plans, operate and maintains area-wide facilities, and develop facility standards which are applied to both public and private development projects.

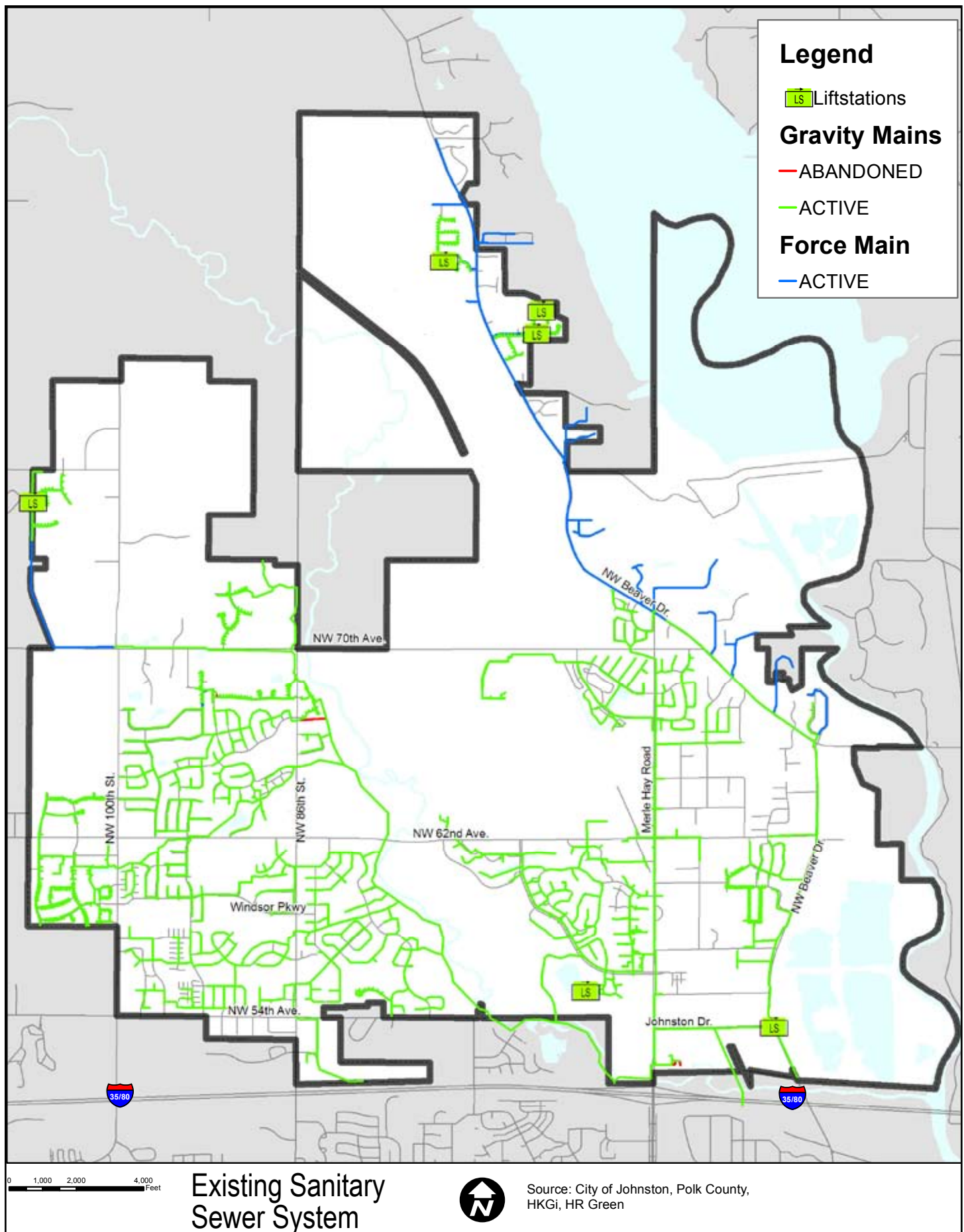
Action Steps

1. Surface water management should use and protect natural drainage systems wherever possible.
2. A basin and watershed approach will be utilized in surface water management, with the responsibility shared between the various municipalities and Polk County.
3. Basin and watershed plans will provide for multiple uses, including recreation, fish and wildlife enhancement, flood protection, erosion control, public utility management and reclamation, and open space.
4. The city should continue the practice of updating its methodologies in addressing surface water run-off.
5. Surface water management facilities should be funded through adequate and equitable system fees on contributing and benefiting properties, with the facilities required for new development designed and built for low-cost, long-term maintenance and consistency with water quantity and quality standards.

Existing System

The City of Johnston's municipal storm drainage system has developed over the past 30 years as the city has grown. Major roadway improvement projects along the city's minor arterial and collector street corridors have provided opportunities over the years to implement off-site drainage collection from adjacent developments. Plans and studies have been conducted to adequately size storm drainage systems in Johnston's most





recently constructed subdivisions.

Sustainable stormwater management practices continue to evolve and as the City of Johnston embraces “smart” planning principles, it will also seek ways to manage drainage and new infrastructure in accordance with processes that provide the proper balance between the human and natural environment needs. Presently, the city is in the process of implementing such improvements and continues to work with residents of the Green Meadows neighborhood to resolve differences between established and planned future drainage practices.

According to the city’s 2009 Watershed Assessment and Stormwater Management Plan, most of the storm sewer infrastructure within the city is relatively new, and designed with proper capacity to convey typical storm events (10-year storm events or less). The largest issue identified as part of the storm drainage assessment is the potential damage to the system that could be caused by erosion downstream of storm sewer outfalls, either near downcutting stream channels or downstream of storm outlets discharging near the top of a steep grade. Some outfalls may require additional protection or other enhancements to address these issues. Threatened, undermined, exposed or damaged public and private improvements include storm sewer outlets that have been impacted by channel erosion, sanitary sewers that have been exposed by scour from increased flow volume from both small and large storm events, and manholes that have become exposed from collapsed or eroding soils.

In older developed portions of the city located east of Merle Hay Road, drainage systems are designed with rural street sections with shallow ditches, or with undersized storm sewers. Most of these areas have soils with good infiltration capability, but there are some areas that do not have adequate paths for large storm conveyance or are prone to standing water during periods of wet weather. As redevelopment occurs in some of these areas, a balance is needed to preserve the natural hydrology of the area, while providing for safe conveyance of large storms.

Johnston’s existing storm drainage system is illustrated in Figure 9.3.

Other Public and Private Utilities

In addition to sanitary sewer, municipal water, storm drainage facilities, development in the community relies on private utilities, including electric, gas and communications services, and solid/yard waste and recycling services.

There is a high demand from other telecommunication industries for the installation and use of fiber optic cable in the city’s right-of-way. New technologies have spurred higher demand for varied communication services. While meeting this demand is important, it is also important for telecommunication companies to pursue ways of sharing conduit and other facilities to provide for the most efficient provision of services with limited negative visual impacts and non-duplicative use of the right-of-way.

The City of Johnston currently contracts with Waste Management of Iowa for solid waste hauling services. Weekly collection services are provided to residential and institutional properties, and businesses. Recycling and composting services are also provided to Johnston consumers through the Metro Waste Authority’s Curb It! and Compost It! Programs. The Curb It! recycling bin is placed at the curb every other week, following a calendar attached to the bin. Yard waste is collected each week during April - November.

Energy Service Policies

Electrical and gas services in Johnston are provided by MidAmerican Energy. Many large generation and transmission facilities in Johnston are regional facilities subject to federal or state law. Local distribution, transmission, and reception facilities, however, are the responsibility of the city to regulate in order to safeguard public health and safety, and to

control aesthetic impacts.

Action Steps

1. Energy distribution and transmission facilities, such as substations, pump stations, major power lines and pipelines, biofuels and wind energy generation, and transmission and reception towers, should be located in industrial areas and resource lands when possible. They should be located in residential areas only when necessary to provide an efficient and cost-effective method of utility service.
2. The city's siting decisions for energy facilities should be based on the following factors:
 - a). Minimal health risks to residents of neighboring properties, whether from noise, fumes, radiation or other hazards;
 - b). Minimal visual impacts, achieved with buffering through distance and/or landscaping;
 - c). No adverse impacts on aviation traffic patterns from power lines, transmission towers, or reception towers; and,
 - d). Convenient access to a street.



Telecommunications and Wireless Data Transmission Service Policies

Since the last Johnston comprehensive plan update, mobile telecommunications and wireless data transmission have created a marketplace with new, more efficient technologies. These technologies should encourage economic development by creating jobs and helping local businesses remain competitive. At the same time, the influx of new telecommunication providers poses a challenge to the city as it performs its traditional land use responsibilities.



Action Steps

1. Telecommunication distribution and transmission facilities, such as relay stations and transmission and reception towers, should be located outside residential areas when possible.
2. The city should presume a wireless telecommunications facility is safe if it meets the technical emission standards set by the Federal Communications Commission. The facility should not create interference with any other communication signals.
3. The city should encourage the principle of co-location, which affords two or more utility providers the ability to place their transmitting facilities in the same location or on the same tower or pole.

Solid Waste Service Policies

Solid waste management within the City of Johnston governs refuse at every stage, including storage, collection transfer, resource recovery, and disposal. Most solid waste is collected, taken to transfer stations for recycling or temporary storage, or taken directly to landfills. Solid and yard waste disposal and recycling services will continue to be provided by a private contractor to the City of Johnston; however, to the extent practicable, the city should engage in providing contractor guidance based on the use of its public streets and other facilities to provide such services.

Action Steps

1. Solid waste should be collected and disposed of in ways that minimize land, air, and water pollution.
2. Inefficient collection methods that cause additional wear or damage to Johnston's public streets or private driveways shall be monitored and reported.
3. Changes in collection methods that minimize airborne or water-eroded material collection shall be monitored and reported (i.e., lids on recycling bins).

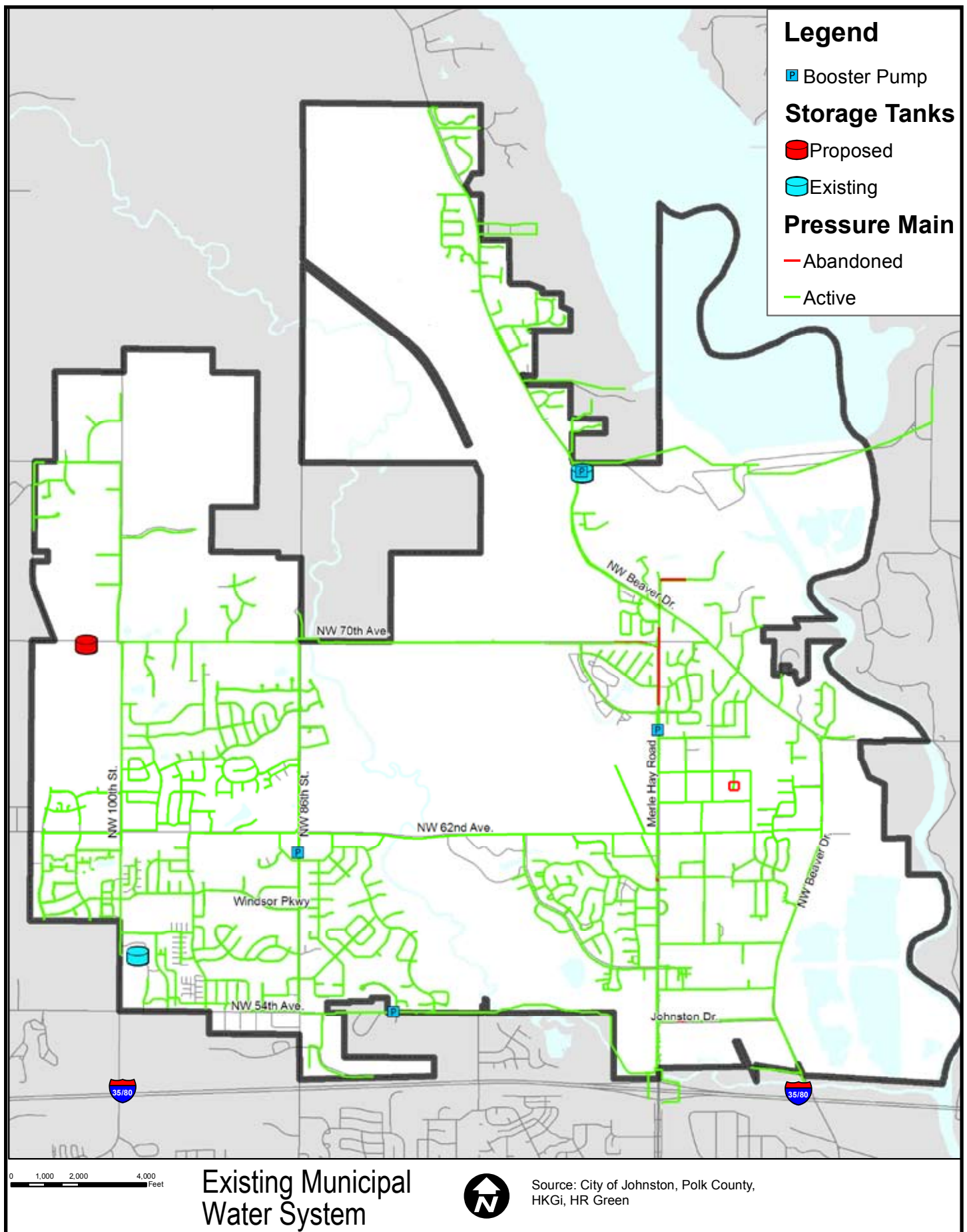


Figure 9.2 Existing Municipal Water System

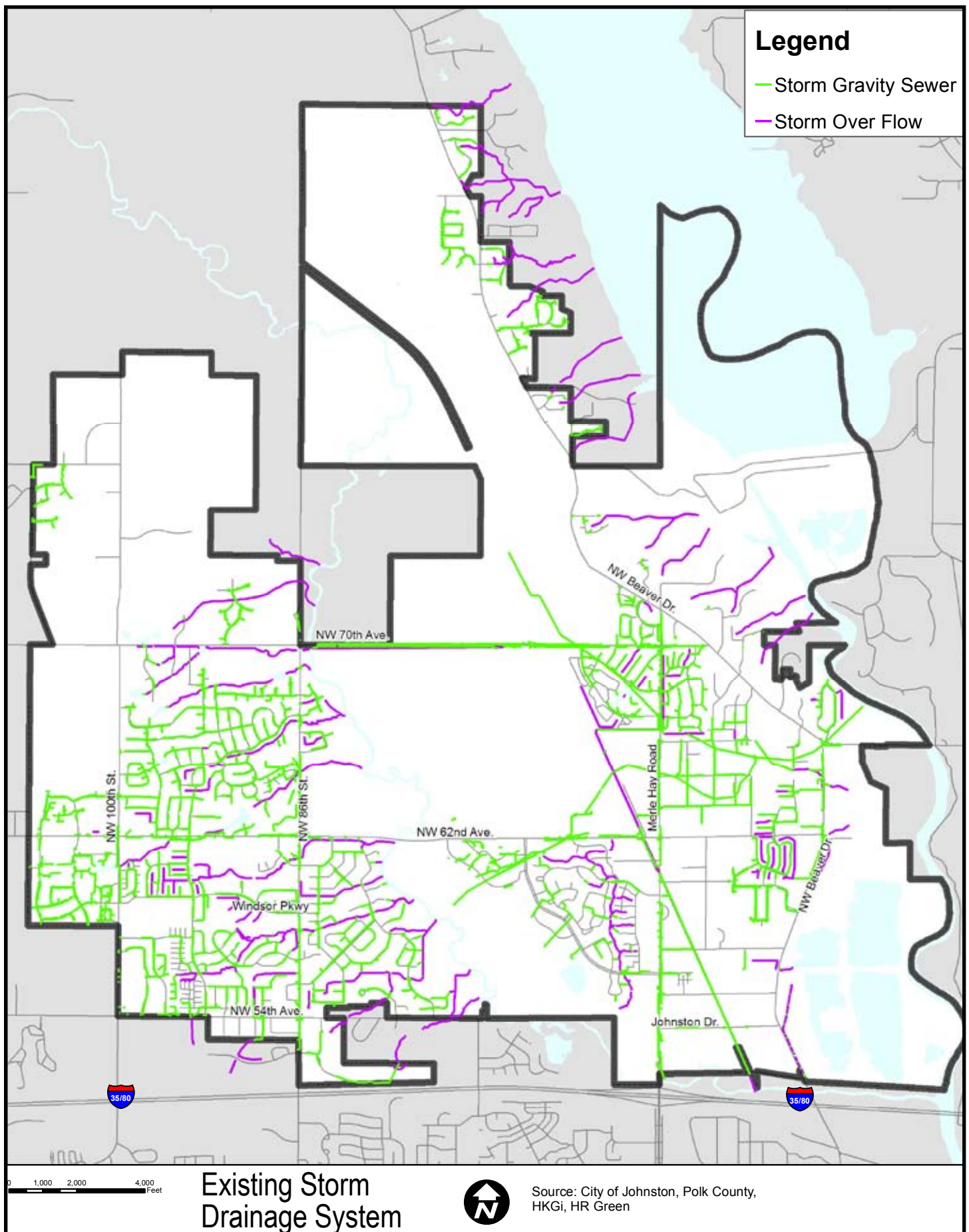


Figure 9.3 Existing Storm Drainage System

Growth and Redevelopment Areas – Long Range Utility Studies, Plans and Recommendations

From 2003 to 2010, the City of Johnston studied sanitary sewer, municipal water system, and storm sewer staging or replacements in four subareas of the community. These four areas are known as Beaver Ridge, the Northwest Planning Area, the Central Basin area and, most recently, an expanded area of the Central Basin associated with a Capital Improvement Plan project east of Merle Hay Road in the established area of the community south of NW 62nd Avenue.

An overview of these studies is presented below as they pertain to the Johnston 2030 Comprehensive Plan. Each of the study area recommendations are in various stages of completion as development has proceeded over the past seven years, and therefore, are considered a “work in progress” for the city. (The reader is referred to the City of Johnston for more information about these studies.)

Beaver Ridge - 2003

Beaver Ridge follows the ridge of NW Beaver Drive from NW 66th Avenue to the north city limits, in close proximity to Saylorville Lake and Camp Dodge. While most of Johnston is relatively level, this area of the community is located on a terrace plain that includes the floodplain of Beaver Creek. The Beaver Ridge area includes bluffs that are 130 feet above the Des Moines River to the east and therefore much of the ridge’s drainage courses flow to Saylorville Lake. With the growth in new development, although isolated subdivisions do not present large areas of development density, much of the area remains on rural utility systems. The U.S. Army Corps of Engineers, responsible for the maintenance of Saylorville Lake, has requested that the City of Johnston continue to monitor and encourage residential connections to city sewer where possible to improve the water quality of the lake.

Northwest Planning Area - 2004

The Northwest Planning Area is that area of the community generally bounded by NW 70th Avenue, NW 107th Street/NW 78th Avenue/Highway 141, and Little Beaver Creek. The Northwest Utility Service Master Plan, approved in 2004, included planning for all municipal utilities, but focused on the availability of sanitary sewer service in the Northwest Growth Area. (In the 2030 Comprehensive Plan, this area is now referred to as “North Johnston”).

Specifically, the master plan calls for the extension of the Beaver Creek trunk sewer northward to NW 70th Avenue and westerly along NW 70th Avenue from 86th Street to NW 100th Street, with future connections to NW 78th Avenue and NW 107th Street. The preferred alternative follows along Beaver Creek. The City of Johnston established a sanitary sewer district with a connection fee schedule (applicable to certain locations) to recover sanitary sewer installation costs. A key “trigger” for sewer sizing in this area is the annexation of the NW Saylorville Drive Expansion Area, generally following along either side of NW Saylorville Drive between the Mile-long Bridge over Saylorville Lake and Highway 141, northwest of Camp Dodge. The plan recommended larger sewer sizing (18 inch diameter pipe) should the community pursue annexation in the Northwest Saylorville Drive Expansion Area.

Water main extensions in the Northwest Planning Area included the recommended installation of 12-inch mains along major roadways south of NW 70th Avenue, and 8-inch mains north of NW 70th Avenue. Since 2004, the City of Johnston has extended 8-inch mains to NW 78th Avenue and 12-inch loop mains will continue to be installed in the developing areas west of NW 100th Street, between NW 62nd and NW 70th Avenues. The city requires a connection fee of new developers to recover water main installation costs.

Drainage systems in this area are planned to be a combination of stormwater detention ponds and culverts. The master plan recommends drainage follow natural channels to the Beaver Creek basin, but in areas where natural drainage is undefined, the adequacy

of downstream storm water culverts is of concern to ensure that downstream areas are not inundated during significant storm events. A long-range improvement plan was recommended to ensure that adequate study would be undertaken to evaluate the adequacy of downstream channels, ponds, and culverts prior to development approval in this area.

Central Basin Plan – 2004/2006

Improvements to sanitary sewer, municipal water distribution, and storm drainage systems were studied in the area of the community then known as the Jerry's Homes, Polich, and Greedy properties, generally bounded by NW 57th and 62nd Avenues, west of NW Beaver Drive. The original plan was to extend water main, and sanitary and storm sewer utility extensions through undeveloped properties west of NW Beaver Drive and between Johnston Drive and NW 59th Avenue; however, due to a lack of property owner consensus, an alternative Central Basin Utility alignment was chosen to access existing municipal utilities in NW Beaver Avenue by requiring fewer property owners to consent, utilizing a corridor following NW 57th Avenue. While this provided a solution to the city for the development of the three properties stated above, it did not resolve the issue of undersized downstream sewer and water mains, or septic system replacements needed in this area. Although unsuccessfully implemented in its entirety at the time, the master plan helped establish utility responsibilities and cost participation policies to accommodate a mix of retrofitted and vacant parcel utility extensions, something Johnston had not encountered before. The policies called for establishment of a stormwater utility or use of a storm sewer special assessment. Policy changes were also implemented to enact shared agreements between the City of Johnston and developers to assign costs between offsite sanitary, storm sewer, and municipal water main (city) and on-site development costs (developer).

Capital Improvement Program (CIP) Utility Replacement - Areas East of Merle Hay Road – 2009-2010

As a follow-up to the Central Basin Master Plan, capital improvements planning was prepared to update the utilities commensurate with updated street reconstruction standards. The result will be a significant reinvestment in the earliest neighborhoods of Johnston, with the installation of new utilities and street amenities, including curb and gutter and sidewalks.

Figure 9.4 illustrates areas of ongoing municipal utility improvements from previous and current studies for Johnston's Growth and Redevelopment areas. Unsewered areas are also illustrated within the city limits and in unincorporated Polk County along NW Beaver Drive, which may be affected by future utility replacements with the development of the NW Saylorville Drive Expansion Area.

Long-Range Storm Drainage Planning and Watershed Improvements

In 2009, after a thorough assessment of the water resource planning needs, the City of Johnston adopted an aggressive watershed action plan to set storm drainage policies and implement a number of critical projects to correct long-standing drainage deficiencies, repair environmental and city infrastructure damages, and improve the ability to manage drainage costs in the future.

Throughout the citywide watershed assessment process, more than 80 locations were identified that were in need of some level of improvement or repair that could warrant consideration as a city-funded project. It was realized very early that funding sources would not be available to address all of the identified issues using local funds, and a need to narrow the list of projects to a more select group that could be reviewed in more detail was developed. Problem areas were evaluated by a set of preliminary screening criteria, such as the potential danger posed to public and private infrastructure, expectations for



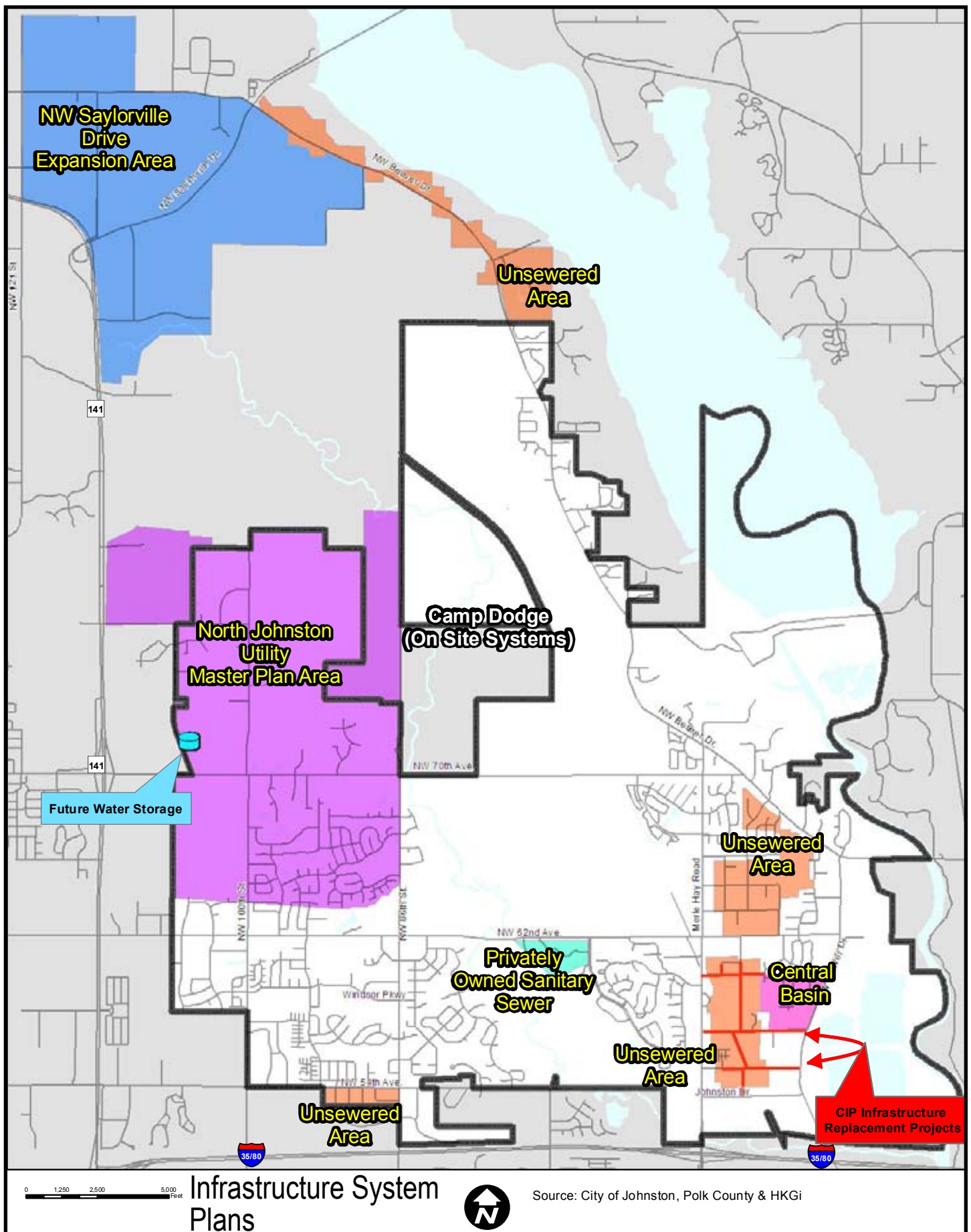


Figure 9.4 Infrastructure System Plans for Growth and Redevelopment Areas

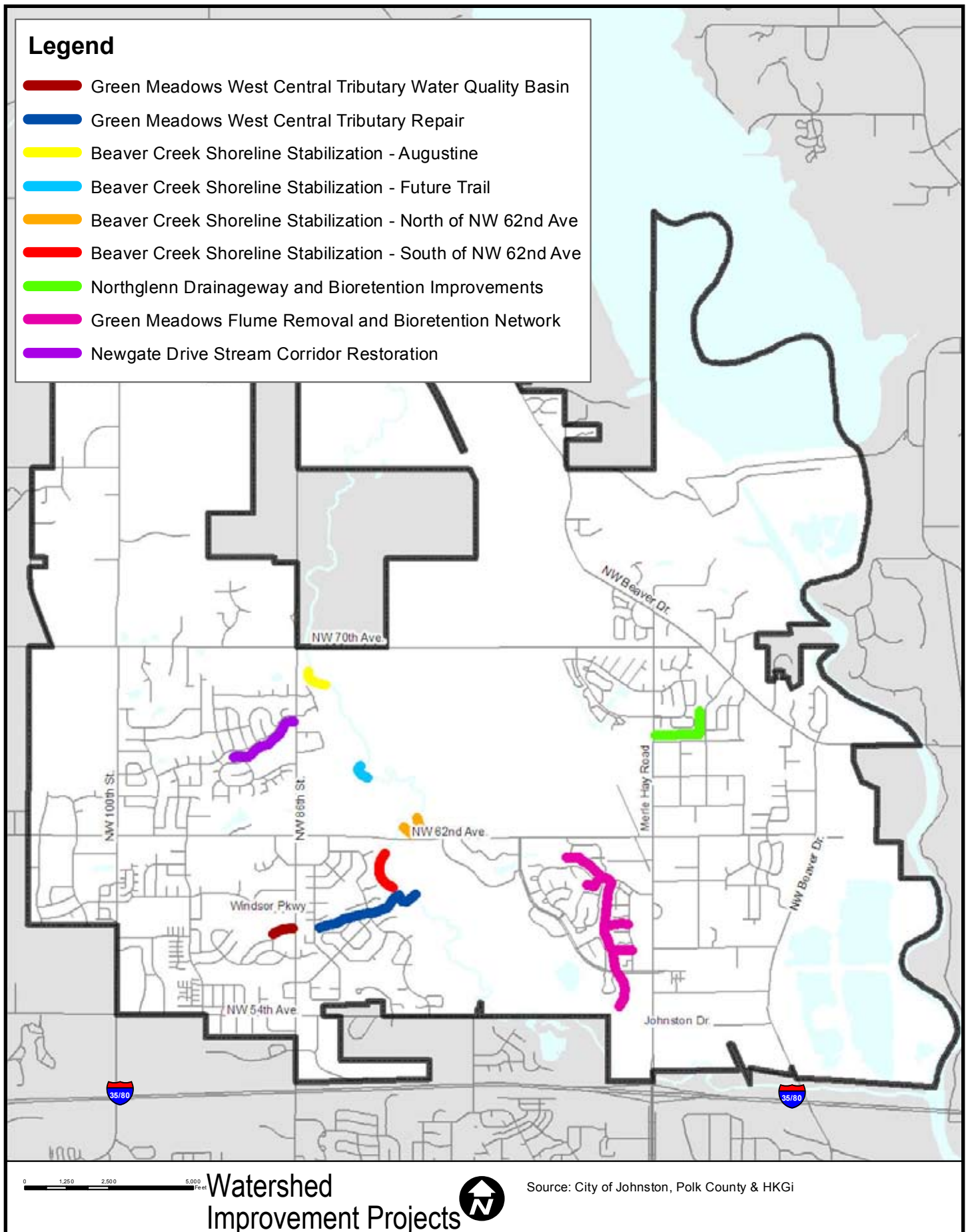


Figure 9.5 Watershed Improvement Projects



additional damage without action, provisions for access, and the general scale of cost. Problem areas that did not threaten existing improvements, affected only a few property owners or had poor access from existing roads were most likely to be set aside from further consideration. Just over twenty projects warranted further evaluation with city staff. The initial criteria were reviewed in more detail, along with new parameters that considered the overall watershed benefits and characteristics, habitat improvements, connectivity with other practices and the educational value of the project.

From this evaluation, nine projects were identified as the most critical for capital improvement planning purposes. The purpose of the initial review was to identify projects that could be eligible for a watershed improvement grant, but the understanding was that most of these projects were considered strong candidates for inclusion in the city's long term capital improvements plan. The location of these nine watershed improvement projects is indicated on Figure 9.5. (The reader is referred to the City of Johnston for additional information on the city's Watershed Assessment and Stormwater Management Plan.)

Long-Range Municipal Utility Planning – NW Saylorville Drive Expansion Area

The NW Saylorville Drive Expansion Area was examined by the community in a 2003 annexation study. At the time, it was referred to as “Far North” and encompasses the area roughly bounded by Camp Dodge on the south, NW Beaver Drive on the east, 110th /106th Avenues NW on the north, and NW 121st Street/Highway 141 on the west. The NW Saylorville Drive Expansion Area is bisected by NW Saylorville Drive, which along with Highway 141 and NW Beaver Drive, are the primary sources of access to this area.

The annexation study addressed the provision of municipal utilities in this area, including the roles of current and adjacent service providers in this area, including the City of Granger, Xenia Rural Water District, Des Moines Metropolitan WRA, and Polk County, as well as variables or alternatives for the City of Johnston to serve this area independently with its own utilities or cooperatively with other entities.

Notable findings of the annexation study include the following:

- » *The NW Saylorville Drive Expansion Area is generally conducive to traditional storm drainage design. A combination of flat storm sewers or drainage channels may be used in some areas south of NW Saylorville Drive.*
- » *Municipal water service can be provided from a variety of sources, short-and long-term, including the City of Granger, Xenia Rural Water District, and the City of Johnston. Long-term considerations for Johnston include main extensions from the west service area (north of NW 100th Street) and NW Beaver Drive.*
- » *Sanitary sewer extension to the existing service area would require the development of a sewer system tributary (local sewer system) with a least one pump station to convey the flow southerly to the city's main service area. The preferred sanitary sewer route would follow Beaver Creek.*

2030 Comprehensive Plan Considerations

Storm and Surface Water Drainage

An update to the Watershed Assessment and Stormwater Management Plan is needed to amend this area in the current plan. The NW Saylorville Drive Expansion Area's inventory needs to be completed such that landscape constraints and potential opportunities can be identified, and water resource guidance can be provided as input to development petitions. New storm sewers will generally follow new street construction; however, a variety of water conveyance and settlement techniques will be appropriate in this area and measures to minimize downstream flow will be important to relieve system congestion and preserve capacity.

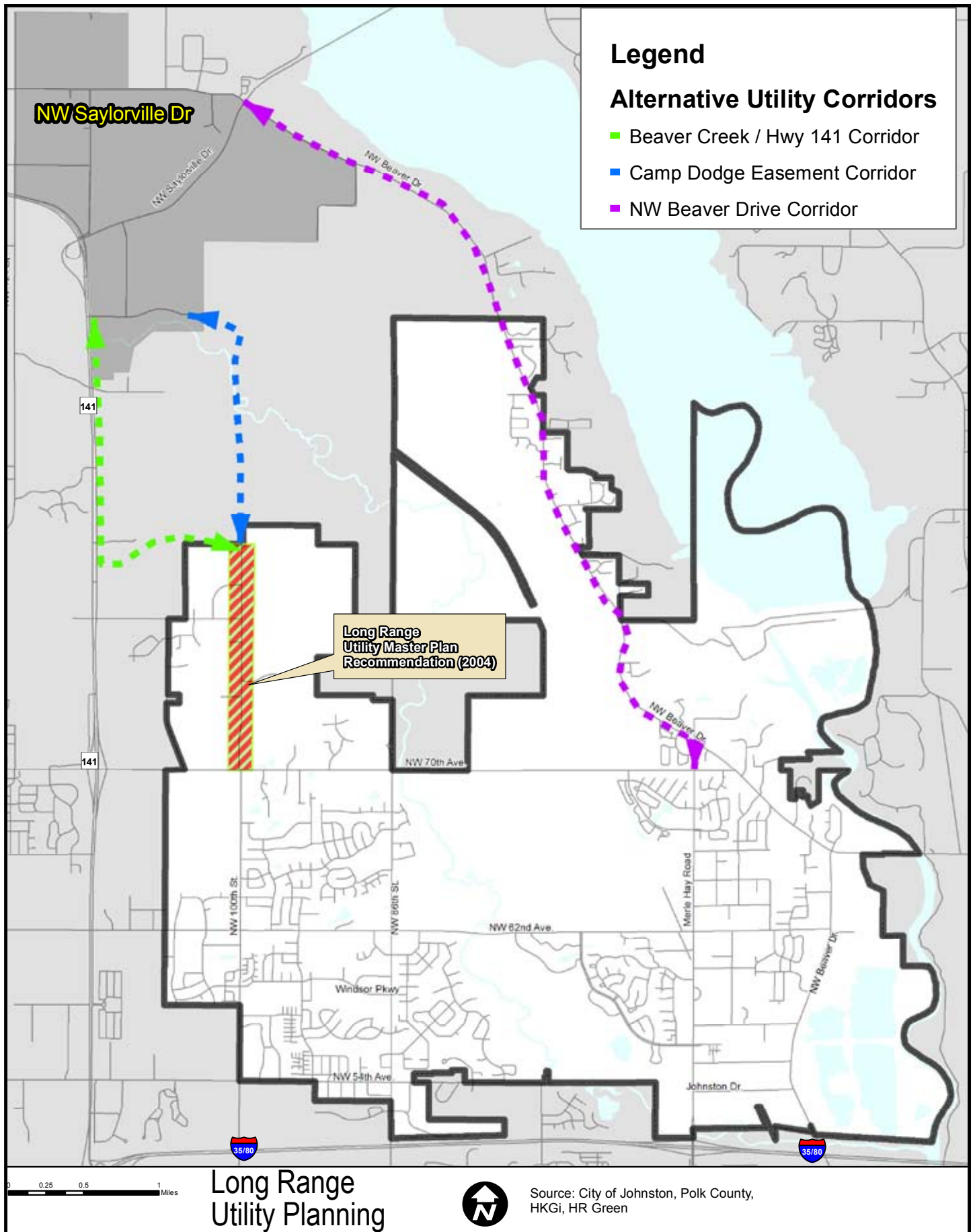


Figure 9.6 Long Range Utility Planning - Northwest Growth Area

Municipal Water Supply and Distribution

Short-term and long-term service provisions should be discussed with the City of Granger/Xenia Rural Water until services can be extended (long term) if a significant or large scale development petition is received. At that time, due to the remoteness of the site from the remainder of the city's water system, the city should install additional booster pumping capacity in existing facilities along NW Beaver Drive and consider providing additional water storage capacity (at the NW Beaver Drive facility and in the NW Saylorville Drive Expansion Area) for drinking water and fire flow.

Sanitary Sewer

Two primary opportunities exist to supply sanitary sewer service for the NW Saylorville Drive Expansion Area. The first option would be to coordinate with the Des Moines Metropolitan WRA and City of Granger on forecasted growth for this portion of the Des Moines Metropolitan Area and identify the expected timeframes of initial and long-range build-out in the NW Saylorville Drive Expansion Area. The Des Moines Metropolitan WRA has discussed the need to provide sanitary sewer service to the City of Granger in the future, but it has not been identified in its 2024 Facility Plan because the NW Saylorville Drive Expansion Area was not fully envisioned at the time of its preparation. If this schedule changes, and demand for capacity is accelerated to the NW Saylorville Drive Expansion Area, the Des Moines Metropolitan WRA's trunk service to Granger could be used in the NW Saylorville Drive Expansion Area. The second option would be to further explore alternatives to extend sanitary trunk sewer service to this area, which will include recommendations from the NW Northwest Planning Area study to extend sanitary sewer north of NW 70th Avenue and 100th Street and along Highway 141 right of way, extensions from NW Beaver Drive, and a possible new connection through the Camp Dodge property. A system that follows Beaver Creek would be preferred, however, will require an easement and cooperative agreement with the US Department of Defense (Camp Dodge). If such a utility corridor could be established, other utilities (including water and storm water) could also be provided and extended to the principal connection of NW 100th Street and NW 70th Avenue.

Long-range utility planning for the NW Saylorville Drive Expansion Area in Johnston is illustrated in Figure 9.6.





Implementation10

Introduction

Implementation is defined as “putting something into effect.” Putting a comprehensive plan into effect can be as simple as adopting the plan and modifying related land use controls. Implementing the Johnston 2030 Comprehensive Plan calls for something more.

Each element of the comprehensive plan contains a series of policies and action steps. Implementation involves the identification of a series of community initiatives that take their cues from the policies and action steps to establish guides for decision making and public actions. This active use of the comprehensive plan makes it a critical tool for reaching Johnston’s vision.

Community Initiatives

Community initiatives are an essential component of the Johnston 2030 Comprehensive Plan. This section identifies how the plan is to be implemented by posing recommendations for public and private actions to achieve the community’s vision. These initiatives work collectively with the guiding principles and action steps identified throughout the plan.

Over the next ten to twenty years, Johnston will experience a number of changes, some of which are foreseen in the plan and some of which will be entirely unanticipated. Accommodating those changes will require flexibility. Since not all ideas and proposals will conform to the specific directions of the Johnston 2030 Comprehensive Plan, the vision and guiding principles identified in Section 2 serve as “yardsticks” to assess those ideas and proposals for consistency with the bigger picture. Decision makers may find a proposal to be compatible with the vision; and therefore, find changes to the comprehensive plan to be appropriate. Changes to the plan require a meaningful and transparent public process.

Community initiatives are identified to provide an ongoing dialogue regarding planning for the future of Johnston with clear and explicit directions for implementing the comprehensive plan. The initiatives should serve as a tool and direction for city council, advisory boards and staff in setting annual work programs, goals and budgets. Finally, initiatives provide a means for Johnston’s residents to continue to be engaged in the community planning process.

Organization of Implementation Initiatives

Implementation initiatives are directly related to most of the sections of the Johnston 2030 Comprehensive Plan. Prior to presenting the topic specific initiatives, general initiatives are listed.

General Community Initiatives

1. Understand Available Financial Resources

Implementation of the Johnston 2030 Comprehensive Plan will take a combination of public and private actions. Public actions require a public investment and some private actions will require a partnering financial effort as well. When possible, public investments should seek to leverage private investments. While finding public financing can be challenging, there are a variety of financial resources available to undertake community development projects and initiatives.

Financial Toolbox

The Johnston 2030 Comprehensive Plan does not contain an inventory of all of the public finance tools available for implementation. The city is experienced in the use of all primary tools available to Iowa cities. In addition, the specific details on finance powers change over time, making such an inventory outdated.

It is useful, however, to highlight key finance powers and concepts as related to implementation of the comprehensive plan. This overview of the financial toolbox is intended to be a strategic review of powers, rather than a “how to” guide.

Debt

The ability to borrow money is critical to implementation of the comprehensive plan. Many public investments related to the plan cannot be financed from annual revenues or reserves. Borrowing money gives the city greater control over the timing of projects and the management of revenues. Debt takes two basic forms – general obligation and revenue.

General obligation (G.O.) bonds pledge the “full faith and credit” of the city of Johnston. In simple terms, the City commits to levy property taxes needed to pay debt service on the bonds in the event that other pledged revenues are insufficient. The general obligation pledge creates security for the bondholder leading to the lowest cost of debt for the City.

If the ability to issue G.O. bonds was unlimited, capital planning and debt management would focus on different issues. The ability of Iowa cities to issue G.O. bonds is limited. The total outstanding G.O. debt may not exceed 5% of the actual value of all taxable property in the city. As of January 2010, the city’s debt limit was \$87,240,167 and 56% of this capacity had been used. The debt capacity of the city varies over time with growth in the tax base, issuance of bonds and repayment of existing debt.

The city can also issue revenue bonds. Revenue bonds are secured solely by revenues pledged to their repayment. Johnston has used this tool to finance improvements to municipal water and sanitary sewer systems. There are several important distinctions about revenue bonds:

- » *Revenue bonds can only be issued where the city has a defined source of revenue, such as a municipal utility.*
- » *The city must set rates at a level sufficient to produce net revenues (after operations) to pay principal and interest on outstanding debt plus a specified amount of additional revenue. This additional revenue (“coverage”) is typically 120% to 125% of annual debt service.*
- » *Revenue bonds will have higher interest rates than general obligation bonds. The higher rates reflect the investor’s perception of greater risk and the need for additional return on investment.*

Understanding debt options, matching debt with community investments and outstanding debt are important to the implementation of the comprehensive plan.

Revenues

The ability to borrow money is only part of a capital funding solution. The other critical element is the management of revenues used to retire the debt and to build capital reserves.

Property Taxes

Property taxes provide a consistent and easy to administer source of revenue. As the primary source of local revenue, property taxes are used to fund capital improvements and services. The ability to levy property taxes to pay debt is not limited by State Law. The city has typically sought to cap debt service levy. Financial planning is needed to manage the tax levy and meet capital investment needs.

Utility User Revenues

The city collects revenues from customers of municipal water and sanitary sewer utilities. Utility rates can be set to build reserves for future capital projects and to support bond issues. Financial planning helps to prevent inadequate funding and large rate increases.

Connection Charges

The city uses connection charges to pay for costs of expanding municipal utility systems. These charges are paid at time of final plat. This source of revenue is difficult to forecast because of the uncertainty of development trends.

Special Assessments

Special assessments represent a portion of improvement costs assessed to benefitted property. The use of special assessments is governed by the city's policy on special assessments. The policy describes the methodology for assessing the cost of public improvements to benefitted properties.

Tax Increment

State Law allows the city to establish tax increment financing (TIF) districts. In addition to statutory requirements, the city has adopted its own Tax Increment Finance Program. The Program describes the goals, policies and procedures for the use of TIF. The city can capture and use the growth in property tax revenues from property in the TIF district. This tax increment revenue can be used for infrastructure and other community development activities. The trade off is that monies captured in a TIF district are not available to finance local government services.

2. Conduct Annual Reviews of the Comprehensive Plan

Johnston will continue to grow and change in the future. New data and information such as complete census reports will become available from time to time. The comprehensive plan and its referenced plans and community context information should be formally reviewed on a regular basis (annually or biannually) to assess progress on attaining the community's vision and to continue a dialogue about the community's future. The results of this dialogue may lead to potential modifications or amendments to the plan. The Comprehensive Plan Advisory Board and the Planning and Zoning Commission should serve as the primary entities charged with this review.

3. Use the Comprehensive Plan Daily

An effective comprehensive plan is one that suffers from excessive use as demonstrated by worn edges and scribbled notes in the margins. The plan should be used on a frequent basis not only by the community's planners, but by other city staff, decision makers, advisors and developers.

The Johnston 2030 Comprehensive Plan can be used as a:

- » *Guide and Educational Tool for Other Community Organizations – Growth and change in Johnston is facilitated by a number of community interests, including the school district, business community, developers, and other special interest groups. The plan should be promoted to these groups, not simply as a marketing tool, but as a resource in the development of their own plans which articulate the community's vision and direction.*
- » *City Staff Resource – The plan should be used most often by city staff. The plan is a guide for staff's recommendations and responses to inquiries from the community about development. It is the responsibility of city staff to ensure that the plan is being kept current, and when inconsistencies arise, to facilitate resolution through a community forum and a public process.*
- » *Policy Guide to Decision Makers and Advisors – the city council and advisory boards including the Planning and Zoning Commission, Comprehensive Plan Advisory Board, and Park Advisory Board are charged with making recommendations and decisions about the growth and development of the community. The comprehensive plan's Vision, Guiding Principles and policies should be the "yardstick" to which new ideas are measured as to how well they achieve the community's shared Vision.*
- » *Basis for Setting Annual Goals and Work Programs – The community's advisory boards, commissions, civic groups/organizations and city council should (and in many cases already do) establish goals and work programs on an annual basis. The comprehensive plan, and particularly the community initiatives, should serve as a basis for identifying future projects and directions.*

4. Participate in State Legislative Efforts

State legislative actions often have an impact on how local communities conduct day-to-day and long-term operations. Legislative actions relative to the environment, energy, regulation of the provision of municipal services, governance, transportation, planning and zoning rules are continually being discussed and amended during legislative sessions. The City of Johnston should continue to take a proactive approach to engaging its House and Senate representatives to represent Johnston's interests in these regional issues. Cooperation with adjacent jurisdictions is also a critical component when advocating or lobbying for particular legislation.

5. Maintain and Update the Capital Improvement Plan

Another important implementation tool is the Capital Improvement Plan (CIP), which establishes schedules and priorities for projects generally over a five year period. Johnston currently updates its CIP on an annual basis. The city's financial resources will always be limited and there will always be competition for community resources. The CIP allows the city to provide the most critical public improvements, yet stay within budget constraints. Many of the recommendations of this comprehensive plan should be programmed into the CIP. Through the CIP, recommendations can be prioritized, budgeted and programmed into the city's decision making process.

6. Continue Economic Development Efforts

Expanding the commercial and industrial base of the city is an ongoing effort and one that will continue to build Johnston's reputation as a great place to do business. The city has a history of successful economic development having attracted key employers like Pioneer Hi-Bred International and John Deere Credit. Johnston has formed a productive partnership with the Johnston Economic Development Corporation (JEDCO), a non-profit group. Together, the City and JEDCO will continue to support the expansion of Johnston's commercial and industrial land uses consistent with the Johnston 2030 Comprehensive Plan.

7. Continue the Established Pattern of Streetscape Improvements for Key Street Corridors

Preserving community character and establishing a sense of place unique to Johnston is embodied in the guiding principles of this plan. One feature that contributes to a strong community sense of place is the appearance of transportation corridors or streetscapes along heavily traveled roadways and streets which serve as gateways into the community. Streetscape features can go a long way toward enhancing a community's image at key "gateways" into the community or into specific districts.

Johnston has included streetscape enhancements in most of its recent transportation improvement projects. As future improvements occur, the established palate of community identification signs, plantings, lighting, sidewalks and trails should be continued.



8. Continue Community Engagement Efforts

Community engagement and civic participation takes many forms: volunteering on city commissions and advisory groups, involvement with neighborhood and other nonprofit organizations, and participation in elections and other government processes. When residents are actively involved, decisions that are made are more likely to reflect and serve the needs of the community.

The preparation of this comprehensive plan benefited from active community engagement. Community engagement in the comprehensive plan doesn't stop with the plan's adoption. Retaining community involvement in the comprehensive plan can be accomplished by:

- » *Creating a clear and concise "citizen's guide" to the comprehensive plan that explains the purpose and summarizes its content.*
- » *Maintaining a comprehensive plan webpage on the City's website that includes the citizen's guide and all chapters of the plan.*
- » *Keep printed copies of the comprehensive plan available for public use at city hall and the Johnston Public Library.*
- » *Provide opportunities for public participation in studies that are undertaken to address issues raised in the comprehensive plan.*



Land Use Initiatives

1. Focus Areas

The planning process yielded a series of seven focus areas for addressing community development issues facing Johnston. The plans and policies for each focus areas are discussed in the Land Use chapter of the plan. For two of these areas (NW Saylorville Drive Expansion Area and East of Merle Hay Road), providing infrastructure is a critical future implementation action. Meeting these infrastructure needs has important financial implications for the city. The following section examines financial issues connected with these two focus areas.

NW Saylorville Drive Expansion Area

A key to achieving the development objectives for the NW Saylorville Drive Area is the provision of municipal utilities. The area is not currently served by municipal water or sanitary systems. Planned future development requires these services.

Trunk sanitary sewer and water lines must be built through or around Camp Dodge to reach the NW Saylorville Drive Area. This improvement requires infrastructure and financial planning. Some factors to consider in this planning include:

» *Timing. The timing of these improvements will be a balancing act between need and financing. Ideally, construction occurs prior to development so that delays in utility service are not a barrier to attracting development to the Area. There are several steps in providing utility service to the NW Saylorville Drive Expansion Area:*

- Reach agreement with Camp Dodge on the use, right-of-way and costs.
- Design the improvements, including route and capacity.
- Establish a finance plan for the improvements.
- Build the improvements.

It would not be unusual for these steps to span two years from start to finish. Some of the design and financial planning can be done in advance of actual development, reducing the time needed to provide services.

» *Finance. The cost of construction through Camp Dodge cannot be treated like the typical utility improvement. In the typical project, a pro-rata share of the improvement costs would be assigned to Camp Dodge based on the benefits derived from the improvements. Camp Dodge will make limited use (perhaps no use) of municipal utilities, making it unlikely that improvement costs can be allocated to this land owner. As a result, the costs of extending utilities through Camp Dodge must be borne by the City and/or future development in the NW Saylorville Drive Expansion Area.*

This situation raises the importance of financial planning in advance of the need for building the improvements. Questions to be answered through financial planning include:

- Is it feasible to pass some or all of these costs to future development? Assigning these costs to future development would occur through connection charges. These charges are paid by developers at the time land is platted.
- When do connection charges become too high? Connection charges may provide a technical solution, but the solution only succeeds if development occurs and connection fees are paid. At some level, connection charges may make the overall cost of development in Johnston too expensive. Financial planning can be used to estimate potential connection charges and to compare the amounts with competing development areas.
- What are the financial implications for the city? Regardless of amount of the connection charge, providing utility service to the NW Saylorville Drive Expansion Area has financial implications for the city. The city will issue bonds to pay for these improvements. Financial planning can be used to understand the flow of funds for funding options. Connection charges only produce revenue if and when land is platted for development. Until that time, other revenue is needed to pay debt service on the bonds. City costs can be paid from utility revenues, property taxes, or a combination of both. Financial planning is needed to estimate the potential demand on revenues and to evaluate alternatives.
- How do bonds for NW Saylorville Expansion Area utilities fit with the repayment of existing debt? The reduction of existing debt may free up monies that can be used to support additional debt for these improvements.

East of Merle Hay Road

As Johnston ages, the demands of investment in existing neighborhoods will increase. A key example of this need is the focus area east of Merle Hay Road. In the future, the city may be developing plans to provide utilities and street reconstruction in this area. Financial planning is critical to the successful implementation of these plans. This planning provides a means of evaluating finance options. Among the factors to consider in planning for infrastructure investments in the East of Merle Hay Road focus area are the ability to sustain a consistent funding approach, the financial implications of assessments, and the potential for creative finance strategies.

Consistency

Infrastructure improvements for the area East of Merle Hay Road will need to be done in phases, possibly spanning an eight to ten year period of time. It is important to create and maintain a consistent approach to financing the improvements. A consistent approach ensures that all property owners are treated equitably. It also allows the city to plan for the use of limited public monies needed to support the improvements.

Assessments

The process of assessing improvement costs in existing neighborhoods is a challenging task. The properties benefit from the improvements and should pay for some portion of their cost. The challenge becomes balancing equity with affordability. Under current economic conditions, the amount of assessments must be studied carefully. Costs that are not assessed will be borne by general revenues, including property taxes and utility revenues.

Creativity

The financial challenges of these improvements may require that the city explore new financial strategies to make the improvements affordable to both property owners and the city. Some concepts to consider include:

- » *A stormwater utility creates a new source of revenue to finance the construction, operation and management of stormwater management systems. Stormwater improvements are often difficult to assess to “benefitted” property. Improvements typically serve a broad area. While all properties contribute stormwater runoff, not all parcels receive the benefit from the prevention of flooding. A utility attempts to equitably spread costs to all properties based on assumptions of related runoff. A criticism of stormwater utilities is that they are simply a substitute for property taxes. As a city-wide charge, there are similarities to a property tax. A stormwater utility charge should be a more equitable distribution of these costs than property value. In addition, this source of revenue allows the city more flexibility in managing the property tax rate.*
- » *Area-wide assessment program can be accompanied by the option to convert the assessment into a home equity loan. Immediately paying the assessment and replacing it with a home equity loan has several advantages:*
 - The combination of low interest rates and tax deductibility may achieve lower costs than the assessment.
 - The property owner can tailor the repayment schedule to fit individual needs.
 - A coordinated approach with local banks may reduce the upfront loan costs.
 - This approach may also provide an incentive to increase the loan to undertake other home improvements.

2. Update Regulatory Tools

Consistency is necessary between a community's ordinances and its comprehensive plan, particularly the zoning ordinance. Iowa Code Chapter 414 regulates city zoning. Section 414.3 reads in part, "Regulations shall be made in accordance with a comprehensive plan and designed to preserve the availability of agricultural land; to consider the protection of soil from wind and water erosion; to encourage efficient urban development patterns; to lessen congestion in the street; to secure safety from fire, flood, panic, and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to promote the conservation of energy resources; to promote reasonable access to solar energy; and to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements."

The city of Johnston has adopted a number of ordinance amendments in order to achieve the objectives of past comprehensive plans. Maintaining compatibility between the Johnston 2030 Comprehensive Plan and regulatory tools will require additional changes, primarily involving the eventual rezoning of properties at specific locations. Locations requiring rezonings are those which are undeveloped today but likely to see development in the future. Such locations occur both within and outside of current municipal boundaries.

Additionally, petitions for rezonings will be received from property owners. All rezoning petitions should be reviewed for compatibility with the Johnston 2030 Comprehensive Plan.

3. Continue Merle Hay Road Redevelopment Efforts

The Merle Hay Road Redevelopment Study completed in 2007 lays the foundation for long-term redevelopment along Merle Hay Road generally from NW 62nd Avenue on the south to NW 66th Avenue on the North. The study calls for the establishment of a mixed-use center in the northeast quadrant of the intersection of Merle Hay Road and NW 62nd Avenue and a horizontal mix of additional residential uses and commercial uses to the north. In 2010, the City of Johnston initiated the purchase of several land parcels in the study area that became available on the open market. These parcels are being land banked until such time as additional parcels become available or there is developer interest in land owned by the city. The acquisition of these parcels was a significant step in the implementation of the plan for the Merle Hay Road Mixed Use Center. Additional land acquisitions should be made as funds become available.

The development of the Merle Hay Road Mixed Use Center will create a number of new opportunities for Johnston beyond the obvious land use changes. It may provide opportunities for new public/private partnerships in the development of open space and plaza areas that will create more urban-like gathering spaces and focal points currently unavailable in Johnston. New open space areas may also be likely candidates for public art. As the Mixed Use Center develops, the city should investigate eligible sources of funds for public art, including grant requests to government, foundation, corporation, and other appropriate entities, as well as private fundraising activities (such as allowing citizens to make gifts dedicated to memorials or new art projects). Public art sites should be selected based on their public access (visual or actual) and their ability to enhance the aesthetics of the redevelopment area.

The Johnston 2030 Comprehensive Plan also addresses redevelopment in the Merle Hay Road Gateway Area, the entry into Johnston along Interstate 80. Redevelopment in this area is likely to occur over a long period of time given the diversity of property ownership in the area. One of the first opportunities for redevelopment in the area is the vacant hotel site which has fallen into a state of disrepair. The city should work cooperatively with the property owner and JEDCO to initiate redevelopment of the hotel site. Given the visual impact of the vacant, deteriorated hotel building, redevelopment efforts would be enhanced by the timely demolition of the current structure.



4. Work Cooperatively with Camp Dodge

Johnston and Camp Dodge have a long history of cooperative efforts. As Johnston continues to grow, it will become increasingly important to maintain good communication with Camp officials and cooperate on projects and initiatives that benefit both parties. The eventual extension of utilities to serve the NW Saylorville Drive Expansion Area will likely require the placement of utilities across Camp property. The Future Land Use Plan specifically identifies expanded open space and the preservation of natural drainageways in the southern portion of the NW Saylorville Drive Expansion Area, abutting Camp Dodge. The open space use and preservation of the resources in this area benefits future land development to the north as well as strengthening the buffer between future development and the Camp. On the east side of Camp Dodge, Camp officials have indicated that they are willing to collaborate with the City to secure the alignment of a new trail connecting the NW Beaver Drive area to the remainder of Johnston.



Transportation Initiatives

The city of Johnston will reconstruct or widen existing streets and build new roads to connect existing streets within the community and to connect roadways in neighboring jurisdictions. A greater emphasis on modal choices, route connectivity, and sustainable construction and maintenance techniques will become key components of Johnston's future transportation system.

1. Preserve, Protect and Maintain the Existing Roadway System

The City of Johnston should continue to monitor existing pavement conditions in the community and consider developing a five-year pavement management system to order improvement priorities and facilitate capital investment programming. The city should also continue to cooperatively work with the Iowa DOT and neighboring communities on regional or joint transportation facility improvement projects that affect the community's roadway system. Cooperation can be in the form of meaningful and constructive project comments, and operations and maintenance agreements with the Iowa DOT and neighboring communities for shared facilities such as intersection safety modifications and traffic control improvements.



2. Expand the Roadway Network According to Capital Improvement Plan (five, ten, and greater than ten year prioritized increments)

As the community grows, its land uses evolve, and traffic volumes increase, the city of Johnston will expand the existing transportation network to include vehicle, pedestrian, and bicycle improvements in targeted areas of the community. Priorities can be established by a pavement management system, anticipated land use changes, updated travel demand modeling, and the connections provided by updated transit, bicycle and pedestrian facilities.

3. Monitor Roadway Functional Classification (based on system needs and changes associated with future land uses and roadway connections made within the community and surrounding areas)

As streets are connected, and community and neighboring jurisdiction land uses or regional projects change to accelerate growth in traffic volumes on the community's local streets, the city of Johnston should monitor roadway functional classifications. This effort will help ensure that the community's collector and minor arterial roadways are properly classified, accurately mapped, and eligible for Federal and State improvement funds.

4. Continue to Provide Multimodal Transportation Choices (including trails and pathway connections to encourage pedestrian and bicycle use in the community)

To conform to Iowa's Smart Planning principles, the city of Johnston should work with regional agencies (Polk County, DART and the Des Moines Area MPO) in support of planned or programmed regional trails, transit system and facility improvements, and ridesharing programs to reduce fuel consumption, improve air quality, and provide a full range of travel mode options to accommodate the various user needs in the community. This includes cooperation in planning modifications to existing transit service routes and frequencies, expanding new services with consumer needs or demands, and providing appropriate locations for park and ride lots, transit stops, bus shelters/bike racks or lockers, and connections with pedestrian and bicycle facilities.

5. Construct New Street and Trail Improvements (using SUDAS specifications for capacity and safety standards as a guide, but also with flexibility to accommodate cost-effective solutions (such as intersection roundabouts) and multimodal facility designs where appropriate)

The City of Johnston should construct (or reconstruct) streets according to adopted state standards, but also incorporate multimodal improvements such as bike lanes and pedestrian safety improvements where appropriate to (i.e. intersection bump-outs and crosswalk features). The city should also explore methods to preserve mature boulevard trees while integrating the appropriate modes in the typical design section.

6. Incorporate Sustainable Techniques to Improve Street Drainage, Contaminant Collection, and Lower-maintenance Median Landscaping

The City of Johnston should explore sustainable techniques in the construction (or reconstruction) of streets as appropriate, including transportation system stormwater in settlement areas consistent with the city's Watershed Assessment and Stormwater Management Plan, construction of self-watering median landscaping, and installation of porous pavement to reduce costs associated with storm water runoff and conveyance demands.

Housing Initiatives

Housing is heavily influenced by national, state and local policies and conditions as well as the stability and policies of private lenders. Over the next 10 years, Johnston will focus on ensuring maintenance of the current housing stock and the expansion of housing opportunities throughout the community.

1. Ensure that Local Actions and Regulations Support a Range of Housing Types

Johnston should continually strive to ensure that its ordinances are designed to achieve local housing goals without unduly increasing the cost of housing. Codes should maintain flexibility to provide housing opportunities in free-standing and mixed-use projects that contain a variety of housing types to serve the growing and aging population.

2. Serve as a Source of Housing Information for Local Builders, Developers and Residents

The city of Johnston should promote available housing programs that can help ensure the availability of a variety of housing types in the community. Programs are continually offered through the Iowa Finance Authority, the Polk County Housing Trust Fund and the Department of Housing and Urban Development as well as other governmental entities. The City should serve as a clearinghouse for information on current programs and make materials readily available to builders, developers and homeowners.

3. Encourage Long-term Maintenance of Existing Housing

As Johnston's housing supply continues to age, long-term maintenance will become more of a community concern. To help ensure adequate maintenance and to protect the investments of neighboring property owners, the city of Johnston should establish a property maintenance code stipulating minimum standards for the upkeep of structures and properties.



Park and Open Space Initiatives

Parks and open space are important components of the land use pattern in the City. The Parks and Recreation section of the comprehensive plan identifies needs for future park facilities. Assigning priorities to the identified needs will occur as part of the capital improvement planning process.

1. Continue to Seek Outside Funding Sources

Although securing outside funding sources is always challenging, the City should continue to aggressively pursue outside grant funds for park and open space acquisition and improvements. Additionally, the City should work closely with private recreation groups to meet overall community needs.

2. Develop a Strategy for Open Space Preservation

The preservation of open spaces and environmental corridors throughout the community are key elements to preserving and enhancing Johnston's community character. Open space areas enhance sustainability by balancing urban development and the natural ecosystem. Open spaces can be preserved through a combination of public and private efforts including required park dedication, the purchasing of lands by public entities, conservation easements, foundation contributions, grants, private donations, and transference of development rights. The Future Land Use Plan (Figure 5.9) and the Future Parks and Trail System Plan (Figure 8.5) establish directions and a foundation for the preservation of key open space areas that reflect high quality natural environments.



3. Seek Funding for a New Community Park

The Park and Open Space Analysis identifies the need for a new community park. An unsuccessful referendum effort in 2009 would have provided funding for one large community park complex. Absent the level of funding that would have been provided by the referendum, the city will need to work to meet its overall community park needs in a smaller, more incremental manner. As future development occurs and property becomes available, Johnston will need to look for innovative ways to acquire conveniently located parcels of land that can accommodate community park uses. Having community park uses scattered among a few sites will result in maintenance costs that are slightly higher than placing such uses within one park site.

4. Continue to Collaborate with Johnston Community School District

Johnston Community School District has been an excellent partner in helping to meet overall community recreation needs. As the school district continues to grow and add new facilities, the city should work to integrate park and recreation needs on common sites where appropriate.

5. Continue to Expand Johnston's Trail System

Johnston's trail system is extremely popular with residents. The city should continue to expand trails to address current gaps in the system and to provide connections to both internal community trails and external regional trails as well as trails of adjacent municipalities.

6. Continue Involving Neighborhood Residents in the Planning for New Parks

In recent years, Johnston has integrally involved residents in the planning of new neighborhood parks. This practice has allowed the community to build parks that directly meet resident needs while creating a heightened sense of ownership among neighbors. This practice should continue and be expanded to include community parks as future community park sites are acquired.

Utilities Initiatives

Johnston's planned growth will require the expansion of municipal utilities and replacement of existing collection and distribution systems in mature or isolated parts of the community. The community will need to balance utility expansion needs with utility replacement projects and explore alternative sources of revenue to pay for construction costs.

1. Coordinate the City's Resources Related to the Extension of New Utilities and the Replacement of Obsolete Utilities

As the city grows, and as existing municipal systems become obsolete due to capacity, distribution or maintenance issues in the case of on-site systems, the City of Johnston will need to monitor system performance requirements with costs and timing of construction. Utility staging should also occur in direct relationship to land development and not result in speculative installations. Greater use of on-site stormwater management techniques combined with traditional conveyance methods will lead to more sustainable water resource management practices.

2. Cooperation with Other Jurisdictions

The City of Johnston will work with neighboring jurisdictions and regional utility providers, including Des Moines Water Works and Des Moines Metropolitan Wastewater Reclamation Authority to plan utilities to areas that will be annexed to the community over the 20-year planning horizon. Johnston should discuss plans to annex land from Polk County in the NW Saylorville Drive Expansion Area with local and regional agencies to review capacity and distribution requirements needed for water, sewer, and storm drainage. The city of Johnston should continue discussions with Camp Dodge officials to extend utilities through Camp Dodge property to provide a cost-effective service connection to the NW Saylorville Drive Expansion Area. Coincident with future utility planning and design, the city's stormwater management planning and watershed assessment should also be updated to include the NW Saylorville Drive Expansion Area.

3. Implement the Johnston Watershed Assessment and Stormwater Management Plan

Storm water management systems are a key component to reducing the rate of runoff, improving water quality and recycling water back into the groundwater systems. The Watershed Assessment and Stormwater Management Plan approved in 2009 includes initiatives that seek to better manage and reduce storm water runoff which contributes to the city's overall goals of preserving sensitive environmental amenities. Johnston should continue to move forward on the projects and programs identified in the Watershed Assessment and Stormwater Management Plan.





Johnston

2030

Comprehensive Plan

City of Johnston, Iowa

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