
# Imagine
## Waukee 2040

Waukee
THE KEY TO GOOD LIVING

HKi

# ACKNOWLEDGEMENTS


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## Additional Acknowledgements:

Park Board, Library Board, and Community & Economic Development Advisory Council

**This plan was adopted by the City of Waukee on April 1st, 2019.**



Imagine Waukee 2040

www.waukee.org

THE CITY OF WAUKEE, IOWA

**RESOLUTION 19-103**

**APPROVING AND ADOPTING THE CITY OF WAUKEE "IMAGINE WAUKEE 2040" COMPREHENSIVE PLAN**

*IN THE NAME AND BY THE AUTHORITY OF THE CITY OF WAUKEE, IOWA*

**WHEREAS,** the City of Waukee, Dallas County, State of Iowa, is a duly organized Municipal Organization; **AND,**

**WHEREAS,** the City's current Comprehensive Plan was adopted in order to provide valuable guidance and vision to the City in planning for future growth and development (Resolution #08-49); **AND,**

**WHEREAS,** the unprecedented growth that Waukee has experienced in recent years has made it necessary to thoroughly update the Comprehensive Plan; **AND,**

**WHEREAS,** the Waukee City Council approved awarding the contract for the Comprehensive Plan Update to Hoisington Koegler Group Incorporated (Resolution #16-461); **AND,**

**WHEREAS,** numerous opportunities for public interaction were held at the various stages of development of the Comprehensive Plan to solicit input from the public regarding the Plan; **AND,**

**WHEREAS,** the final draft of the Plan was approved by the Planning and Zoning Commission on March 26, 2019; **AND,**

**WHEREAS,** a public hearing on the final draft of the Plan was held by the City Council on April 1, 2019;

**NOW THEREFORE BE IT RESOLVED** by the City of Waukee City Council in session this 1st day of April 2019 that it hereby approves and adopts the "Imagine Waukee 2040" Comprehensive Plan.

William F. Peard, Mayor

Attest:

Rebecca D. Schuett, City Clerk

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# 1. SETTING THE STAGE

## OVERVIEW

### What is the Comprehensive Plan?

The plan for Waukee will be used as a guide for making land use decisions, preparing and implementing ordinances, preparing capital improvement programs and influencing the rate, timing, and location of future growth. It outlines the vision of the community for addressing systems such as future land use, parks and open space, transportation, and infrastructure. All land use decisions faced by the City of Waukee will be guided by the vision, guiding principles, goals, and policies in this plan. A good comprehensive plan also provides guidance to city leaders concerning other community development topics such as economic development, housing, natural resource enhancement and preservation, community character, community identity, and others.

Above all, the Comprehensive Plan outlines the Vision of how Waukee will evolve and change over the next twenty years. The overall goal of the plan is to outline a "roadmap" that will maintain Waukee as a healthy, sustainable, and desirable place to live.

The Waukee Comprehensive Plan guides and influences the following types of decisions:

- It provides a general and consistent framework for evaluating land development applications submitted to the City on an ongoing basis.
- It serves as the basis for the City's zoning and subdivision regulations and zoning map.
- It establishes the priorities for more detailed plans that Waukee may formulate for specific areas in the City and for specific topics (such as open space, trails, roads, and municipal infrastructure).
- It assists with the prioritizing of funding for public improvement projects, such as roads, sewers, and water mains.

### *How to use this Plan*

**Throughout the plan there are internal links to help navigate to cross referenced subject matter. There are also external links to example case studies, best practices, or other resources. Throughout the plan, icons are used to link policy statements or action items to guiding principles or Iowa Smart Planning Principles.**

## Who is Affected by this Comprehensive Plan?

In Iowa, comprehensive plans are advisory only – meaning that the maps, goals, policies and text included in this document do not constitute regulations. This document does not dictate the course of action of the City Council, the Planning and Zoning Commission, or the City staff, regardless of the subject matter. Nonetheless, this plan document reflects the vision and goals of the people of Waukee. Relevant portions of this plan should be used to guide decisions regarding land use, the environment, the economy, transportation, housing, or any other topic of potential impact to the quality of life enjoyed by the people of Waukee. Every landowner, developer, city department, and appointed and/or elected official should recognize the significance of this plan and the implementation tools it contains to the future of Waukee. General conformance to the policies outlined in this plan should be required.

## What Does the Plan Consist of?

The plan consists of narrative, maps, charts, tables, and illustrations that describe the future of Waukee and identifies the set of tools needed to move the community toward achieving consistency with its vision. The plan is organized into the following parts:

1. "Setting the Stage" provides an introduction to the comprehensive plan and overview of the planning process.
2. "Vision and Guiding Principles" summarizes the community's desires for the future and serves as the basis for the development of the remainder of the Plan.
3. "Land Use" describes the community's desired land use and development patterns and establishes related goals and public policy related to how land is used and how the community grows.
4. "Economic Development" describes the community's approach to supporting the growth of jobs, tax base, and commercial goods and services.
5. "Housing" describes the community's goals, policies, and actions related to the type, location, and affordability of housing in Waukee.
6. "Parks, Trails, Recreation and Open Space" outlines a plan for the community's park, recreation, and open space system and plans for a trail system that connects the community locally and regionally.
7. "Transportation and Mobility" describes the planned modes and networks of transportation which provide community members and businesses with improved mobility and access, as well as describes related goals, policies, and actions.
8. "Community Facilities and Infrastructure Systems" describes plans and policies for functional and appropriate City buildings and spaces as well as an integrated storm water management approach, potable water supply, and sanitary sewer services.
9. "Implementation/Action Steps" identifies how the Plan will be implemented to achieve the community's Vision by posing recommendations for public and private actions.

## Iowa Smart Planning Principles

Imagine Waukee 2040 considers and integrates the Iowa Smart Planning Principles throughout the planning document. The Iowa icon and hashtag(#) key on the right can be used to find references to the Iowa Smart Planning Principles. To find all references to a specific Iowa Smart Planning Principle just search for its respective #hashtag (also known as the pound symbol). For example, to find areas of the plan that are related to the "Community Character" planning principle, simply search the document for #CommunityCharacter and you will be brought to each mention of that principle throughout the plan.

Application of these principles is intended to produce greater economic opportunity, enhance environmental integrity, improve public health outcomes, and safeguard Iowa and Waukee's exceptional quality of life. Integration of the principles can also produce cost savings regarding the provision of public services. The Iowa Smart Planning Legislation and Planning Principles are highlighted below.

***Iowa Smart Planning Principles #Hashtag Key***

#Collaboration
#EfficiencyTransparencyConsistency
#CleanRenewableEfficientEnergy
#OccupationalDiversity
#Revitalization
#HousingDiversity
#CommunityCharacter
#NaturalResourcesandAgProtection
#SustainableDesign
#TransportationDiversity

### *Planning in Iowa: Iowa Smart Planning Legislation and Iowa Smart Planning Principles*

**With the goal of producing greater economic opportunity, enhanced environmental integrity, improved public health, and quality of life, the Iowa Legislature adopted Smart Planning Principles in 2010. The principles serve as a guide and framework for communities and agencies statewide to assist in planning, zoning, development, and resource management decisions. The legislation, found in Iowa State Code Chapter 18B: Land Use – Smart Planning, has three components:**

- **Articulates ten Iowa Smart Planning Principles for application in local comprehensive plan development and public investment decision-making;**
- **Provides comprehensive planning guidance for cities and counties; and,**
- **Establishes the Iowa Smart Planning Task Force with various responsibilities.**

**The Iowa Smart Planning Act does not mandate how communities should grow, rather it requires that communities and state agencies consider Smart Planning Principles when planning for the future and provides guidance concerning important elements local plans could include. The various principles and planning components identified in the smart planning legislation are integrated throughout the content of the Waukee Comprehensive Plan.**

### *10 Iowa Smart Planning Principles*

1. **Collaboration**
2. **Efficiency, Transparency, & Consistency**
3. **Clean, Renewable, and Efficient Energy**
4. **Occupational Diversity**
5. **Revitalization**
6. **Housing Diversity**
7. **Community Character**
8. **Natural Resources and Agricultural Protection**
9. **Sustainable Design**
10. **Transportation Diversity**

**A number of on-line resources can be reviewed for more information on the Iowa Smart Planning Act. Click here for one of those resources.**

## Key Terminology

Key terminology used in the plan includes the following:

*Goals:*

Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope (e.g., have a diverse and balanced tax base).

*Policies:*

Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific (e.g., ensure a balance of land uses that includes commercial, industrial, residential, and civic development opportunities). There may be a range of specific actions that support the implementation of a given policy.

*Actions:*

Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal, and may involve multiple sub-actions. They may include physical initiatives that directly correlate to the vision and guiding principles and are intended to carry out or support an idea or policy identified through the planning process. Action items may be ongoing (program/practice) or have definitive start and completion dates (project) (e.g. amend the zoning ordinance to enable rural cluster housing developments).

# This Plan is Dynamic

While intended to guide change, this plan must also remain flexible to respond to changing needs, conditions and emerging trends. City officials must understand that they are responsible for the future of their community, and they must consider carefully the merits of adjustments to the plan. This is a critical step in the community development process; proposals need to be evaluated against the goals and vision laid out in this plan. Some proposals will fit well, while others may not. Regardless of their overall quality, any ideas that are good and worthy of further consideration could merit changes to the vision or the plan. These proposals will trigger the community planning process.

# THE PLANNING PROCESS

At the end of 2016, the City of Waukee began mobilizing for the preparation of the update to the comprehensive plan. The process was branded "Imagine Waukee 2040." In spring and summer of 2017, a community engagement process was launched to begin exploring the issues and opportunities that the future of the community faces. The engagement process included a combination of in-person events (workshops, open houses, interviews, and pop up booths at community events) as well as on-line surveys and an interactive map tool (Social Pinpoint). Meetings were held with a steering committee group that served as a sounding board to vet approaches and directions. Joint workshops were held with advisory boards and commissions to confirm directions and begin exploring alternatives to future growth patterns. In fall of 2017 a second round of community engagement was launched following the similar methods of engagement conducted early in the process. The goal of this round of engagement was to gauge interest in alternative ideas and to help converge on a preferred direction for the future growth and development of the City. Through use of an on-line survey, stakeholder/ focus group meetings, and a community open house, a preferred plan began to emerge. In spring and summer of 2018, the plan came together and began the final phase of engagement to review outcomes and final plan directions.


A complete summary of the community engagement plan and results is available as a supporting document to the Imagine Waukee 2040 plan.

- Input provided through Social Pinpoint (an interactive online mapping and input tool) offered on the project website, which generated 604 Unique Visits and 132 Comments
- Joint workshop of City Council and various boards, commissions, and organizations held a Visioning Session on March 27, 2017 that included around 40 participants
- Input at a Community Workshop held May 18, 2017 at Timberline School in Waukee with the broader community that included about 40 participants
- Listening sessions with the Downtown Association, Chamber of Commerce, Waukee School District, Des Moines Area MPO, Senior WASP (40 seniors), and local/regional developers and brokers
- A pop-up booth at Celebrate Waukee on June 3, 2017
- Collaboration and working meetings with an Advisory Committee established for the Imagine Waukee 2040 project
- Joint workshop with advisory boards and commissions December 2, 2017 to review and shape alternative concepts, 35-40 participants
- Community Open House January 24, 2018 with over 100 participants stopping through to review ideas and directions
- A continual presence on-line and through social media

# COMMUNITY CONTEXT

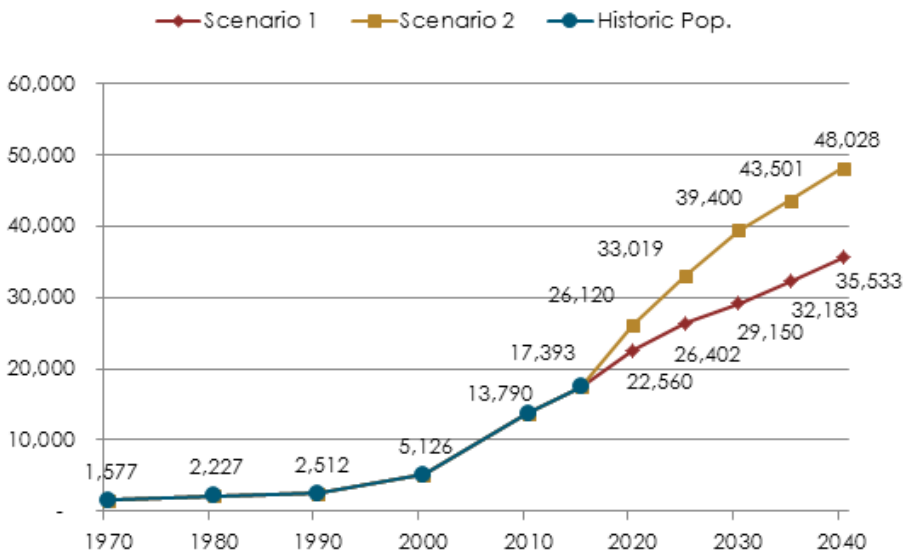
The Community Context report exists as a supporting document to the overall Comprehensive Plan document and outlines the existing conditions and issues in Waukee's demographics, economics, land use, parks, transportation, and natural resources in greater detail. This report serves as a snapshot of the community today. The following summarizes key takeaways:

» The City of Waukee is rapidly growing, and projections anticipate that the City's population will continue to grow, more than doubling by 2040.

**Figure 1.1 Population Projections**

**The figure to the right depicts two potential growth scenarios. Scenario 1 illustrates a steady population growth curve. Scenario 2 illustrates a more aggressive population growth curve.**

*Figure 1.1: City of Waukee Population Projections*




*Source: City of Waukee, US Census*

» Waukee has a relatively young population, and the median age is anticipated to remain in the mid to upper 30s over the next few decades as young families continue to move to the area.

» Waukee is relatively affluent, with a median household income that exceeds the median income for households in the overall Des Moines region.

» Waukee is a well-educated community.

» The City has a high rate of home ownership, in excess of 80 percent.

» The community has a very strong market for single family homes, and a robust trend of residential development continues in Waukee.

» The City has doubled the number of multi-family units over the last ten years, but the overall acreage of multi-family absorption remains low.

» Waukee has a relatively limited amount of land guided for retail, office and industrial uses.

» A significant amount of land within the existing Waukee city limits remains undeveloped and in agricultural production.

» Waukee has less land dedicated to parks and open space than similar Midwestern suburban communities. The community currently has less acreage dedicated to neighborhood parks and regional parks and open space than recommended, based upon national standards.

» The City has sufficient capacity in terms of sanitary sewer and water to serve anticipated development activity over the next 25 years. However, the City will need to more proactively plan for storm water facilities as the community continues to grow.

# KEY DRIVERS

Based upon a review of existing conditions, an understanding of emerging trends, and input from the public from the initial phase of community engagement, key drivers were defined. The term "Driver" refers to a key planning consideration that will shape the Imagine Waukee 2040 plan.

## Driver 1: Development / Replacement of Parks and Open Space and Preservation of Areas for Future System Needs:


The City of Waukee currently falls below national standards with regard to the provision of parks and open space. The analysis demonstrated that while Waukee meets national standards for community parks (of 10 to 100 acres), the City falls below the national average for acres of neighborhood parks or regional open space and natural areas (of over 100 acres), given Waukee's population and continued growth. The City will need to consider additional acreage and facilities in all three categories (neighborhood parks, community parks, and regional open space and natural areas) in order to meet the projected growth in population through 2040.

The community expressed significant support for enhanced parks, open space, and trails as part of the initial phase of community engagement. Participants at the Community Workshop in May 2017, for example, expressed an interest in enhanced biking and walking trails and connectivity between different parks and trails, additional holes of golf, enhanced playgrounds and splash pads, sports facilities, dog parks, an indoor / outdoor water park, and water features. Participants in the online community survey conducted in spring 2017 indicated support, in particular, for adding or enhancing facilities including playgrounds and playground equipment, bike trails and swimming pools or splash pads. Participants in the Visioning Session also expressed a desire for enhancing open space and green connections.

A good deal of Waukee's future growth area, to the west of the existing city limits, contains lands that are relatively flat and do not have qualities that naturally provide the basis for passive / natural resource oriented park and open space facilities (such as woodlands, creeks and riparian areas, or other natural features). Therefore, the City and private developers may wish to consider how to create park and open space areas as future developments and infrastructure projects shape the land within the future growth area.

The City's current practice has been to coordinate opportunities with developers to acquire parkland in concert with development. Alternatively, the City could more pro-actively acquire, plan, design, and implement the park and open space system that best serves the long term interests of the community. A recent example of this approach is the City's acquisition and design of 225 acres of land for a future civic campus that will incorporate recreational amenities and the collaboration with Waukee Community School District in the acquisition of 160 acres for a second high school, youth sports complex, and community park.

## Driver 2: Preservation of Lands for Future Commercial / Industrial Uses:

Lands zoned for industrial or other employment based land uses within Waukee currently account for less than one percent of the City's total acreage within the current city limits. In contrast, many communities of typical size in the Midwest have 5 to 10 percent of their total lands zoned for employment based land uses. While the Kettlestone master plan provides a significant area for office land uses, the community will likely require additional industrial acreage to provide sufficient space to accommodate companies expanding or looking to locate in the Waukee area. Also, Waukee will need additional commercial areas (including retail) to serve future neighborhoods as the community continues to expand. Preservation of lands for commercial and industrial uses will allow Waukee to provide for a strong jobs base and tax base in the future.

Short term decisions could undo the long term planning for commercial and industrial uses in the community. A regulatory tool that would preserve or hold areas designated in the Comprehensive Plan for future commercial or industrial land uses, regardless of near-term changes in market forces, would benefit Waukee. The plan should anticipate how locations best suited for commercial or industrial land uses (such as at the intersections of section line roads) will be preserved for commercial / industrial uses that may not develop for a number of years.

The City of Waukee has formal design guidelines in place for two areas in the City, the Kettlestone area and the Downtown district. Beyond the standard subdivision and zoning ordinances, site plan ordinance, and the use of planned development overlays, the City could benefit from a regulatory tool to guide the design of new development in other parts of the community. The Comprehensive Plan should explore how to influence the local development community to provide for better design of commercial and industrial projects as Waukee continues to expand.

## Driver 3: Providing Diversity in Housing Choices:

Higher density residential accounts for 1.6 percent of the total acreage in the Waukee city limits. In contrast, many comparable suburban communities in the Midwest have a larger share of their acreage dedicated to higher density residential (including apartments, condominiums, and townhomes). Participants at the Visioning Session in March cited a lack of diversity in housing and development as a challenge facing the community. However, most respondents in the broader Community Survey indicated that Waukee already had enough (or too much) higher density housing.

While the public perceives that Waukee already has enough higher density housing and needs to provide additional single family housing, from an economic standpoint, the community should offer a wide range of housing options in order to attract the full range of employees necessary for existing and future employers and service providers. In addition, providing a wider range of housing provides more options for Waukee residents as they age over time, allowing Waukee residents to stay in their community as they "age in place." Furthermore, diversifying the mix of housing types in Waukee would offer more choices to the consumer. Finally, providing a mixture that includes higher density housing would allow the City of Waukee to more efficiently and economically serve a growing population, from an infrastructure perspective.

The Comprehensive Plan will need to resolve the contrast between the longer term need for Waukee to diversify its housing stock and the stated preference of current residents to maintain the focus on developing single family detached homes, in an orientation and at a density similar to developments completed over the last ten years.

**Action Item**

**"The comprehensive plan should explore how to influence the local development community to provide for better design of commercial and industrial projects as Waukee continues to expand."**

## Driver 4: Transportation Corridors and Alternative Mobility:

As Waukee plans for continued expansion, the community must plan for the ongoing expansion of the local street system along with multi-modal facilities to serve people walking, biking and using transit. Participants at the Community Workshop identified a number of corridors in Waukee requiring expansions or improvements. Some participants also expressed a desire to construct a transit hub in Waukee and to provide additional bus routes as the community grows. Participants expressed a desire to balance the needs for potential transit improvements with associated costs.

The comprehensive plan should complete the following objectives:

- Help shape the design of transportation corridors
- Outline implementation strategies for how to finance the costs of future roadways and transportation infrastructure
- Identify how to preserve future transportation corridors for eventual construction (when the timing is appropriate)
- Identify strategies to provide for ongoing operations and maintenance of transportation corridors and facilities

**Action Item**

**"...a longer term plan to provide for the maintenance of roadways and transportation facilities in Waukee is needed as they age and approach the end of their useful lives."**

Like in most municipalities, a longer term plan to provide for the maintenance of roadways and transportation facilities in Waukee is needed as they age and approach the end of their useful lives. While Waukee is currently focused on the growth and expansion of the community, issues surrounding maintenance will become more prominent within ten to twenty years. Planning for the system's maintenance will help ensure the long-term fiscal sustainability of the transportation system and providing strategies for the financing of longer-term transportation improvements will help the City avoid funding shortfalls for future improvements.

The plan must balance the desires of many in Waukee to provide for transit services with the significant costs associated with a comprehensive transit system. The solution to this issue may involve identifying the current transit resources and opportunities within Waukee and strategies for expanding or adding transit services over time, as the needs for transit grow in the Waukee area.

The comprehensive plan needs to outline strategies for how to preserve future transportation corridors, besides the outright purchase of right of way.


## Driver 5: Planning for City Buildings and a Civic Campus:

The City is currently operating at capacity in all of its buildings and continues to study the needs for future buildings to serve the needs of its residents and accommodate City operations. Given the anticipated growth of Waukee over the next few decades, the City will need to expand its current buildings or consider the construction of new buildings.

The City should explore ideas for the creation of a new Civic Campus that would include office space for various city functions, as well as additional areas for amenities and community gathering places. The City should have a vision for what a civic campus should include, and how its components would integrate with the surrounding community.

## Driver 6: Planning for Stormwater Integration and Management:

A stormwater master plan shaping how stormwater is managed as future development occurs will benefit Waukee residents, businesses, and its natural resources. Waukee's future growth areas are primarily comprised of undulating agricultural land that in many cases is drained through tiling. As these agricultural areas develop, the conversion of a tiled agricultural land to impervious cover will increase the volume and rate of stormwater runoff delivered to the City's existing downstream storm sewer system. The Comprehensive Plan should explore ways to proactively plan for stormwater facilities as part of new development in order to provide for future flood control and enhanced water quality. In addition, as precipitation patterns change over time, so too will demands on the City's stormwater system. The City should prepare for and accommodate these potential changes as they arise.

Regulatory tools to better integrate stormwater management facilities with developments (beyond conventional methods such as detention ponds, to include ideas such as bioswales and rain gardens) should be explored. Tools to plan for stormwater on a regional, or watershed-wide basis should also be considered.

As development results in the conversion of agricultural lands to impervious surfaces, the City will need to assess the impacts this conversion will have on the existing stormwater system and plan for the additional stormwater drainage demands by using a combination of local and regional approaches.

The City will need to plan for resiliency in its existing and future stormwater management system to prepare for potential changes in precipitation patterns. In doing so, it could consider a two-tiered approach. This strategy could consist of regional treatment facilities (built in conjunction with a park and trail system) as well as incorporating on-site stormwater treatment to meet the City's stormwater regulations and provide a more robust and resilient system.

Aesthetically pleasing stormwater facilities that serve as open space corridors and community amenities for future developments should be promoted by the City as a community wide amenity.

## Driver 7: Balancing Maintenance and Community Expansion:

The community engagement process identified the continued maintenance and improvement of infrastructure and other community assets in existing, developed parts of Waukee as key objectives for the City in the future. The Comprehensive Plan should outline how the community will balance ongoing growth with the maintenance of existing parts of Waukee. The City should integrate sustainable practices and design into the City's ongoing maintenance operations. The costs of ongoing maintenance and upkeep should be accounted for up-front, before expansion happens so that maintenance and replacement demands over time do not out-pace the community's financial capacity.

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# 2. VISION & GUIDING PRINCIPLES

## VISION & GUIDING PRINCIPLES

In order to effectively plan, a community must define its aspirations for the future. A community's "Vision" statement captures those aspirations and provides a framework upon which the Comprehensive Plan and strategic actions can be built and carried out. Furthermore, the Vision, when combined with a set of Guiding Principles, becomes a yardstick by which to measure progress. Waukee's Vision Statement recognizes the past but looks to the future, depicting how the community will look, feel, and function over the next 20 years.

The Vision and Guiding Principles are rooted in the recommendations of previous comprehensive plans and information gleaned from prior community planning efforts and through the community engagement process. While the vision and guiding principles capture general intentions and desires, the plan recognizes that there are divergent opinions on some of these topics. It is important to recognize that the Comprehensive Plan is not a static document and that change happens. However, change to the vision and guiding principles should be done carefully and through a transparent, inclusive planning process.

Guiding principles support the vision and define the values and priorities of the community. They act as an ongoing measurement tool for evaluating the appropriateness and effectiveness of future initiatives. In general, guiding principles:

- Orient the community to the future
- Require imagination, recognizing that the direction set for the community may be aspirational
- Look to current conditions and community traditions to inform the appropriate future
- Identify what the community desires for itself based on shared values and understandings


» Serve as a tool for evaluating proposals, projects, ideas, and future directions

» Provide an anchor during conflict; a way of finding common ground and shared values

» Become a basis for coordination and cooperation

» Offer a source of energy and enthusiasm for maintaining a commitment to the future

A set of guiding principles has been crafted to provide additional clarity to Waukee's Vision. These guiding principles highlight those elements that are important to the community and are key to the achievement of the community's Vision.

Input provided through a Community Survey, a Visioning Session with community leaders and stakeholders, and a community-wide meeting held in May 2017 contributed to the development of a Vision Statement and associated set of Guiding Principles for the Waukee community.

## Vision

While rooted in the reality of the community's past and present, the Vision Statement describes how the Waukee community will look, feel, and function in 2040. The Vision Statement articulates a desired condition or state for Waukee and represents an aspirational or ideal view of the community in the future. It is an over-arching framework that permeates the plan and informs supporting policy and strategy decisions.

### Vision Statement for Waukee:

Waukee is a high-quality, forward-looking community poised for continued and balanced growth in the 21st Century. It is a multi-generational community with a diverse range of people and a diverse range of employment, entrepreneurial, educational, shopping, housing, and recreational opportunities that are connected and accessible to all. Waukee actively preserves and enhances the natural features and environmental qualities that make it an attractive place to live, work, and play. Waukee will continue to grow in an economically, environmentally, and socially responsible manner and will leverage thoughtful design and innovation to create a variety of special, distinct places that make Waukee a destination in central Iowa.

#Collaboration
#EfficiencyTransparencyConsistency
#CleanRenewableEfficientEnergy
#OccupationalDiversity
#Revitalization
#HousingDiversity
#CommunityCharacter
#NaturalResourcesandAgProtection
#SustainableDesign
#TransportationDiversity

# Guiding Principles

## Coordinated and Efficient Growth Management

Waukee will provide infrastructure and services for growth in an efficient manner that balances development with the conservation of the natural environment.

## Economic and Fiscal Strength

Waukee will actively build its tax base and the diversity of businesses in order to provide fiscal strength to the community and to help fund the high level of services and amenities that the community desires. It will plan in a fiscally sustainable manner for new growth and the management of infrastructure to serve both newer and older parts of the community.

## A Community of Diversity

Waukee welcomes people from diverse backgrounds, provides a diverse range of opportunities for housing, employment, recreation, and daily activities, and has a diverse set of destinations that make Waukee a unique community in central Iowa.

## A Focus on Technology and Innovation

Waukee will embrace new technology and innovation in preparing to be a community of the future.

## A Focus on Quality Design and Distinct Places

Waukee will promote a high standard of design for new development, renovations, and rehabilitations in order to provide attractive and enduring neighborhoods, public spaces, and commercial areas and to create unique destinations that will make Waukee a special and distinct place in central Iowa.

## A Comprehensive and Multi-Modal Transportation System

Waukee will provide a safe and efficient transportation system that promotes a sense of community by connecting all areas of town, and accommodates various modes of travel, including walking, biking, and transit. The transportation system will efficiently connect Waukee to the rest of the metropolitan area and central Iowa. It also will provide for aesthetically appealing local streets and corridors and will promote the adaptability of corridors to changing transportation technologies and travel behaviors.

## Stewardship of the Natural Environment

Waukee will strive to be a clean, sustainable, and environmentally-friendly community that identifies and conserves natural, scenic, and environmentally sensitive areas, including important wildlife habitat, waterways, and visually sensitive areas.

## A United and Accessible Community

Waukee welcomes and is accessible to all people and all generations in its planning, management, and operations. Waukee pursues partnerships that advance the goals of the community, including partnerships with school districts, nearby communities, and the region at large.

## Trails, Parks, and Recreational Opportunities

Waukee will provide a diverse range of recreational opportunities, including facilities and programming for all ages and varying interests. Trails, parks, open space, and recreational opportunities will be connected and integrated into neighborhoods and other areas of the community.

## Quality of Life in Neighborhoods and Gathering Places

Waukee will encourage the creation of new and strengthening of existing neighborhoods, community destinations and gathering places (including Downtown, parks, and other civic spaces). It will provide for a diverse range of public art and cultural amenities around the community. It will promote and maintain the quality and character of established and new neighborhoods and ensure that residents have access to the full range of facilities and services that are needed for healthy, livable neighborhoods.

## Guiding Principles Precedent Images



*Coordinated and Efficient Growth Management*



*A Focus on Quality Design and Distinct Places*



*Economic and Fiscal Strength*



*A Comprehensive and Multi-Modal Transportation System*

## Guiding Principles Precedent Images



*Stewardship of the Natural Environment*



*Trails, Parks, and Recreational Opportunities*



*Quality of Life in Neighborhoods and Gathering Places*



*A United and Accessible Community & A Community of Diversity*

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# 3. LAND USE

## OVERVIEW

The Land Use Plan provides the framework for the future use of land in Waukee and planned areas of future growth of the City. It reinforces desirable land use patterns, identifies places where change is needed, and guides the location, form, character, and timing of future growth.

The Land Use Plan outlined in this chapter has a planning horizon of 2040. It was shaped by a number of factors, including the Vision and Guiding Principles, the existing conditions in Waukee, community input gathered throughout the planning process, input from elected leaders, historical development trends and emerging trends, an understanding of real estate and market forces, and a careful examination and analysis of the physical landscape in and around Waukee.

# FUTURE LAND USE FRAMEWORK

The land use framework diagram (Figure 3.1) illustrates some of the key drivers of the future land use plan for Waukee. As discussed further in the Parks section of this document, the establishment of prominent greenway corridors represents the key foundation for the development of future neighborhoods and commercial districts in new growth areas in Waukee. These greenway corridors provide a range of park and open space amenities and also help to link various neighborhoods and areas within the community together. The preservation of greenway corridors also preserves important natural amenities and drainage ways, provides opportunities for stormwater treatment, and creates an environmentally sustainable framework for development over the next few decades.

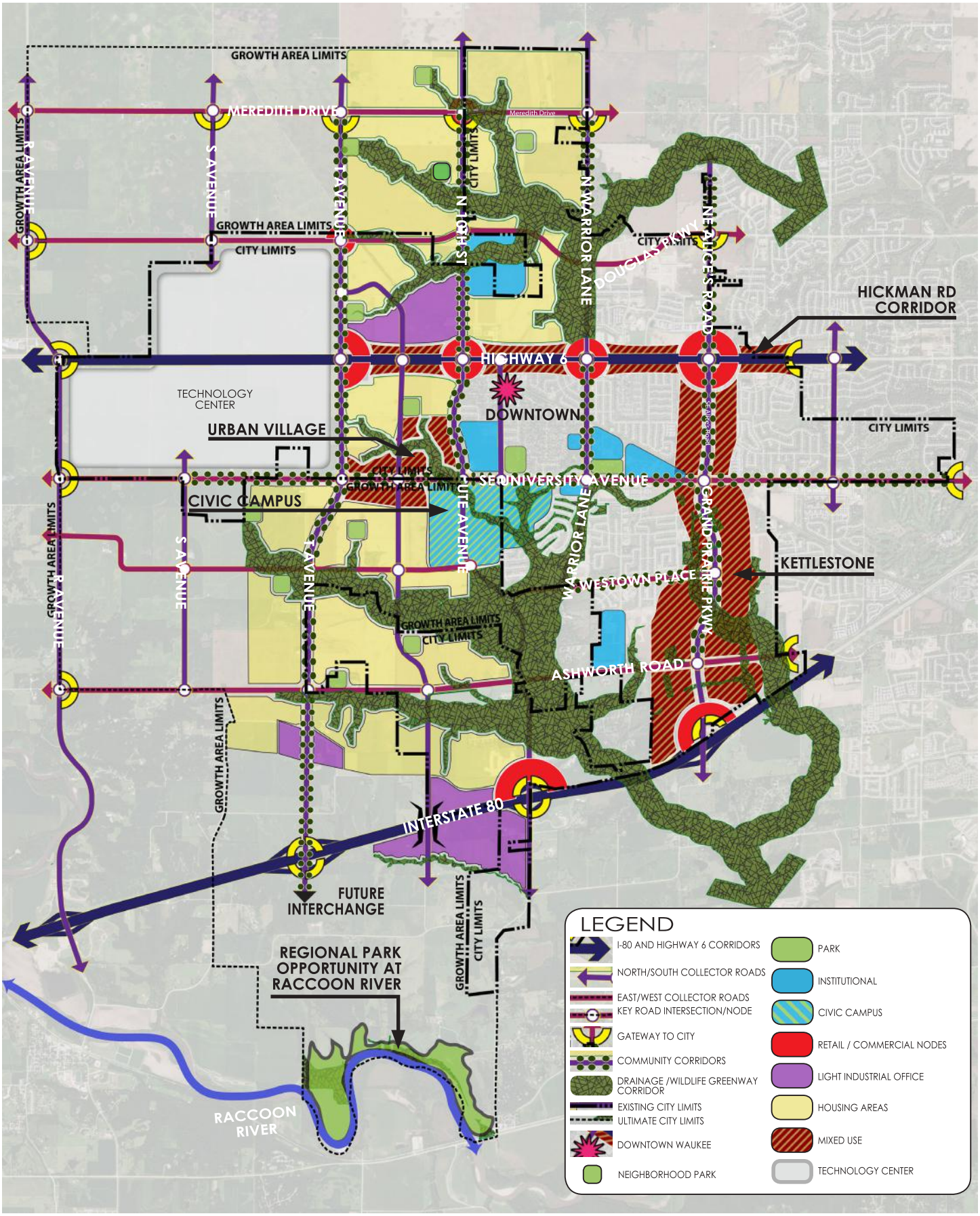
The establishment of key arterial corridors also provides a framework for future land use in Waukee. The T Avenue and Grand Prairie Parkway / Alice's Road corridors provide the key north-south connections through the community, as well as the 10th Street and Warrior Lane corridors. The Hickman Road corridor will continue to serve as the main east-west corridor in Waukee, along with Douglas Parkway, Ashworth Road, and University Avenue. T Avenue, 10th St./Ute Avenue, Warrior Lane, and Alice's Road/Grand Prairie Parkway will continue to serve as the main north-south corridors. The intersections of these corridors provide logical and economically tenable locations for the establishment of commercial nodes.

The framework diagram also illustrates the key areas (shaded in purple) anticipated for mixed use development, including in the vicinity of the civic campus, the Kettlestone area (Grand Prairie Parkway corridor), and along Hickman Road.

# LAND USE TYPOLOGY

The following section provides general descriptions of the land use categories (or typologies) contained within Waukee's Future Land Use Map. While the planning for specific land uses and projects within these categories may differ over time, these descriptions provide the general guidelines for land use planning by category in Waukee through 2040. The land use categories provide guidance for the application of the City's zoning ordinances and specific districts that regulate land development.

*Figure 3.1: Land Use Framework Diagram*



# Land Use Typology Descriptions

## Urban Reserve

The Urban Reserve typology serves as a holding zone until such time as municipal utilities are available to facilitate an orderly urban development pattern. This category is applied to areas that are outside of the projected 2040 growth area but within the long term planned areas and within areas envisioned to be annexed to the City of Waukee. Development in this category will be served with private utilities and individual well and septic and regulated by County zoning. A **density of no more than 1 unit per 40 acres** is desired. It is recognized that some demand exists for greater density development prior to the availability of municipal sewer and water extension and prior to annexation. In these instances, careful planning and design should be done to cluster development in a way that envisions longer term urban development form/patterns with municipal infrastructure.

## Rural Residential

The Rural Residential land use typology preserves established areas of very low density residential development on larger lots. Rural Residential land uses typically are served with individual septic systems and in some cases private water wells. These areas are not intended for service by municipal infrastructure except in the case of failure of private systems and potential health or environmental concerns. The Rural Residential pattern includes a maximum density of **1 unit per acre**. As applied to the Waukee future land use plan, these areas are and will remain limited to areas where the pattern already exists and where it make sense to infill or continue the pattern at its periphery.

## Low Density Residential

This land use typology captures the traditional forms of single family housing found in Waukee and most suburban communities over the last few decades. The typical lot size ranges from 8,000 square feet to 0.50 acres and the average density ranges from **2 to 4 units per acre**. The Low Density Residential typology includes predominantly single family detached homes with limited clusters of attached housing types such as duplexes or twinhomes.

## Medium Density Residential

This typology captures a variety of attached side by side townhome and row home products, with densities ranging from **4 to 12 units per acre**. Small lot detached housing products also fit within this category.

## High Density Residential

This typology includes a variety of higher density residential development forms, including townhomes, row houses, patio homes, apartments, condominiums, and various forms of senior housing. The predominant form of housing is in a vertically stacked orientation (apartments/condos). Typical density in this category is **greater than 12 units per acre** with building heights in the 3 to 5 story range.

# Commercial

The Commercial typology primarily includes retail (goods and services) land uses, but also may include various forms of office land uses. This typology includes three different types of Commercial uses distinguished mostly by scale, orientation, and critical mass (total square footages).


## Neighborhood Commercial

These areas include commercial uses consisting of retail, office, or personal services with a gross leasable area ranging from **20,000 to 125,000 square feet**. They are intended to serve surrounding neighborhoods, in a trade area of up to 3 miles in radius. These centers may or may not have an anchor tenant, such as a grocery store or hardware store. Neighborhood Commercial centers usually consist of more than one tenant and encompass 3 to 5 acres of land. Neighborhood Commercial uses typically are located along collectors, or at the intersections of collectors and minor arterials. As the name indicates, Neighborhood Commercial would primarily serve surrounding neighborhoods, and provide primarily day-to-day goods and services for residents. Neighborhood Commercial centers should be walkable from nearby residential neighborhoods.

## Community Commercial

These areas include commercial uses with a combined or total gross leasable area of **125,000 to 400,000 square feet** that provide goods and services for a 3 to 6 mile trade area radius. Community Commercial centers often have two or more anchor tenants which could include a discount store or supermarket, and are developed on 10 to 40 acres of land. Community Commercial uses typically are located along minor or major arterials and would serve a large portion of the Waukee community.



## Regional Commercial

Regional Commercial areas include large commercial uses with gross leasable areas in **excess of 400,000 square feet** that serve a larger regional market. Anchor tenants often include department stores, discount stores, or other mass merchandisers. Trade areas for Regional Commercial extend from 5 to 15 miles in radius and Regional Commercial typically encompasses more than 40 acres of land. Regional Commercial uses typically orient along major arterials as well as near freeways, in order to reach a broader regional market. Regional Commercial uses would draw from beyond Waukee, and would serve the overall western portion of the Des Moines metropolitan area as well as rural communities beyond the Des Moines metro.

## Business Park

The Business Park typology primarily includes office or related uses, either arranged in formal "Business Park" settings or developments, or in smaller concentrations located throughout Waukee. The typical project size in the Business Park typology ranges from **15,000 to over 100,000 square feet**. Office buildings may have **Floor Area Ratios (see Figure 3.2) of 0.25 to over 1.0**, and may range from 1 to 6 stories in height. Proximity to major road corridors is an important locational factor.

## Light Industrial

The Light Industrial typology includes a variety of showroom, flex space, and manufacturing space, of varying square footages. While Light Industrial uses may include some degree of office space, the primary focus of Light Industrial uses is on the assembly, storage, or distribution of goods or products. **Floor Area Ratios range from 0.25 to 0.5** and structures in the Light Industrial typology may range from 1 to 3 stories in height. Proximity to regional road corridors is a critical factor in locating these areas.

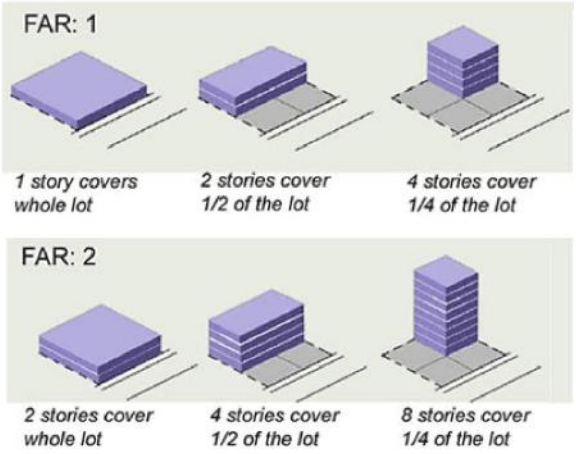
## Technology Center

This land use typology includes spaces designated for technology oriented uses such as a data center and related industries, with **Floor Area Ratios of 0.1 to 0.5** and buildings ranging from 1 to 3 stories in height. These uses differ from Light Industrial uses in that they are not typically employment intensive uses and tend not to generate substantial amounts of car or truck traffic once established.

## Mixed Use

The Mixed Use typology includes a variety of different areas around Waukee. The intent of the Mixed Use category is to provide flexibility for property owners and developers to integrate more than one land use within a particular building or development project. Projects may integrate different land uses vertically (within the same building), or horizontally by connecting various land uses through the use of sidewalks, trails, streets, or other design strategies. The overall goal of Mixed Use development is to better tie together different land uses within a given project or within a neighborhood and avoid the strict separation of land uses common in traditional suburban development patterns. Through the entitlement process, greater emphasis is placed on the form and character of development in Mixed Use areas over the land use. For Imagine Waukee 2040, Mixed Use is also used as a way to respond in a more flexible manner to market demands, while retaining the ability to shape the form and character of future development.

*Figure 3.2: Floor-to-Area Ratio Illustrated*




*Floor-to-area ratios (FAR) are a measurement of how much square feet a building has in relation to the site it is located on. FAR is a measure of the intensity of development on a site.*

## Mixed Use Corridor

Mixed Use Corridors may include a mixture of office, retail, or residential land uses in areas along key transportation corridors (arterials) or in locations between key "nodes" as illustrated in Figure 3.1. Typical building size in this category ranges from **20,000 to 100,000 square feet** and **Floor Area Ratio ranges from 0.25 to 1.00**. Buildings may range from 1 to 3 stories in height, and residential components may range from **8 to 25 units per acre**. Typical projects may encompass 3 to 5 acres of land, and serve trade areas up to 3 miles in radius, including surrounding neighborhoods. An example of a mixed use corridor includes the Hickman Road Corridor described on page 3-31.

## Mixed Use Village

Mixed Use Village may include a mixture of office, retail, or residential land uses, situated at key nodes along key corridors in Waukee. Typical buildings or projects in this category may range from **100,000 to 500,000 square feet** in size and **Floor Area Ratio may range from 0.25 to 2.00**. Buildings may range from 1 to 4 stories in height and residential components may range from **12 to 40 units per acre**. Mixed Use Villages typically encompass 10 to 20 acres of land, are located along minor or major arterials, and serve a 3 to 6 mile trade radius. A central point to this type of development is a central public space, green space, or plaza type gathering place. Examples of a mixed use village include Downtown Waukee and Kettlestone as described on pages 3-32 and 3-33.

## Mixed Use Town Center

Mixed Use Town Center includes larger concentrations of various combinations of different land uses, with typical projects in excess of **250,000 square feet** and **Floor Area Ratios generally over 0.50 and potentially exceeding 2.0**. Buildings may range from 1 to 6 stories in height and residential components may range from **25 to 70 units per acre**. Mixed Use Town Centers often include a civic anchor, as well as a variety of recreational, retail, service, housing, entertainment, and office components. These projects should incorporate more of an urban environment, with a variety of public spaces and pedestrian-friendly streets. Mixed Use Town Centers typically encompass more than 20 acres of land, are located along an arterial street, and draw from a trade area of 5 to 15 miles in radius, drawing from beyond Waukee and serving adjacent communities in the western suburbs as well. Full development of a Mixed Use Town Center will likely occur over an extended period of time. An example of a Mixed Use Town Center includes the civic campus described on page 3-34.

## Civic/Institutional

This land use typology category includes a variety of properties around Waukee containing religious institutions and facilities, schools, libraries, government services, and spaces for infrastructure. Generally these uses include public gatherings or government services.

## Park and Open Space

The Park and Open Space category includes land owned by the City of Waukee. The Parks chapter discusses planning for parks and open space in the community in greater detail.

## Right of Way

The right of way category includes lands within the right of way of streets, utility corridors, and related corridors and easements located throughout Waukee.

## Wetlands

Wetland represent areas determined to be wetlands based on the National Wetlands Inventory (NWI). The NWI is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of US wetlands.

# PREFERRED LAND USE MAP

The Preferred Land Use Map (Figure 3.3) allocates the anticipated locations and acreages of future land uses (on vacant lands) that Waukee will need in order to accommodate anticipated growth over the next twenty-plus years.

The following highlights some key features of the Preferred Land Use Map:

- The significant acreage included in the "Technology Center" category, to the west of Waukee along either side of Highway 6/ Hickman Road, encompasses the anticipated footprint of the Apple data center planned for over 2,000 acres just to the west of Waukee.
- Most of the acreages not included in the Technology Center, and to the west of T Avenue, are included in the Urban Reserve designation. This designation indicates that these lands are not anticipated to be developed by 2040 and therefore will retain their existing land uses indefinitely (including use in agriculture, open space, or as various forms of rural residential).
- Similarly, most of the acreage along and to the south of Interstate 80, and to the west of Ute Avenue, remains in an Urban Reserve designation. While a north-south connection to Interstate 80 along T Avenue, including a potential new interchange at T Avenue and I-80, may proceed over time, the City does not anticipate that the lands around this future intersection will develop by 2040. Most of the land to the south of Interstate 80, stretching to the Raccoon River to the south, will similarly remain undeveloped through 2040.
- The Mixed Use land use category encompasses the various districts described above, including the Hickman Road corridor, the Civic Campus area, Downtown Waukee, and areas within the Kettlestone corridor.
- While Hickman Road may include mixed use development going forward, the land use plan anticipates the eventual development of a significant area of commercial space in the vicinity of Hickman Road and T Avenue.
- The Land Use Map reflects the preservation of open space corridors in new growth areas around Waukee, as discussed further in the Parks section, including along Sugar Creek and other key waterways in the community.
- The Land Use Map generally calls for the development of medium or higher density residential land uses near the intersections of arterials with collector roads, or in relatively close proximity to open space corridors or park areas.
- The Land Use Map anticipates the development of a relatively sizeable area for Light Industrial land uses around and to the west of the Interstate 80 interchange with Ute Avenue. As discussed in the descriptions of the various land uses, these land uses would not conflict or duplicate land uses (for business park or office uses) planned within Kettlestone.

Table 3.1 outlines the planned acreage by land use type for Waukee, reflected in the Future Land Use map.

*Figure 3.3: 2040 Land Use Plan*

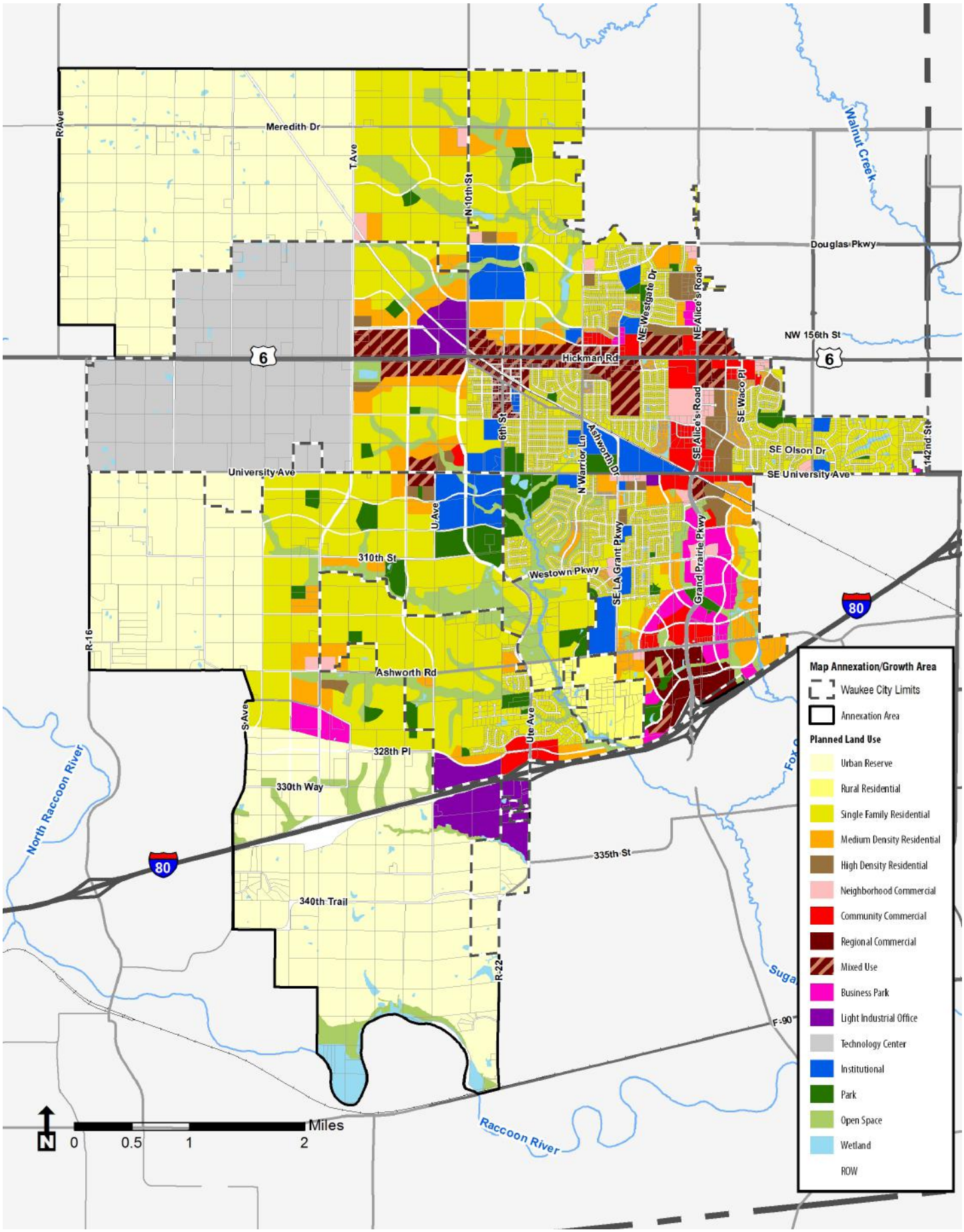


*Table 3.1: Planned Acreage by Land Use Type*

| 2040 Planned Land Use | TOTAL LAND (ACRES) | | | |
|---|---|---|---|---|
| | Growth Area | City Limits | Land Use Total Acres | % Of Total |
| Rural Residential | 235 | 79 | 314 | 3.0% |
| Low Density Residential | 2,131 | 3,979 | 6,136 | 57.7% |
| Medium Density Residential | 245 | 975 | 1,220 | 11.4% |
| High Density Residential | 27 | 245 | 272 | 2.5% |
| Neighborhood Commercial | 32 | 158 | 190 | 1.7% |
| Community Commercial | 0 | 375 | 375 | 3.5% |
| Regional Commercial | 0 | 121 | 121 | 1.1% |
| Mixed Use | 15 | 597 | 612 | 5.7% |
| Business Park | 68 | 249 | 318 | 3.0% |
| Light Industrial Office | 217 | 291 | 509 | 4.7% |
| Institutional | 142 | 467 | 609 | 5.7% |
| Total Acres | **3,113** | **7,535** | **10,649** | **100%** |

*Note: Does not include land guided for Urban Reserve*

*Table 3.2: Developable Lands by Planned Land Use*

| 2040 Planned Land Use | DEVELOPABLE LAND (ACRES) | | | |
|---|---|---|---|---|
| | Growth Area | City Limits | Land Use Total Acres | % Of Total |
| Rural Residential | 65 | 26 | 91 | 1.3% |
| Low Density Residential | 1,938 | 2,120 | 4,058 | 60.0% |
| Medium Density Residential | 217 | 689 | 906 | 13.3% |
| High Density Residential | 27 | 70 | 97 | 1.4% |
| Neighborhood Commercial | 32 | 102 | 133 | 1.9% |
| Community Commercial | 0 | 169 | 169 | 2.5% |
| Regional Commercial | 0 | 103 | 103 | 1.5% |
| Mixed Use | 15 | 323 | 339 | 5.0% |
| Business Park | 68 | 206 | 274 | 4.0% |
| Light Industrial Office | 205 | 266 | 471 | 6.9% |
| Institutional | 142 | 0 | 142 | 2.2% |
| Total Acres | **2,708** | **4,073** | **6,781** | **100%** |

*Note: Does not include land guided for Urban Reserve*

# KEY DISTRICTS IN WAUKEE

The Land Use Plan anticipates the development of particular types and character of land use in a number of key districts or sub-areas within Waukee, as outlined below. The City will continue to plan for these districts in greater detail as development moves forward, including the completion of more detailed studies (or updates to current studies) for each area. This section of the plan provides an overall general framework and guide for the development of these districts or sub areas until more detailed master plans are prepared.

## Hickman Road Corridor (A Mixed Use Corridor)


The City should complete an overall and more detailed Master Plan for the Hickman Road corridor (US Highway 6) through the length of Waukee, to guide the ongoing growth and evolution of the corridor. In the meantime, the following principles should guide the development of land uses along the corridor. Importantly, as other nodes and districts of commercial space emerge across Waukee over time, the Hickman Road corridor may begin to include a greater share of non-commercial uses (including multi-family or medium to high density residential, and various forms of office space). The Master Plan for Hickman Road should anticipate how various types of land use may integrate along the corridor over time.

- Access management along the Hickman Road corridor should continue to follow the guidelines established by the Iowa Department of Transportation (in terms of spacing of cross streets and access points). The City should establish a series of parallel streets on either side of Hickman Road, to provide enhanced access to individual businesses and residences along the corridor, and to reduce congestion on the travel lanes of Hickman Road.
- Along Hickman Road, buildings and entrances should orient to the front of each parcel (facing Hickman Road), with parking areas located to the rear or side of buildings. Buildings at intersections should have facades that address both street frontages.
- Buildings along Hickman Road should follow a consistent standard for aesthetic quality and design, with higher quality materials and fixtures, in order to establish the corridor as a "high quality" area of development, given its status as one of the "front doors" to Waukee.
- Building heights should step down in height as it transitions away from Hickman Road in order to buffer neighborhoods from more intensive development. This pattern will allow for better transitions between commercial uses along Hickman Road and residential neighborhoods in the surrounding area.

## *Form-Based Codes*

**A form-based code is a land development regulation that fosters predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. A form-based code is a regulation, not a mere guideline, adopted into city, town, or county law. A form-based code offers a powerful alternative to conventional zoning regulation.**

Learn More

- The City should establish a network of sidewalks and/or trails along both sides of Hickman Road, along streets running parallel to Hickman Road, and other local streets serving the corridor. The City should establish standards for pedestrian lighting along these sidewalks and/or trails as well. The City should work with Dallas County on trail access management.
- The City should establish design guidelines for developments along Hickman Road, including expectations for the installation of landscaping and aesthetic elements, including public art and lighting.
- As part of the master plan effort, the City may wish to establish a Form Based Code or Design Guidelines for the Hickman Road corridor, that would establish urban design and placemaking standards for developments along the corridor.
- Pursuant to the Land Use Plan, the City will allow property owners along the Hickman Road corridor to pursue mixed-use development. The City should work with property owners to explore options to integrate different land uses (including residential) along Hickman Road, as the market dictates. The mixed-use orientation for the Hickman Road corridor does not mandate the development of mixed-use projects but envisions the corridor changing over time from a highway commercial orientation to one that integrates a wider variety of land uses and becomes more pedestrian in pattern and orientation.

## Downtown Waukee (A Mixed Use Village)


Source: City of Waukee and Troy Gillespie

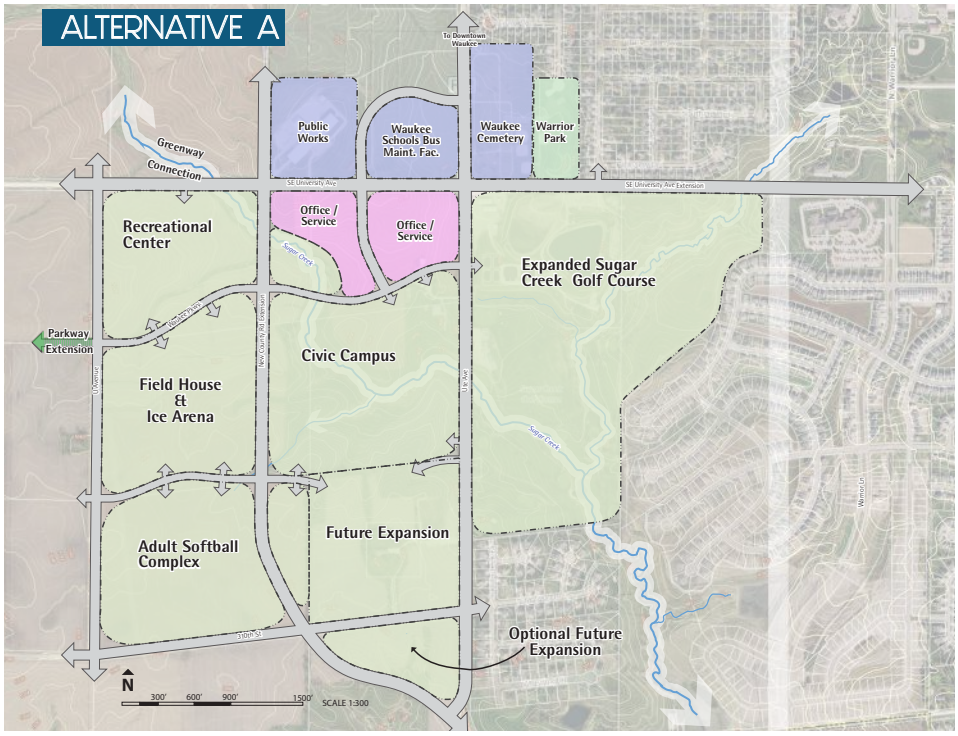
The Downtown Waukee Master Plan, completed in 2009, outlines the vision for the downtown district and guidance in greater detail concerning land use and a range of other planning topics. The plan envisions Downtown Waukee as a destination for the community, including a diverse range of

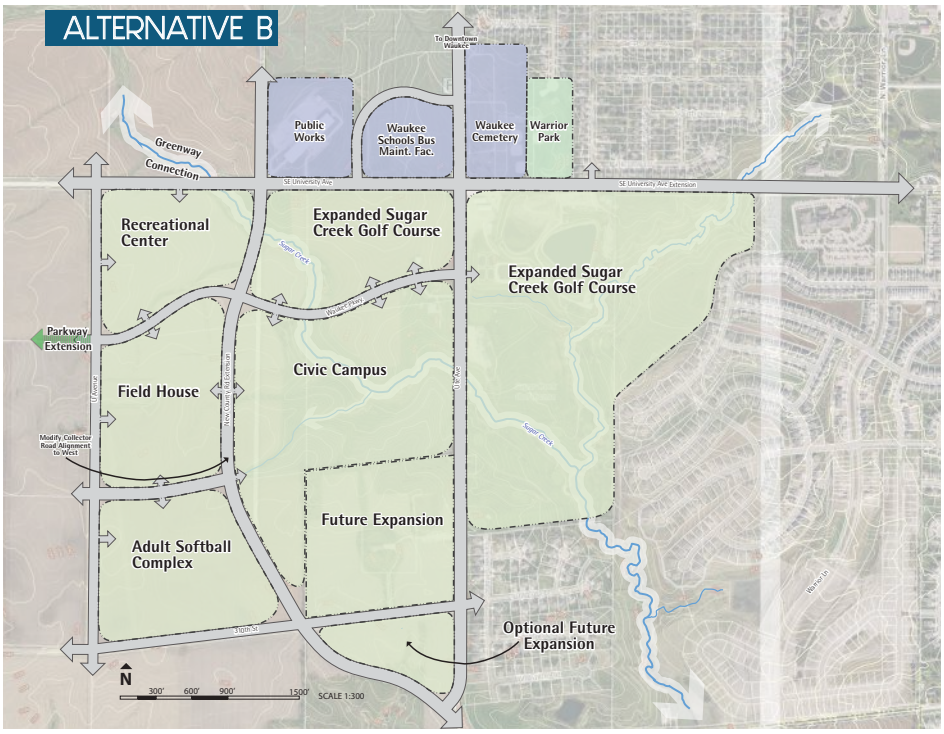
businesses and gathering places for social, cultural, and family-oriented events and activities serving the broader community. The land use plan anticipates in-fill Mixed Use development in Downtown Waukee, including the areas between the existing business district and the Hickman Road corridor.

## Kettlestone (Grand Prairie Parkway) (A series of Mixed Use Villages)


The Kettlestone Master Plan, completed in 2014, built upon a previous master plan for the Alice's Road corridor and provided an overall vision and brand for the Grand Prairie Parkway corridor and adjoining areas in Waukee. The Land Use Plan for Kettlestone includes a significant area of Office or Business Park uses, tying with the theme of establishing Grand Prairie Parkway as a key employment center in the western suburbs. It also includes a variety of areas designated for various densities of residential development, different types of commercial land uses, and a Mixed Use Village area southwest of Grand Prairie Parkway and Ashworth Road.

# Civic Campus (A Mixed Use Town Center)




The idea of creating a Civic Campus in the heart of Waukee, near the intersection of University Avenue and Ute Avenue, achieves the following objectives:

» It creates a central gathering place / destination for the entire community, serving all of Waukee at full build-out

» It provides a central location for various municipal, cultural and athletic facilities

- It serves as the central nexus of a park and open space network that extends along Sugar Creek through various neighborhoods in Waukee
- The Civic Campus provides a central destination for the community and events
- The land use plan for the Civic Campus provides the option to integrate office and service related uses that may support activities on the Civic Campus

While detailed planning and design for a Civic Campus remains to be completed, discussions with city staff and stakeholders during the comprehensive plan indicated a desire to include the following key components or amenities in the Civic Campus program:

- City Hall
- Library
- Option of either a Performing Arts Center or an Arts Center
- Aquatic center
- Field house
- Ice skating area, with option of Ice Arena
- Adult Softball Complex
- An expansion of the Sugar Creek Golf Course to 18 hole executive course, with expanded practice facility
- An option to expand the Civic Campus, with the addition of a Soccer Complex
- Various park and trail components integrated along Sugar Creek and adjoining areas
- Options for integrating office and service uses into the property

## *Goals, Policies, & Action Items*

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

### Policies

**Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific.**

### Actions

**Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal.**

**See "Key Terminology" in the "Setting the Stage" chapter.**

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the Comprehensive Plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of land use related topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

#Revitalization
#CommunityCharacter

**LU Goal 1: Maintain Downtown Waukee as a unique, historic, vibrant, and attractive local and regional destination.**

LU P 1.1: Promote the redevelopment of properties in the Downtown area as mixed use, in order to strengthen retail and commercial uses in the district and to integrate new households and employment into the district.

LU P 1.2: Promote redevelopment efforts that help establish the Downtown district as a key destination for Waukee and the region.

LU P 1.3: Ensure redevelopment projects in the Downtown area maintain a scale consistent with that of surrounding buildings.

LU P 1.4: Architectural features should enhance the quality and enduring character of downtown buildings and the public realm.

LU P 1.5: Public and private improvements in the Downtown area should provide amenities for bicyclists and pedestrians, including sidewalks, trails, and enhanced streetscape elements.

LU P 1.6: Redevelopment projects should take into consideration the public spaces and gathering places that serve as important community event and place making characteristics of the district.

LU A 1.1: Revisit and update the Downtown Master Plan to strengthen zoning standards and design guidelines and identify future public and private redevelopment investments.

***Legend***

**LU = Land Use**

**LU P = Land Use Policies**

**LU A = Land Use Actions**

#OccupationalDiversity

**LU Goal 2: Establish the Kettlestone district as a key employment center in the Des Moines metro area.**

LU P 2.1: Ensure that development projects in the Kettlestone area use appropriate design strategies to provide for a higher quality public realm.

#NaturalResourcesandAgProtection
#SustainableDesign

**LU Goal 3: Maintain a healthy balance in land uses between residential, commercial, office / business park, industrial, and park / open space.**

LU P 3.1: Promote and guide land for a diverse range of industrial and office development to support a balanced and resilient tax base in Waukee.

LU P 3.2: Preserve open space corridors to protect sensitive natural

areas and the enhancement of wildlife habitats through the use of an Open Space land use designation and environmental overlay district zoning tools.

LU P 3.3: Support institutional uses and their expansion especially when designed to enhance neighborhood connections, uses, and services.

LU P 3.4: Encourage the diversification of Waukee's housing options to meet the full lifecycle of the community's housing needs. This will enable residents to remain in the community as their housing needs change and will attract a more diverse range of new residents from a wider range of ages to move to Waukee.

LU A 3.1: Continue to monitor and report to the community on development activity, platting and lot inventories, building permit data (commercial square footage absorptions and housing units by type).

**LU Goal 4: Future development in Waukee incorporates appropriate levels of density and design to support increased housing options, the viability of neighborhood commercial, and overall long-term neighborhood sustainability.**


LU P 4.1: Encourage higher densities in mixed use designated areas (including Kettlestone and the Hickman Road corridor).

LU P 4.2: Ensure that the density / intensity of development will be compatible with the general characteristics of the surrounding area in which development is located. Changes in density / intensity may be supported when they enhance the viability, character and livability of the area.

LU P 4.3: Support higher density and intensity in areas appropriate for intensive activities. The design and execution of such development must be of high quality and integrate with surrounding areas.

LU A 4.1: Prepare design guidelines that demonstrate support for transit usage, enhanced pedestrian/bike connectivity, crime prevention through design, and healthy living components. These guidelines can be used through the general development review process.

**LU Goal 5: The physical character and identity of Waukee is maintained through a high degree of aesthetics and quality development**


LU P 5.1: Promote a stronger tax base by encouraging property maintenance, enforcing city codes, and regularly reviewing development and performance standards.

LU P 5.2: Guide development to achieve appropriate transitions between different types of land uses and different levels of densities to ensure that new development is compatible with existing areas.

LU P 5.3: Support the use of streetscape and other public improvement projects to create, reinforce, or improve unique commercial and residential areas in Waukee.

LU P 5.4: Encourage the preservation and enhancement of natural,

recreational, historical, and cultural landmarks that are unique and essential to the identity of Waukee.

LU P 5.5: Require that the location, size, number, and appearance of signage throughout the community is appropriately regulated.

LU P 5.6: Provide cultural amenities throughout Waukee by incorporating them into public facilities and projects, such as monuments at city entrances, as well as encouraging development of cultural amenities by the private sector.

LU A 5.1: Review and update the zoning code to ensure sufficient design standards, landscaping, buffers/screening, and development amenities are addressed in all development projects.

LU A 5.2: Revisit and update the major intersection study to ensure a high quality aesthetic character of the City's primary gateways, major roadway corridors, and community commercial areas to enhance community identity and the overall sense of place.

**LU Goal 6: New development and redevelopment projects incorporate creative site design.**

#HousingDiversity
#CommunityCharacter

LU P 6.1: Preserve and incorporate high quality natural, cultural, and historical features as part of development projects.

LU P 6.2: Provide a mix of residential unit styles, values, and densities within the same development.

LU P 6.3: Provide transit access, pedestrian and bike connectivity to parks, employment areas, businesses and services, and neighborhood institutional uses such as schools and churches.

LU P 6.4: Create neighborhood identity and / or unique features that are representative of Waukee.

LU A 6.1: Update the City Zoning code to incorporate design standards and flexibility.

# 4. ECONOMIC DEVELOPMENT

## OVERVIEW

A strong, diversified economy in Waukee is critical to the well-being of the residents of the City and to the overall fiscal strength of the City. Waukee is building a base of employers in the Kettlestone district and aims to build a stronger and stable commercial tax base over the next few decades. Waukee aims to enhance the position of the community and to support ongoing growth across different land uses, including retail, general commercial, mixed use development, and various forms of housing.

In today's global economy, the locations of businesses can change rapidly, and communities that have economic strength can quickly lose their power, and vice versa. A community's desirability to attracting a talented workforce, companies, and individuals with new ideas and innovation represent key aspects of economic development.

The overall goal of the Comprehensive Plan, from an economic development perspective, is to identify and outline the roadmap to support ongoing growth of companies and industries. This needs to be done while preserving and enhancing quality of life factors that make Waukee attractive to new companies and new residents.

## ECONOMIC DEVELOPMENT POSITION / APPROACH:

The City of Waukee aims to protect business and citizen investments and improve quality of life by planning strategically for tax base expansion and employment opportunities. Imagine Waukee 2040 recognizes that investments in resilient and efficient infrastructure systems, quality educational institutions, and a balanced land use pattern are vital to the success of area businesses and to the economy as a whole. Waukee's approach to economic development is for Waukee to be a strong community that offers great neighborhoods to live in, a strong park

and recreation system, quality infrastructure (including communication technology), a safe and connected transportation system, and sustainable/efficient government.

# Economic Development Strategies

## Business Growth and Retention

Even though many times business growth and retention strategies are not as costly as loans, grants, or tax relief, business retention strategies sometimes take a back seat to business attraction because they are less dramatic. Many of the problems existing local businesses identify are routine. Making sure that the City knows what those businesses value and making it known that the City cares is at the core of business retention. Lack of responsiveness to a problem or unwarranted difficulty in routine application processes are problems that can be worked through by listening to existing businesses.

Since many large employers are increasingly owned by companies outside a region, growing small businesses is a way of fostering economic benefits that stay within the City. In addition, most large businesses started off as small businesses, so small business development can eventually lead to large local businesses.

## Business Attraction

*Quality of Life Investments*

"Quality of life" is a term used to describe various, sometimes intangible factors that make a community attractive. As a community makes investments in quality of life factors such as parks, schools, housing, entertainment, and clean air and water, more businesses and their employees may be attracted to the community and therefore be more willing to locate there. The decision to accept and approve a certain level of aesthetic and setting performance standards can significantly add to the quality of life, but may also preclude some businesses from locating within the City.

*Financial Incentives*

Financial incentives are offered to attract or retain businesses on the theory that the incentives will lead to business investment and thus to new jobs for the community. City's can offer a variety of financial incentives, either through the state or directly. The financial incentive toolbox includes many incentives such as:

- Tax increment financing (TIF)
- Tax abatements
- Private activity bond/development loan
- Grants
- Waiving development fees
- In-kind services
- Infrastructure

*Community Marketing*

Specific economic sectors with growth potential and linkages to existing businesses within the City can be enticed to locate in the community through targeted marketing with reasons to be attracted to the economic setting in Waukee. This type of marketing is largely dependent on the type of quality of life investments and financial incentives mentioned earlier. The marketing techniques employed as part of a business attraction strategy can take many forms including:

» Brochures

» Advertising in trade publications

» Direct contact

» Websites

» Publicly accessible database of available commercial and industrial land and buildings

## Workforce Development

The City can leverage the school district as a strategic partner to help create new educational pathways for Waukee residents and to foster new businesses, career opportunities, and entrepreneurship in the community. The City can work with educational institutions and economic development entities to address any instances where the skills required by local jobs and the skills possessed by the local workforce match each other and ensure that local workers can obtain desirable jobs in high growth and high need employment sectors.

Workforce development programs can provide training and personal skills development programs to help especially disadvantaged social groups gain employment or acquire necessary skills. Waukee can also provide online systems to provide job seekers with information about potential employers and public programs for skill development.

## Land and Infrastructure

Land use goals and policies as part of the Land Use Chapter of the plan affect the supply of buildable land for commerce and industry, as well as residential development. Shortages in various categories of land use can result when cities fail to adapt land use designations to keep up with increased demand and development pressure. Promotion and utilization of infill and underutilized land can also satisfy economic growth.

Businesses rely on infrastructure to conduct their work and transport their goods and services. Communications infrastructure, water supply, sewer, roads, sidewalks, parks, transit, and emergency services are all critical components of an area's development capacity and long-term economic competitiveness. Community facilities and infrastructure goals and policies as a part of Chapter 8 ensure that Waukee has the infrastructure foundation to support future economic activity.

# ECONOMIC RESILIENCE

Economic resilience refers to the ability of the community to prepare for and "bounce back" from both positive and negative changes to its economic health. Communities with a resilient economy experience less impact from natural disasters such as flooding and man-made disasters. Waukee has the ability to make its economy more resilient by making proactive economic decisions.

## Economic Diversity

Many cities are known for their niche markets or business clusters such as technology, oil and gas, automobile manufacturing, or digital media. In these cities businesses geographically cluster around one sector and thrive off of their proximity to one another. When that particular industry is thriving the local economy is flourishing as well, but when the industry goes into decline, so does the local economy. Business clusters in and of themselves aren't a bad thing, but without the support of a diverse economy, cities cannot often recover quickly from major industry crashes.

#OccupationalDiversity

Lands zoned for industrial uses (or more employment based land uses) within the City limits currently account for only 0.04 percent of the total acreage in Waukee's current city limits. In contrast, many communities of typical size in the Midwest have 5 to 10 percent of their total lands zoned for employment based land uses. Waukee will need additional commercial areas (including retail) to serve future neighborhoods, as the community continues to expand. Preservation of lands for commercial and industrial uses will allow Waukee to provide for a strong jobs base and tax base in the future. The Land Use Plan in Chapter 3 details locations best suited for commercial or industrial land uses (such as at the intersections of major roadways).

Mixed use areas are highlighted in the Land Use Chapter and also promote enhanced economic diversity. The intent of the Mixed Use category is to provide flexibility for property owners and developers to integrate more than one land use within a particular building or development. The overall goal of Mixed Use development is to better tie different land uses within a given project or within a neighborhood and to avoid the strict separation of land uses typically exhibited in many forms of suburban development. Through the entitlement process, greater emphasis is placed on the form and character of development in mixed use areas over the land use. For Imagine Waukee 2040, mixed use is also used as a way to respond in a more flexible manner to changing market demands, while retaining the ability to shape the form and character of future development.

## Post-Disaster Economic Recovery

Planning for post-disaster economic recovery before a disaster happens helps communities resume normal economic activities following damage or destruction by a natural (ex. flooding) or human-made (ex. power outage) disaster. Plans for post-disaster recovery are officially adopted policies and tools put in place before an event happens to direct the recovery effort. Public decisions taken in the heat of the emergency period immediately following a disaster often compromise significant opportunities to rebuild a better community for the future. Examples of

these types of decisions from the American Planning Association's PAS Report No. 483 include:

- The location of temporary housing, which often becomes more permanent than was originally intended
- The siting of temporary business locations, which begin with the aim of allowing local businesses to continue to operate, but may become de facto long-term relocations
- The selection of sites for dumping disaster debris
- Road closures and reopenings
- Bridge closures and reopenings
- Restoration of critical infrastructure that might otherwise have been suitable for relocation
- Permitting the reoccupation of homes that have suffered substantial damage

## Transportation Access

Employment centers that are accessible via one or more travel modes (automobile, bike, walking, transit) offer employees a wider range of commuting options and therefore are more resilient. This is important particularly among populations that do not own personal vehicles as well as during increased traffic events and closures. Increased transportation accessibility for personal travel can also translate into increased transportation accessibility for freight movement. Commuters and freight carriers share many of the same transportation corridors. These transportation corridors do not come with infinite capacity. Alternative transportation options for commuters translates into increased mobility for freight, especially during peak commute hours.

A well connected and developed transportation system also enables a variety of economic uses. What may be an industrial district today could be an entertainment district in the future. A transportation system consisting of a well spaced, connected network of streets and multi-modal options for Waukee's future is critical to Waukee's economy and is detailed in the Transportation & Mobility Chapter of this plan.

## Regional Economy

As seen in Figure 4.1 and Figure 4.2, Waukee's economy doesn't operate in its own bubble independent of the region. Many Waukee residents work throughout the Des Moines Metro Area, specifically in downtown Des Moines. Conversely, many people who work in Waukee live throughout the region, though they are more concentrated in the immediate Waukee area. Whatever happens to the economy of the region as a whole has an effect on the local economy.

More reliance on local assets increases the economic resilience of Waukee, as well as contributes to place-based revitalization. Businesses, such as those focused on locally sourced materials and "Green" businesses (see sidebar) can reduce reliance on outside resources (such as fossil fuels). All future economic development strategies should be made within the context of the broader region.

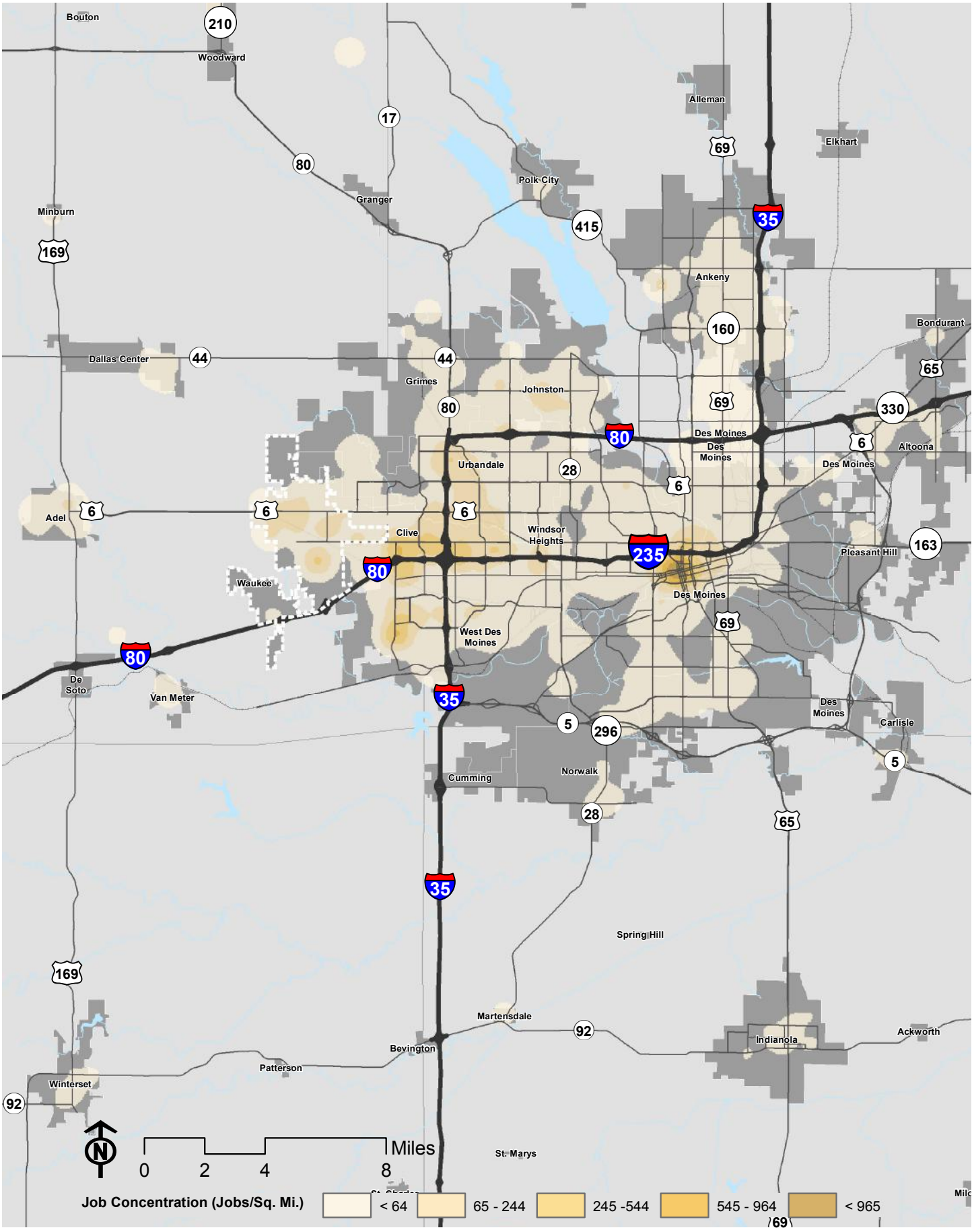
#CleanRenewableEfficientEnergy

### *Green Businesses*

**Green businesses are businesses that are willing to invest in cleaner, greener, or more efficient technologies and practices that protect the health, social well being, and economic strength of employees and surrounding communities for today and for future generations.**

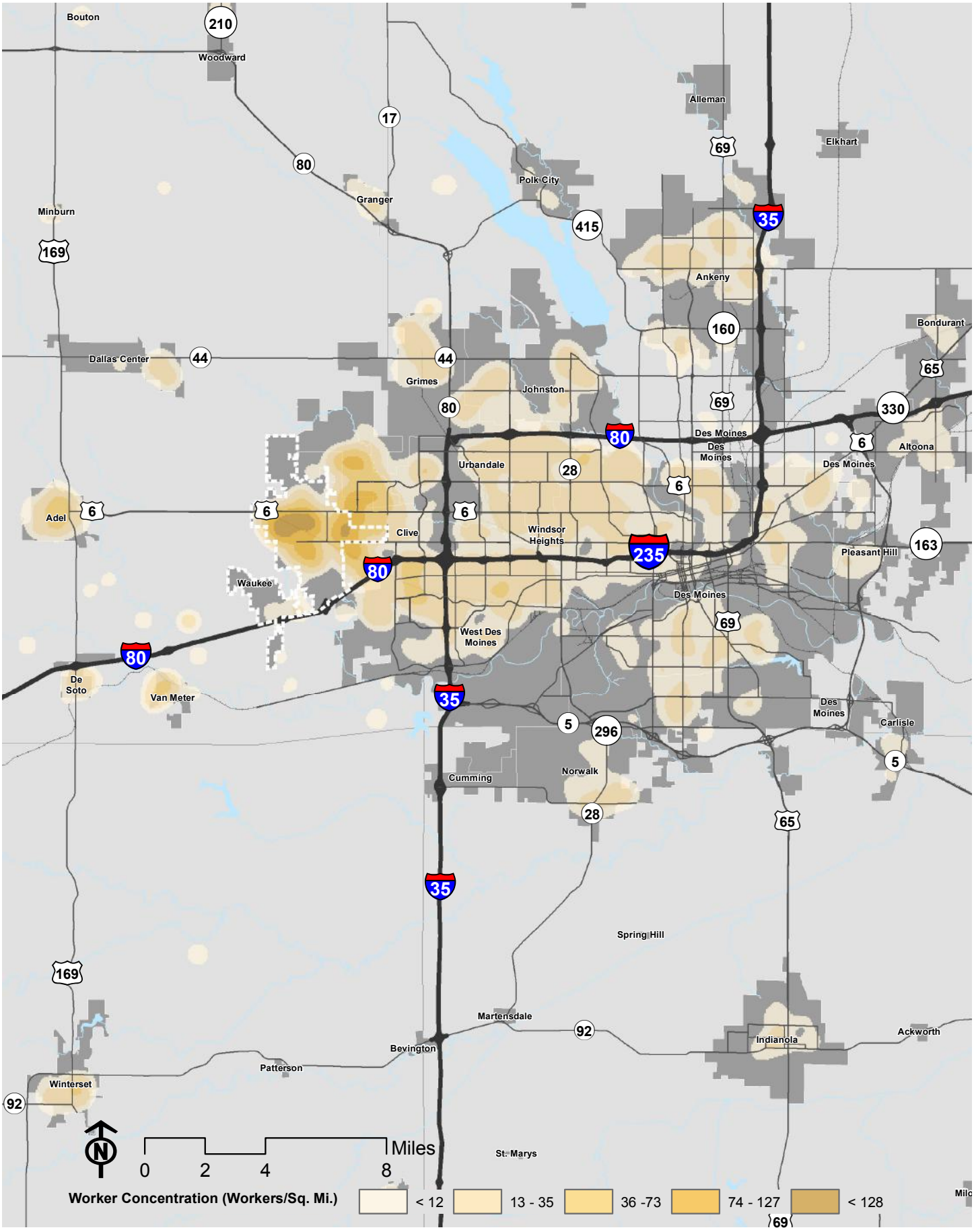
**There are a variety of organizations and programs that recognize excellence in green business industry. The US Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) rating system is one of the most widely used green building rating systems in the world.**

*Figure 4.1: Where Waukee Residents Work, 2015*




*Source: US Census Bureau. 2018. OnTheMap Application. LEHD Program*

*Figure 4.2: Where Waukee Workers Live, 2015*




*Source: US Census Bureau. 2018. OnTheMap Application. LEHD Program*

## Goals, Policies, & Action Items

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

### Policies

**Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific.**

### Actions

**Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal.**

**See "Key Terminology" in the Setting the Stage chapter.**

## Legend

**ED = Economic Development**

**ED P = Economic Development Policies**

**ED A = Economic Development Actions**

#Collaboration

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the comprehensive plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of economic related topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

**ED Goal 1: Promote the efficient retention and development of commercial and industrial areas in the City as high quality and attractive developments and land uses.**

ED P 1.1: Encourage compact commercial developments that make efficient use of infrastructure and resources.

ED P 1.2: Ensure commercial developments are dispersed appropriately throughout the community and in locations designated as commercial development areas.

ED P 1.3: Discourage the removal of commercial and industrial lands from the tax rolls unless it is in the public interest.

ED A 1.1: Identify key commercial and industrial development or redevelopment opportunities, in locations with sufficient access to transportation systems and to public infrastructure systems.

ED A 1.2: Leverage financial programs and assistance, including various incentives, to promote the rehabilitation and redevelopment of existing commercial facilities.

ED A 1.3: Revisit and revise design standards for commercial and industrial development, addressing the following:

- The inclusion of green spaces, paths, sidewalks, and other amenities as part of site plans.
- The use of appropriate building materials and façade treatments to enhance the aesthetic qualities of developments.

ED A 1.4: Revisit and revise as necessary, codes that require commercial or industrial developments to provide adequate off-street parking and loading areas, while promoting the sharing of parking and loading areas between neighboring businesses.

ED A 1.5: Revisit and revise as necessary, codes that require businesses to provide adequate screening or buffering between their operations and adjacent residential areas (either current or planned).

**ED Goal 2: Promote Waukee as a great place for investment and employment.**

ED P 2.1: Collaborate with local and regional chamber of commerce or business organizations to actively market Waukee as a great place to live and work in the Des Moines region.

ED P 2.2: Collaborate with business support organizations to serve the needs of current and future businesses.

ED P 2.3: Utilize economic development tools and strategies to attract businesses to relocate or establish operations in Waukee, or to help existing businesses to expand operations in the City.

ED A 2.1: Establish marketing campaigns and strategies to broaden the recognition of Waukee in the regional market.

- » Refine marketing campaigns and strategies to leverage the recreational and cultural amenities present in Waukee.

ED A 2.2: Conduct regular planning and strategy sessions with the Greater Des Moines Partnership.

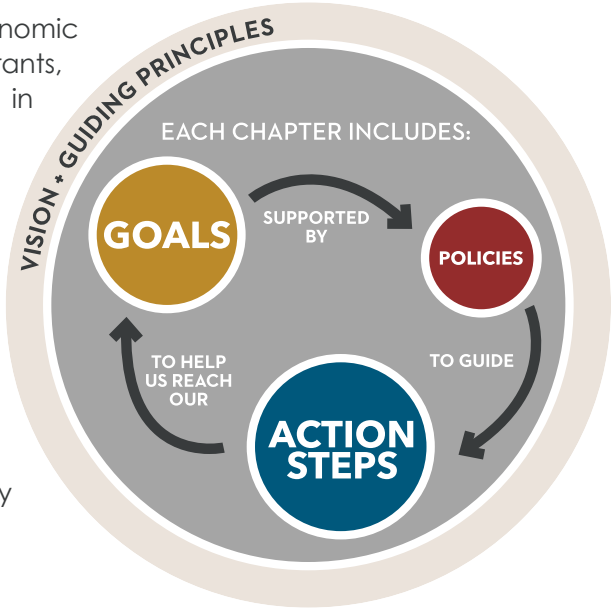
ED A 2.3: Refine and adjust financial incentives and other economic development tools (such as TIF, tax abatements, grants, etc.), in order to better attract or retain companies in Waukee.

ED A 2.4: Refine assistance programs designed to help businesses looking to locate in or expand in Waukee.

ED A 2.5: Educate local businesses and entrepreneurs regarding the various types of municipal, state, and federal economic development programs and incentives available.

ED A 2.6: Develop services, facilities, and infrastructure in support of start-up companies, entrepreneurs, and those working remotely in Waukee. Initiatives may include:

- » Small business incubators
- » Entrepreneurial support spaces such as co-working and meeting spaces
- » Providing strong cellular coverage and high speed fiber for local businesses and remote workers




**ED Goal 3: Attract quality commercial and industrial developments.**

ED P 3.1: Avoid the disruption of, or reduction in the quality of, nearby residential uses by commercial or industrial land uses.

ED P 3.2: Promote the creation of neighborhood commercial nodes tied to nearby walkable neighborhoods.

ED P 3.3: Encourage businesses to incorporate green space and other amenities that enhance the quality and marketability of their properties.

ED P 3.4: Encourage and provide incentives for the use of "green" building techniques in land development and construction.

ED P 3.5: Encourage developments to follow design guidelines established by the City for mixed-use nodes and for employment centers in the community.

#CleanRenewableEfficientEnergy
#CommunityCharacter

#Collaboration
#OccupationalDiversity

**ED Goal 4: Attract and develop a quality labor force that meets the needs of the existing labor market and anticipates trends in business and industry.**

ED P 4.1: Collaborate with economic development agencies and local businesses to provide programs that address industry workforce needs and create career and educational pathways for residents of all ages.

ED P 4.2: Support K-12 educational institutions in the pursuit of top quality educational programs and facilities.

ED P 4.3: Invest in amenities like quality housing, parks, trails, and open spaces, as well as community programs and events that contribute to the overall quality of life and attractiveness of the Waukee community as a place to live.

ED P 4.4: Partner with local colleges and universities to expand post-secondary and continuing education programs for residents of all ages to increase their earning potential and fill gaps in high demand professions.

ED P 4.5: Partner with local colleges and universities to provide customized training opportunities tailored to local businesses and business groups.

ED A 4.1: Create a program to match students with local businesses for internships, mentorships, and shadowing opportunities.

ED A 4.2: Explore workforce development grant opportunities and educational partnerships through regional and state economic development entities.

# 5. HOUSING

## OVERVIEW

For the City of Waukee to have an effective economic development strategy, it must have housing that meets the workforce needs of companies looking to start or expand operations in Waukee. The limited availability and lack of affordability of housing serve as constraints on economic development that can be alleviated to increase Waukee's competitiveness.

Housing is the dominant form of development in Waukee. Almost 30% of Waukee's 2040 Land Use Plan is proposed 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 determine who lives in Waukee. The quality and character of Waukee'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 provide a foundation for local decision making to guide residential development and redevelopment efforts in Waukee.

The second reason that housing is addressed in this plan is to meet the intent of 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."

# HOUSING NEEDS ASSESSMENT

A housing needs assessment was completed by the Iowa State University Extension and Outreach in 2017. The Housing Needs Assessment includes a quantitative statistical analysis of population data/demographics, economic and income data, existing housing data, and a housing market analysis. The Housing Needs Assessment indicated that an additional 571 housing units are currently needed in Waukee and 2,684 housing units will be needed by 2026. The current rate of housing construction is keeping pace with the rate of current population growth, but is not high enough to make up for the deficit created by the rapid population growth of the last 15 years. To keep on track, about 270 units per year should be built in Waukee.

*Table 5.1: Waukee Projected Housing Needs 2026*

| Projected Population @ 2.6% growth/HH Size 2.67 | Total Housing Units Needed | Housing Units Available in 2016/2017 | Minus Projected Vacancy Rate @ 3.8% | Minus Projected Annual Demolitions | Adjusted Total Housing Units Available | New Units Needed |
|---|---|---|---|---|---|---|
| 2016 | | 6,222 | | 4 | | |
| 2017 | 7,222 | 6,918 | 6,655 | 4 | 6,651 | **571** |
| 2026 | 9,335 | 6,651 | | | | **2,684** |

*Source: Iowa State University Extension and Outreach*

The Housing Needs Assessment included a set of 11 recommendations that the City of Waukee should pursue. Of the recommendations, six are being further emphasized in this plan. Those recommendations are in ***bold italics***. The recommendations were as follows:

1. ***Fulfill the City's role in providing development land for various types of housing construction***
2. Create multifamily and single family affordable housing units that are a better price match for the workforce commuting into Waukee

3. ***Preserve existing housing through rehabilitation and energy-efficiency improvements***
4. ***Approve zoning changes for density, smaller lot sizes and different architectural styles***
5. Underwrite price of land for new affordable housing development
6. Transition renters to home ownership through subsidy programs
7. ***Recruit and potentially partner with one or more developers for senior housing projects***
8. ***Partner with social services agencies on financial education programs for immigrant and refugee populations***
9. Create a municipal managed emergency housing fund
10. ***Implement a neighborhood focus to community development projects***
11. Form a permanent housing advisory task force

# HOUSING PLAN

## Vibrant Residential Neighborhoods

Waukee's residential neighborhoods are a key contributor in its quality of life and atmosphere. The community is committed to expanding and maintaining a diverse range of housing options to meet the needs of a wide range of residents of various ages and socioeconomic situations. To support the development of the City's neighborhoods, it is important to focus on policies that maintain the character that community residents value.

A neighborhood's design will more likely influence its perception of attractiveness and livability than its individual uses. It is therefore important that both old and new neighborhoods have the design characteristics that address the community's values.

One key feature of desirable neighborhoods is the sense of connection they offer residents to other neighborhoods and to the greater community. A well spaced network of collector streets disperse traffic, making for a safer and more enjoyable pedestrian and bicycling experience within residential neighborhoods. Connected street systems are also more efficient in providing services such as snow plowing, public safety, and street maintenance.

In addition to connected streets, neighborhoods should have trails or sidewalks so residents can safely and conveniently move throughout and between neighborhoods, as well as to other community destinations.

## Life-Cycle Housing

Life-cycle housing is based on the premise that as people go through life, their housing needs change. A young person getting out of school and just starting out usually cannot afford a home, so often begins by renting. As a person grows older, they often establish a family and buy their first home, usually a townhouse or a small starter home. Then as a family's

**VIBRANT NEIGHBORHOODS**

**Walkable Scale & Design**
Approximately 1/4 mile radius (or a 10-minute walking distance from end to end); accommodates multiple modes, including bikes and pedestrians.

**Community Institutions**
Anchored by key institutions (schools, religious, etc.) - may include services that support day-to-day needs (corner stores).

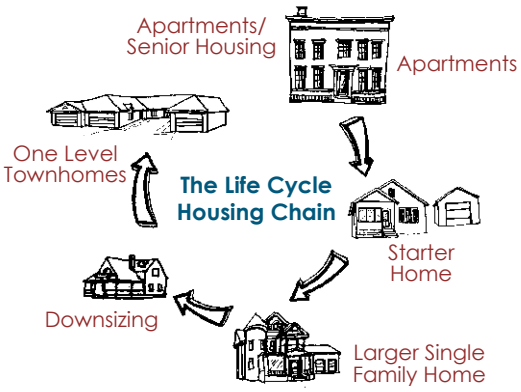
**Parks/Open Space**
Provides access to parks and recreational facilities that promote healthy, active living.

**Identity/Character**
Memorable character and interesting architectural and landscape design.

**Public Spaces**
Design of public realm encourages human contact and social activities.

**Neighborhood Cohesion**
Activities and organizations that engage and connect residents and promote a safe, welcoming environment.

*Figure 5.1: Life Cycle Housing Chain*




household income grows and children enter the picture, they may move up to their largest home. Once the children leave and a family's size decreases, parents often move back to a smaller home with fewer maintenance needs or into a home with an association that takes care of home and property maintenance. Eventually, as a person ages there is often a need for an assisted living or nursing home facility. This represents the life-cycle housing chain as illustrated in Figure 5.1.

Currently only 8.6% of Waukee's population is over the age of 65, but 18.6% of the population is in the "Middle Age" category that is 10 years away from making decisions about where to live in retirement. Now is a good time to prepare options so that Waukee's current residents have senior housing choices available to them within the community.

Residential units of different sizes, configurations, tenures, and price points located in buildings of different sizes, configurations, ages, and ownership structures accommodate varying lifestyle choices and affordability needs. They also make it possible for households of different sizes and income levels to live in close proximity to one another.

The City of Waukee should identify specific places in the City where smaller lot sizes can be blended into existing neighborhoods without drastically changing the appearance and character of the community. The smaller lot sizes may be useful in encouraging different architectural styles that could be more affordable for first-time homeowners or senior residents, such as townhomes, duplexes, or condominiums.

Rental housing is another component of life-cycle housing that needs to be monitored over time. Rental housing is a critical component as it provides more housing options for both the beginning and end of the life-cycle chain. It also fulfills the needs of several segments of the population including commercial and retail service employees; single-income families and individuals; senior citizens living on fixed incomes; young people moving out of childhood homes and into the workforce; and economically disadvantaged households. The City may want to use rental housing maintenance regulations, licensing programs, and rehabilitation funding programs to ensure that the existing rental housing supply is maintained in good condition.

## A Community of Well Maintained Housing

An analysis of the age of Waukee's housing stock revealed that the majority of the housing in the community was built after 1990, over 85%. The comparative newness of the City's housing indicates that there should be relatively few concerns with deterioration of the existing housing stock.

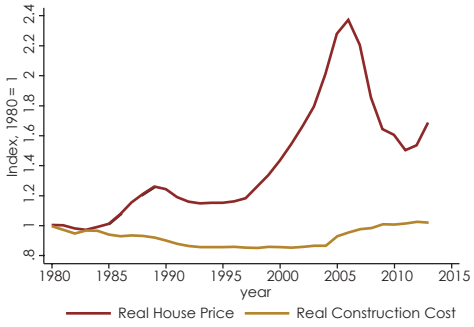
Although the number of deteriorating housing units is very low in Waukee, it is possible that some deteriorating housing units may be located in prominent locations. Waukee, like many communities, has areas that are zoned commercial but currently contain residential uses. In such areas, the residential structures are nonconforming 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.

Waukee 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. Home energy efficiency and sustainability objectives can be addressed by focusing on air sealing and insulation, HVAC efficiency replacements, roofing, windows, and homeowner maintenance education. In addition to preserving existing housing stock, this type of energy efficiency and sustainability investment reduces the overall cost of home ownership and maintenance for the homeowner.

## Regulation and Housing

A wide array of local government regulations influence the amount, location, and shape of residential development. These local regulations include beneficial environmental protections, well-intentioned permitting processes, or historic preservation rules, but they may also be designed to exclude multi-family and affordable housing from neighborhoods and whole communities. As seen in Figure 5.2, construction costs have been essentially flat over the past thirty years. The land market is a different story. Local policies acting as barriers to housing supply include land use restrictions that make developable land much more costly than it is inherently, zoning restrictions, off-street parking requirements, arbitrary or antiquated preservation regulations, residential conversion restrictions, and unnecessarily slow permitting processes. If Waukee would like to have a diversity of housing choices in the future, the City will need to evaluate its current regulations, processes, and programs and understand how they can support this goal.

*Figure 5.2: U.S. Real Construction Costs and House Prices Over Time*




*Source: Gyourko, Malloy (2015)*

The Housing Development Toolkit published by the White House in September 2016 highlights actions that local jurisdictions can take to promote healthy, responsive, affordable, and high-opportunity housing markets. These actions include:

- Establishing by-right zoning to allow for greater certainty and more efficient development.
- Taxing vacant land or donating it to non-profit developers to put these properties back into productive use and reduce potential blight.
- Streamlining or shortening permitting processes and timelines to reduce costs, uncertainty, and the length of time it takes to develop.
- Eliminating off-street parking requirements where convenient alternative transportation modes exist to reduce wasted developable land and reduce the significant costs associated with private vehicle storage.
- Allowing accessory dwelling units to expand the available rental housing stock in areas zoned largely for single-family housing and address the needs of families caring for aging parents or adult children.
- Establishing density bonuses to incentivize the addition of affordable housing units over the allowed number of market rate units.
- Enacting high-density and multi-family zoning to reduce per-unit costs.

#EfficiencyTransparencyConsistency

## Goals, Policies, & Action Items

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

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**See "Key Terminology" in the "Setting the Stage" chapter.**

#HousingDiversity
#CommunityCharacter

## Legend

**H = Housing**

**H P = Housing Policies**

**H A = Housing Actions**

» Employing inclusionary zoning to encourage or require the inclusion of affordable housing units in new residential development projects.

» Establishing development tax or value capture incentives to incentivize development and keep increased tax revenue within a district to address affordability concerns.

» Using property tax abatements to reduce the costs of constructing affordable housing and to spur development.

Creative regulatory solutions may be required in order to reduce the amount of local regulatory barriers to new housing development. For example, most cities have extensive off-street parking requirements that are counter-intuitive to the visions and goals they wish to achieve. The main problem being addressed with off-street parking requirements is on-street parking availability, or lack thereof. Cities can choose to manage on-street parking to deal with on-street parking availability, rather than regulating off-street parking. Managing on-street parking by setting on-street parking time limits or establishing residential parking permit programs does a better job of increasing on-street parking availability and avoiding increased housing costs compared to off-street parking regulations.

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the Comprehensive Plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of land use related topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

**H Goal 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 Waukee residents.**

H P 1.1: Guide adequate land at various housing densities to support a balanced housing supply.

H P 1.2: Continue to utilize the planned unit development process to encourage a mixture of housing types.

H P 1.3: Monitor changes in housing needs and trends to create strategies which result in a wide variety of housing options.

H P 1.4: Continue to work collaboratively with property owners, builders, lenders, and other stakeholders to meet local housing needs.

H P 1.5: Promote the development of multi-family housing in areas that are physically suited to higher densities.

H P 1.6: Partner with social services agencies on financial education programs for immigrant and refugee populations.

H A 1.1: Host an annual housing summit to present information on the importance of having a diversity of housing types and styles and range of price points.

H A 1.2: Recruit and potentially partner with one or more developers for senior housing projects.

H A 1.3: Prepare and publish housing educational information in city newsletters and social media posts.

#CommunityCharacter
#NaturalResourcesandAgProtection

**H Goal 2: 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.**

H P 2.1: Maintain zoning and subdivision regulations allowing for the construction of a variety of housing types and price ranges.

H P 2.2: 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.

H P 2.3: Implement a neighborhood focus to community development projects.

H P 2.4: Promote higher density housing in the Mixed Use area of the City.

#HousingDiversity
#CommunityCharacter
#SustainableDesign

H A 2.1: Review and update the zoning and subdivision ordinances to enable alternative housing patterns and remove barriers to affordable housing development.

H A 2.2: As part of the housing summit (see HA1.1) seek presenters on innovative housing trends such as energy efficiency, multi-generational housing, smart homes, missing middle housing, housing for disabled, accessory dwelling units, 3D printed homes, or others.

**H Goal 3: Establish a community of well-maintained housing and neighborhoods including ownership and rental housing.**

H P 3.1: Promote ongoing maintenance of owner occupied and rental housing units.

H P 3.2: Monitor housing maintenance in neighborhoods and identify tools, if needed, to provide residents with access to capital to make home improvements.

H P 3.3: Preserve existing housing through rehabilitation and energy-efficiency improvements.

H P 3.4: Use GIS and other data sources to monitor conditions and trends in the housing stock, including ownership status, values, sales and improvements.

H P 3.5: Encourage the formation of neighborhood associations to address long-term maintenance of landscaping and other neighborhood improvements.

H A 3.1: Facilitate an annual housing trade fare that brings home repair or remodel vendors, financiers, and assistance providers to showcase services.

H A 3.2: Form a partnership with lending institutions to develop low interest or zero interest loan programs for housing rehab or re-modeling of older housing stock.

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# 6. PARKS, TRAILS, RECREATION & OPEN SPACE

## OVERVIEW

Parks, trails, and open spaces and related features are an important part of life in Waukee and will help shape the future of the community over the next few decades. These facilities encourage active and healthy living, community and family connections, and a greater appreciation for the natural environment. Parks can help define the identity of a neighborhood and help to protect and enhance property values. Stretches of streambeds, woodlands, or prairie in and near Waukee can serve as corridors for wildlife and the foundation for the City's future parks, trails, and open space system. These facilities serve as the base for creating great new neighborhoods and districts in Waukee and will provide opportunities for residents and visitors to interact with nature and the environment.

## DEVELOPING THE PARK SYSTEM

The following ideas or themes provide the foundation for the future parks, trails, and open space system in Waukee, serving residents and visitors through 2040 and beyond. The Waukee community has the opportunity to capitalize on the natural resources present in this part of Dallas County to create a community of distinction that features natural areas and corridors for play and recreation as key drivers of the community's growth.

### Greenways

As outlined on the Future Land Use Map, Waukee anticipates growing in new areas to the north, west and south of town over the next few decades, while preserving the natural resources and qualities of key greenway corridors. The Sugar Creek corridor and its tributaries will be preserved as open space / greenway corridors that connect different neighborhoods

and different parts of the City and provide areas for active and passive recreation and interaction with wildlife.

The greenway system will create a strong network of "urban streamways" (serving as a hybrid of streams and drainageways) to serve multiple functions, including:

» Serving as surface waterways for stormwater

» Providing treatment areas for stormwater runoff

» Providing corridors for recreational trails

» Enhancing the functions of the local ecosystem and local habitats

» Providing corridors for alternative transportation (including walking and biking)

The overall greenway network may include the following hierarchy of greenway-oriented connections:

» **"Green fingers"** – Regional connectors to regional greenways, trails, or urban nodes

» **Parkways** – Neighborhood-scale parkway corridors with enhanced streetscapes

» **Local Green Streets** – Interconnections from local street networks to the broader greenway network


The various greenway areas should incorporate walking loop trails, picnic areas, ecological education components, and efforts to conserve the natural environment. The greenways may also serve as key locations for the integration of outdoor adventure recreation programming and activities, including the following:

» Mountain biking trails

» Nature walks / birdwatching

» Environmental education

» Hiking

» Camping

» High ropes courses / zip lining

As the greenways evolve and the City and other partners begin to integrate recreation features into the greenways, the various features should be strategically located in the best spots to preserve habitat, minimize conflicts, and connect residents and visitors with natural assets in the Waukee area.

## A System of Neighborhood Parks

As the City of Waukee continues to grow over the next few decades, the community will in particular work with developers to create a system of neighborhood parks in new areas of growth. The City will work with homebuilders and developers to incorporate playground elements and other features that serve the full range of residents and visitors in the community.

## A Focus on Public Art

Communities are increasingly integrating elements of public art into parks, open spaces, and other public spaces in order to showcase the work of local and regional artists and to enhance the character and popularity of these public spaces. The City anticipates integrating public art throughout the park system over the next few decades, in neighborhood and community parks and throughout the greenway system. The City may explore a formal "art in the parks" program as particular parks and facilities move toward completion over the next few decades.

## Build New Signature Parks and Recreation and Civic Features

The City should keep the development of signature park, recreation, and civic amenities in mind as it plans for budgets and actions on a year-by-year basis. In particular, the City should keep the following in mind going forward:

» Planning for a Civic Campus (described in the Land Use Chapter), to potentially include an amphitheater, performing arts center, aquatic center, athletic complex, field house, and facilities to provide various city services.

» Creating new park master plans and implementing existing park master plans around Waukee.

# THE PARK SYSTEM

## Neighborhood Parks

**Typical Size:** 5 – 10 acres, and occasionally smaller

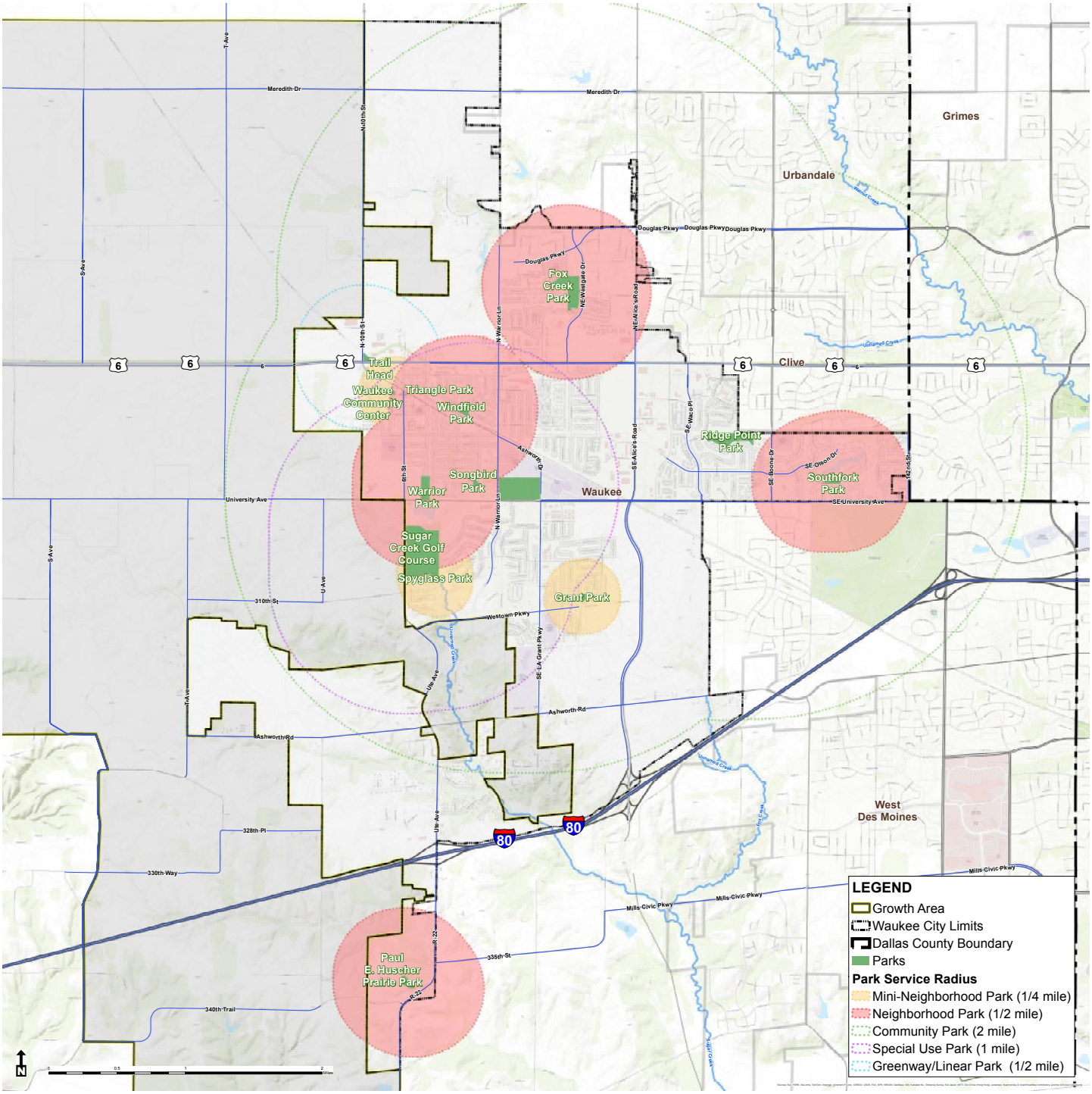
**Service Area:** Typically ¼ mile, free of barriers such as major roadways, rivers, or rail corridors. The service area may extend as far as ½ mile.

**Standard:** 5 acres per 1,000 people

Neighborhood parks serve nearby residential neighborhoods throughout the City and will develop as new areas of residential growth proceed over the next few decades. Neighborhood parks serve as a focal point for individual neighborhoods and connect with nearby residences and other parks through a complete network of sidewalks and trails. The design of neighborhood parks may build upon and strengthen the character and identity of a local neighborhood, through elements such as art installations and themed playgrounds. To facilitate the expansion of the neighborhood park system, the City should review zoning and subdivision ordinances to identify any needed updates associated with park dedication and trail and sidewalk development regulations.

An analysis of the Waukee park system indicates that the City should add two to three new neighborhood parks in the east-central part of the community to serve existing residential neighborhoods that are located more than a half-mile from a park.

*Figure 6.1: Park Service Areas*



The City should also update aging facilities and amenities within existing neighborhood parks, including play equipment, park furniture, signage, and landscape plantings.

The City should create a common standard for amenities within neighborhood parks and a replacement plan for playgrounds and other facilities within parks.

*Table 6.1: Assessment of Park Needs in Waukee*

| Park Type | Total Acres (Current Inventory) | Current Service Level | | | Recommended Service Levels | | | Based Upon 2015 Population | | Based Upon Projected 2040 Population | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Meet Standards / Need Exists | Additional Acres Needed | Meet Standards / Need Exists | Additional Acres Needed |
| Neighborhood Parks (Up to 10 Acres) | 23.1 | 1.2 | acres per | 1,000 | 6 | acres per | 1,000 | Need Exists | 90.8 | Need Exists | 265.1 |
| Community Parks (10 - 100 Acres) | 72.7* | 3.8 | acres per | 1,000 | 3 | acres per | 1,000 | Meets Standard | N/A | Need Exists | 764 |
| Regional Open Space & Natural Acres (Over 100 Acres) | 0.0 | 0.0 | acres per | 1,000 | 4 | acres per | 1,000 | Need Exists | 76.0 | Need Exists | 192.1 |
| Total Park Acres | 95.8 | 5.0 | acres per | 1,000 | 13 | acres per | 1,000 | Need Exists | 151.1 | Need Exists | 528.6 |

*Source: HKGi 2017*

**Does not include park projects currently funded within the next 3 years, but not a part of the current inventory.*

## Community Parks

**Typical Size:** Over 10 acres, often 30 – 80 acres

**Standard:** 3 acres per 1,000 people

Community parks serve as the main venues for community recreation and serve broad purposes. These parks meet community-based recreational needs, preserving unique recreation venues, and providing specialized facilities. Community parks and sports complexes concentrate a number of heavily programmed facilities to larger and less numerous sites around the community. Community parks may include sports fields, more active uses such as playgrounds, and passive uses such as open fields and the integration of internal trails and paths. Each community park in Waukee will respond to the locational characteristics and physical properties of each site, as well as the current and anticipated needs of the entire community with regard to park and open space facilities and programs.

## Regional Parks and Open Space

**Typical Size:** Over 100 acres

**Standard:** 4 acres per 1,000 people

Regional parks and open space areas serve a number of communities in a given section of a metropolitan area and serve broad purposes. A given metropolitan area typically includes only a handful of regional parks. While the City of Waukee does not currently have any regional parks within its boundaries, the community has the opportunity to explore creating a regional park along and near the Raccoon River, in collaboration with

the City of West Des Moines, Dallas County, and other partners at the regional and state level. A potential park along and near the Raccoon River (including the wooded bluff lands to the north of the river) would provide access to the river and would protect natural resources in the area.

## Greenways

**Typical Size:** Varies

**Service Area:** Varies. Distance is less important than ensuring that greenways are connected throughout Waukee and are accessible to everyone in the community, via trails.

Greenways will serve as linear park corridors, providing natural experiences and protecting natural resources and open space. Greenways, as depicted on maps in this plan, will primarily follow and connect existing natural features and environmentally sensitive areas such as woodland areas, drainageways, wetlands, and topographically interesting locations. They will likely serve as ideal locations for a variety of outdoor adventure recreation programming. As the City continues to integrate features into the greenway system, it should carefully locate features in the best spots possible to preserve habitat, minimize conflicts, and connect residents and visitors with Waukee's natural assets.

» The City should work with developers to keep the vision of the park and greenway system in mind when planning new developments.

» The City should also plan for greenways with context in mind, looking to connect to transportation networks, natural areas, and community destinations.

» The City and developers should ensure connectivity between greenways, trails, destinations, nearby parks, and residential neighborhoods.

## Trails

The popularity of trails and bikeways has consistently increased over the last few decades as Americans have viewed the use of these facilities as key to promoting health, fitness, and sustainability. Trails provide the opportunity to travel safely within a community, to exercise, and to enjoy natural areas.

*Integrating trails into greenways:*

Waukee should integrate trails into greenways as the system is completed. Providing access to natural areas via trails will help to draw residents and visitors to the various greenways in Waukee. Greenways provide logical corridors for trails that would appeal to a wider range of bicyclists and people hiking around the area.

*Providing effective signage and wayfinding:*

Providing very clear signage and wayfinding for various types of trails is essential to attracting more users to the trail system. A wayfinding system involves a coherent, easily understood system of trail names, maps, and kiosks that build awareness, identity, safety, and ease of use. Kiosks provide a variety of information in a consolidated location, at key spots along trails or within parks.

*Connecting Neighborhoods:*

Trails and sidewalks allow for active living, active transportation, and connections between different neighborhoods and throughout the community. The sidewalk network in Waukee is broken in certain locations. This has negative effects on the walkability of portions of the community, especially for those with mobility challenges such as the elderly and disabled, or when weather events make the sidewalk gaps impassable.

Going forward, the City should develop an inventory of Waukee's sidewalks and trail connections, and analyze gaps and needs in the overall system. Projects identified from this analysis should be incorporated into Waukee's ongoing Capital Improvement Plan.

*Safe Routes to School program:*

This program provides funding for projects that improve the safety for children walking or biking to school. It is a competitive process but provides potential funding for sidewalk and trail improvements in Waukee. Even if a particular sidewalk or trail project is not deemed an official Safe Routes to School project, the City may wish to prioritize those projects that improve the connections and safety for travel to and from the various schools in the community.

## Trail Types:

Trails in Waukee include the following types of trails, sorted into a logical hierarchy, based upon the level of investment associated with each type of trail.

*Regional Trails*

Purpose: Regional trails are designed to connect different communities by providing recreational trails along natural, historical, and cultural areas or corridors. The trails bring visitors to Waukee and provide community members with additional opportunities for recreational trips on the trail and exercise activity.

Design: Regional trails are usually provided off-road, although portions of regional trails may be located along the sides of particular roads until the trail network is improved, or when a regional trail is passing through an urban environment. These trails should be paved for maximum usability. The design and construction of trail underpasses is encouraged where regional trails meet major roadways to allow for maximum safety. Given the relatively flat grade of most regional trails, many regional trails follow old rail corridors between different cities and towns. The design of regional trails should allow for access to surrounding neighborhoods and communities via local trails or through parking lots located at trailhead locations.

*Local Trails – Off - Street*

Purpose: Off-street trails are intended to connect neighborhoods with destinations such as schools, shopping districts, parks, and employment areas. They also serve as the connecting link between neighborhoods and regional trails.

Design: Off-street local trails are often, but not always, designed as part of the road right-of-way system, but separated from vehicular traffic by curbs

or vegetation. These types of trails are usually composed of bituminous material or concrete. New developments in Waukee should include right of way for trails on at least one side of collector and arterial roads.

*Local Trails – On-Street*

Purpose: On-street bike facilities should function for all users, but are generally aimed more for experienced bike riders who are comfortable riding with or next to motor vehicle traffic. On-street facilities give bicyclists a safe space on the road for commuting and exercise.

Design: On-street bike routes typically are designed as either bike lanes or bike boulevards.

- Bike lanes provide a marked area along higher traffic volume streets that connect key destinations within the community. The signage and marking along these streets is important in encouraging bicycle ridership and improving safety.
- Bike boulevards are lower traffic volume streets that are signed and/or designated as bike routes. These streets also are intended to connect key destinations within the community and other trail corridors. Signage and road markings along bike boulevards should make drivers and bicyclists aware that the road should be shared with bicyclists.
- Additional Infrastructure: Additional features and design considerations can enhance safety and the ridership experience on streets designated as bicycle routes, including the following elements. The design of these elements should be tailored to the unique dimensions and attributes of each road corridor.
  - Speed bumps
  - Roundabouts
  - Chicanes (curves in a road to slow traffic)
  - Curb bump outs and edge islands
  - Center islands
  - High visibility crossings
  - Refuge medians
  - Signage, lights, warning beacons, or signals at crossings
  - Landscaping (to encourage the calming of traffic)
  - Lower speed limits

# NATURAL RESOURCES

The City of Waukee is located within the southern edge of the Western Corn Belt Plains (EPA Level III ecoregion) and the Des Moines Lobe (Level IV ecoregion). The City is also located within the Swan-lake Branch – North Raccoon River Major Watershed (HUC8) and encompasses five minor watersheds (HUC-12) including the Johnson Creek-Raccoon River, Sugar Creek, Little Walnut Creek-Walnut Creek, Walnut Creek, and Hickory Creek-North Raccoon River minor watersheds. Water resources within the City include several small tributaries and a few emergent and shrub/scrub wetlands. Streams that intersect the City include the South Walnut

Creek, Little Walnut Creek, Sugar Creek, Fox Creek, Johnson Creek, and the Raccoon River. Many of the streams within the City are impaired for bacteria, nutrients, sedimentation, and erosion and are increasingly prone to flooding events. The City is also located within the Prairie Pothole Region; topography across the annexation areas to the west of Waukee is indicative of this region. Historically, this area supported native prairie scattered with isolated wetland complexes.

According to US Fish and Wildlife data several rare species may occur within or near to the City of Waukee including the Indiana bat (state and federally endangered), Barn owl (state endangered), least tern (federally endangered), Topeka shiner (federally endangered), rusty patch bumblebee (federally endangered), Blanding's turtle (state threatened), northern long-eared bat (federally threatened), prairie bush clover (federally threatened), Western prairie fringed orchid (federally threatened), bald eagle (state special concern), and 22 migratory bird species. In addition, areas in and around Waukee have been identified by the Iowa Tallgrass Prairie Working Group for tallgrass prairie conservation which identifies areas with the best potential for protection and restoration of native prairie (Iowa Wildlife Action Plan).

# Opportunities and Concerns

Based on the existing and historic natural resources within the area there are several primary natural resource concerns and many potential conservation and watershed opportunities related to parks and open spaces within the City and future annexation areas.

## Concerns

» Loss of topsoil

» Pollution loading and transport

» Sedimentation and bank erosion of streams

» Increased flood risk due to climate and land use changes

» Loss of habitat and native plant communities

## Opportunities

*Watershed*

» Reduce nutrients loading in Sugar Creek and Johnson Creek

» Reduce sedimentation to Sugar Creek, Johnson Creek, Little Walnut Creek, and Walnut Creek

» Increase stream buffer protection corridors to include 5-year floodplain

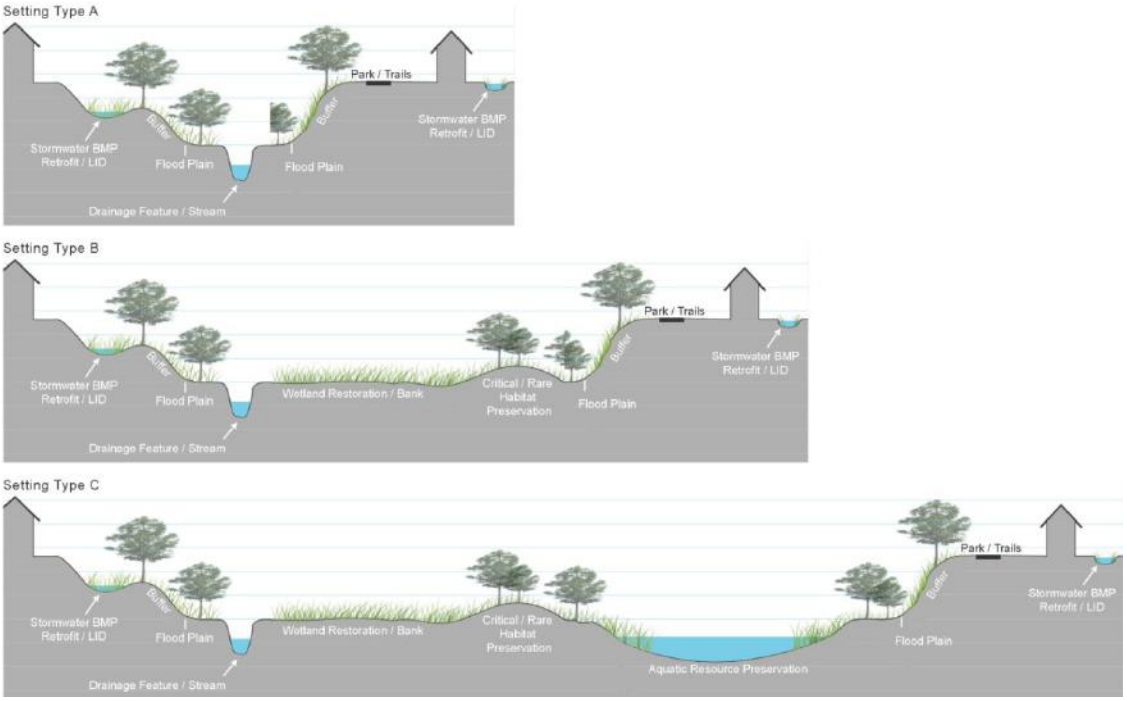
» Stabilize at-risk and eroding stream banks

» Retrofit existing stormwater infrastructure to better manage storm events

» Protect and restore prairie pothole and oxbow wetlands and complexes when possible (Figure 6.2)

» Restore healthy soils to open spaces

*Figure 6.2: Regional Stormwater Management Options*




*Source: City of Lino Lakes Surface Water Management Plan*

*Low impact street reconstruction project*

- » Designated official access and pullouts for paddlers to reduce disturbances to natural areas along streams
- » Removing drain tile where possible to restore natural hydrology (Figure 6.2)
- » Develop regional stormwater management plans for annexation areas
- » Develop stormwater management ordinances for new and redevelopment
- » Adopt wetland management standards
- » Require use of Low Impact Development

### *Conservation*

- » Protect and restore native sod and remnant prairie when possible
- » Protect rare species by following USFWS guidelines for development and preserving and enhancing critical habitat
- » Use of native plants in landscaping and stormwater management
- » Use low impact vegetation management strategies in parks (e.g., limit use of chemicals and fertilizers)
- » Reintroduction of natural disturbances like fire to manage restored and native grasslands

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the Comprehensive Plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of parks, trails, and recreation topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

**PTROS Goal 1: Ensure every member of the Waukee community has equitable, walkable access to a park.**

PTROS P 1.1: Plan for the distribution of parks so that all residences are no further than one-half mile from a park (neighborhood park, community park, or a regional park).

PTROS P 1.2: Provide programming at parks that is suitable for a variety of age groups and abilities including youth, seniors, teen, and adult populations as well as people with special needs.

PTROS P 1.3: Acquire park land and provide land for parks at a rate in line with anticipated population growth in Waukee.

PTROS P 1.4: Partner with schools, public agencies, and other organizations to plan jointly for new parks and facilities.

PTROS P 1.5: Coordinate with youth athletic associations to provide high quality facilities for athletic activities.

PTROS P 1.6: Make necessary improvements to make city parks accessible by a variety of means of transportation (including vehicular, bike, and walking).

PTROS P 1.7: Develop sufficient numbers and types of pavilions and shelters to meet the needs of gathering families and groups.

PTROS P 1.8: Implement principles of Crime Prevention through Environmental Design (CPTED) to create safe park environments for all users.

PTROS A 1.1: Develop neighborhood parks to serve new areas of Waukee and identify locations within new neighborhoods for the locations of new neighborhood parks. Integrate facilities that would serve local neighborhoods, including the following:

- Playgrounds
- Open field play space
- Picnic space
- Art display space
- Historical interpretive features
- Additional, special features

## *Goals, Policies, & Action Items*

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

### Policies

**Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific.**

### Actions

**Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal.**

**See "Key Terminology" in the "Setting the Stage" chapter.**

## *Legend*

**PTROS = Parks, Trails, Recreation and Open Space**

**PTROS P = Parks, Trails, Recreation and Open Space Policies**

**PTROS A = Parks, Trails, Recreation and Open Space Actions**

#Collaboration

#TransportationDiversity

#Collaboration
#NaturalResourcesandAgProtection
#SustainableDesign

**PTROS Goal 2: Preserve and protect the environment to improve the local ecology and improve the community's connections to nature.**

PTROS P 2.1: Implement stormwater "best practices" into the design and operation of existing and future parks.

PTROS P 2.2: Leverage the creation of a greenway system in Waukee to help protect plant and animal habitats.

PTROS P 2.3: Incorporate park space along future greenways to provide locations where people can connect with the natural landscape.

PTROS P 2.4: Utilize sustainable and energy efficient materials in the design and construction of parks and open space areas.

PTROS P 2.5: Collaborate with county, state, and national agencies to preserve natural resource areas.

PTROS P 2.6: Integrate natural resource areas as open space in new developments to preserve natural systems and to accommodate wildlife movements.

PTROS P 2.7: Incorporate natural features and areas into the park system when possible and applicable.

PTROS P 2.8: Restore and protect native habitats, especially prairie and wetland area when possible.

PTROS P 2.9: Restore natural disturbances and hydrology in open spaces and natural areas when possible.

PTROS P 2.10: Incorporate parks as part of the City's greenway system.

» Provide passive recreation space along greenway corridors for hiking, bird watching, plant walks, resting, and fishing.

#CommunityCharacter

**PTROS Goal 3: Develop a park system that establishes Waukee as a regional destination for outdoor recreation.**

PTROS P 3.1: Support the development of "action-based" recreational facilities and amenities (example: a ropes course, mountain biking, zip line, etc.).

PTROS P 3.2: Explore ways to leverage the presence of the Raccoon River to create destinations for recreation that would bring more visitors to Waukee.

PTROS P 3.3: Develop parks and recreation activity programs that will help draw participants from around the region and adjoining communities.

PTROS P 3.4: Develop trail loops that connect the Raccoon River Valley Trail and other regional trails with local points of interest in Waukee.

PTROS P 3.5: Create a city-wide wayfinding and signage plan for trails to bring people into Waukee and to help them navigate around the community.

PTROS A 3.1: Develop a larger community park, integrated along with a civic campus area in Waukee.

- » Identify locations for and develop programming and facility plans for a new community park that would integrate with the potential civic campus along and west of 10th Street.

**PTROS Goal 4: Connect neighborhoods to local destinations and the regional trail network.**

#TransportationDiversity

PTROS P 4.1: Improve the neighborhood trail system with sidewalks and trails.

PTROS P 4.2: Identify and address gaps in the sidewalk and trails system. Fill in gaps to provide a full connected network of trail loops and local trail and sidewalk connections to parks and destinations.

PTROS P 4.3: Incorporate sidewalk repair and replacement into road reconstruction and repair projects, as part of the City's overall Capital Improvement Plan.

PTROS P 4.4: Ensure safe crossings of busy roadways with signaled, at-grade crossings and grade-separated crossings, where necessary.

PTROS A 4.1: Develop a loop trail system that connects the regional trails to local destinations and provides a series of varied experiences for local riders.

- » Connect destinations such as schools, parks, Downtown, and historic or cultural locations.
- » Provide a wayfinding system that uses distinct branding and clear directions to destinations.
- » Secure right of way or easements for future trails.
- » Connect neighborhoods to the broader trail network.
- » Reconstruct sidewalks that are in disrepair and install new sidewalks to eliminate existing gaps in the system.


**PTROS Goal 5: Support walking and bicycling for recreation and transportation by providing a trail and sidewalk system that is safe, convenient, and comprehensive.**

PTROS P 5.1: Provide lighting along key trail or sidewalk routes.

PTROS P 5.2: Design intersections to be safe for pedestrians and bicyclists, as well as drivers.

PTROS P 5.3: Bring all sidewalks in Waukee up to Americans with Disabilities Act (ADA) standards.

PTROS P 5.4: Develop strategies and standards for the winter maintenance and use of trails.

PTROS A 5.1: Implement improvements to trails and road crossings as identified in the Iowa Living Roadways Plan.

- » Provide enhanced signage at trail crossings.
- » Install heightened landscaping at key intersections.
- » Install landscape features to improve trail user experiences.
- » Use wayfinding to bring trail users to Downtown Waukee.
- » Make art a part of the trails network, with features such as a linear outdoor gallery.

**PTROS Goal 6: Provide recreational programming that serves all segments of the Waukee community.**

PTROS P 6.1: Partner with school district to provide indoor recreation space for programs.

PTROS P 6.2: Increase programming for active adults, seniors, and those with disabilities.

PTROS P 6.3: Partner with private recreation providers and athletic associations to provide desired programs.

PTROS P 6.4: Ensure consistent and dynamic communication with residents to stay up to date on current trends in recreation.

# 7. TRANSPORTATION & MOBILITY

## OVERVIEW

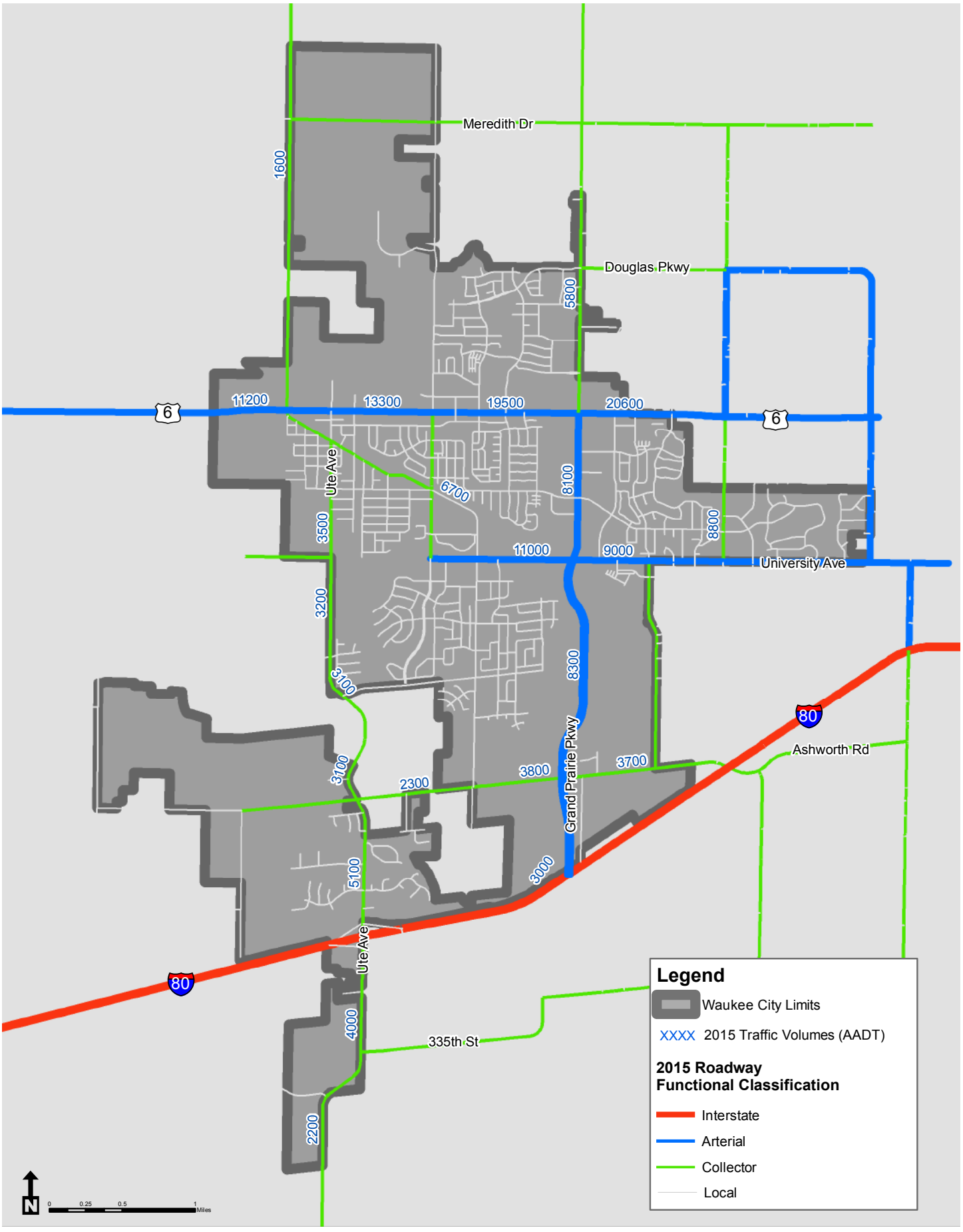
As the City of Waukee continues to grow, the demands placed on the transportation network will increase as well. The ability of the network to handle this increased demand will directly affect the quality of life of residents and visitors in Waukee. Therefore, it is important to recognize a well-maintained and connected transportation network provides a community with safe, efficient, and affordable travel. Planning for the future transportation system in Waukee must account for the effective linkages between different parts of the City, as well as linkages to the surrounding Des Moines Metropolitan area.

Waukee has completed several major transportation investments over the last several years, including Grand Prairie Parkway, the expansion of SE Alice's Road, Douglas Parkway, and many smaller collector roads throughout the community. The City will continue to proactively plan for future transportation needs and various expansions of the system. All these actions will create an attractive environment, in terms of transportation and mobility, to support quality residential, commercial, and industrial growth.

## EXISTING CONDITIONS

Waukee is connected to the greater Des Moines Metropolitan area through Interstate (I) 80 and US Highway (US HWY) 6. These regional routes provide important links to jobs and regional destinations, while facilitating the movement of goods. Waukee's transportation system is further supported by a large grid network of contiguous east-west and north-south corridors. Prominent east-west roads include Douglas Parkway, University Avenue, and Ashworth Road. Prominent north-south roads include Grand Prairie Parkway/Alice's Road and Ute Avenue, both providing direct access to I-80 and US HWY 6. In general, these corridors handle some of the largest traffic volumes (see Figure 7.1) throughout the community.

*Figure 7.1: 2015 Roadway Functional Classification and Traffic Volumes*



The overall roadway network is expanding to accommodate developing parts of the community. In 2017, there were approximately 220 lane miles of roads, including highway/interstate ramps in Waukee. Enhancements to this system primarily focus on expansion, traffic operations, and safety, while still seeking opportunities to integrate multimodal improvements.

# PAST PLANNING EFFORTS

Long range transportation planning is part of Waukee's core activities. Past planning efforts have ranged from sub area studies, roadway system plans, and corridor studies. These efforts provide greater detail and insight on topics that may not be typically addressed or discussed in length within a comprehensive plan. Therefore, it is critical to recognize some of these past planning efforts as they provide additional guidance and community direction related to transportation investments.

- Waukee Major Streets Plan (2005)
- Key Intersection Improvements Concept Development Summary Report (2006)
- Downtown Master Plan (2009)
- Dallas County Comprehensive Plan (2010) (see Figure 7.2)
- Alice's Road Corridor Master Plan (2011)

# PUBLIC TRANSPORTATION

The Heart of Iowa Regional Transit Agency (HIRTA) provides door-to-door transit service for residents in Dallas County, including Waukee. The agency's local paratransit services are open to the public. Users access HIRTA's services by calling to arrange a ride. The service provides trips to and from school, to adjacent communities, and into Des Moines.

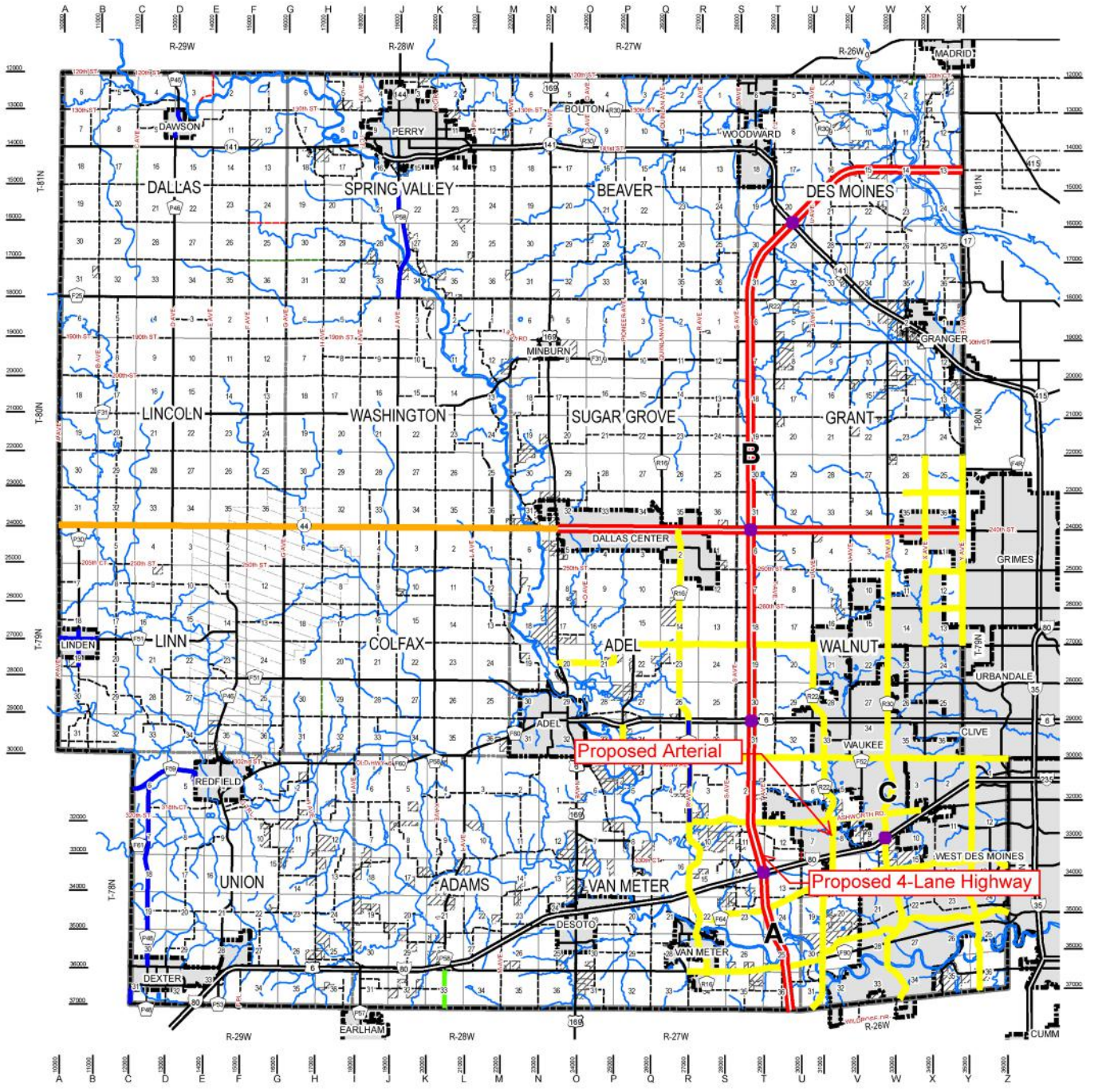
HIRTA Transit Vehicle

Bus service from the Des Moines Area Regional Transit (DART) system does not currently extend into Waukee, and the closest service ends just east of Waukee at 156th and Hickman Road in Clive. While DART does not directly serve Waukee, the community should continue to remain active in discussions regarding system expansions. In particular, as the Kettlestone area develops with more significant employment centers, Waukee should work with DART to provide transit connections from other parts of Waukee and surrounding communities into the Kettlestone district. As Waukee completes plans for and implements a potential new civic campus on 10th Street, it should work with DART to explore tying future transit routes into this key destination. Planning for future routes should also consider connections with Downtown Waukee and local school campuses.

# ROADWAY JURISDICTION

As with all municipalities, jurisdiction over the roadway system is shared amongst three levels of government (i.e., state, county and city). Waukee is responsible for operating and maintaining over 94 percent of the roadways within the community. A small portion (I-80 and US HWY

*Figure 7.2: Dallas County Transportation Plan Map 2010*




**ZONING DISTRICTS**

- PROPOSED INTERCHANGE

**5 YEAR PLAN**

- PLANNED IMPROVEMENT (RESURFACING/REHABILITATION)*
- PLANNED IMPROVEMENT (PAVING)*

**LONG RANGE PLAN**

- PROPOSED 4-LANE HIGHWAY
- PROPOSED "SUPER 2" HIGHWAY
- PROPOSED ARTERIAL STREET

**A** SOUTHWEST BELTWAY**
**B** WESTERN BYPASS (1000' CORRIDOR***)
**C** ALICES ROAD/105TH STREET CORRIDOR

* AS SHOWN ON THE DALLAS COUNTY 2010-2014 CONSTRUCTION PROGRAM
** AS SHOWN ON THE MPO'S 2030 LONG-RANGE TRANSPORTATION PLAN
*** SHOWN AS A 4-LANE HGHWAY FOR GRAPHICAL PURPOSES ONLY. ACTUAL LOCATION AND CAPACITY TO BE DETERMINED AFTER COMPLETION OF A DETAILED CORRIDOR STUDY

**DALLAS COUNTY, IOWA**
**TRANSPORTATION PLAN MAP**
2010
DALLAS COUNTY
PLANNING & DEVELOPMENT
907 COURT STREET, SUITE 'B'
ADEL, IA 50003
PHONE (515) 993-5819
FAX (515) 993-5854

N 0 1 2 3 6 Miles
1 inch = 3 miles

NOTE:
This is a composite map that represents the transportation plans of unincorporated Dallas County and the cities within Dallas County that provided information to the Department of Planning and Development. Planned street and highway locations shown on this map are approximate. A detailed corridor study of arterial streets and highways is necessary prior to design.

**LEGEND**

- DIVIDED HIGHWAY
- PAVED ROAD
- GRAVEL ROAD
- LEVEL "B" MAINTENANCE ROAD
- LEVEL "C" MAINTENANCE ROAD
- STREAM
- COUNTY BOUNDARY
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- SECTION
- SUBDIVISION
- UNDERGROUND NATURAL GAS STORAGE

6) is maintained by the Iowa Department of Transportation (Iowa DOT). Roads outside the corporate limits, and not part of the state system, are maintained by Dallas County.

The jurisdiction of roadways is an essential element in the Transportation Plan, because it affects a number of critical organizational functions and obligations (regulatory, maintenance, construction, and financial). In this case, most of the roads are within the City's purview. Future roadway jurisdictions would likely be driven by the expansion of the system outside of the City's corporate limits or future bypasses, which are discussed later in this chapter.

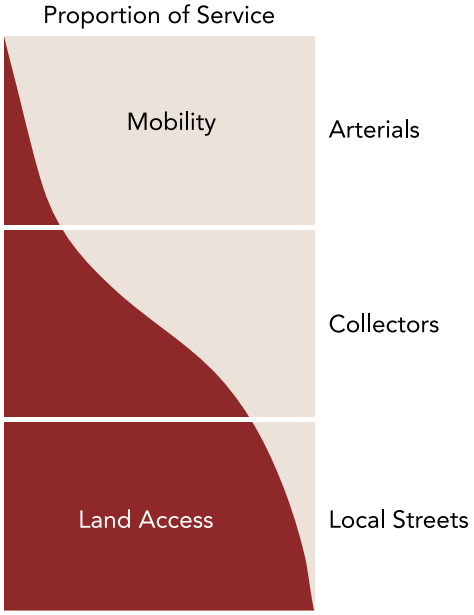
# FUNCTIONAL CLASSIFICATION

Roadway functional classification categories are defined by the role roadways play in serving the flow of trips through the overall roadway system. The intent of the functional classification system is to create a hierarchy of roads that collect and distribute traffic from neighborhoods to the metropolitan highway system. Roadways with a higher functional classification (arterials) generally provide for longer trips, have more mobility, have limited access, and connect larger centers. Roadways with a lower functional classification (collectors and local streets) generally provide for shorter trips, have lower mobility, have more access, and connect to higher functioning roadways. A balance of all functions is important to any transportation network.

A roadway's functional classification is based on several factors, including:

- Trip characteristics: length of route, type and size of activity centers, and route continuity
- Access to regional population centers, activity centers, and major traffic generators
- Proportional balance of access, ease of approaching or entering a location (see Figure 7.3)
- Proportional balance of mobility and ability to move without restrictions
- Continuity between travel destinations
- Relationship with neighboring land uses
- Eligibility for State and Federal funding

*Figure 7.3: Access/Mobility Relationship*




The City of Waukee's existing transportation network consists of over 208 miles of paved lanes and 12 gravel miles within the City limits. The roadways are classified into five categories, which include Principal Arterials (Freeways), Arterials (Other), Major Collectors, Minor Collectors, and Local Roads. The existing functional classification of roadways in the City of Waukee is shown in Table 7.1 and defined below:

## Principal Arterials:

Principal Arterials are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. They provide limited access at grade separated interchanges, while offering high levels of mobility and linking urban centers throughout the

*Table 7.1: Existing (2017) Roadway Miles by Functional Class*

| Functional Classification | Miles | Percent of Total |
|---|---|---|
| Principal Arterials (Freeways) | 2.1 | 1% |
| Arterials (Other) | 9.8 | 4% |
| Major Collectors | 67.5 | 31% |
| Minor Collectors | 13.2 | 6% |
| Local Roads | 127.4 | 58% |
| Total | 220 | 100% |

nation. Interstate (I) 80 is the only interstate traveling throughout the City of Waukee.

## Arterials (other):

Other Arterials connect regional transportation routes (in the case of Waukee, Interstate 80) with local connector streets. They provide less access than connectors and do not penetrate identifiable neighborhoods. Roadways identified as Arterials (other) within the City of Waukee and the anticipated areas for future growth, through 2040, include the following:

- US Highway 6 / Hickman Road
- Alice's Road and Grand Prairie Parkway
- University Avenue
- Ute Avenue / 10th Street (future alignment)
- Future north-south arterial, following the T Avenue alignment north from I-80
- Douglas Parkway

## Collectors:

Collector streets provide land access and traffic circulation within residential, commercial, and industrial areas of Waukee. The Collector streets gather traffic from local streets and channel it towards the arterial system. The following roadways are classified as Collectors, in the City of Waukee and the future growth area:

- Ashworth Road
- Meredith Drive
- Warrior Lane
- Boone Drive
- 6th Street
- LA Grant Parkway
- Westown Parkway

## Local Roads:

Local roads and streets provide direct access to abutting land uses and offer the lowest level of mobility to the broader community. All the other roadways not listed (in the City limits, and within the future growth area) are classified as Local Roads.

# FUTURE FUNCTIONAL CLASSIFICATION

The Land Use Plan has identified a future transportation system (see Figure 7.4) that aligns with anticipated growth. This network of roads has also been established by using a set of Functional Classification Standards. The goal of the Functional Classification Standards is to achieve a better performing system that aligns a route's functional classification to current and future land uses, and the roadway's intended purpose. The standards were developed to help evaluate the current functional classification system (identified in the 2005 Roadway Master Plan), while proposing adjustments to address current inconsistencies and anticipated growth changes.

The functional classification system is intended to indicate the relative traffic carrying function, but is not directly linked to the type or extent of roadway improvement which is required. Indirect relationships exist between designated functional classification and the extent of roadway development. For example, major arterial streets and roadways are intended to carry longer distance trips, generally have higher traffic volumes, and can be expected to be built to a high design standard. By contrast, collector and local streets serve property access, shorter trips, and access to arterials. They generally have lower traffic volumes and are built to lesser design standards.

Overall, the roadway functional standards summarized in Table 7.2 should be used to help manage the overall system from a mobility, access, and safety perspective. They also provide guidance on how and when multimodal options can be integrated into the overall roadway network. However, it is important to recognize a roadway does not need to meet all the standards to be classified. The standards are intended to serve as a guide in helping establish the future roadway network, while providing a naming convention and hierarchy of roadways within the community. In that respect, these standards should be used by stakeholders (e.g., residents, developers, and elected leaders) and city staff alike when facilitating new developments and roadway improvements.

# FUTURE SYSTEM PLANNING

As the community grows, so will its transportation needs. These needs will vary across all modes of transportation. However, a large portion of the City's transportation assets is the physical roadway. Maintaining this system in a "state of good repair" and building for the future will require significant investments. In that respect, it is important for the City to "right-size" the future system to minimize long-term investments (e.g., right-of-way acquisition or overbuilding a roadway's capacity). This will also require a stronger focus towards multimodal goals and strategies that reduce single-occupancy vehicle trips.

To help better understand the future roadway needs, the City worked with the Des Moines Area MPO to generate future traffic volumes associated with the land use plan (see sidebar for more information). This section highlights the traffic modeling approach and findings

## *The Des Moines Area MPO Travel Demand Model (TDM)*

**The TDM forecasts future travel patterns based on proposed transportation improvements and socio-economic changes.**

**The TDM is a four-step modeling process, including trip generation, trip distribution, mode choice, and trip assignment, and is based on a transportation analysis zone (TAZ) system. The amount of population, housing units, and employment at the TAZ level are the main inputs of the TDM. The trip generation step estimates the number of average daily trips entering and leaving each TAZ for a forecast year.**

**For each TAZ, the model estimates trip productions and attractions, which account for person trips made by all forms of transportation. The trip distribution step estimates trip movements by allocating the trip productions and attractions between TAZs. The mode choice estimates the amount of person trips made by each form of transportation, such as automobiles, public transit, bicycling and walking, based on behavioral assumptions of transportation system users and other transportation system characteristics. Finally, the trip assignment step loads the vehicle and transit trips onto highway and transit networks and the results are represented as the number of vehicle trips on each network link.**

*Figure 7.4: Future Functional Classification*

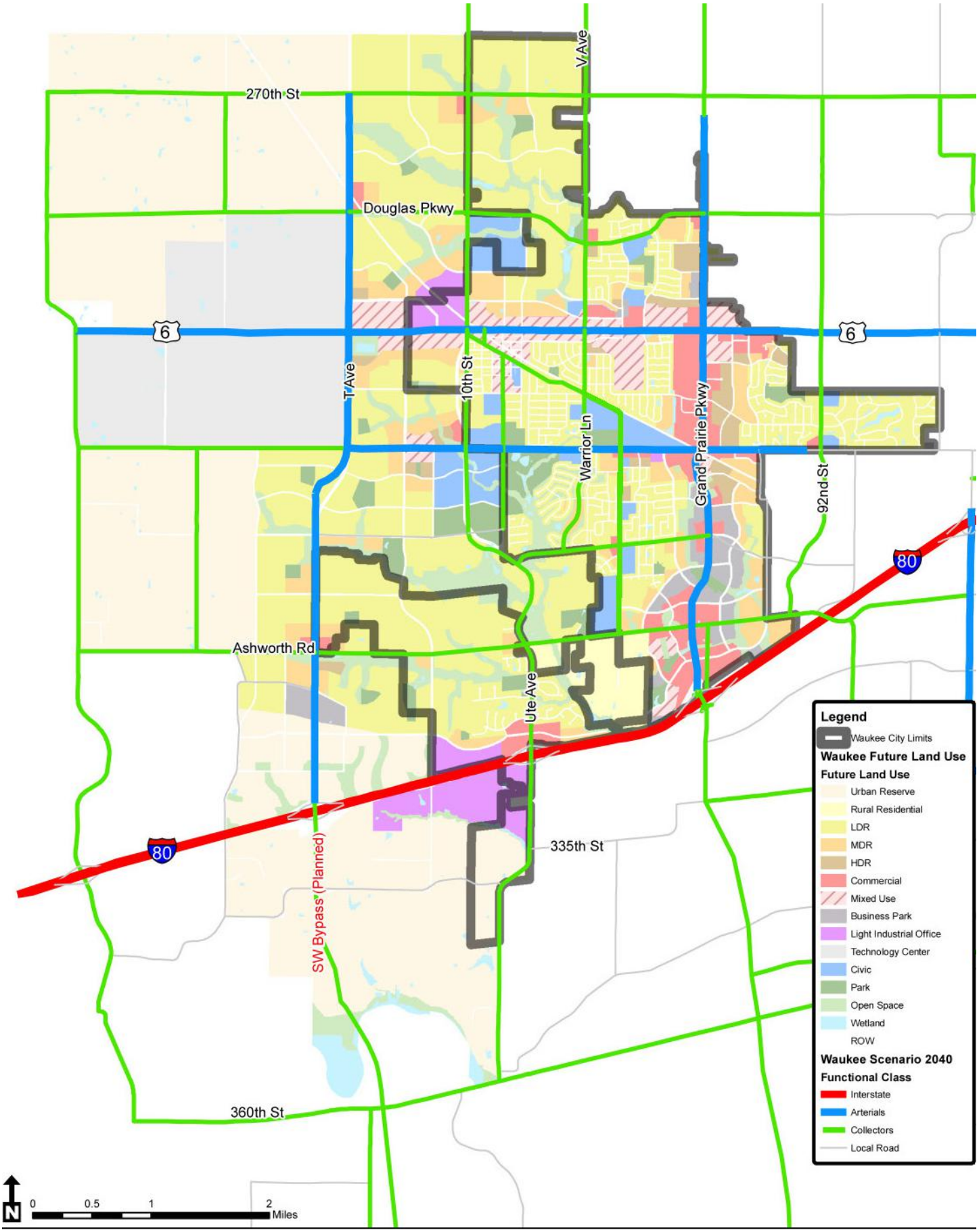


*Table 7.2: Functional Classification Guidelines*

| Criteria | Interstate | Principal Arterial | Minor Arterial | Collector | Local Street |
|---|---|---|---|---|---|
| Place Connections | Connect regional job concentrations and freight terminals within the urban service area. | Connect regional job concentrations and freight terminals within the urban service area. | Provide supplementary connections between regional job concentrations, local centers, and freight terminals within the urban service area. | Connect neighborhoods and centers within the urban service area. | Connect blocks and land parcels within neighborhoods and within commercial or industrial developments. |
| Spacing | 1 mile minimum spacing between interchanges | Developed Parts of the Community: 2 – 3 miles<br><br>Developing Parts of the Community: Spacing should vary in relation to development density of land uses served, 2 – 6 miles | Developed Parts of the Community: 1/2 – 1 mile<br><br>Developing Parts of the Community: 1 – 2 miles | Developed Parts of the Community: 1/4 – 3/4 mile<br><br>Developing Parts of the Community: 1/2 – 1 mile | As needed to access land uses |
| System Connections | Interchanges | To Interstate freeways, other principal arterials, and selected minor arterials. | To interstates, principal arterials, other minor arterials, collectors and some local streets | To principal arterials, minor arterials, other collectors, and local streets | To minor arterials, collectors, and other local streets |
| Trip-Making Service | Trips greater than 8 miles with at least 5 continuous miles on principal arterials. | Trips greater than 8 miles with at least 5 continuous miles on principal arterials. Express and highway bus rapid transit trips | Medium-to-short trips (2-6 miles depending on development density) at moderate speeds. Longer trips accessing the principal arterial network. Local, limited-stop, and arterial bus rapid transit trips. | Short trips (1-4 miles depending on development density) at low-to-moderate speeds. | Short trips (under 2 miles) at low speeds, including bicycle and pedestrian trips. Longer trips accessing the collector and arterial network. |
| Mobility vs. Land Access | Emphasis is on mobility for longer regional trips. No direct land access. | Emphasis is on mobility for longer trips rather than direct land access. Little or no direct land access within the urbanized area. | Emphasis on mobility for longer trips rather than on direct land access. Direct land access limited to concentrations of activity including regional job concentrations, local centers, freight terminals, and neighborhoods. | Equal emphasis on mobility and land access. Direct land access predominantly to development concentrations. | Emphasis on land access, not on mobility. Direct land access predominantly to residential land uses. |
| System Mileage[1] | 5-10% | 5-10% | 15-25% | 5-10% | 65-80% |

| Criteria | Interstate | Principal Arterial | Minor Arterial | Collector | Local Street |
|---|---|---|---|---|---|
| Percent of Vehicle Miles Traveled | 15-35% | 40-65% | 20-25% | 5-10% | 10-30% |
| Intersections | N/A | Grade separated desirable where appropriate. At a minimum, high-capacity controlled at-grade intersections | Traffic signals, roundabouts, and cross-street stops | Four-way stops and some traffic signals | As required |
| Parking | None | None | Restricted as necessary | Restricted as necessary | Permitted as necessary |
| Large Trucks | No restrictions | No restrictions | Candidates for local truck network, large trucks restricted as necessary | May be candidates for local truck network, large trucks restricted as necessary | Permitted as necessary |
| Management Tools | Ramp gates and metering, dynamic messaging signs, alternate route alerts | Preferential treatment for transit, access control, median barriers, traffic signal progression, staging of reconstruction, intersection spacing | Traffic signal progression and spacing, land access management/ control, preferential treatment for transit | Number of lanes, traffic signal timing, land access management | Intersection control, cul-de-sacs, diverters |
| Typical Average Daily Traffic Volumes | 25,000 - 200,000+ | 2,500 - 50,000+ | 5,000 - 30,000 | 1,000 – 15,000 | Less than 1,000 |
| Posted Speed Limit Criteria | 65-75 mph | 40-65 mph | 30-45 mph | 30-40 mph | Maximum 30 mph |
| Minimum Right-of-Way[2] | 300 feet | 100 – 300 feet | 60 - 150 feet | 60 - 100 feet | 50 - 80 feet |
| Transit Accommodations | High speed, reliable movement between regional destinations | Transit advantages that provide priority access/ reliable movement for transit in peak periods. | Transit advantages for reliable movement where needed. | Regular-route buses, transit advantages for reliable movement, where needed | Normally used as bus routes only in nonresidential areas |

| Criteria | Interstate | Principal Arterial | Minor Arterial | Collector | Local Street |
|---|---|---|---|---|---|
| Bicycle and Pedestrian Accommodations | None | On facilities that cross or are parallel to the principal arterial, with greater emphasis along transit routes and in activity centers. Crossings should be spaced to allow for adequate crossing opportunities. | On facilities that cross or are parallel to the minor arterial, with greater emphasis along transit routes and in activity centers. Crossings should be spaced to allow for adequate crossing opportunities. | On, along, or crossing the collector with higher emphasis along transit routes and in activity centers. Crossings should be spaced for adequate crossing opportunities. | On, along, or crossing the local road |

*1 Access Management Manual, Second Edition (2014). Networks and Local Circulation, exhibit 4-22 Typical Distribution of Traffic and Miles of Roadway in Urban Environment (13, Table II-3), page 77. Transportation Research Board*

*2 Based on County Standard Specifications https://www.linncounty.org/DocumentCenter/View/113 Linn County, Iowa 2007, pg 3. and best practices (e.g., FHWA and iDOT guidelines)*

## Future Traffic Volumes

Traffic forecasts are an essential tool to determine the adequacy of the road system to handle future development, as anticipated by the City and surrounding communities. The traffic volumes generated for this plan assume a certain level of development will occur by the year 2040 that is consistent with the Land Use Plan. Achieving this growth may take decades to occur; however, it is important to plan accordingly for a transportation system that can safely move people throughout the community.

A planning-level assessment was prepared to help measure the potential impacts the 2040 traffic volumes will have on the system. This planning-level assessment compared 2040 traffic volumes against a roadway's capacity threshold (see Table 7.3), also known as a volume to capacity (v/c) analysis. This provides a measure of congestion along a stretch of roadway and can help determine where future roadway improvements, access management, transit services, or travel demand management strategies need to be implemented. It does not, however, provide a basis for determining the need for specific intersection improvements.

The traffic volume ranges are based on professional engineering and planning judgment. A range is used since the maximum capacity of any roadway design (v/c = 1) is a theoretical measure that can be affected by its functional classification, traffic peaking characteristics, access spacing, speed, and other roadway characteristics. Further, to define a facility's "daily capacity," it is recommended that the top of each facility type's volume range be used.

## Level of Service

Findings from the volume/capacity analysis were further extrapolated to assess the number of trips a roadway can handle before it starts to experience congestion or unacceptable Levels of Service (LOS). LOS as related to highways and local roadways categorizes the different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors, such as speed and travel time, interruption, freedom to maneuver, driver comfort and convenience, and indirectly, safety and operating costs. It is expressed as levels of service "A" through "F." Level "A" (best case scenario) is a condition of free traffic flow where there is little or no restriction in speed or maneuverability caused by presence of other vehicles. Level "F" (worst case scenario) is forced-flow operation at low speed with many stoppages, with the highway acting as a storage area.

According to the future land use travel demand model runs completed by the Des Moines MPO staff, the City of Waukee is not anticipated to have any roadway segments that will have v/c ratios exceeding capacity, or 1.0 (LOS E) by 2040. Several roadway segments are expected to perform at LOS D or higher (more than v/c of 0.85) in the future and are shown in Figure 7.5. These segments, though potentially congested at peak hours, should operate adequately for the plan horizon. These identified segments may be candidates for future intersection improvements, as adjacent land develops and volumes along these segments increase.

*Table 7.3: Planning-Level Roadway Capacities by Facility Type*

| Facility Type | Planning Level Daily Capacity Ranges (AADT) | Under Capacity | | | Approaching Capacity | | Over Capacity |
|---|---|---|---|---|---|---|---|
| | | LOS A | B | C | D | E | F |
| | | 0.2 | 0.4 | 0.6 | 0.85 | 1.0 | >1.0 |
| Two-lane undivided urban | 8,000 – 10,000 | 2,000 | 4,000 | 6,000 | 8,500 | 10,000 | > 10,000 |
| Two-lane undivided rural | 14,000 – 15,000 | 3,000 | 6,000 | 9,000 | 12,750 | 15,000 | > 15,000 |
| Two-lane divided urban (Three-lane) | 14,000 – 17,000 | 3,400 | 6,800 | 10,200 | 14,450 | 17,000 | > 17,000 |
| Four-lane undivided urban | 18,000 – 22,000 | 4,400 | 8,800 | 13,200 | 18,700 | 22,000 | > 22,000 |
| Four-lane undivided rural | 24,000 – 28,000 | 5,600 | 11,200 | 16,800 | 23,800 | 28,000 | > 28,000 |
| Four-lane divided urban (Five-lane) | 28,000 – 32,000 | 6,400 | 12,800 | 19,200 | 27,200 | 32,000 | > 32,000 |
| Four-lane divided rural | 35,000 – 38,000 | 7,600 | 15,200 | 22,800 | 32,300 | 38,000 | > 38,000 |
| Four-lane expressway rural | 38,000 – 45,000 | 9,000 | 18,000 | 27,000 | 38,250 | 45,000 | > 45,000 |
| Four-lane freeway | 60,000 – 80,000 | 16,000 | 32,000 | 48,000 | 68,000 | 80,000 | > 80,000 |
| Six-lane freeway | 90,000 – 120,000 | 24,000 | 48,000 | 72,000 | 102,000 | 120,000 | > 120,000 |

Specific corridors to monitor within the City of Waukee based on modeled volumes and facility types include:

» US Highway 6/Hickman Road – between Warrior Lane and NE Alice's Road

» SE Alices Road – between University Avenue and SE Olson Drive

» Warrior Lane – between Ashworth Drive and University Avenue

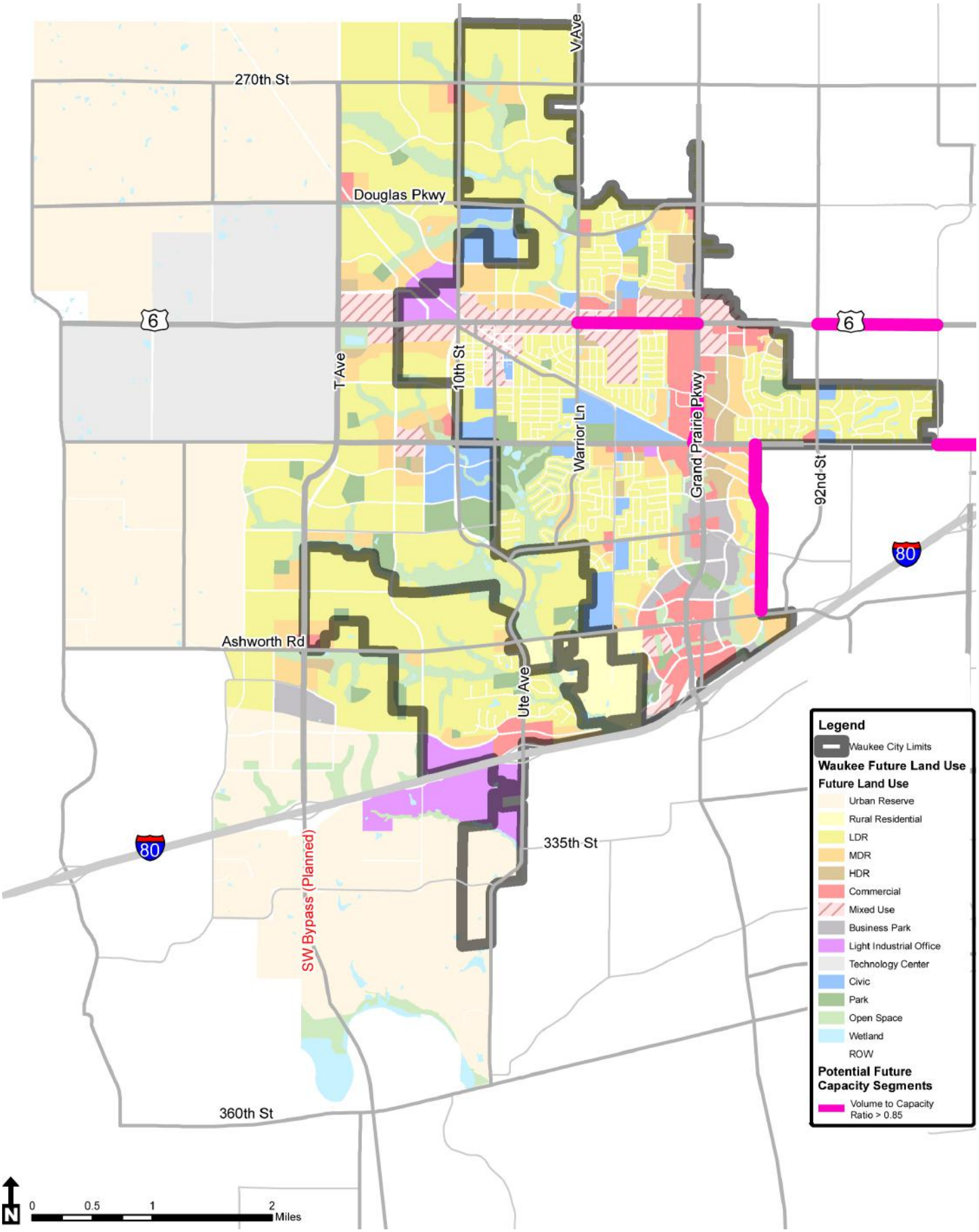
» Other segments located just outside city limits that will impact Waukee residents include:

» US Highway 6/Hickman Road – between Boone Drive and 142nd Street

» University Avenue – east of 142nd Street

Transportation facilities operating at a LOS C during peak demand (e.g., morning and afternoon rush hour) would be considered "good." In built-up areas, LOS C might not be attainable, and the City should accept a lower level of service (generally LOS D or volume to capacity ratios ~ 0.85) during peak periods of the day. This is commonly accepted as a best practice to address minor traffic disruptions without overbuilding the system to address congestion during a few hours of the day. In turn, this helps reduce right-of-way needs and large transportation investments. Mitigation measures should instead focus on low-cost/high benefit solutions (e.g., intersection modifications) and travel demand management strategies.

*Figure 7.5: Future Corridors with Volume to Capacity Ratios Exceeding 0.85*



# MOVING FORWARD

The analysis of roadway capacities and traffic congestion in Waukee revealed some problems that could be relieved through the implementation of short-range traffic operation types of improvements. These improvements are generally known as Transportation System Management techniques. The Federal Highway Administration published guidance on managing congestion in 2011[1]. The guidance notes that adding capacity in the form of highway widening and the construction of new highway facilities is frequently considered the strategy of last resort by many transportation agencies. Reasons for this include land preservation/ discouraging sprawl, promotion of alternate modes of transportation, and cost considerations. As a general policy, agencies attempt to solve congestion problems using all other reasonable and appropriate strategies before resorting to capacity expansion. For example, a formal Congestion Management Process (CMP) is used nationally to describe an ongoing, systematic method of managing congestion and providing information about system performance and potential alternatives for solving congestion-related problems.

## Congestion management

Congestion management is recommended before considering new roadways or expansion of existing roadways. In some cases, congestion management will not be the best solution. However, a wide range of strategies are available for consideration, and are broadly grouped into the following categories.[2]

### Demand Management Strategies

Travel demand strategies help to provide travelers with more options and reduce the number of vehicles or trips during congested periods. These include strategies that substitute communication for travel or encourage regional cooperation to change development patterns and/or reduce sprawl.

### Traffic Operations Strategies

These strategies focus on getting more out of the existing system rather than building new infrastructure. Many of these strategies tend to be operations-based and are supported by use of enhanced technologies or Intelligent Transportation Systems (ITS).

### Public Transportation Strategies

Improving transit operations, access to transit and expanding transit service can help reduce the number of automobiles on the road by making transit more attractive or accessible.

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*1 Congestion Management Process: A Guidebook. United States Department of Transportation, Federal Highway Administration. 2011.*

*2 Congestion Management Process: A Guidebook, The CMP within the regional Transportation Planning Context. pages 33-36. United States Department of Transportation, Federal Highway Administration. 2011.*

## Road Capacity Strategies

This category of strategies addresses adding more base capacity to the road network, such as building additional lanes or new highways. Given the expense and possible adverse environmental impacts of new single-occupant vehicle capacity, management and operations strategies should be given due consideration before additional capacity is considered.

# Right-of-Way Preservation

Clearly, managing severe congestion cannot always be achieved through the congestion management process. In some cases, the City of Waukee will need to build new roads specifically in growing parts of the community that do not have access. Planning for new roads will require some level of right-of-way acquisition, which can be a costly investment. Therefore, it is important to be fiscally responsible in "right-sizing" the system to minimize unnecessary right-of-way needs. Right-of-way preservation needs to be managed in a way that respects the roadway's intended function (e.g. Arterial vs. Collector or two-lanes vs. four lanes), while serving the greatest public good. More importantly, the right-of-way needs for new roadway alignments or corridor expansions must consider other elements such as adjacent land uses, existing and future utilities, pedestrian and bicycle accommodations, and landscaping.

The City of Waukee can work towards a future transportation system that minimizes right-of-way needs. Part of this approach will require recognizing an acceptable LOS during peak periods of the day. To help with this effort, the City can leverage design standards and guidelines such as those shown in Table 7.2 that "right-size" the system and still accommodates other corridor elements. The design standards and cross sections (see Figure 7.6 and Figure 7.7) presented throughout this section range between two- and four-lanes. The future daily traffic volume projections did not indicate any corridors that would require a larger roadway type (e.g., six lanes).

The cross sections presented in Figure 7.6 and Figure 7.7 have taken into consideration other corridor elements. Preserving right-of-way for elements such as landscaping and pedestrian/bicycle amenities are important

### *Design Standards*

**The design standards are consistent with those set by the Iowa Statewide Urban Design and Standards Manual (SUDAS). The primary consideration of these standards is that all new roadways and the major reconstruction of existing corridors provide for safe, efficient, and economic transportation throughout the design life of the roadway. The SUDAS manual provides basic design guidelines, which will serve as a framework for the satisfactory design of new street and highway facilities.**

*Figure 7.6: Typical 60' to 100' R.O.W.*

*All dimensions in Figures 7.6 and 7.7 serve as a guide and may vary.*

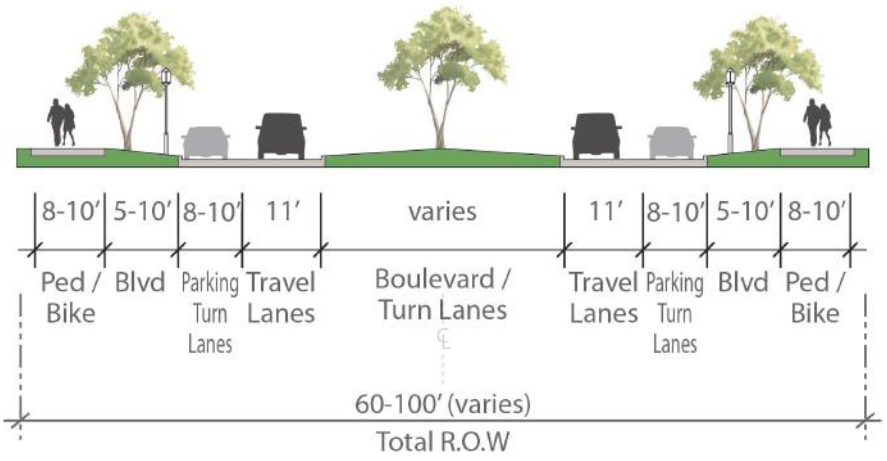
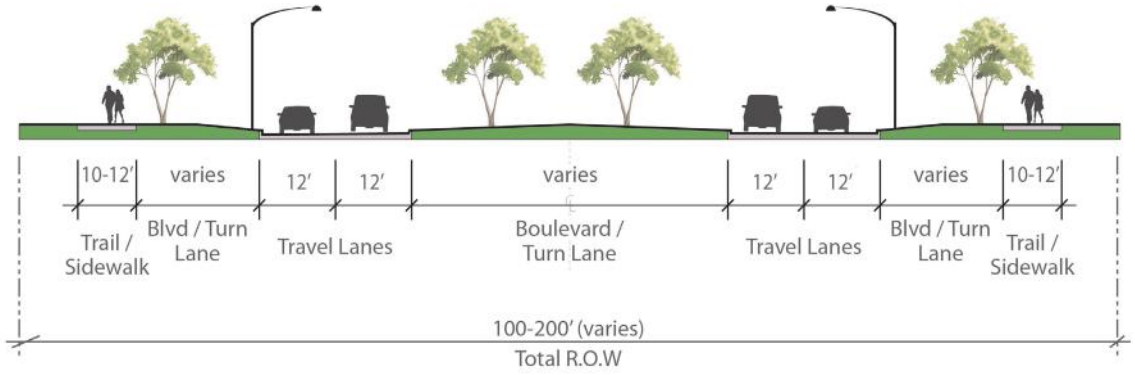


*Figure 7.7: Typical 100' to 200' R.O.W.*




to a community's overall quality of life. These street and roadway cross section and right-of-way widths are typically used during construction of improved streets and roadways. These are included as examples of the various cross sections which may be considered when an improvement is being designed.

The specific design of a proposed street or roadway and right-of-way widths depends on several design considerations, including: forecasts of traffic volumes, the extent and nature of adjoining land uses, other facilities to be provided (such as bikeways), the extent of turn movements, topography of the land, and other factors.

# STRATEGIES AND BEST PRACTICES

It has become more difficult for roadway agencies (e.g., cities, counties, and states) to maintain their transportation assets with aging infrastructure, rising costs of materials, and unreliable revenue streams, in addition to balancing congestion and growth. To address these challenges, many agencies are placing a stronger focus on congestion management, low-cost/high-benefit solutions, system preservation, and alternative modes of transportation. These types of strategies are discussed throughout this section and should be used by the City for future planning efforts. As part of these future planning efforts, the City should develop a Transportation System Management Plan that help provide more direction or engineering standards in the implementation of these strategies.

## Access Management

Access management is an important aspect of providing a safe and efficient roadway network. Access management measures include:

- Providing adequate spacing between access points and intersecting streets to separate and reduce conflicts.
- Limiting the number of driveway access points to reduce conflicts.
- Aligning access with other existing access points.
- Sharing access points, through internal connectivity between properties with different owners.

### *Access Management Policies*

**City of Waukee's Development Standards: The City's "Site and Building Development Standards" under Municipal Code Chapter 304, provides a list of requirements and standards for site plans. From an access perspective, site plans must show proposed access points and the appropriate spacing.**

**Iowa Department of Transportation Iowa Primary Highway Access Management Policy: The IDOT has established rules and policies for control of access to primary highways. Proposed access to the highway system will need to be coordinated with the IDOT, while adhering to the policies and procedures outlined in this document.**

Learn More

» Encouraging indirect access rather than direct access to high volume arterial roads.

» Constructing parallel roads and backage or frontage roads.

» Implementing sight distance guidelines to improve safety.

» Using channelization to manage and control turning movements.

New median to limit roadway cross-access

Access management involves balancing the access and mobility functions of roadways. Access refers to providing roadway access to properties and is needed at both ends of a trip. Mobility is the ability to get from one place to another freely or easily. Most roadways serve both functions to some degree, based on their functional classification. The four levels of functional classification and their corresponding mobility and access traits are as follows:

» Principal Arterials have the highest mobility with very limited land access.

» Minor Arterials have a high mobility with limited land access.

» Collector Streets have moderate mobility with some land access.

» Local Streets have low mobility with more land access.

## ITS Solutions

Transportation agencies are increasing their potential to collect, use, and share data from connected and automated vehicles (CAV), connected travelers, and connected infrastructure elements to improve the performance of their traffic systems. The Federal Highway Administration and the Intelligent Transportation Systems (ITS) Program have provided information helpful in assessing the growing amount of traveler data available and what should be collected, processed, stored, and shared.[3] FHWA notes there are three categories of traffic management that can be enhanced with ITS and emerging data sources, including:

» Real-time functions
  » Road hazard warnings
  » Speed warnings
  » Intersection collision avoidance
  » Probe data collection
  » Electronic payments
» Near real-time functions
  » Ramp metering
  » Signal control and metering
  » Lane management
  » Personalized traveler information
  » Weather monitoring
» Offline functions
  » Performance measures

3 *Retrieved from https://rosap.ntl.bts.gov/view/dot/35791 June 2018.*

» Asset management

» Emissions monitoring

Roadside equipment is typically responsible for collecting and storing data from connected vehicles. As more connected vehicles arrive on the regional network, the quantity and speed at which raw data arrives will increase. FHWA notes that new approaches to utilize this data will be developed over the next 3-5 years, and in perhaps ten years or so, a new generation of traffic management systems will become available to directly utilize the connected vehicle and connected traveler data streams.

## Safety through Innovation

Ensuring safe travel along public roads is one of the primary roles for agencies responsible for improving and maintaining transportation facilities. Some of the most effective ways to reduce crashes (e.g., more cautious driving, greater enforcement, public education, etc.) are not directly influenced by a transportation plan. To the extent that the plan indirectly touches on some of the variables which may influence safety, it can be expected that:

» The possibilities of auto-related crashes will tend to increase with greater traffic congestion. Greater traffic congestion can result in lower speeds, which in turn can result in less sever crashes.

» Traffic engineering, road surface maintenance and lighting programs can improve safety for elderly and disabled users as well as all other sectors of the population.

» Roadway improvements should help to reduce auto crashes as existing hazardous roadway conditions are corrected.

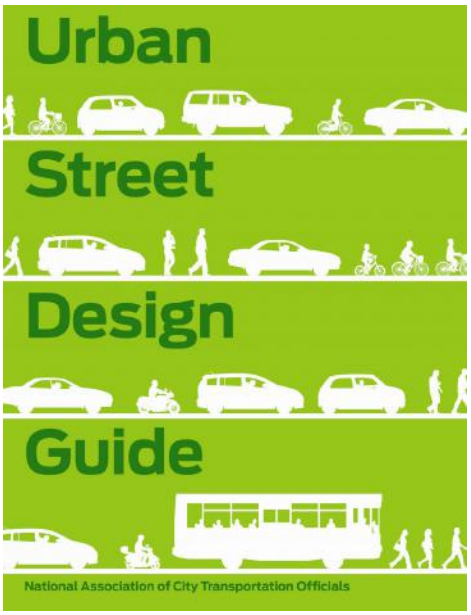
The City should develop a program that helps prioritize safety improvements from a systematic perspective, while addressing sustained crash locations. The overall objective is to identify, implement, and evaluate cost effective construction safety projects with a primary goal of reducing fatal and serious injury crashes. Systemic projects tend to apply known risk factors to address high frequency, but very low density crashes. These projects typically use cost-effective strategies across many miles of roadway to be effective. Sustained crash locations are areas where, statistically, there are higher number of crashes associated with a particular location when compared to other similar locations throughout the community. Safety improvements should consider new techniques that embrace low-cost/ high-benefit solutions and innovation.

A precedent example of safety through innovation includes the Grand Prairie Parkway Diverging Diamond Interchange (DDI) with I-80 which opened in December 2015. The interchange is the first of its kind in Iowa, and is known for carrying extremely high traffic volumes, while reducing time delays. The interchange configuration also improves safety by reducing the number of vehicle conflict points.

The road will move traffic more efficiently and provide better access for drivers but will also serve as an important north/south artery in the Kettlestone Development, providing direct access to residential, office, and commercial development.

### *Connected and Autonomous Vehicles and Travel*

**Fully autonomous cars are still in the advanced testing stages. An autonomous car is a vehicle that can guide itself with little or no human contact. In addition to fully autonomous vehicles, there are connected vehicles that will interact with our transportation system to complete driving functions or provide information to the driver to make informed decisions. The City will need to be mindful of the potential infrastructure impacts caused by adoption of autonomous and connected vehicle cultures.**



NACTO Urban Street Design Guide

## Traffic Calming

The primary function of minor collector and local streets is to provide access to homes and other uses along the street. However, these streets may also provide routes for traveling to and from a neighborhood or for passing through a neighborhood. Conflicts arise between these latter functions when residents become concerned about traffic volumes, traffic speeds, and pedestrian safety.

Traffic calming generally refers to strategic physical changes made to streets to reduce vehicle speeds, improve safety, discourage through traffic on residential streets, and decrease the automobile's visual dominance in a neighborhood setting. There are many different activities that may be referred to as traffic calming.

Examples are highlighted in Figure 7.8 and include raised intersections and crosswalks, traffic circles, neck-downs, curvilinear streets, street narrowing, medians and islands, pedestrian treatments, and streetscaping. These traffic-calming treatments are appropriate on low volume local and minor collector streets where excessive speeds pose a safety problem. The National Association of Transportation Officials (NACTO) is one of the leading organizations for street design for all roadway users. The Urban Street Design Guide lists many speed reduction mechanisms and other safe roadway design features.

Cut-through traffic in neighborhoods can best be discouraged by having an arterial system that is spaced and operated so that through traffic considers the arterial system more attractive to use than the neighborhood streets.

The City will consider requests for traffic calming devices on a case-by-case basis.

## Traffic Signals

A well-coordinated traffic signal system will promote the efficient flow of traffic along arterials in the City. Such a system reduces the likelihood that through traffic will divert to local streets. Waukee will work to periodically monitor the progression of traffic signals to ensure efficient system operation.


DART

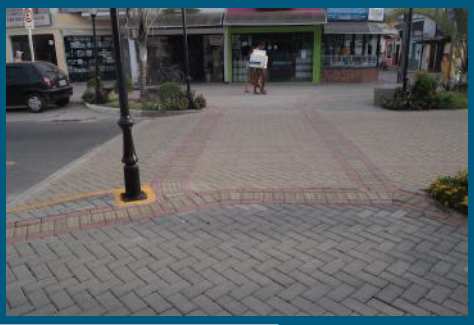
Operational refinement of the signal system will take place on an ongoing basis. New traffic signals will be built at intersections where specific signal warrants are met and funding is available. Intersection improvements will be considered on a site-by-site basis. They will be constructed consistent with the warrants identified in the State Manual on Uniform Traffic Control Devices (MUTCD) when funding is available. Warrants include specific thresholds relating to traffic volumes and considerations of safety and pedestrian activity.

## Transit Expansion

As the City of Waukee continues to grow, the need and demand to connect residents to jobs and recreational opportunities increase. There is a need to begin planning for future transit alternatives. Identifying local transit routes and stops within the future roadway corridor and connecting residents to employment destinations is a logical first step. Planning for

*Figure 7.8: Traffic Calming Strategies*

## Traffic Calming Strategies



*Traffic Calming Street Design Elements*

*Traffic Calming Streets*


*Traffic Control Devices*

regional service and connections into surrounding communities (West Des Moines, Des Moines) and coordination with DART should also be considered. Identifying potential parking areas and park and ride locations should also be considered at this time.

## Travel Demand Management Strategies

Research has shown that Travel Demand Management (TDM) strategies are a useful technique in helping alleviate parking demands in a geographical area. TDM strategies are applied to help reduce the number of single occupancy vehicles traveling and parking in a certain area. Opportunities to encourage TDM strategies include the business parks currently being planned/developed throughout the community. Examples of TDM strategies are listed below:

Bicycle Storage Room

## Bicycle Amenities

Actively promoting bicycling as an alternative means of travel to and from a destination can be achieved through information dissemination and the provision of bicycle storage facilities and adding bicycle lanes. These actions can help decrease the demand for vehicle parking.

## Car Sharing Provisions

Car sharing programs provide mobility options to a cross section of residents who would not otherwise have access to a vehicle. These programs encourage the efficient use of a single vehicle among multiple users, while reducing the amount of parking needed to accommodate each resident within a neighborhood. Zoning language can encourage or require new developments of a certain size to include off-street parking provisions for car sharing programs.

## Travel Demand Management Plans (TDMP)

A TDMP outlines measures to mitigate demand as part of the development permit process, which can result in innovative solutions that are tailored to the specific needs of a neighborhood or district. These types of plans may require specific strategies for reducing single-occupancy vehicle (SOV) trips and promoting alternative modes of transportation.

# PLANNING FOR THE FUTURE

Fully autonomous cars are still in the advanced testing stages, but partially automated technology and low-speed cars could eventually start hitting the public streets within the next 5-10 years. In that respect, understanding autonomous vehicles will play an important role in how agencies manage their transportation assets, while setting the stage for investments. For example, will communities need to adapt their signals systems, restructure the built environment (e.g., parking lots), or adhere to new roadway design standards to accommodate autonomous vehicles?

There are growing opportunities for agencies to integrate big data tools and technologies to collect, process, store, and share data from Connected and Automated Vehicles. Roadside equipment is responsible for collecting and storing data from connected vehicles. Currently, many agencies are gaining experience with big data tools through pilot and research projects. Initially, these projects focus on data already being collected, such as data from traffic signal systems or freeway management systems. As more connected vehicles arrive in the regional network, the quantity and speed at which the raw data is arriving will increase. FHWA notes that new approaches to utilize this data are being developed over the next 3-5 years, and in perhaps ten years or more, a new generation of traffic management systems will likely become available that directly manipulates the connected vehicle and connected traveler streams.


The Comprehensive Plan can help set the stage on how to best address these questions, while leveraging state planning efforts focused around autonomous vehicles. Local universities and the Iowa

DOT are currently exploring these avenues. For example, the Iowa DOT is currently working on producing highly detailed mapping programs that self-driven cars would rely on to be able to properly navigate streets and roads.

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the Comprehensive Plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of land use related topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

**TM Goal 1: Work to integrate alternative transportation modes (transit, pedestrian, biking, others) into the existing and future transportation system.**

TM P 1.1: Support ongoing efforts to expand transit service into Waukee and other communities in the western suburbs.

TM P 1.2: Coordinate efforts with appropriate agencies / jurisdictions to develop proposed trails extending from Waukee into adjoining communities.

TM P 1.3: Incorporate parking areas for bicycles and other alternative vehicles in major public destination areas such as Downtown, the Civic Campus, and local school campuses.

TM P 1.4: Encourage major employers to incorporate parking and storage for bicycles and other alternative mobility systems in site design.

TM P 1.5: Incorporate complete streets infrastructure such as multi-use trails and sidewalks along all major roadway corridors as part of new roadway development and roadway improvement projects to promote multi-modal corridors and provide accessible routes to key community destinations.

TM P 1.6: As local streets are reconstructed, or new streets constructed in growth areas, the City will evaluate design alternatives that include consideration for alternative transportation modes that travel at lower speeds. These modes may include electric golf carts, wheel chairs, motorized scooters, or other innovative technologies.

TM P 1.7: Participate in programs such as "Safe Routes to Schools" to improve connections and safe walking / biking access to neighborhood schools.

TM P 1.8: Require safe and adequate ADA access and pedestrian connections as required by law.

## *Goals, Policies, & Action Items*

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

### Policies

**Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific.**

### Actions

**Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal.**

**See "Key Terminology" in the "Setting the Stage" chapter.**

#Collaboration

#TransportationDiversity

## *Legend*

**TM = Transportation & Mobility**

**TM P = Transportation & Mobility Policies**

**TM A = Transportation & Mobility Actions**

TM A 1.1: Adopt a complete streets policy for the City of Waukee to formalize the community's intent to plan, design, and maintain streets that accommodate safe and efficient use of streets by users of all ages and abilities.

TM A 1.2: Update street design guidelines in city ordinances, including graphic interpretations of various street and trail cross-sections.

TM P 1.9: Continue to pursue grant resources to improve pedestrian and bike connectivity throughout the community, focusing on filling in gaps within the current system.

TM P 1.10: Explore the viability of traffic calming improvements at key intersections where traffic congestion warrants.

#SustainableDesign

#NaturalResourcesandAgProtection

**TM Goal 2: Develop a transportation system that is environmentally and fiscally sustainable.**

TM P 2.1: Support the dedication of funds for street maintenance and reconstruction on an annual basis, consistent with a street reconstruction plan and consistent with opportunities to align street improvements with plans for upgrading existing infrastructure systems that run along transportation corridors.

TM P 2.2: Consider establishing a revolving and sustainable funding mechanism for the long-term maintenance and enhancement of the transportation system.

TM P 2.3: Consider roadway design alternatives that reduce or optimize the amount of hard surface areas.

TM P 2.4: Integrate sustainable stormwater management and utility infrastructure improvements within roadway corridors, to maximize the use of linear corridor right-of-way.

#CommunityCharacter

**TM Goal 3: Create attractive transportation corridors that reflect the vision and enhance the marketability of the Waukee community.**

TM P 3.1: Implement a 'wayfinding' system that identifies key locations for unique signage that promotes community destinations and reinforces the identity of Waukee.

TM P 3.2: Encourage residential, commercial, and office properties along arterial corridors to integrate attractive site design with amenities that enhance the corridor. Property owners can achieve this by including architectural enhancements and site design amenities such as public art, attractive signage, and environmental features.

TM P 3.3: Encourage urban design strategies that support "complete streets" principles, including the minimizing of parking lot size and locating parking to the side, or behind, buildings that face corridors.

TM P 3.4: Establish a landscape and streetscape palette to guide the implementation of streetscape and landscape plans on public and private property, along transportation corridors. This palette should offer flexibility for individual projects while ensuring consistency between public and private streetscape and landscape elements.

**TM Goal 4: Mitigate traffic congestion and improve traffic flow and safety in all areas of the community.**

#Collaboration
#EfficiencyTransparencyConsistency
#TransportationDiversity

TM P 4.1: Coordinate with neighboring cities, counties, DMAMPO, the Iowa Department of Transportation, DART, and other agencies involved in transportation planning to provide interconnections and advocate for the most effective transportation system for Waukee.

TM P 4.2: Mitigate negative traffic impacts and improve existing transportation systems when feasible and effective.

TM P 4.3: Promote telecommuting, car-pooling, staggered work hours and/or other programs and initiatives to reduce the number of single occupancy vehicle trips on major roads, during peak commuting times.

TM P 4.4: The City should require developers to provide and pay for traffic studies when required by the City or another agency with jurisdiction over the study area.

TM P 4.5: Aggressively support improvements to increase capacity, decrease congestion, maintain the economic well-being of adjacent businesses, and improve the safety of all major corridors.

TM P 4.6: Leverage various local, state, and federal funding options for capital improvements.

TM P 4.7: In response to neighborhood requests, the City will continue to review the design of neighborhood streets and develop street modifications, as necessary, that will discourage through-traffic and speeding.

TM P 4.8: The City will monitor traffic safety and congestion data and develop strategies and projects to increase safety and the overall performance of transportation system operations.

TM P 4.9: Evaluate future development areas to establish alignments for future road corridors in order to minimize the widths of these corridors, from a complete streets perspective.

TM P 4.10: Collaborate with Heart of Iowa Regional Transit Authority, Des Moines Area Regional Transit Authority, and local institutions and businesses in expanding and improving public transit services, including finding a dedicated location and coordinating sign-ups.

TM A 4.1: Prepare neighborhood traffic calming policies and guidelines.

TM A 4.2: Develop a Transportation System Management Plan

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# 8. COMMUNITY FACILITIES & INFRASTRUCTURE

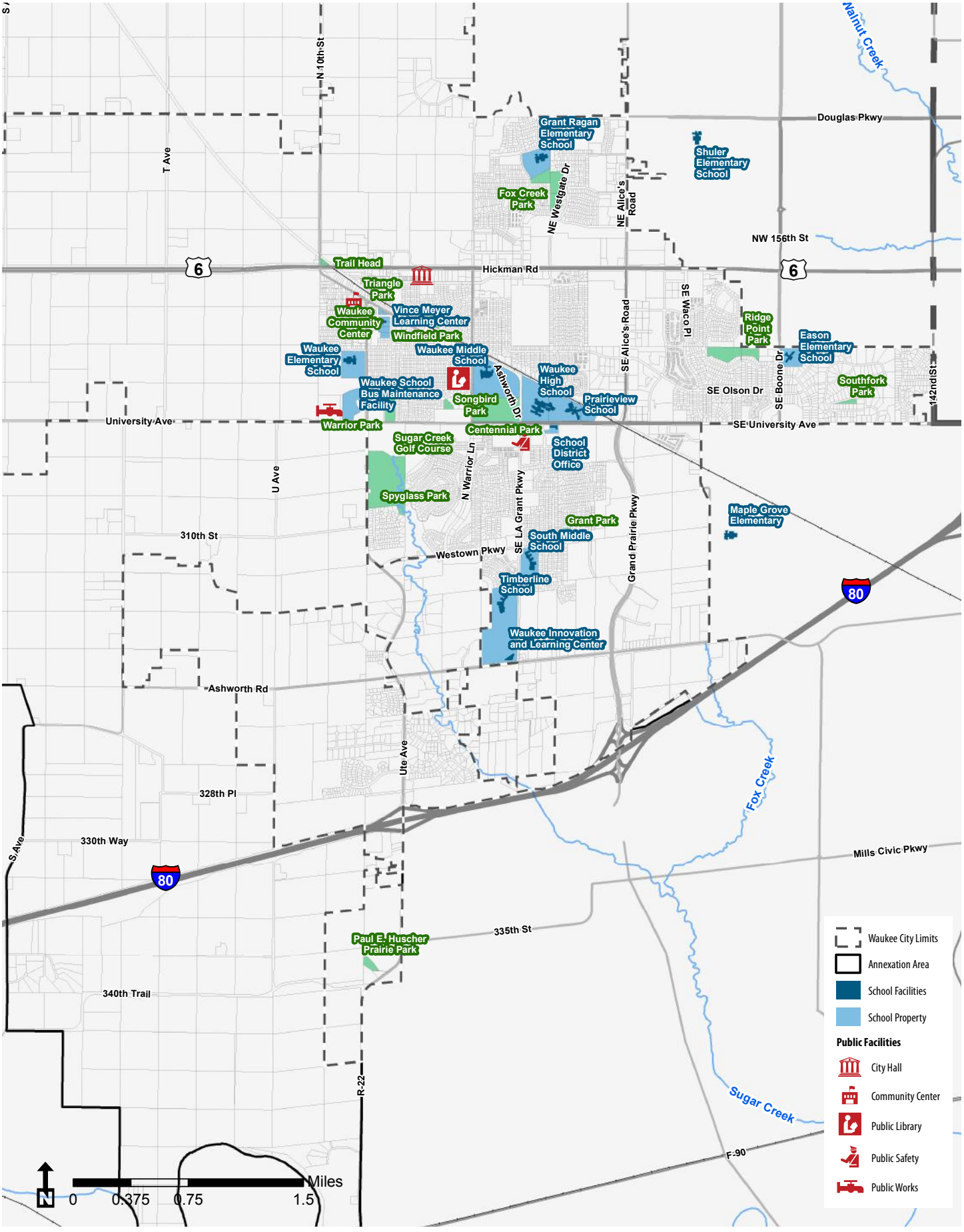
## OVERVIEW

Community facilities, infrastructure systems, and services provided by local government are vital elements of a community's success and vitality. The quality of these systems contributes to Waukee's identity. The private sector also plays a key role in many of the City's systems.

Quality community facilities make Waukee a desirable place to live, work, and play. Investing in facilities that serve the community adequately should be a part of any comprehensive planning effort and should also be an ongoing strategic planning initiative. Investments in community facilities include capital outlays (facilities and improvements), expenditures on ongoing maintenance and operations, and expenditures on replacement when systems have reached their useful life or have become economically inefficient.

Infrastructure systems support all daily activities of the City. Thoughtful, forward thinking planning to serve growth, providing adequate capital investments, and investing in reliable and resilient ongoing improvements are critical to protecting the availability and quality of water resources. It is the City's responsibility to provide these services efficiently and sustainably. Infrastructure must be maintained, and new investments in infrastructure must consider the impacts to the community's long term health and financial stability.

*Figure 8.1: Public Facilities*



# COMMUNITY FACILITIES

## Key Community Facilities

The following is a brief inventory of key community facilities:

### Waukee City Hall, 230 Hickman Road

**City Function:** Administration, Communications, City Council, Development Services, Economic Development, Finance, Utility Billing, Human Resources, and Information Technology.

**Age: 1997**

**Building Size: 10,000 square feet**

**ADA Accessibility:** Yes

**General Needs:** The services within City Hall have expanded over the last several years and will continue in the future. The current facility lacks space for future needs. Both an interim space needs solution and a permanent solution need to be studied and determined to adequately house City Hall functions.

### Waukee Public Works, 805 University Avenue

**City Function:** Public Works, Parks and Recreation

**Age: 2010**

**Building Size: 70,000 square feet**

**ADA Accessibility:** Yes

**General Needs:** The Public Works facility is large enough to meet current needs as well as the needs of the immediate future. There is room for expansion within the existing space and the building was designed for easy expansion to accommodate future growth needs.

### Waukee Public Safety Facility, 1300 SE LA Grant Parkway

**City Function:** Fire Department, Police Department

**Age: 1998**

**Building Size: 23,000 square feet**

**ADA Accessibility:** Yes

**General Needs:** The City completed a public safety facility study in 2017/2018. The implementation of the study recommendations will be to open a new headquarters by 2025 that would house fire and police needs. The existing station would become a satellite fire station.

### Waukee Public Library, 950 Warrior Lane

**City Function:** Library, small museum, and meeting spaces

**Age:** 2002

**Building Size: 16,000 square feet**

**ADA Accessibility:** Yes

**General Needs:** There is a need for additional library space based upon the population growth for both collection space and programs space.

### Community Center, 675 Walnut Street

**City Function:** Public gathering space

**Age:** 1996 (remodeled in 2012)

**Building Size:** 2,800 sf

**ADA Accessibility:** Yes

**General Needs:** In general, there is a need for additional public gathering and meeting/event space. The size of the existing building restricts the number and types of events that can take place at the facility.

### Schools

The school system is an important component to future growth of Waukee. The future land use pattern guides new residential growth. Transportation infrastructure should be carefully planned as new neighborhoods develop to ensure adequate road, bike, and sidewalk infrastructure supports safe and efficient mobility options. Future growth of the schools should be coordinated with park and recreation areas that can serve both the school needs and neighborhood needs.

As facilities become outdated, the City and Schools need to collaborate closely to coordinate continued use of facilities as a community asset or to determine the optimal reuse of the site that fits the neighborhood and serves a community need. It is important that educational institutions and the City collaborate on mutually beneficial facilities and programming.

## Facility Needs

### Civic Campus

Because the City is currently operating at capacity in all of its buildings with the exception of public works, it is currently assessing the needs for future building and expansion to serve all of Waukee at full build-out.

While detailed planning and design for a Civic Campus remains to be completed, discussions with city staff and stakeholders during the Comprehensive Plan process indicated a desire to include the following key components or amenities in the Civic Campus program:

» New City Hall

» Library

» Option of either a Performing Arts Center or an Arts Center

» Aquatic Center

» Field House

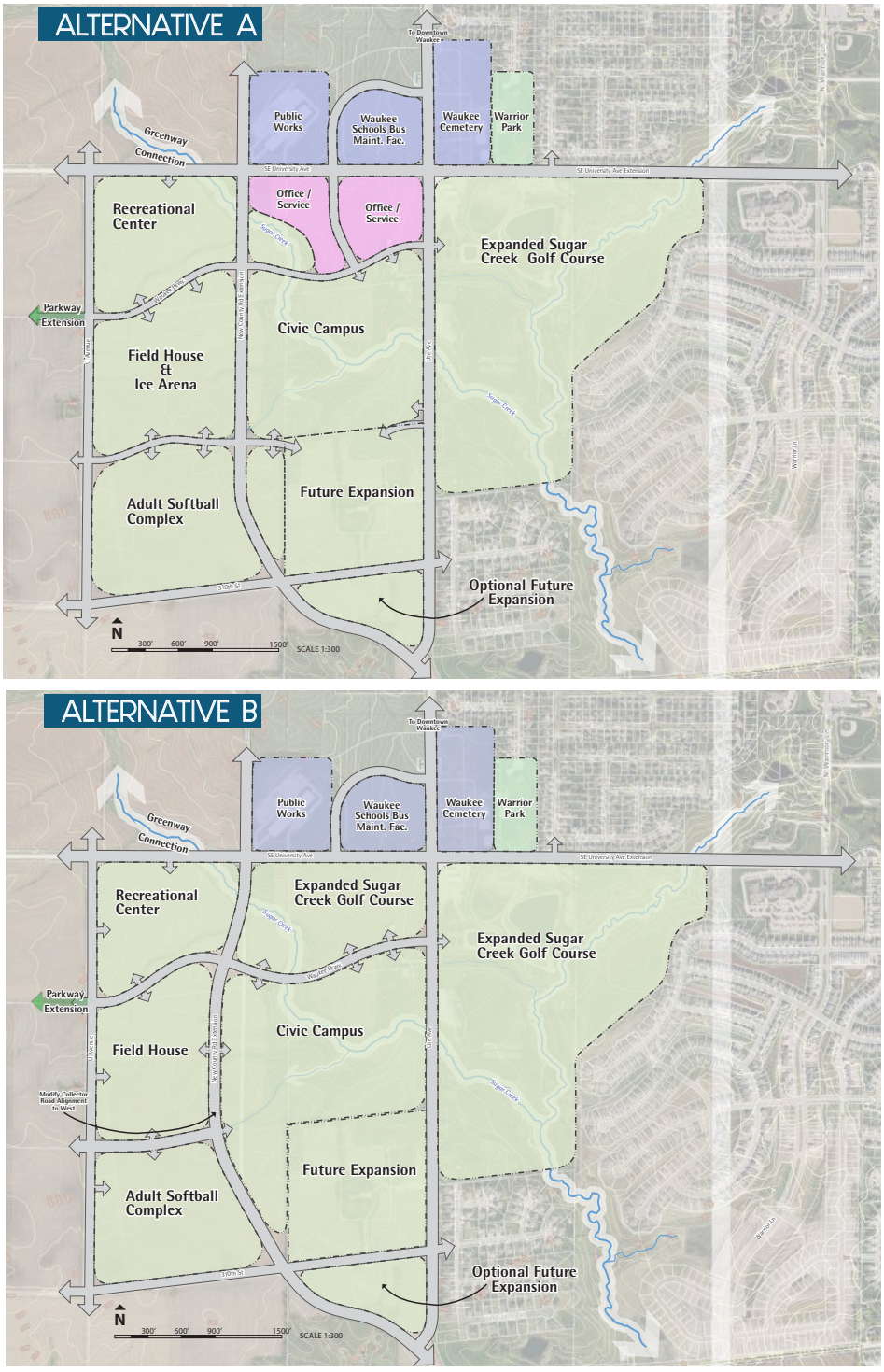
» Ice skating area, with option of Ice Arena

» Adult Softball Complex

» An expansion of the Sugar Creek Golf Course

» An option to expand the Civic Campus, with the addition of a Soccer Complex

*Figure 8.2: Civic Campus Concepts*



» Various park and trail components integrated along Sugar Creek and adjoining areas

» Options for integrating office and service uses into the property

Figure 8.2 details two different concept plans for a future civic campus for the City of Waukee. The civic campus would provide a central location for various municipal, cultural and athletic facilities.

# INFRASTRUCTURE SYSTEMS

The City of Waukee has made significant investments in developing and maintaining its water resource infrastructure (potable water, sanitary sewer, and storm water) since the last Comprehensive Plan update. Providing quality infrastructure systems are essential to achieving the community's vision and are extremely important to the key guiding principles of Imagine Waukee 2040:

» Coordinated and efficient growth management

» Economic and fiscal strength

» A focus on quality design and distinct places

» A focus on technology and innovation

» Stewardship of the natural environment

The plan for Waukee's infrastructure systems focuses on both the managed growth of the overall system to accommodate new development and the maintenance and management of the existing system serving established areas of the City. The plan is described in three key parts: Potable Water, Sanitary Sewer, and Storm Water.

## Potable Water System

The City of Waukee operates and maintains over 94 miles of water mains and associated infrastructure, two elevated water storage facilities, two water booster stations and two connections to Des Moines Water Works. The City of Waukee receives water capacity from both Des Moines Water Works and the LP Moon Storage Tank which allows for a maximum usage of 3.6 million gallons per day. This capacity serves a population of over 20,000 in addition to supportive non-residential development.


### Projected growth and demand for water/use

Waukee is projected to see significant growth. Demand for water will continue to increase based on this growth. Continued efforts towards conservation and efficiency with how water is used will be of critical importance to the future of Waukee. The predominant uses for city water are for household consumption, irrigation, and commercial uses including fire protection. The following are some key metrics for the City of Waukee's potable water system:

### Future Potable Water Capital Improvement Needs

The City annually maintains and updates a Capital Improvement Plan (CIP) that identifies near term and more mid term (5 year) capital investments

*Figure 8.3: Water System Map*

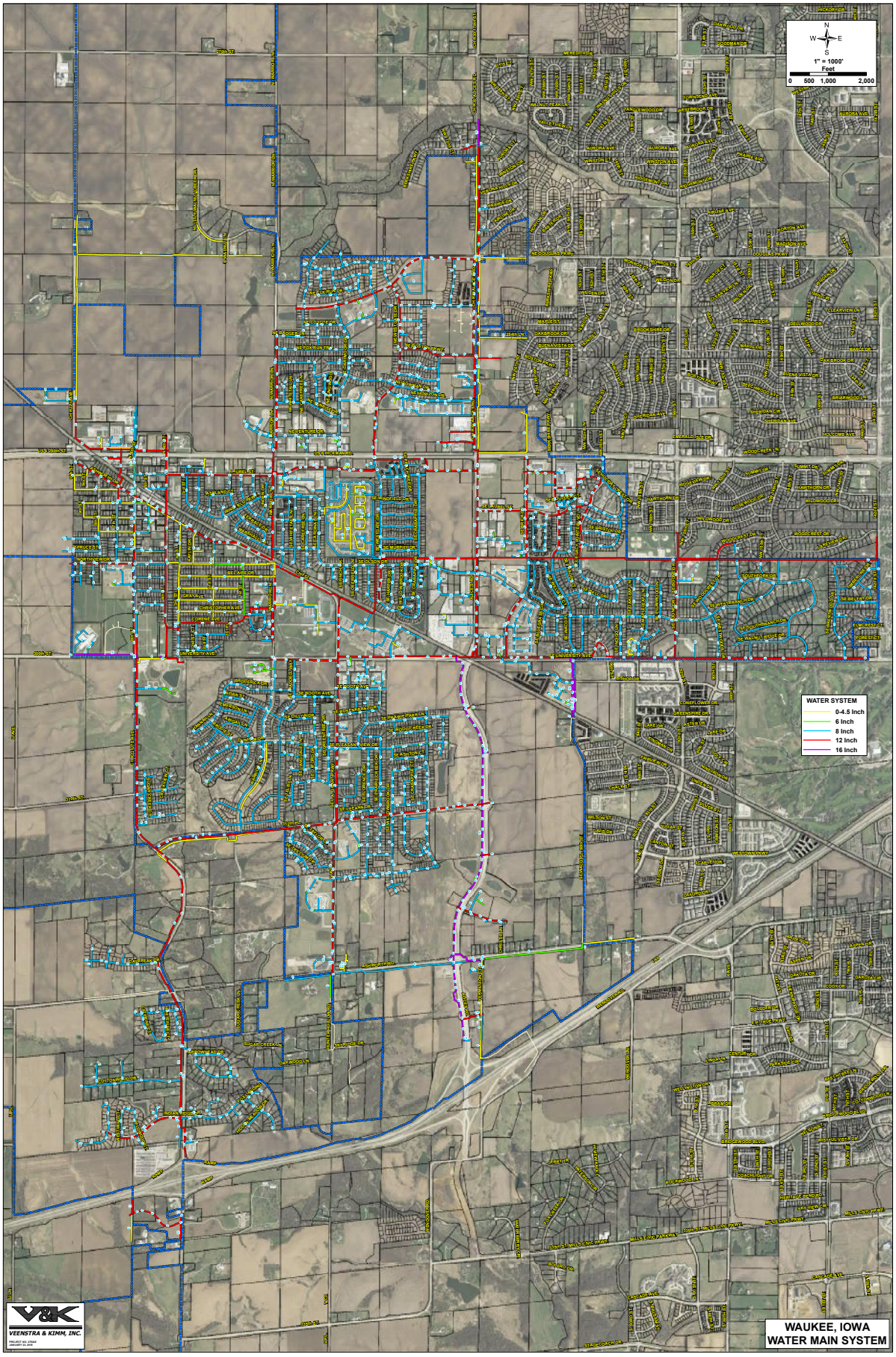


*Table 8.1: Water Demand Projections*

| | 2012 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|
| Population | 15,724 | 23,460 | 28,295 | 33,130 | 38,407 |
| Avg. Demand (MGD) | 1.24 | 1.91 | 2.53 | 3.24 | 4.09 |
| Peak Demand (MGD) | 2.75 | 4.78 | 6.31 | 8.11 | 10.22 |
| Peak Ratio | 2.22 | 2.5 | 2.5 | 2.5 | 2.5 |
| WDM Shared Tower avg demand (MGD) | 0.12 | 0.50 | 0.88 | 1.14 | 1.36 |
| LP Moon pump station avg demand (MGD) | 1.12 | 1.41 | 1.64 | 2.10 | 2.73 |
| WDM Shared Tower peak demand (MGD) | 0.28 | 1.25 | 2.21 | 2.86 | 3.39 |
| LP Moon pump station peak demand (MGD) | 2.48 | 3.53 | 4.11 | 5.24 | 6.83 |
| Avg demand/ person (includes commercial) (GPD) | 79 | 82 | 89 | 98 | 106 |
| Estimated Required Fireflow Storage (MG) | 1.82 | 2.16 | 2.50 | 2.95 | 3.47 |

*Assumptions:*
*2035 WDM Shared Tower Additional Demands*
*2035 LP Moon Additional Demands*
*Future Demands Based off 2012 numbers*
*Population growth set at 3% per year*

*Abbreviations:*
*MGD - Million Gallons per Day*
*GPD - Gallons per Day*
*MG - Million Gallons*
*WDM - West Des Moines*


needed to maintain a quality water system to accommodate existing and future water needs. The CIP can be viewed on the City website, www.waukee.org. The CIP identifies projects specific to water infrastructure for both ongoing maintenance and replacement as well as expansion to serve future capacity and distribution system needs.

## Sanitary Sewer System

The City of Waukee built the existing Wastewater Treatment Plant in May 1998 to operate the sanitary sewer utility which consists today of over 76 miles of gravity sewer, 14 miles of pressure sewer, and 2,100 sanitary manholes. The purpose of the sanitary sewer is to carry waste from the source to the wastewater treatment plant. A number of lift stations and grinder pumps located throughout the community help move the sewage from a collection site or well to a higher point where it can gravity flow into the wastewater collection system. The City of Waukee opted into the Des

Moines Wastewater Reclamation Authority (WRA) in 2006 which allows for additional sanitary sewer capacity to meet the needs of the growing community. In 2018, the City will complete modifications to the system so that all future sewage flows to the Des Moines Metropolitan Wastewater Reclamation Authority (WRA) system through regional interceptors. The City's treatment plant will then be decommissioned and removed.

## Existing and Projected Sanitary Sewer Demands

Waukee's sanitary sewer system needs to accommodate existing and planned development within the community. Existing systems need continual maintenance and replacement as they age beyond useful life. One strategy has been a sewer lining program where 1,500 feet of sanitary sewer is lined each year in the older areas of town. The sewer lining project helps minimize infiltration (clean water seeping into the system) and considerably lengthens the service life of the sewer pipe. New systems need to be designed in an efficient manner and incorporate modern technologies that continue to improve on system efficiencies and cost effectiveness.

Future sewer flows from Waukee can be estimated for planning purposes based on projected land uses and population and employment forecasts. Using industry standard flow projections (70 GPD for population and 20 GPD employee) future flowage to the regional system can be projected.

## Future Sanitary Sewer Capital Improvement Needs

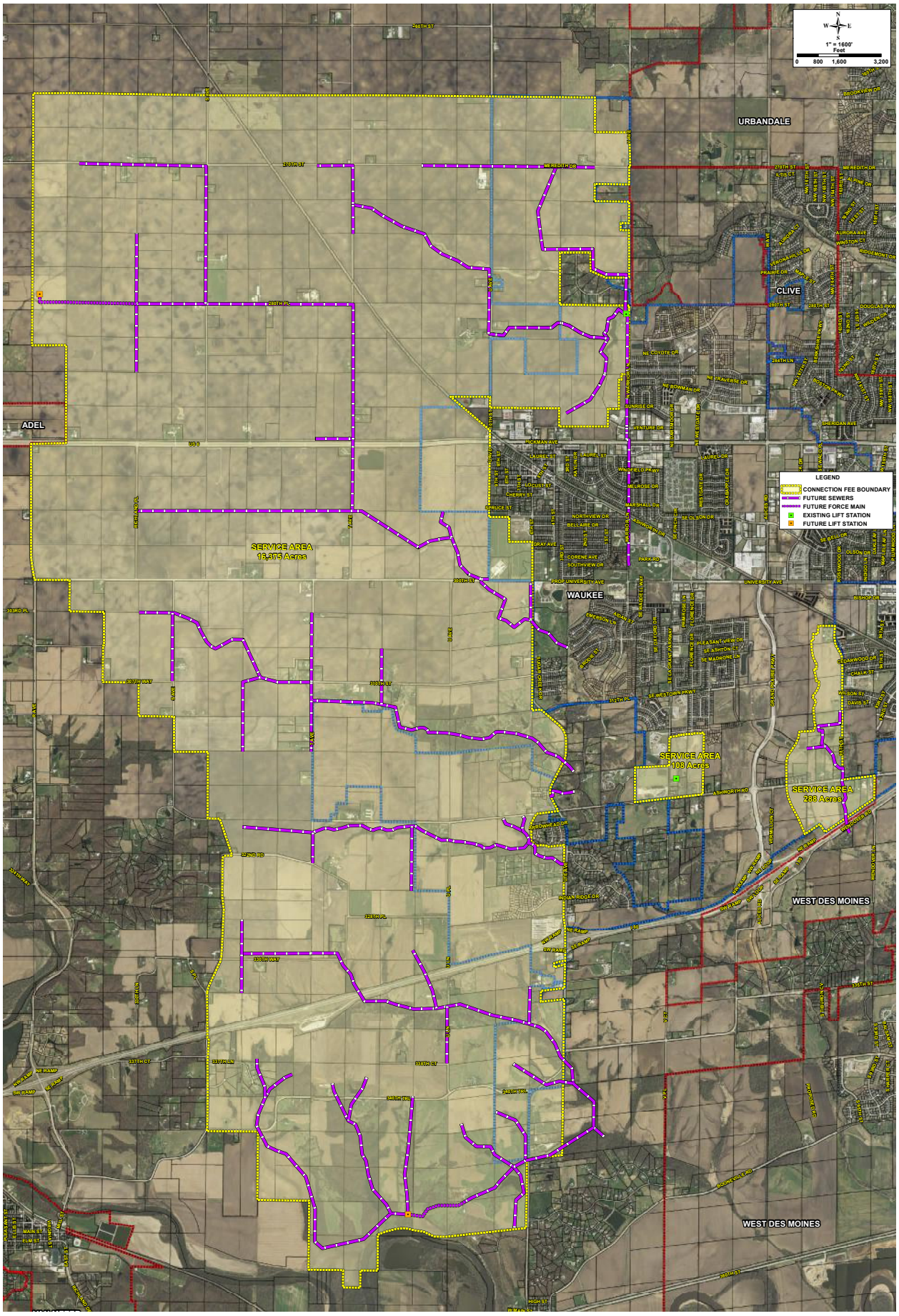
The City annually maintains and updates a Capital Improvement Plan (CIP) that identifies near term and more mid term (5 year) capital investments needed to maintain a quality sanitary sewer infrastructure to accommodate existing and future demand. The CIP can be viewed on the City website (www.waukee.org). The CIP identifies projects specific to sewer infrastructure and includes both maintenance projects as well as phased expansion to serve growth areas.

*Table 8.2: Estimated and Projected Sewer Flows*

| Year | Population | Employment | MGD Population | MGD Employment | MGD Total |
|---|---|---|---|---|---|
| 2017 | 20,649 | 7,100 | 1.55 | 0.14 | 1.69 |
| 2020 | 24,600 | 8,500 | 1.85 | 0.17 | 2.02 |
| 2030 | 33,100 | 13,100 | 2.48 | 0.26 | 2.74 |
| 2040 | 40,400 | 17,600 | 3.03 | 0.35 | 3.38 |

*Assumed average per capita flows - 75 Gallons per day for Residential 20 Gallons per day per job*
*MGD-Million Gallons Per Day*
*Source: HKGi*

*Figure 8.4: Future Sanitary Sewer Service*



# Storm Water Management System

Surface water amenities define and enrich the community by providing habitat and social, economic, and aesthetic benefits. This section of Imagine Waukee 2040 provides a framework for conserving, protecting and managing surface water resources and storm water runoff.

The City of Waukee currently does many things to manage runoff. It maintains ordinances and regulations to ensure future development projects plan how to manage stormwater runoff on their sites. The City has mapped floodplain and must meet both state and federal floodplain management rules enforced by the Iowa Department of Natural Resources (DNR) and the Federal Emergency Management Agency (FEMA). The City implements storm water requirements under the Municipal Separate Storm Sewer System permit (MS4 Permit) for compliance with the federal Clean Water Act. This permit allows for the discharge of water from the storm sewer system into any naturally occurring surface water. Included in the permit are six minimum measures: 1) providing public education and outreach, 2) public involvement and participation, 3) illicit discharge detection and elimination, 4) construction site stormwater runoff control, 5) post-construction storm water management, and 6) pollution prevention and good housekeeping. The City also works with the regional and federal agencies to ensure compliance with the Wetland Conservation Act. The Walnut Creek Watershed Master Plan is well documented, and a Water Trails and Greenways Master Plan has been developed that characterizes the waterways within the Des Moines Metropolitan Area. Additional and comparable information needs to be developed for Sugar Creek, Fox Creek, and Johnson Creek, all of which can be found passing through the southern half of Waukee.

The City successfully utilizes all of these regulatory requirements and regional plans together to implement the surface water management program and protect local and national resources.

Imagine Waukee 2040 looks to establish a broader framework for the integration of storm water management with the community's open space, park, and trail network thus evolving what is often just looked at as a functional necessity into a community amenity. The greenway feature in the Kettlestone Development provides a model for this approach.

**The Walnut Creek Watershed Master Plan identifies the following subwatershed strategy related to retrofitting existing stormwater management infrastructure/facilities:**

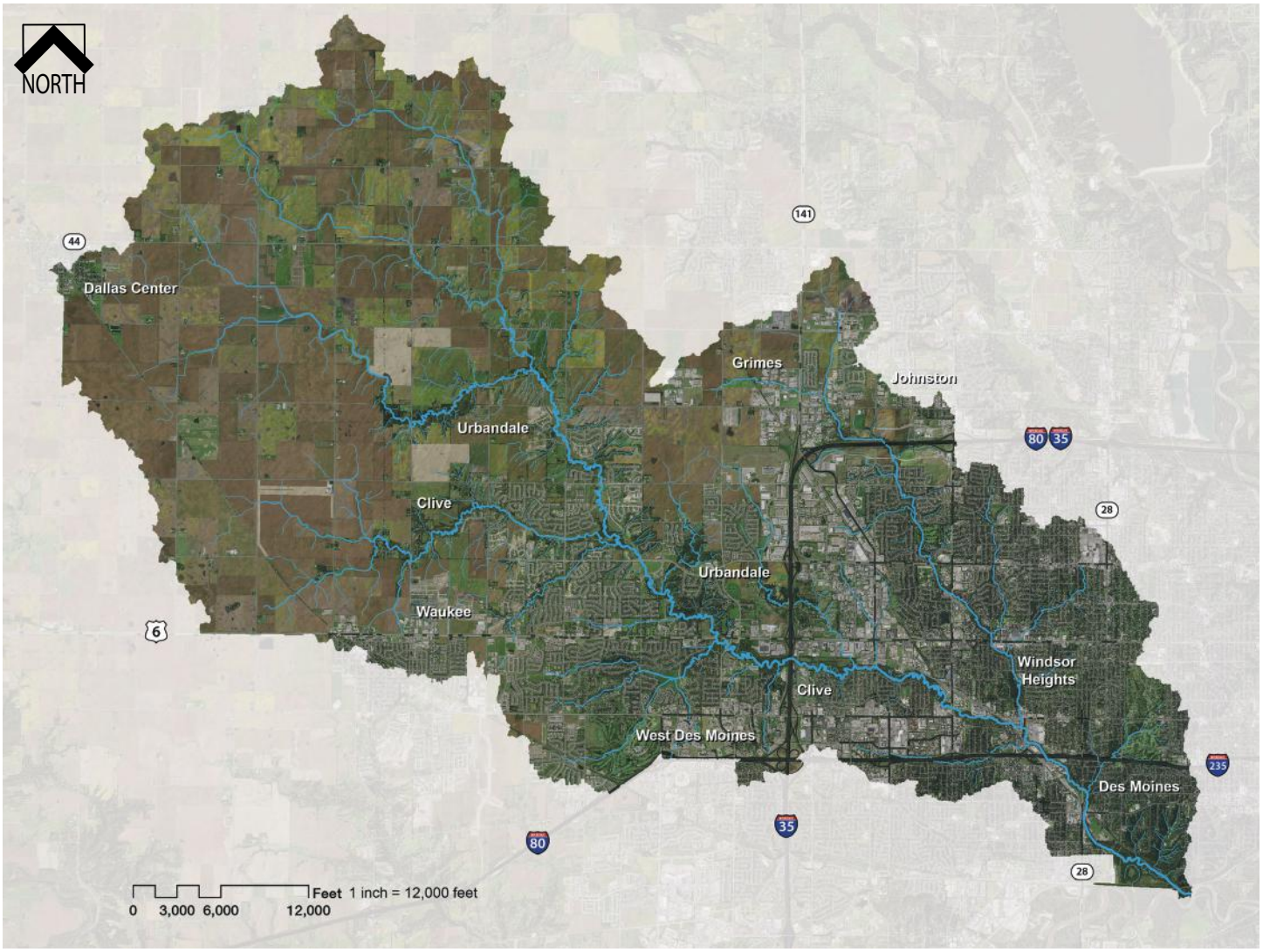
- **Review opportunities to develop public-private partnerships to modify outlets of existing ponds or entrances to existing culverts to provide better management of small storm events.**

## Greenways

Waukee anticipates growing in new areas to the north, west and south of town over the next few decades, while preserving the natural resources and qualities of key greenway corridors. The Sugar Creek corridor and its tributaries should be preserved with open space / greenway corridors that connect different neighborhoods and different parts of the City and provide areas for active and passive recreation and interaction with wildlife as well as opportunities for storm water management.

Think of stormwater management in terms of mimicking the prairie pothole hydrology. This could mean adopting standards for landlocked basins which would regulate outletting of these depressional storage areas. This could also mean using a lot of bioretention with underdrains thereby abstracting flow, allowing vegetation time to absorb stormwater runoff, and releasing the extra stormwater in a slower more constrained system.

*Figure 8.5: Walnut Creek Watershed*




The greenway system will create a strong network of "urban streamways" (serving as a hybrid of streams and drainageways) to serve multiple functions, including:

» Serving as surface waterways for stormwater

» Providing treatment areas for stormwater runoff

» Providing corridors for recreational trails

» Enhancing the functions of the local ecosystem and local habitats

» Providing corridors for alternative transportation (including walking and biking)

The overall greenway network may include the following hierarchy of greenway-oriented connections:

» **"Green fingers"** – Regional connectors to regional greenways, trails, or urban nodes

» **Parkways** – Neighborhood-scale parkway corridors with enhanced streetscapes

» **Local Green Streets** – Interconnections from local street networks to the broader greenway network

The various greenway areas should incorporate walking loop trails, informal or formal gathering areas, ecological education components, and efforts to conserve the natural environment. The greenways may also serve as key locations for the integration of outdoor adventure recreation programming and activities, including the following:

- Mountain biking trails
- Nature walks / birdwatching
- Environmental education
- Hiking
- Camping
- High ropes courses / zip lining

As the greenways evolve and the City and other partners begin to integrate recreation features into the greenways, the various features should be strategically located in the best spots to preserve habitat, minimize conflicts, and connect residents and visitors with natural assets in the Waukee area.

Public Art can also be integrated into stormwater facilities and parks/open spaces to enhance the character and popularity of these public spaces and to educate the public on water quality and development related issues. The City anticipates integrating public art throughout the open space systems over the next few decades, in neighborhood and community parks and throughout the greenway system. The City may explore a formal "art in the parks" program as particular parks and facilities move toward completion over the next few decades.

The City should keep the development of signature park, recreation, and civic amenities in mind as it plans for budgets and actions on a year-by-year basis. These features have a large potential to also provide local stormwater demonstration sites and creative regional stormwater opportunities. In particular, the City should keep the following in mind going forward:

- Planning for a Civic Campus
- Creating new park master plans and implementing existing park master plans

# GOALS, POLICIES, AND ACTIONS

Goals, policies, and actions provide the direction to help implement the Comprehensive Plan. The following goals, policies, and actions are not in any particular order of priority but instead are meant to cover the full spectrum of land use related topics. These topics reflect the desires of the community as articulated in the Vision and Guiding Principles, and reflect relevant Iowa Smart Planning Principles.

**CFI Goal 1: Preserve the functional integrity of key community facilities and services within the community while enabling the facility to operate and grow in a manner that best serves the needs of the Waukee community.**

CFI P 1.1: Closely monitor future growth in the community and collaboratively plan long term improvements to key community facilities and services.

## *Goals, Policies, & Action Items*

### Goals

**Goals are broad statements that describe a desired outcome or end-state. Goals are often long-term in scope.**

### Policies

**Policies describe the general course of action or way in which programs and activities are conducted to achieve a stated goal. Policies speak to underlying values, context, or principles, and are sometimes place-specific.**

### Actions

**Actions are projects, programs, and practices that support one or more of the plan's goals and policies. Actions address the "who, what, when, where, and how" of reaching a goal.**

**See "Key Terminology" in the "Setting the Stage" chapter.**

## *Legend*

**CFI = Community Facilities & Infrastructure**

**CFI P = Community Facilities & Infrastructure Policies**

**CFI A = Community Facilities & Infrastructure Actions**


CFI P 1.2: Encourage like uses to co-locate and share facilities when possible and feasible, e.g., a community center and library space.

CFI P 1.3: Maintain key staffing levels consistent with a growing population and job base.

**CFI Goal 2: Develop and manage the water supply in a manner that minimizes detrimental impacts on natural resources, provides affordable, safe, high quality water for current and future generations, and safeguards against climatic changes and natural disasters.**

CFI P 2.1: Continually plan for emergency responses and preparedness, engaging multiple departments within city, county, and state agencies to prevent and respond to water related emergencies.

CFI P 2.2: Proactively plan for system expansion and ongoing maintenance and replacement of aging infrastructure through the City CIP process.

CFI P 2.3: Continue to operate the system optimally, avoiding deferred or emergency maintenance, and fund the system adequately.

CFI P 2.4: Collaborate with the Des Moines Water Works and other regional water users to ensure clean, abundant, and safe drinking water.

CFI P 2.5: Promote and encourage storm water reuse for irrigation, landscaping, or other non-water consumption uses.

CFI P 2.6: Proactively participate in the legislative process regarding groundwater management.

CFI A 2.1: Update zoning and subdivision codes to ensure adequate facilities standards and land use regulations that support a resilient and sustainable water system.

**CFI Goal 3: Provide abundant, safe drinking water for current and future generations of residents.**

CFI P 3.1: Support, promote, and encourage water conservation practices.

CFI P 3.2: Meet or exceed all federal and state drinking water standards.

CFI P 3.3: Support and promote efforts to inform and educate water users on best practices that help protect and preserve water quality and awareness of sustainable water usage.

CFI P 3.4: Work towards a flat or decreasing per capita water usage.

CFI P 3.5: Continue to phase development based on the availability of municipal services and infrastructure and its orderly and efficient expansion.

CFI P 3.6: Evaluate interconnect opportunities with adjacent communities to provide system redundancies where appropriate.

CFI A 3.1: Develop and distribute educational information on the City website, through partnerships with schools, and forms of social media.

**CFI Goal 4: Construct, operate and maintain the sanitary sewer system to be economically sustainable and to promote preservation and protection of water resources and efficient energy use. Best practices, including regular inspection and maintenance, and financial considerations of major maintenance and replacement of infrastructure are key to a resilient and sustainable system.**

CFI P 4.1: Provide an efficient and cost effective sanitary sewer system that is equitably financed.

CFI P 4.2: Invest in regular inspection and maintenance of the existing built infrastructure.

CFI P 4.3: Plan and budget for long term maintenance and replacement of aging infrastructure systems.

**CFI Goal 5: Provide sanitary sewer system capacity that serves existing residents, allows for continued growth, and minimizes inflow and infiltration.**

CFI P 5.1: Plan, design, and construct the sanitary sewer system to meet or exceed industry standards and appropriately plan for future growth of the system.

CFI P 5.2: Construct the sanitary sewer system to facilitate efficient/sustainable operation and maintenance and prevent inflow and infiltration.

CFI P 5.3: Operate the sanitary sewer system to prevent excessive inflow and infiltration and limit volume of clean water that is treated.

**CFI Goal 6: Operate the sanitary sewer system to meet Federal and State standards and WRA requirements.**

CFI P 6.1: Limit substances in the sanitary sewer that can lead to surface and groundwater quality concerns.

CFI P 6.2: Educate sanitary sewer users on appropriate disposal methods and discourage inappropriate wastes from being disposed in the sanitary sewer.

**CFI Goal 7: Support existing use while also planning for future growth through continuing to phase development based on the availability of services. It is most cost effective for the City to develop in areas with existing sanitary sewer. In addition, there are direct energy and financial savings if developing areas can be connected to the existing system using gravity fed pipe networks. Minimizing lift station use, both temporary and permanent, is a primary goal of design of the City's sanitary sewer system. The availability of sanitary sewer will continue to be a driving factor in the phasing of future growth.**

CFI P 7.1: Plan, design and construct the sanitary sewer system with reserve capacity for localized higher residential densities or commercial/industrial sewer users. Reserve capacity can also be used to connect areas that are currently unsewered

if it becomes necessary in the future, such as rural residential uses with private septic systems that when failing are cost prohibitive to replace.

CFI P 7.2: Inspect and maintain the existing system for optimal performance and fund appropriately through usage fees.

CFI P 7.3: Implement a phased replacement plan that will lessen the financial and logistical burden of infrastructure replacement in the future.

CFI P 7.4: Restrict premature development in locations where sanitary sewer is currently not available but will be in the future.

CFI P 7.5: Appropriately fund the extension of sanitary sewer through area and connection charges.

CFI P 7.6: Continue to line existing aging systems to lessen infiltration.

CFI A 7.1: Prepare a comprehensive sanitary sewer master plan that establishes locations for future trunk sewer mains and that can provide guidance for future growth and development.

**CFI Goal 8: Develop a stormwater system that controls and mitigates effects associated with altered hydrology such as flooding and channel erosion.**

CFI P 8.1: Utilize a greenway corridor and prairie pothole/urban streamways framework to utilize the natural landforms as a multi-use, integral part of the drainage, parks, trails, and open space infrastructure of the City.

CFI P 8.2: Incorporate projects into the public drainage system that provide hydrologic benefits to the watershed and reduce localized flooding in all areas where known flooding conditions persist.

CFI P 8.3: Decrease the rate and volume of water that contributes to flooding of downstream communities to limit property damage and protect public safety.

CFI P 8.4: Reduce peak flows and flood elevations in problematic areas.

CFI P 8.5: Increase and restore floodplain connectivity.

CFI P 8.6: Identify, to the maximum extent practicable, areas of floodplain within the watershed.

CFI P 8.7: Minimize the potential for damage by floods by removing existing structures from the floodplain, preventing new construction in the floodplain, and minimize filling of the floodplain.

CFI P 8.8: Identify existing flood prone areas and develop a flood mitigation plan, utilizing upstream and Low Impact Development (LID) measures as the first priority.

CFI P 8.9: Enhance the flood resiliency of a watershed through social, economic, and environmental resources and actions that protect the quality of life for all its communities, especially low income or vulnerable populations that are at risk of flooding.

CFI A 8.1: Develop ordinances to treat via volume control the runoff to the predevelopment condition.

CFI A 8.2: Develop regional stormwater management plans for areas currently being used for agriculture so when these areas develop, there is a plan for bringing them on-line.

CFI A 8.3: Develop a greenway corridor and prairie pothole/urban streamways framework and master plan to utilize the natural landforms as a multi-use, integral part of the drainage, parks, trails, and open space infrastructure of the City.

**CFI Goal 9: Improve water quality and overall health of the Surface Waters.**

CFI P 9.1: Promote and encourage site design that supports groundwater recharge.

CFI P 9.2: Promote and use LID/Green Infrastructure techniques in public spaces or retrofit projects, including coordinating with parks and open space initiatives.

CFI P 9.3: Apply BMPs as outlined in Nutrient Reduction Strategy, targeting practices with multiple benefits.

CFI P 9.4: Restore healthy soil layers to open spaces in developing areas (use techniques described in ISWMM).

- » Reduce grading volumes and area disturbed by construction
- » Protect high-quality soils
- » Topsoil stripping/replacing and using soil amendments

CFI P 9.5: Complete streambank stabilization, buffer protection, and restoration projects (including those identified in the Walnut Creek Watershed Master Plan)

- » Little Walnut Creek from confluence with tributary to Warrior Lane
- » Small tributary from Hickman Road to private pond
- » Small tributary from 270th Street to mouth
- » Small tributary from Waukee boundary to 270th Street (buffer protection)

CFI P 9.6: Promote and encourage improved stream buffers.

- » Increase naturalized stream buffer protection corridors to include the five-year floodplain
- » Consider how best to protect the meander belt (may or may not be the same as the floodplain)

CFI A 9.1: Modify outlets of existing ponds and entrances to existing culverts to better manage small storm events.

**CFI Goal 10: Have a consistent and clear system for regulation, enforcement, and funding for the stormwater system.**

CFI P 10.1: Engage various stakeholders through collaboration to expand resource opportunities and creative solutions.

CFI A 10.1: Develop stormwater management ordinances for new development and redevelopment. Standards should be to match pre-development (pasture landscape) and/or pre-settlement (tallgrass prairie) conditions to address impacts from development activity.

- Water Quality and Channel Protection: Address runoff created by smaller storms which are more common and are responsible for carrying the most pollution downstream (pollutants washed off the landscape and transported downstream). These smaller storm events make up approximately 98% of all rainfall in central Iowa.
- Water Quantity and Flood Protection: Address runoff generated for the 10-year design event (4.46-inches) to provide overbank flood protection and for the 100-year design event (7.12-inches) to provide extreme flood protection.
- Consider adopting wetland management standards to protect wetlands from the impacts of stormwater runoff (e.g. wetland bounce and inundation requirements based upon wetland type).
- Adopt use of the Iowa Storm Water Management Manual (ISWMM)for stormwater management design
- Require compliance of urban stormwater management policies, with particular attention paid to SWPPPs
- Restore healthy soil layers to open spaces in developing areas (use techniques described in ISWMM)
  - Reduce grading volumes and area disturbed by construction
  - Protect high-quality soils
  - Topsoil stripping/replacing and using soil amendments to restore soil quality post-construction
- Require the use of LID/Green Infrastructure techniques
  - Apply Best Management Practices (BMPs) as outlined in Nutrient Reduction Strategy, targeting practices with multiple benefits

**CFI Goal 11: Utilities should be designed, located, and constructed to avoid significant adverse environmental impacts and to protect valuable environmental features.**

CFI P 11.1: 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.

CFI P 11.2: 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.

CFI P 11.3: 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.

CFI P 11.4: 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.

CFI P 11.5: 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.

CFI P 11.6: Power and telephone wires should be installed underground where feasible, particularly in newly-developing and high-density areas.

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# 9. IMPLEMENTATION

## INTRODUCTION

Over the years, the Waukee community has spent a great deal of time and energy updating its Comprehensive Plan and establishing the Vision and Guiding Principles that embody what Waukee aspires to be as a community. This implementation chapter is intended to carry out the Vision and Guiding Principles that were crafted at the beginning of the planning process. Future actions and implementation of the Comprehensive Plan should be measured, to a degree, against their ability to help achieve the Vision and Guiding Principles.

It is important to recognize the plan as a living and breathing document. The plan provides the flexibility to adapt to unforeseen changes. Changes may include new development products in the market place, shifts in the regional, national or global economy, technological advances, and political decisions that force us to rethink our vision from time to time. On a smaller scale, individual property owner decisions (or needs) also force change. Even smaller incremental changes must be carefully evaluated relative to a community's Vision and Guiding Principles. Change will occur, but should be done through a thoughtful and engaging process.

## THE PARTNERS

Implementing the Comprehensive Plan is a collective effort between the Waukee City Council and the various boards and commissions that advise the Council and City Staff, along with the input of a number of "implementation partners," all working towards the common vision expressed in the plan. The decisions that put the plan into action come from a variety of sources – both public and private – and from a variety of perspectives – policy, regulatory, fiscal, and strategic. This section identifies the general implementation partners and summarizes their role in the plan's implementation.

#Collaboration

## The City

The City's primary role in implementation of the plan will be through regulation of private development, programming capital expenditures for public improvement, establishing development-related policies and programs, and facilitating the study and planning of future opportunities or change. In essence, the City is the "keeper of the vision," and through regulatory, program, and policy actions must reinforce a commitment to the plan. Through this commitment the City directs all of the other implementation partners toward a common direction and builds support and expectations for outcomes called for in the plan.

## Development Community

The development community is a key agent for implementing physical aspects of the plan. As with most plans, the Waukee Comprehensive Plan envisions some long-term changes. This change only occurs through several discrete but interrelated actions that take place when the development partners commit to investing in strategies that differ from the strategies of conventional development. This change must be viewed across areas (broader than any one project) and over time (incrementally, with smaller changes supporting bigger future changes). When these decisions are made under the collective and long-term vision of the plan, change can be more evident and more successful. It is not enough to internalize the goals of this plan within each discrete development project. Rather, projects must be strung together by their relationship to the common public realm, where each new project contributes to the greater whole of the community's vision.

## Community Organizations, Philanthropy, Volunteerism

Community organizations are the anchor of the plan. Philanthropy and volunteerism are avenues to implementation by bringing financial or human resources to the table. All three can provide an established framework that can be harnessed to achieve collective goals. When actions and activities that further plan implementation require active communication networks and effective organizational structures, community organizations can be the quickest to mobilize and the most successful in carrying out more complex tasks. Furthermore, these organizations are most capable to react to new issues that arise and to structure appropriate responses still in keeping with the overall vision of the plan. In essence, these organizations can track successes under the plan and assess shortcomings, to ensure that this plan and the implementation strategies are always considered in collective actions of the community.

## Businesses

Businesses provide the long-term viability of the plan. Once the physical framework is established, it is only successful if it provides an environment in which the desired types of businesses can thrive and continue to contribute to the tax base of the community, employ community members, and provide quality services and goods for residents. Entrepreneurship, developing niche businesses, fostering a community ethic in business

decisions and financing projects that further the plan are all roles that local businesses play in implementation.

## Institutions

Institutions provide icons and landmarks within the City and contribute to the quality of life desired by Waukee. These institutions should not only be physical focal points of the community but social and cultural magnets that create complete, full-service neighborhoods. In this role, the institutional partners must demonstrate commitment to the physical development patterns and community identity policies called for in the plan. By placing institutions at central and important locations, the presence of institutional partners is strengthened. This enables active engagement in the community partnerships through which implementation occurs.

## Citizens

This plan documents the vision of Waukee's citizens. The continued involvement of the citizenry in the implementation process assures the continuing validity of the plan. Active involvement, either by volunteering for advisory committees and boards or through individual participation in the public process, ensures that these issues continue to be at the forefront of decisions by all of the implementation partners.

# STRATEGIES AND ACTION STEPS

To be most effective, the plan must serve both long term and near term needs. The Implementation chapter is organized around a series of general strategies and more specific action steps. Strategies are continuous or ongoing and have no defined start or end point. Strategies emphasize utilization of the plan as an everyday planning tool. Action steps are specific projects that have a defined start and end point and result in a tangible product or capital investment.

Collectively, the Strategies and Action steps make up a comprehensive "to do" list for the City of Waukee. Through the City's established Strategic Planning Process, this "to do" list can be a starting point for more near term prioritization of projects.

## Community Strategies

1. **Periodically Review and Understand Community Development Tools and Programs**

   Many of the tools available to the City of Waukee for community planning and development are enabled by state laws such as: zoning and subdivision ordinances, park dedication ordinances, infrastructure ordinances, and the ability to create or establish tax increment financing districts or use tax abatement or other financing mechanisms or environmental reviews. Other tools pertain to housing and economic development strategies such as:

» Exploring, promoting, and targeting to neighborhoods housing rehab and energy efficiency improvement programs

» Focusing on promoting and attracting senior housing developers and developments

» Partnering with social service agencies on financial education programs for immigrant and refugee populations

» Implementing neighborhood focus on community development projects

» Promoting existing business growth and retention

» Promoting new business development and attraction

» Collaborating with educational institutions to develop a stronger workforce

These are only a few of the important implementation tools available to cities.

A key strategy for Waukee is to regularly review state laws to stay abreast of changes that might favorably or adversely affect the City's ability to implement its plan. This can be done by subscribing to newsletters or e-mail blasts or being active participants in local chapters of national planning and development organizations or regional/statewide associations such as Iowa Chapter of Urban Land Institute (ULI), Iowa Chapter of the American Planning Association (APA), Iowa League of Cities, Iowa Foundation for Parks and Recreation (IFPA – NRPA), Iowa Chapter of the American Public Works Association (APWA), etc.

*Roles: City Staff, Elected and Appointed Officials*

*Frequency: Ongoing with periodic updates of trends and opportunities*

2. **Conduct Regular Reviews of the Comprehensive Plan**

Waukee will continue to grow and change over the next 20 years. As this growth continues to occur, data will emerge through evaluation of development projects and planning analysis that will help with understanding the impacts on the community. The Comprehensive Plan should be reviewed on a regular basis to assess progress on attaining the community's goals and objectives and to continue a dialogue about the community's future. The review should focus on both the successes and failures of the Plan. The review should be informed by new and recent development projects, observations of change and technical analysis, emerging trends, and new technologies. GIS mapping should be maintained with a report of land absorption, land availability, and lot inventories to ensure adequate land is guided in support of housing diversity and affordability goals. Annual adjustments to population, household, and employment projections should be carefully evaluated and coordinated with the school districts and the Des Moines Area MPO.

*Roles: Staff and Planning Commission*

*Frequency: annual or once every two years*

3. **Establish a Set of Community Indicators to Measure Progress**

Community indicators are an effective measurement tool to assess how Waukee is progressing towards its goals and objectives identified throughout the plan. "Indicators are measurements that reflect the interplay between social, environmental, and economic factors affecting a community's well-being" (American Planning Association PAS Report #517).

Agreeing upon a series of community indicators will require a public process. This is an ongoing (long term) strategy that will provide the City of Waukee with a wealth of information to help guide future decision making and track progress over a period of years. The list of community indicators can be quite lengthy and exhaustive. This is why the process is as important as the product. What gets measured and how it gets measured must be a product of a community dialogue. The following list is a starting point of some possible indicators relevant to Waukee. This list is developed based on past community input and recent planning trends:

» Land use efficiency as measured by:
  - density of new residential development
  - ratio of commercial building square feet to gross land area of new construction
  - total acres of new development absorbed on an annual basis
  - total acres of projects zoned as a Planned Unit Development

» Economic development
  - number of existing businesses visited by City staff or economic development agency
  - number of new businesses developed in the community
  - number of new jobs created (private vs. public)
  - number of new start-up businesses
  - vacancy rates of commercial and industrial space
  - unemployment rates
  - valuation trends of commercial and industrial businesses
  - size of local/regional labor force
  - the ratio of jobs in Waukee to the number of housing units

» Housing
  - number of new affordable housing units developed
  - number and value of permits pulled for housing maintenance (siding, roofing, mechanical, windows, etc...)
  - number and value of permits pulled for new housing construction (by type--detached SF, attached MF, stacked MF)
  - number and value of permits pulled for housing remodeling/ expansions
  - number of real estate transactions of owner occupied housing
  - vacancy rates
  - dollars invested in assisting with housing maintenance

» Government services
  - number of candidates filing for government offices
  - number of complaints logged at City offices
  - average timeliness of City resolution
  - number of City employees per 1,000 residents
  - number of police calls by type/area or location
  - number of fire calls by type/area or location
  - average response times of each call
  - number of joint service agreements or public/private partnerships
  - satisfaction rating change over time

» Environment and energy conservation
  - water quality of key waterways
  - air quality measurements taken at key locations in the community
  - number of new storm water treatment systems installed or volume of storm water treated
  - acres of sensitive natural resources protected
  - number of new LEED equivalent buildings
  - number of vehicles in the City fleet that operate on alternative fuel sources (i.e. bio-diesel, solar, hybrid)
  - volume of waste generated per capita
  - percent of waste stream recycled per capita
  - carbon footprint measurement

» Transportation/traffic/mobility
  - lane miles of congested roadways (LOS E or F)
  - number of traffic crashes by type
  - number of lane miles of new roadways built (and dollar value)
  - number of lane miles of streets reconstructed (and dollar value)
  - traffic volumes on major streets
  - number of potholes repaired or volume of fill on an annual basis
  - volume of transit ridership from the City and destinations
  - number of cars per household
  - miles of paths constructed by type (sidewalk or multi-purpose trails)
  - miles of bike lanes constructed
  - household trip patterns (bike, walk, drive, transit)
  - percent of households within walking distance of key destinations (library, schools, parks, commercial centers, job centers.)

» Park and recreation
  - participation in active recreation programs
  - dollar value of investments in existing parks
  - hours spent on park maintenance
  - number of new parks developed
  - change in programming over time

» Community infrastructure
  - miles of new sanitary sewer pipes and number of lift stations
  - volume of inflow and infiltration
  - miles of new trunk water mains
  - volume of unaccounted for public water usage
  - per capita usage of water by land use

The City of Waukee should establish a series of indicators to evaluate the progress and success of this plan. Establishing the indicators could be looked at as an Action step; however, the ongoing nature of reporting out and monitoring progress becomes the strategy.

*Roles: Staff, volunteers, community organizations and agencies*

*Frequency: Annually or once every two years*

4. **Update Official Controls**

Waukee City Code, which contains its Zoning and Subdivision Regulations, is the official regulatory tool to implement the Comprehensive Plan. The Comprehensive Plan provides the "nexus" to the specific laws in the City's ordinances and allows implementation of ideas that help the City reach the goals that are outlined throughout the plan. The City's existing zoning map and list of zoning districts is adopted according to Iowa Code of Laws Chapter 414. Zoning should be in alignment with the Comprehensive Plan. This process to amend the zoning code and zoning map will require a public process. Minor changes to the zoning code and zoning map districts will be required following adoption of the Comprehensive Plan. These areas are addressed below:

» Park dedication - The subdivision ordinance contains provisions for park dedication. The park chapter provides a long term plan for future park and trail improvements that (in conjunction with the Park and Trail Master Plan) form the nexus for establishment of park dedication. Park dedication should be reviewed on a regular basis to reflect long term capital improvements as guided by Park and Trail Master Planning.

» Access management - Functionality of major road corridors can be greatly enhanced by the ability to regulate access onto roadways. Development of an access management ordinance strengthens the City's ability to implement and enforce access management strategies.

» Zoning map amendments - A limited number of areas within the community will be affected by the changes in land use guidance. These areas will need to be rezoned accordingly through the rezoning process, which requires a public hearing.

### *Zoning Resources*

**Current Zoning Map**

**Current Zoning Ordinance**

» The entire Comprehensive Plan will be evaluated to ensure the official controls are aligned with one another. If changes to the official controls are needed, the City will proceed with the appropriate process required by state law. Other areas of focus based on directions from the Comprehensive Plan include:

- Exploring and evaluating new zoning approaches to development along major transportation corridors and at key nodes (see land use framework diagram Figure 3.1). (i.e. mixed use zoning districts, form based codes, design guideline overlay districts, access management standards, or others)
- Establishing a basis in the subdivision ordinance for preserving key greenway linkages between park and recreation facilities, institutional and commercial pedestrian destinations, and value natural resources such as woodlands, prairie potholes, steep slope/ravine areas, etc.
- Provisions that help retain or create affordable housing opportunities, such as addressing lot sizes, alternative housing forms (accessory units, tiny homes, etc.).
- Provisions that support and strengthen opportunities and market for public transit.
- Provisions that support biking and walking infrastructure better connecting private development to the public trail and sidewalk facilities.
- Provisions that support or encourage energy efficient building and site planning technologies.
- Provisions that encourage integration of storm water improvements with public and private site amenities.

*Roles: Staff, Planning Commission, Boards and City Council*

*Frequency: near term emphasis – ongoing reviews on an annual or every two year basis.*

5. **Update and Maintain the City Capital Improvement Plan and Stay Abreast of Available Financial Tools.**

Implementation of the Comprehensive Plan requires a combination of public and private actions, many of which require public investment. While there is not a bottomless pot of money to tap into, there are a variety of financial resources available to implement the Comprehensive Plan. The City's Capital Improvement Program (CIP) (available online) is an important tool for prioritizing public investments. The City's CIP will need to be continually updated and reviewed on an annual basis. The Comprehensive Plan has taken into consideration a series of planned improvements that were identified in the City's CIP and are supported through the Comprehensive Plan update. CIP planning helps identify the needed infrastructure investments in sanitary sewer, potable water, storm water management, and transportation infrastructure systems in addition to public facilities.

The CIP is one of several financial tools that may be used to implement specific initiatives. However, financial tools of today may become outdated and should be reviewed on a regular basis. City staff and decision makers will need to retain a current working knowledge of all the tools that can be used including:

- TIF
- Tax abatement
- Bonding
- Grants
- Business improvement districts
- Surface Transportation Block Grants
- state programs
- local option sales tax
- franchise fees

*Roles: Staff, City Council*

*Frequency: review and update annually*

6. **Transportation (Right-of-Way Preservation)**

The transportation plan has identified a series of roadway improvements that are needed to meet local and regional needs over the next 20 years. Implementing these improvements could be one of the most challenging efforts as each one will have an associated infrastructure cost but at this time do not have a funding source associated with them. However, it is important to continue to plan for these improvements as infrastructure and land costs continue to rise. These rising costs also enhance the importance of right-of-way preservation.

The City's strategy for preserving right-of-way (ROW) for long term transportation projects is to work collaboratively with property owners to ensure that development projects take into consideration both short and long term transportation needs. This may require the City taking a more proactive planning role, engaging regional agencies (Dallas County and IDOT), and affected land owners in more detailed master planning and system planning efforts. Grand Prairie Parkway and the Kettlestone development project are good examples of this kind of collaborative planning effort, particularly with land owners.

The City will continue to work with Dallas County, IDOT and the Des Moines Area MPO to determine the appropriate planning and funding mechanisms for constructing roadway improvements.

*Role: Staff*

*Frequency: ongoing on a project-by-project basis*

7. **Parks, Trails, and Open Space**

   Waukee park and recreation programming is strong. Online presences celebrating and promoting new ideas and trends through various social media avenues sets Waukee apart from many communities. As Waukee continues to grow, continued park system planning efforts will be needed with a focus on building out a system of neighborhood parks, ensuring strong connectivity between neighborhoods through a robust trail network, and identifying opportunities for "signature parks and recreation activities."

   *Role: Staff, Park and Recreation Board, City Council*

   *Frequency: Annual or as new growth demands new neighborhood park master planning*

8. **Continue to Monitor Public Facility Space Needs and Incorporate Facility Improvements into the CIP.**

   The growth and development of the City of Waukee adds pressure on government services through increased demands for building permits, community development resources, streets, utilities, stormwater, police and fire protection, park and recreation programming, library programming, and general administrative responsibilities. Such demands require the City to develop public facilities that house such services. These include administration (City Hall), park and recreation (community center), library, police, fire and public works. Currently, the bulk of the community's public facilities are sited in various facilities spread throughout the City.

   *Role: Staff, City Council*

   *Frequency: Annual or as new growth demands new public facilities*

IMPLEMENTATION MATRIX KEY

***Priority/Timing:***

Ongoing = Ongoing task, constant monitoring

Short Term = 0-3 years

Mid Term = 3-5 years

Long Term = beyond 5 years

***Cost:***

$ = Low cost, mostly staff effort

$$ = Medium cost, may require procuring consultant help or small capital investment

$$$ = High cost, costs associated with first lower cost levels plus more significant capital investment and operation costs

# ACTION STEPS

This implementation plan presents a number of action steps that are identified throughout the chapters of the plan that together have the potential to positively shape growth and change in the City. Since resources are limited, it is unrealistic to assume that the City can undertake all of them simultaneously. Therefore, it will be necessary to focus on those that have the greatest potential to accomplish stated goals or those that respond to issues or problems that have been identified within the Comprehensive Plan.

In order to measure the progress of each action step an implementation matrix has been developed and can be seen in Table 9.1. This tool will allow the City to track each action by its responsible party, associated costs and priority (see sidebar). Essentially, the action steps should serve as the "to-do" list for the City. As the City and its advisory boards develop annual goals in goal setting workshops, they should consult the "to-do" list as a starting point. As a number of action steps are completed, the plan should be updated to refresh the action steps and, using the community indicators, establish new action steps.

The action steps highlighted in the following table are developed based on the goals and policies identified in the plan and the broader community strategies identified within the Implementation Chapter.

*Table 9.1: Implementation Matrix*

| Step Number | Action Step | Responsible Entity | Priority/ Timing | Cost | Funding | Indicator |
|---|---|---|---|---|---|---|
| LU A 1.1 | Revisit and update the downtown master plan to strengthen zoning standards and design guidelines and identify future public and private redevelopment investments. | City of Waukee, Private Orgs. | Mid Term | $$ | Philanthropy, General Fund, Developer Funded | Master Plan Update |
| LU A 3.1 | Continue to monitor and report out to the community development activity, platting and lot inventories, building permit data (commercial square footage absorptions and housing units by type). | City of Waukee | On Going | $ | General Fund | Annual Reports |
| LU A 4.1 | Prepare design guidelines that demonstrate support for transit usage, enhanced pedestrian/bike connectivity, crime prevention through design, and healthy living components. These guidelines can be used through the general development review process. | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |
| LU A 5.1 | Review and update the zoning code to ensure sufficient design standards, landscaping, buffers/screening, and development amenities are addressed in all development projects. | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |
| LU A 5.2 | Revisit and update the major intersection study to ensure a high quality aesthetic character of the City's primary gateways, major roadway corridors, and community commercial areas to enhance community identity and the overall sense of place. | City of Waukee | Mid Term | $$ | General Fund | Updated Study |
| LU A 6.1 | Update the City Zoning code to incorporate design standards and flexibility. | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |
| ED A 1.1 | Identify key commercial and industrial development or redevelopment opportunities, in locations with sufficient access to transportation systems and to public infrastructure systems. | City of Waukee | Mid Term | $ | General Fund | Sites identified |
| ED A 1.2 | Leverage financial programs and assistance, including various incentives, to promote the rehabilitation and redevelopment of existing commercial facilities. | City of Waukee | On Going | $ | Sources Vary | Projects Completed |
| ED A 1.3 | Revisit and revise design standards for commercial and industrial development. | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |
| ED A 1.4 | The inclusion of green spaces, paths, sidewalks, and other amenities as part of site plans.<br>• The use of appropriate building materials and façade treatments to enhance the aesthetic qualities of developments.<br>• Revisit and revise as necessary, codes that require commercial or industrial developments to provide adequate off-street parking and loading areas, while promoting the sharing of parking and loading areas between neighboring businesses. | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |

| Step Number | Action Step | Responsible Entity | Priority/ Timing | Cost | Funding | Indicator |
|---|---|---|---|---|---|---|
| ED A 1.5 | Revisit and revise as necessary, codes that require businesses to provide adequate screening or buffering between their operations and adjacent residential areas (either current or planned). | City of Waukee - P&Z | Short Term | $$ | General Fund | Updated Zoning Code |
| ED A 2.1 | Establish marketing campaigns and strategies to broaden the recognition of Waukee in the regional market.<br>• Refine marketing campaigns and strategies to leverage the recreational and cultural amenities present in Waukee. | City of Waukee | On Going | $ | General Fund | # of leads generated |
| ED A 2.2 | Conduct regular planning and strategy sessions with the Greater Des Moines Partnership. | City of Waukee - Regional Agencies | On Going | $ | General Fund | # of leads generated, new partnerships formed, outside funding leveraged |
| ED A 2.3 | Refine and adjust financial incentives and other economic development tools (such as TIF, tax abatements, grants, etc.), in order to better attract or retain companies in Waukee. | City of Waukee | On Going | $ | General Fund | |
| ED A 2.4 | Refine assistance programs designed to help businesses looking to locate in or expand in Waukee. | City of Waukee | On Going | $ | General Fund | $ invested per job created |
| ED A 2.5 | Educate local businesses and entrepreneurs regarding the various types of municipal, state, and federal economic development programs and incentives available. | City of Waukee | On Going | $ | General Fund | training sessions held |
| ED A 2.6 | Develop services, facilities, and infrastructure in support of start-up companies, entrepreneurs, and those working remotely in Waukee. Initiatives may include:<br>• Small business incubators<br>• Entrepreneurial support spaces such as co-working and meeting spaces<br>• Providing strong cellular coverage and high speed fiber for local businesses and remote workers | City of Waukee - Private or Non-Profit entities | Mid Term | $$-$$$ | Grants, Philanthropy, Private Investment | Spaces or Square Footage |
| ED A 4.1 | Create a program to match students with local businesses for internships, mentorships, and shadowing opportunities. | City of Waukee - Business/ Chamber - School District | Short Term - On Going | $ | Grants | hours of intern services - number of interns hired |
| ED A 4.2 | Explore workforce development grant opportunities and educational partnerships through regional and state economic development entities. | City of Waukee - Business/ Chamber - School District | Short Term - On Going | $ | General Fund | Grant $ secured - partnerships established |

| Step Number | Action Step | Responsible Entity | Priority/ Timing | Cost | Funding | Indicator |
|---|---|---|---|---|---|---|
| H A 1.1 | Host an annual housing summit to present information on the importance of having a diversity of housing types and styles and range of price points. | City of Waukee - Business/ Chamber | Short Term - On Going | $ | Sponsorships | Events held |
| H A 1.2 | Recruit and potentially partner with one or more developers for senior housing projects. | City of Waukee - Developers | Mid Term | $ | General Fund | Senior Housing Units built |
| H A 1.3 | Prepare and publish housing educational information in city newsletters and social media posts. | See Zoning Code Actions | Short Term - On Going | $ | Sponsorships - Advertisements | # of articles published |
| H A 2.1 | Review and update the zoning and subdivision ordinances to better enable alternative housing patterns and remove barriers to affordable housing development. | See Zoning Code Actions | NA | NA | NA | NA |
| H A 2.2 | As part of H A 1.1 - seek presenters on innovative housing trends such as energy efficiency, multi-generational housing, smart homes, missing middle housing, housing for disabled, accessory dwelling units, 3D printed homes, or others. | See H A 1.1 | NA | NA | NA | NA |
| H A 3.1 | Facilitate an annual housing trade fare that brings home repair or remodel vendors, financiers, and assistance providers to showcase services. | City of Waukee - Business/ Chamber | Short Term - On Going | $ | Sponsorships | # of vendors |
| H A 3.2 | Form a partnership with lending institutions to develop lo interest or zero interest loan programs for housing rehab or remodelling of older housing stock. | City of Waukee - Lenders/ Banks | Short Term - On Going | $-$$ | LMI Funds | # of lending partners - loans processed |
| PTROS A 1.1 | Develop neighborhood parks to serve new areas of Waukee and identify locations within new neighborhoods for the locations of new neighborhood parks. Integrate facilities that would serve local neighborhoods, including the following:<br>• Playgrounds<br>• Open field play space<br>• Picnic space<br>• Art display space<br>• Historical interpretive features<br>• Additional, special features | City of Waukee - Park Board - Developers | On Going | $$-$$$ | Park Dedication Funds - Grants - Philanthropy | New Parks Developed |
| PTROS A 3.1 | Develop a larger community park, integrated along with a civic campus area in Waukee.<br>• Identify locations for and develop programming and facility plans for a new community park that would integrate with the potential civic campus along and west of 10th Street | City of Waukee | Mid Term | $$-$$$ | Park Dedication Funds - Grants - Philanthropy | New Community Park |

| Step Number | Action Step | Responsible Entity | Priority/ Timing | Cost | Funding | Indicator |
|---|---|---|---|---|---|---|
| PTROS A 4.1 | Develop a loop trail system that connects the regional trails to local destinations and provides a series of varied experiences for local riders.<br>• Connect destinations such as schools, parks, Downtown, and historic or cultural locations<br>• Provide a wayfinding system that uses distinct branding and clear directions to destinations<br>• Secure right of way or easements for future trails<br>• Connect neighborhoods to the broader trail network<br>• Reconstruct sidewalks that are in disrepair and install new sidewalks to eliminate existing gaps in the system | City of Waukee - Trail/Bike Advocates/ users | Long Term | $$-$$$ | Development dedication, Grants | Miles of Trails built - Miles of Trails connected |
| PTROS A 5.1 | Implement improvements to trails and road crossings as identified in the Iowa Living Roadways Plan:<br>• Provide enhanced signage at trail crossings<br>• Install heightened landscaping at key intersections<br>• Install landscape features to improve trail user experiences<br>• Use wayfinding to bring trail users to Downtown Waukee<br>• Make art a part of the trails network, with features such as a linear outdoor gallery | City of Waukee - County - Regional Agencies - Trail/Bike Advocates/ users | On Going-Long Term | $$-$$$ | Grants - CIP | Grade Separated Crossings constructed |
| TM A 1.1 | Adopt a complete streets policy for the City of Waukee to formalize the community's intent to plan, design, and maintain streets that accommodate safe and efficient use of streets by users of all ages and abilities. | City of Waukee | Short Term | $ | General Fund | Adopted Policy |
| TM A 1.2 | Update street design guidelines in city ordinances, including graphic interpretations of various street and trail cross-sections. | See Zoning Code Actions | Short Term | $ | General Fund | Guidelines Created |
| TM A 4.1 | Prepare neighborhood traffic calming policies and guidelines | City of Waukee | Short Term | $$ | General Fund - Grants | Guidelines Created |
| TM A 4.2 | Develop a Transportation System Management Plan | City of Waukee | Short Term | $$ | General Fund | Plan Created |
| CFI A 2.1 | Update zoning and subdivision codes to ensure adequate facilities standards and land use regulations that support a resilient and sustainable water system. | See Zoning Code Actions | NA | NA | NA | NA |

| Step Number | Action Step | Responsible Entity | Priority/ Timing | Cost | Funding | Indicator |
|---|---|---|---|---|---|---|
| CFI A 3.1 | Develop and distribute educational information about drinking water usage and conservation practices on the City website, through partnerships with schools, and forms of social media. | City of Waukee | Short Term | $ | General Fund | # of posts |
| CFI A 7.1 | Prepare a comprehensive sanitary sewer master plan that establishes locations for future trunk sewer mains and that can provide guidance for future growth and development. | City of Waukee | Short Term | $$ | General Fund | Completed Master Plan |
| CFI A 8.1 | Develop ordinances to treat via volume control the runoff to the pre-development condition. | See Zoning Code Actions | NA | NA | NA | NA |
| CFI A 8.2 | Develop regional stormwater management plans for areas currently being used for agriculture so when these areas develop, there is a plan for bringing them on-line. | City of Waukee - County - Regional Agencies | Mid Term | $$ | General Fund, Grants, Reg. Funding, Development Funds - Grants - Regional Funding | Master Plans Created |
| CFI A 8.3 | Develop a greenway corridor and prairie pothole/urban streamways framework and master plan to utilize the natural landforms as a multi-use, integral part of the drainage, parks, trails, and open space infrastructure of the City. | City of Waukee - County - Regional Agencies | Short Term | $-$$ | General Fund, Grants, Reg. Funding, Development Funds - Grants - Regional Funding | Master Plans Created |
| CFI A 9.1 | Modify outlets of existing ponds and entrances to existing culverts to better manage small storm events. | City of Waukee | Short Term - Mid Term | $$ | Stormwater Fund | Outlets modified |
| CFI A 10.1 | Develop stormwater management ordinances for new development and redevelopment. Standards should be to match pre-development (pasture landscape) and/or pre-settlement (tallgrass prairie) conditions to address impacts from development activity. | See Zoning Code Actions | NA | NA | NA | NA |