Transportation 6

Introduction

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

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

Transportation Policies and Action Steps

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

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

Action Steps

a). Conform to the transportation Smart Planning Principles adopted by the State of Iowa in April 2010.

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

b). Implement a plan for sidewalks and trails that provides safe pedestrian circulation for both commuter travel and recreation.

» *Strive to maximize multi-use trail linkages.*

» *Retrofit all non-ADA compliant pedestrian infrastructure.*

c). Encourage multiple use right-of-way areas that accommodate appropriate modes of transportation.

» *Identify bicycle corridors that can function as recreational or commuter routes.*

» *Utilize shared lane road markings along bicycle corridors if appropriate for commuter bicycle travelers.*

» *Ensure that new right-of-way acquisition has ample width for bicycle and pedestrian facilities (separate trails or shared bike lanes) and bus stop infrastructure.*

d). Cooperate with Des Moines Area Regional Transit (DART) in providing transit service that meets the needs of the City of Johnston's residents and persons employed within the city limits.

» *Identify transit dependant populations within Johnston.*

» *Investigate alternatives to traditional bus service, such as park-and-ride facilities.*

» *Continue to work with DART to evaluate bicycle and pedestrian connections to transit and the adequacy and future needs of these facilities in the community, including local infrastructure such as bus shelters, benches, bus bike racks, and updated route information and signage.*

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

Action Steps

a). Residential areas and local streets should be protected from the impact of truck traffic by designating truck routes in the city that correspond to roadways that are classified as municipal arterials or higher.

» *Designate established, well-denoted truck routes through Johnston.*

» *Designate pre-planned emergency detour routes that avoid residential areas and local streets as much as possible.*

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

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

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

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

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

Action Steps

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

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

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

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

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

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

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

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

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

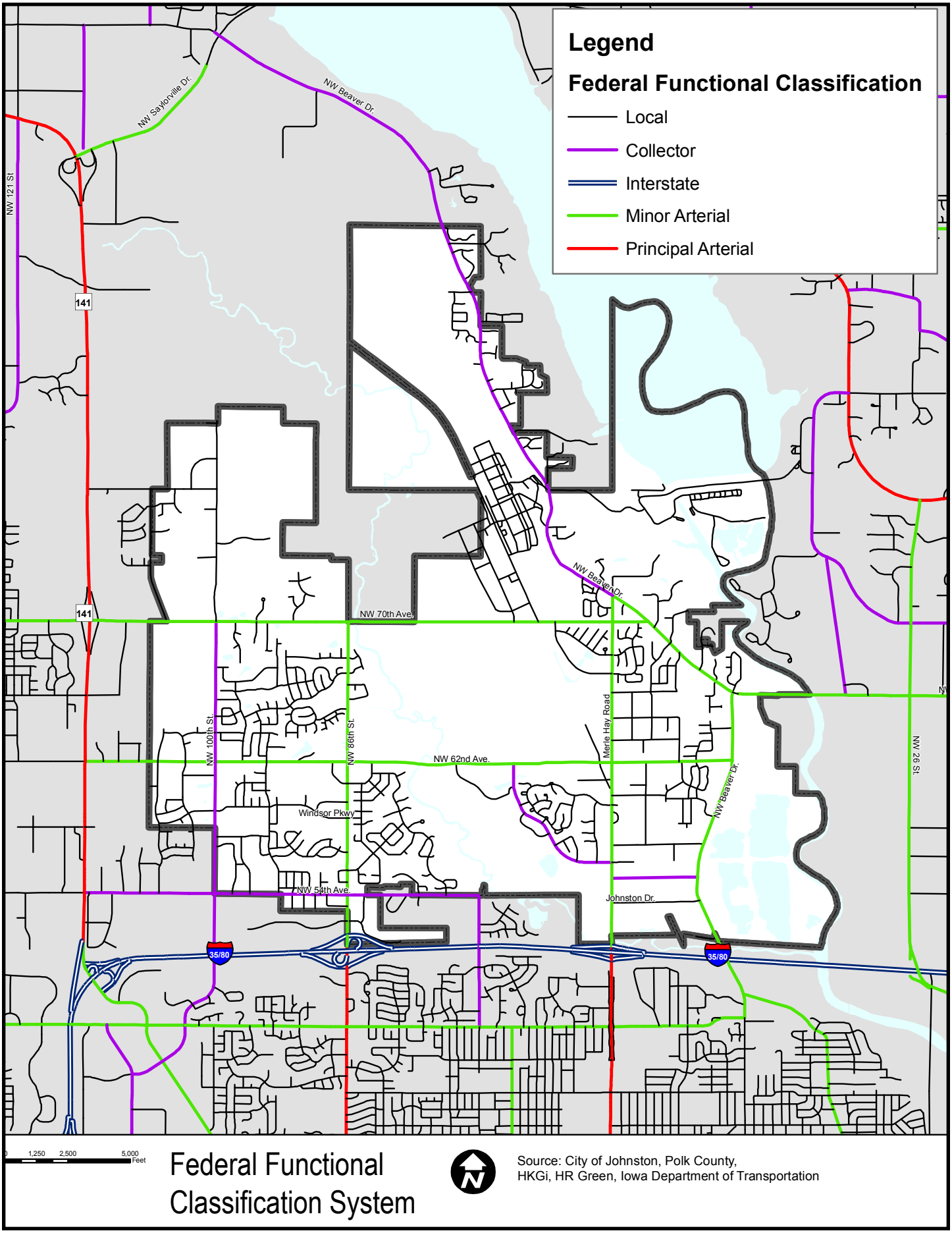


Figure 6.1 - Future Functional Classification System

Existing Federal Functional Classification

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

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

Roadways in Johnston are classified into a four (4) categories[2] depending on their function. Classifications of various roadways include the following:

Interstate

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

Minor Arterial

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

Collector

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

Local Street System

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

Future Functional Classifications

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

NW 66th Avenue

NW Beaver Drive

NW 70th Avenue

NW 100th Street

NW 62nd Avenue

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

Traffic Generators

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

Residential

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

Commercial

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

Industrial

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

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

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

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

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

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

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

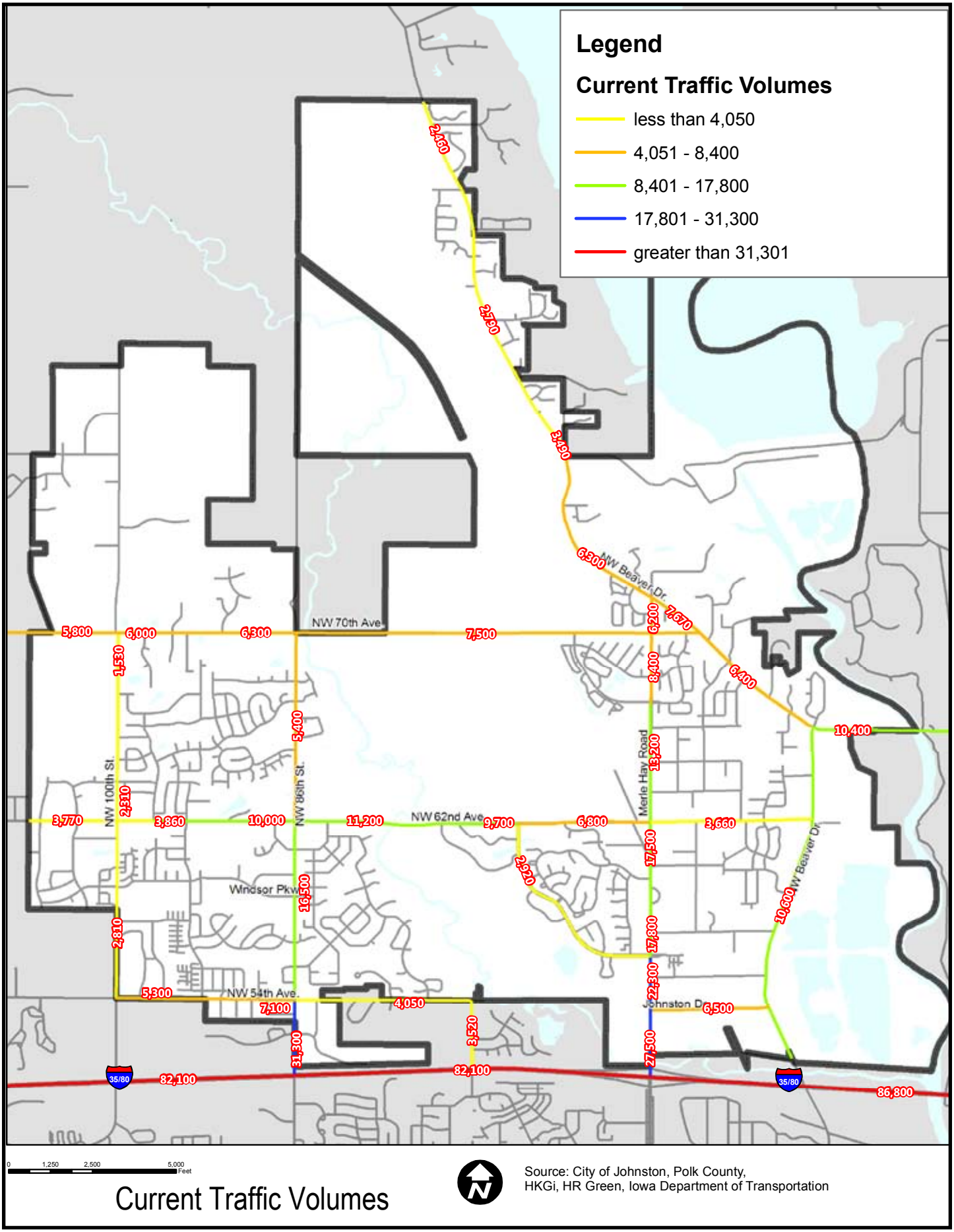


Figure 6.2 - Current Traffic Volumes

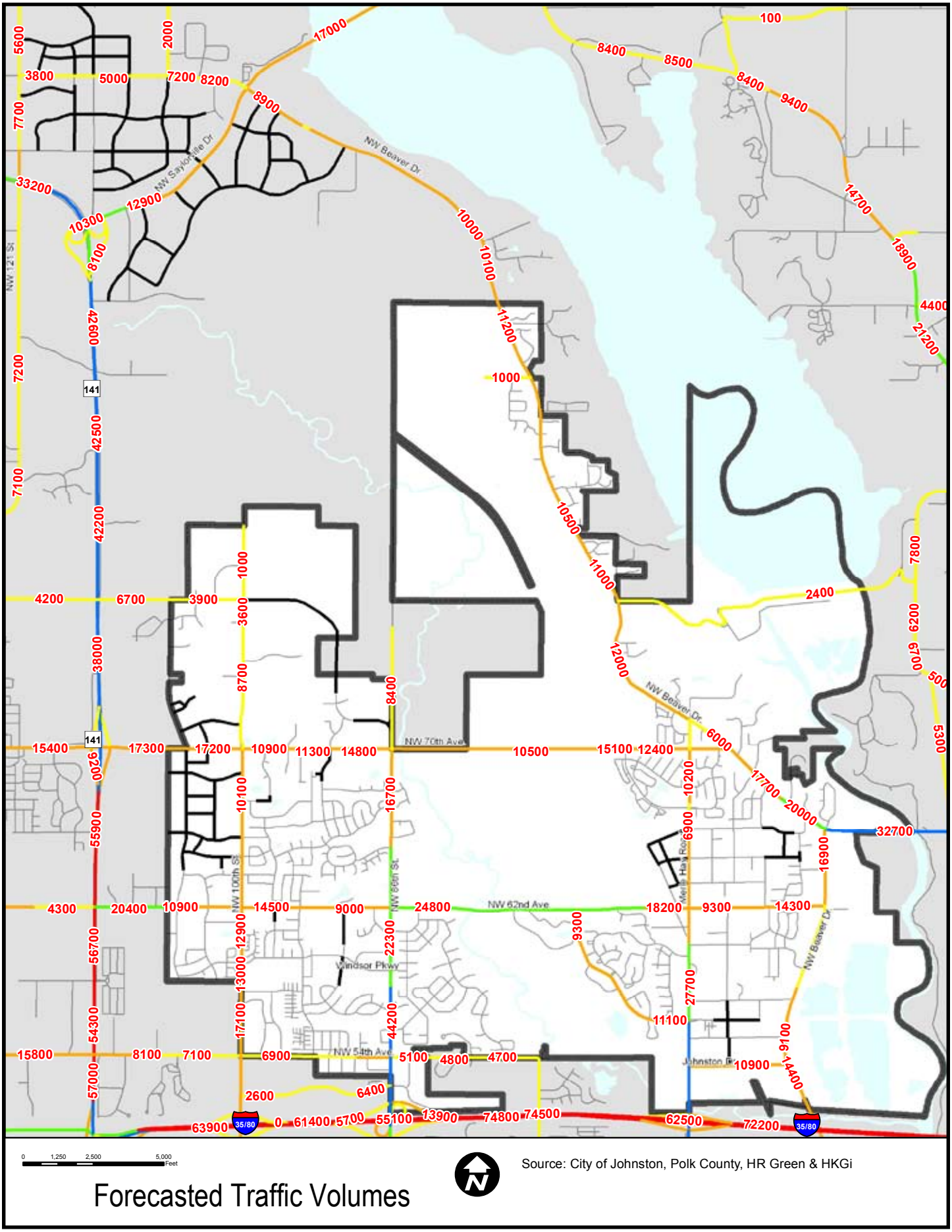


Figure 6.3 - Forecasted Traffic Volumes

Capacity and Safety

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

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

Connectivity

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

Street Design Standards

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

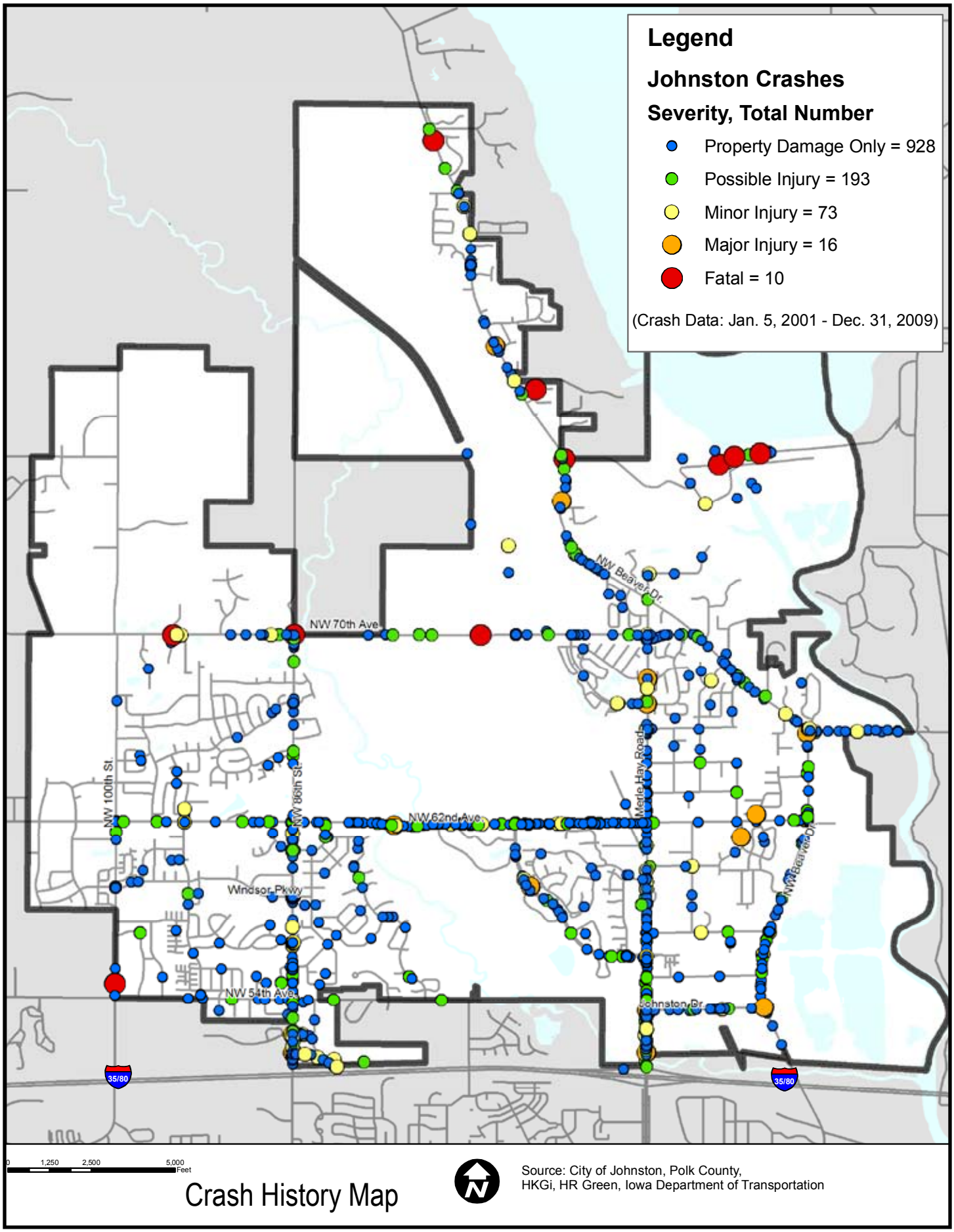


Figure 6.4 - Crash History Map

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

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

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

Major Street Improvement Plan

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

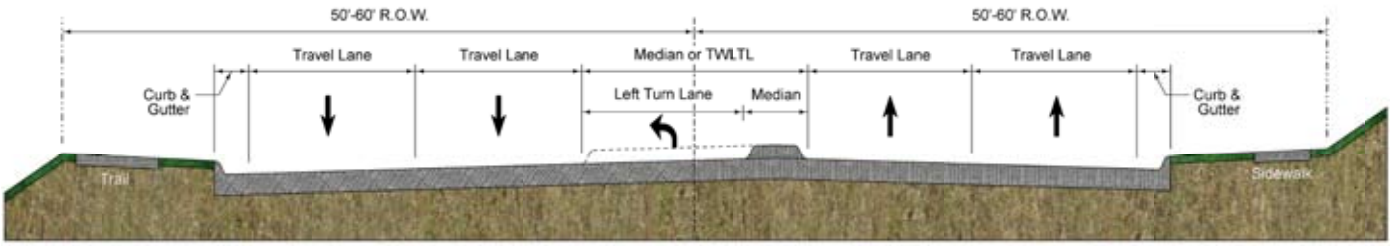
The major street improvement plan contains a number of recommendations for future improvements to collector and arterial roadways in Johnston. Figure 6.6 illustrates these improvements according to anticipated five year increment sequencing, depending on development-driven growth.

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

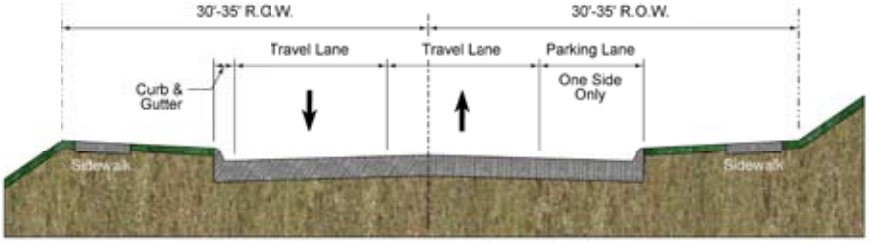
NW 62nd Avenue will continue to serve as a major east/west roadway in Johnston during the planning horizon. This route provides not only connections across the natural areas of the community but also links existing and planned mixed land use areas along Merle Hay Road and NW 86th Street. Because of the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

Typical Roadway Sections

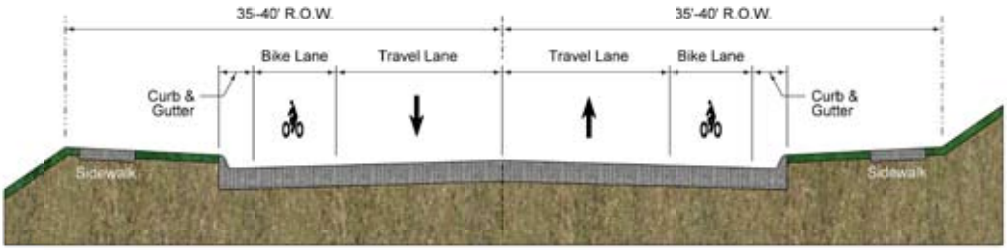
Arterial Street



Local Street



Collector Street Option 1



Collector Street Option 2

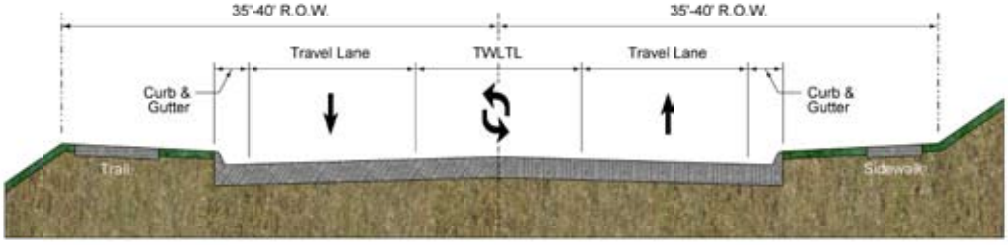


Figure 6.5 - Typical Roadway Sections

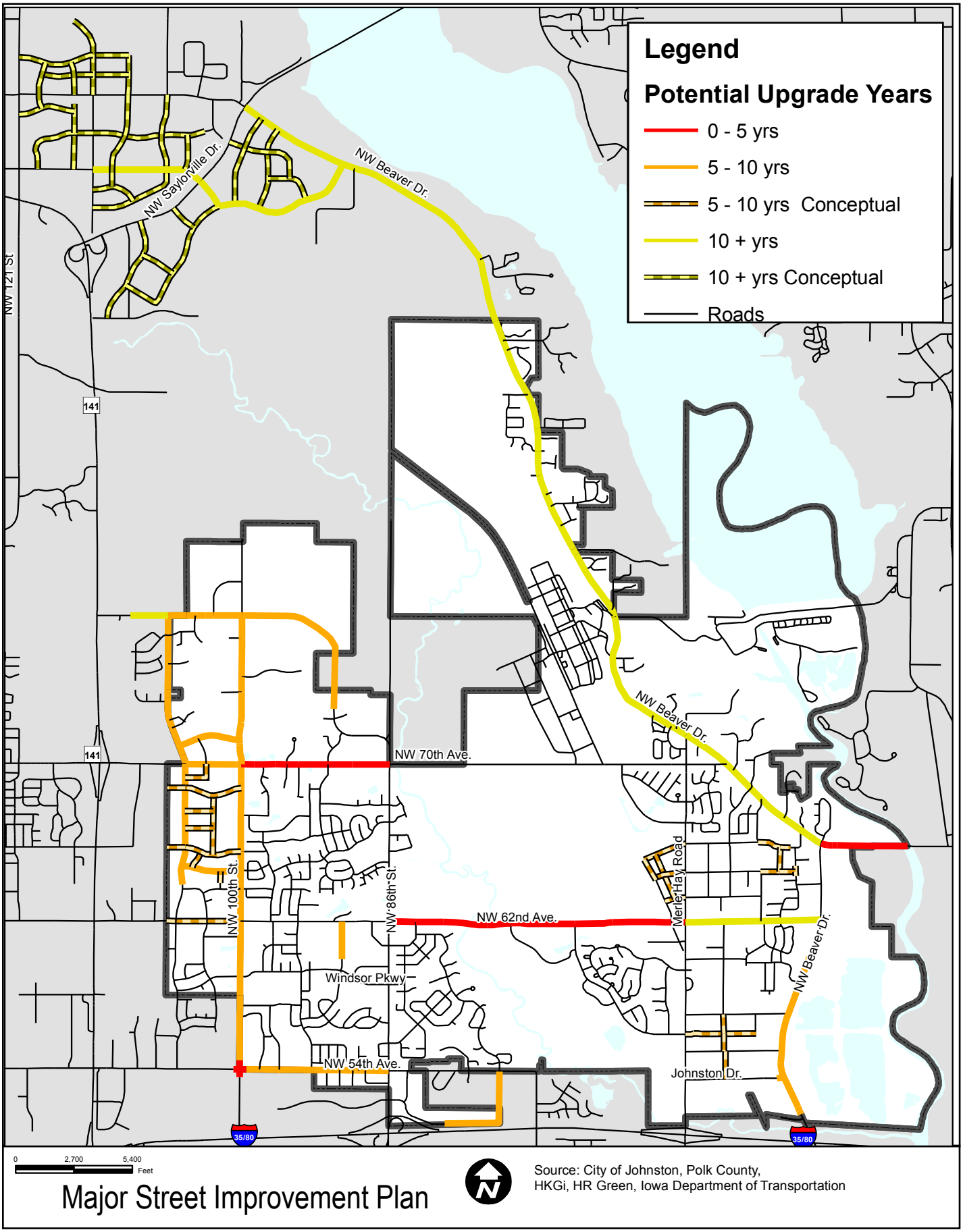


Figure 6.6 - Major Street Improvement Plan

NW 70th Avenue

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

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

NW Beaver Drive

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

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

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


ONLY

NW 100th Street

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

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

Conceptual Streets

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

NW Saylorville Drive Expansion Area Streets

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

New Beaver Creek Crossing Analysis

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

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

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

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

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

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

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

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

Other Transportation Modes

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

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

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

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

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

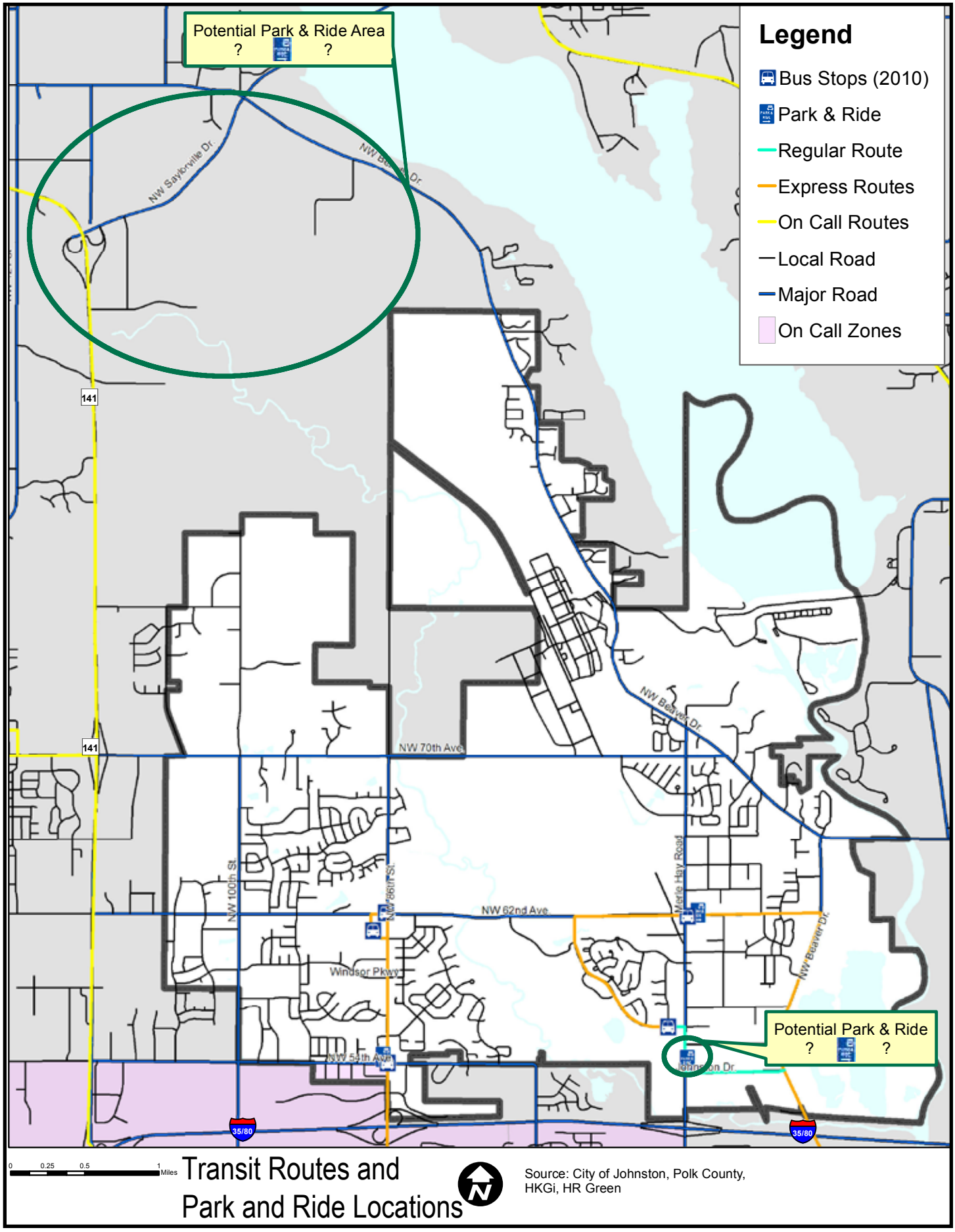


Figure 6.7 - Transit Routes and Park and Ride Locations


93 NW 86TH
1019
dart
dart