

6

INFRASTRUCTURE

Infrastructure is the backbone for development of the community. Bloomington's physical infrastructure is its greatest resource, representing economically useful capital. It is also a challenge because it is aging. As is the case in communities across the United States, the City has underinvested for decades, deferring maintenance, replacement, and necessary upgrades.

This chapter discusses public infrastructure such as roads, sanitary and storm sewers, water supply, public transit, railroads, and the airport. It will also discuss private utilities such as electric, gas, telecommunications and fiber optic networks operated in the City.

Street Mileage
Doubled
since **1970**

70%
of streets rank
at or above
Fair Rating
street condition

11.5
million
gallons of **Water**
Used Daily

664
miles of
Sewers

KEY FINDINGS

Like many communities across the country, Bloomington is confronting the key issue about infrastructure management – it must consider not only the initial cost of construction, but also the cost of maintenance over the life of the infrastructure element. The current system must be maintained, and system expansion must also be maintained. The earlier these aggregated costs are incorporated into planning, the better the outcome.

Bloomington’s continuing study of water resources is more important than ever – the maximum capacity of the reservoirs would sustain current users for less than two years without recharge. A serious regional effort to diversify the water supply sources is needed.

The City’s sanitary sewer and stormwater master plans estimate system improvement costs at a staggering \$136 million. The primary cost driver is the rehabilitation of the sanitary sewer system, including the management of the combined sewer facilities in the City’s older core.

Bloomington is served by two electric power utilities, Ameren Illinois and Corn Belt Energy. Although currently a majority of the City is served by Ameren Illinois, developing areas will be served by Corn Belt Energy. Currently Corn Belt customers pay up to 40% more than Ameren customers.

Despite ongoing discussion about infrastructure policy, there is no one definition of the word “infrastructure.” For the purposes of this study, the word “infrastructure” is used to refer to systems that connect to our homes, schools, workplaces, and public facilities. Some of these systems are owned, operated and maintained by the City, such as city owned streets, while others are privately owned and operated, such as electric utilities. This chapter will discuss the public infrastructure followed by the private utilities. Infrastructure raises issues that go beyond the physical systems; these issues will be addressed in Chapter 8 of this report, Natural Environment.

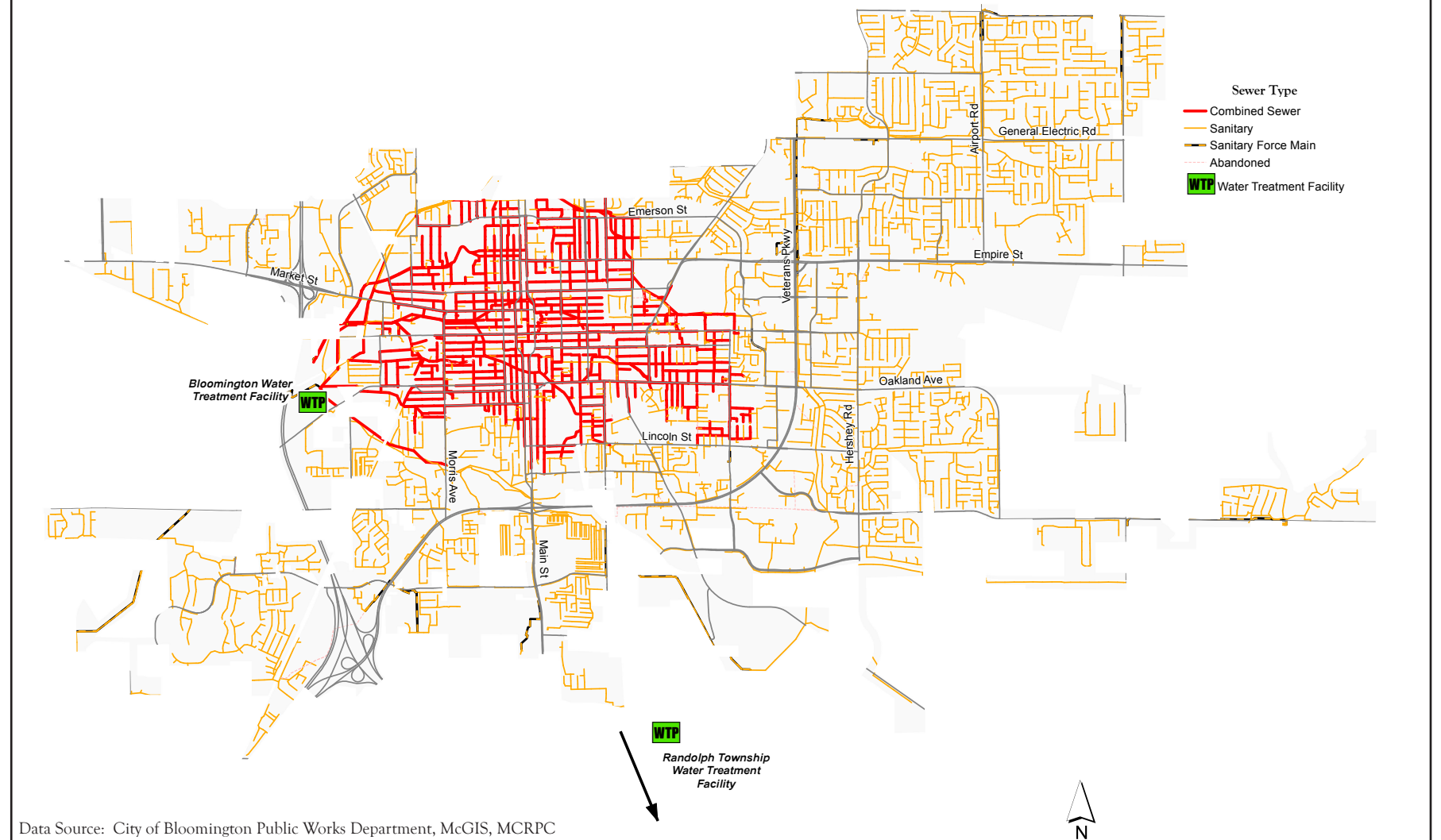
PUBLIC INFRASTRUCTURE

The City of Bloomington, like most municipalities, provides a package of services to residents that are delivered through physical connections to recipients, including underground features like pipes and surface facilities such as streets.

In recent years, the departments of Public Works (DPW) and Water (BWD) have analyzed the infrastructure used for service delivery and developed study or management plans to address aging systems and continuing maintenance. This chapter will refer to their work as related to specific infrastructure categories.

A key outcome from these efforts is the renewed understanding that all infrastructure management must consider and incorporate continuing costs of system maintenance, as well as the continuing maintenance re-

Figure 6.1 Residential Sanitary Sewer System Map



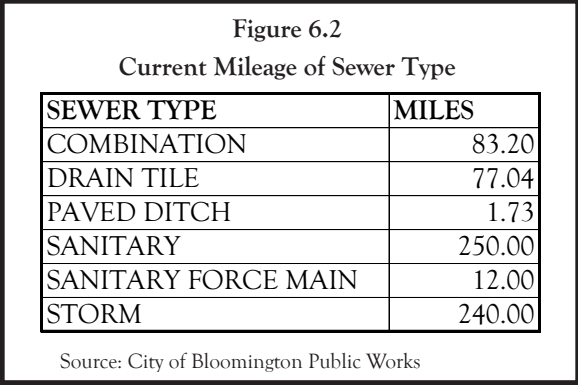
quirements of any system expansion. Existing capacity requires upkeep and eventual replacement, and new capacity requires these as well as initial investment for construction or installation. These requirements must be built into the planning and budgeting process at the earliest opportunity.

SANITARY SEWER

DPW manages the infrastructure and operations of the sanitary sewer system, which includes all public elements of the wastewater collection system (such as pipes, lift stations, sewer lines and manholes) designed to convey municipal sewage to a wastewater treatment facility. Pipes carrying water

which requires treatment are part of the sanitary sewer system. The Bloomington-Normal Water Reclamation District (BNWRD) operates the wastewater treatment plants that serve the Bloomington and Normal sanitary sewer systems. Figure 6.1 shows the areas of combined sewers and sanitary lines. As illustrated in the above figure, combined sewers,

which carry both sewage and stormwater, were once a standard sewer installation. Unfortunately, during periods of heavy rain, the combined flow in these sewer lines would exceed the capacity of the pipes to the treatment plant, and back up into basements instead. To prevent this extremely undesirable outcome, the traditional solution was the creation of combined sewer outflows, or CSOs. This approach created a new problem, in that these overflows release the combined stormwater and untreated sewage directly in waterways such as Sugar Creek.



Regulations under the Clean Water Act require that the city take steps to remove the CSOs, which it has done. DPW reports that four of the seven CSO locations have been corrected since 1996, and work continues on the remaining locations. Correction consists of separating the outflow lines from the storm sewer and sanitary sewer systems, and ensuring that the latter is directed to the treatment plants. Stormwater is conducted separately into the stream network.

The City hired the services of Foth

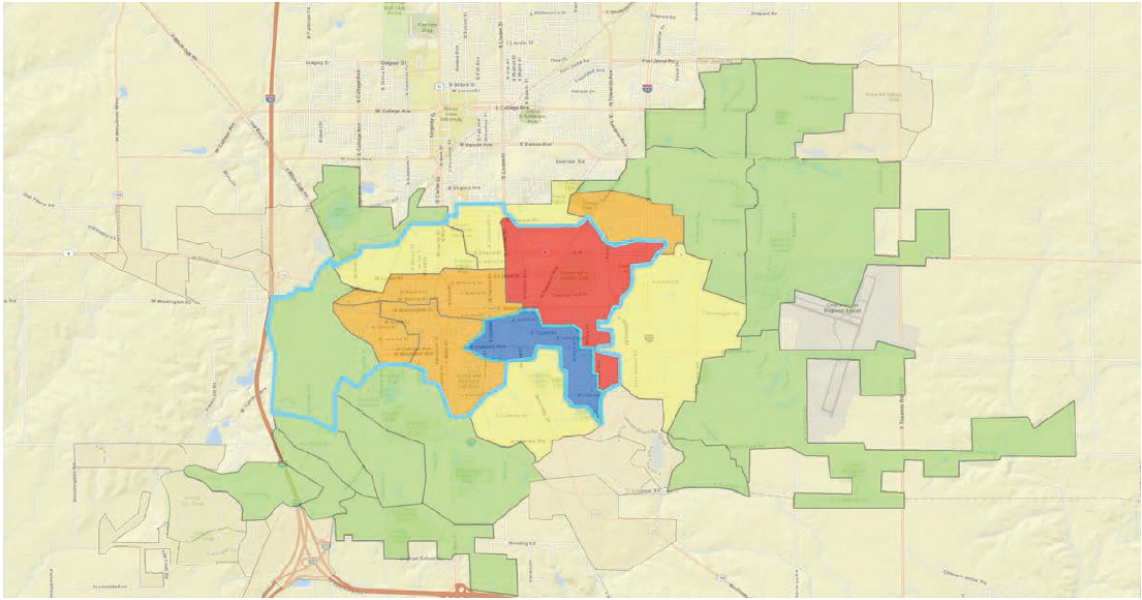
Consultants to conduct a *Sewer and Storm-Water Master Plan*. A draft version (not adopted by the City Council by the time of this report) of this plan was submitted to the City in early 2014. The plan identified \$83 Million in investments over the next 20 years for the sanitary sewer improvements. Major recommendations include:

- Reduce inflow/infiltration in collection system
- Replace undersized sewers
- Avoid premature expansion of treatment plants
- Reduce potential for combined sewer overflows
- Continue combined sewer separation program

The excessive inflow and infiltration (“I/I”) entering the sewer system at the south wastewater treatment plant is a concern. Because of I/I issues during wet weather, the collection system conveys higher flows to the south east waste water treatment plant (SEWWTP), exceeding its capacity. At such times the Bloomington-Normal Water Reclamation District (BNWRD) diverts flows from the east side interceptor to the City’s older sewers. This practice places a burden on the City’s west side sewer treatment plant.

From a comprehensive planning perspective, this issue might pose a challenge to future development on the southeast portion of the City, if not addressed. The comprehensive planning process should work closely with DPW as they implement the sanitary master plan.

Figure 6.3 Flooding From Basement Drain Heat Gradient Density Map



Source: Draft Sanitary Sewer and Storm Water Master Plan; Foth Consultants

STORMWATER

The stormwater system collects water runoff and conducts it to outflows into the regional stream network. There are multiple components, including detention basins, street drains, drainage swales and other means to drain water into the system, contain it until the system capacity can handle it, and discharge it into streams. As with other systems, continuous monitoring and maintenance is required.

Two particular complications arise in this process, the first being interruptions in the drainage system, and the second the introduction of contaminants into the collected storm water as it enters and moves through the system, which are then released into the

stream network.

The *Sewer and the Storm Water Master Plan* identified \$36 Million in investment to improve the City’s storm water system over the next 20 years. It recommends four phase specific actions to the Oakland Avenue watershed, highlighted in Figure 6.3, as it has the highest density of stormwater issues mainly due to the combined sewer system.

This plan pointed out severe issues of erosion along the stream banks. It also noted that both public and private detention ponds lack maintenance and could potentially increase the risk of flooding and pose a threat to the quality of surface water.

The comprehensive plan can play a major role in establishing land use policies that help alleviate erosion issues and promote

sustainable land development.

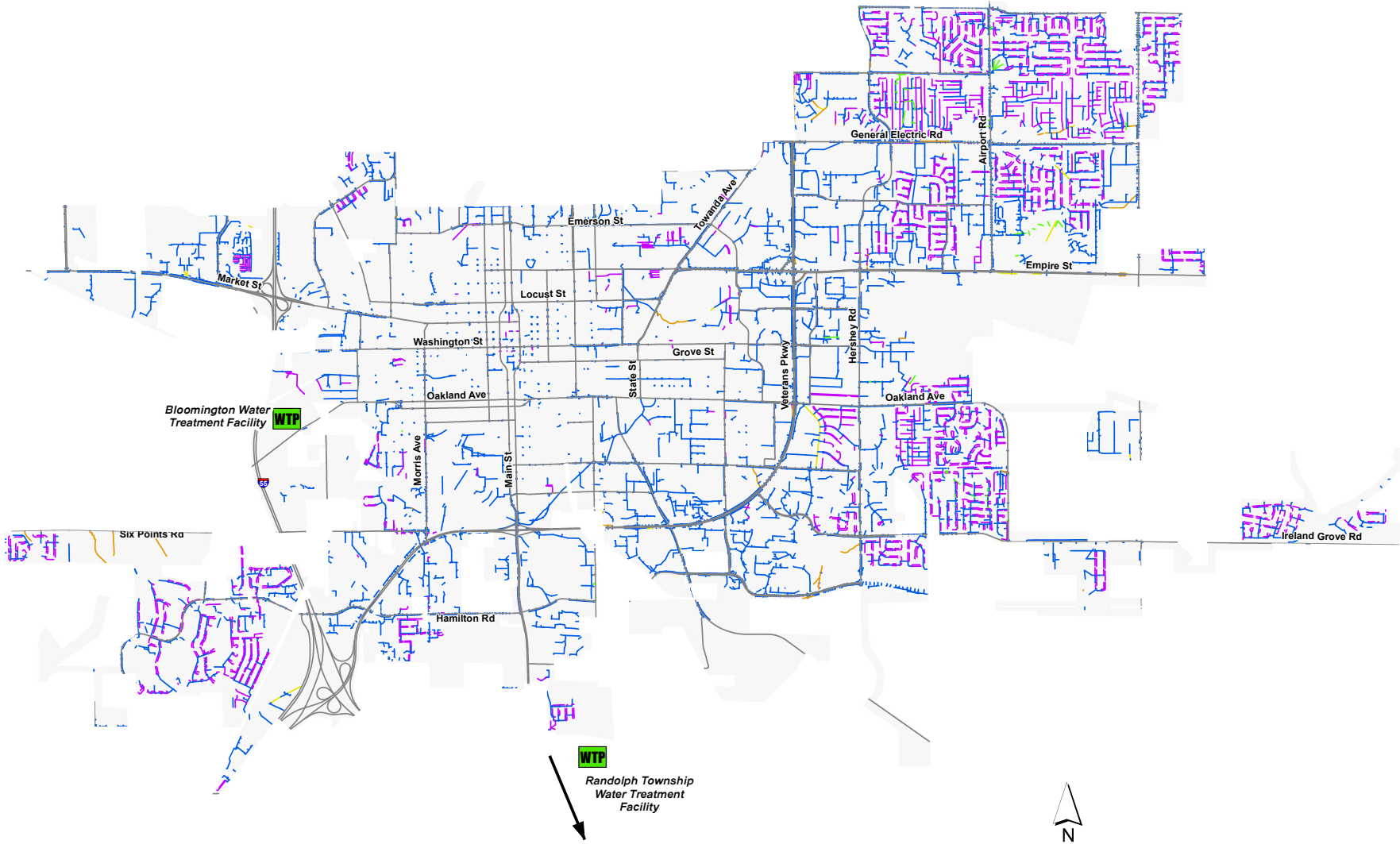
The stormwater system is unusual in that the public can assist in maintaining it, which the City encourages. DPW publishes recommendations for the public to aid in maintaining the stormwater infrastructure, suggesting that residents can make sure that drainage swales are clear of debris, that trash and yard waste be kept away from storm drains and that any other obstructions to the



drains and curb areas are removed. More generally, changes to structures, additions such as decks and patios and modifications to the slope of the property can be carried out to minimize the effects on stormwater drainage. Managing the landscape to reduce erosion also helps to reduce the amount of sediment accumulating and potentially clogging the stormwater system.

As illustrated in Figure 6.4, DPW also asks for public cooperation in keeping the stormwater flow free of contamination. This includes limiting the use of household or lawn and garden chemicals that will be

Figure 6.5 Residential Storm Sewer Map



Data Source: City of Bloomington Public Works Department, McGIS, MCRPC

washed into the system by the rain and thus contaminate streams.

WATER

Bloomington has developed its water infrastructure over many decades, with perhaps the most ambitious element of the system being the development of Lake Bloomington as a reservoir in 1929. The City currently obtains water from both Lake Bloomington and Evergreen Lake, pumping it to the Lake Bloomington Treatment Plant and out to customers in the city and several other jurisdictions.

The two lakes have a combined drainage area of 131 square miles, and a combined capacity of 22,900 acre-feet, or 7,461,997,678 gallons. It should be noted that environmental conditions, such as drought, can and have left the lakes well below capacity in recent years. The *2010 Interim Water Supply Plan* notes that water use is 11.5 mgd (million gallons per day). That figure results in an annual usage of approximately 4.3 billion gallons, or about 22 months of supply derived from the lakes at capacity.

The 2010 water supply plan assessed the current water system and made recommendations for future action. The plan noted the recurring issue of excessive nitrate levels in Lake Bloomington, and recommended improvements to the pumping system and nitrate monitoring. The plan also recommends developing policies for water conservation, procedures for water management during periods of drought, and continued involvement in regional water planning.

The plan notes that water systems that rely solely on surface reservoirs are increasingly vulnerable, and that alternative sourcing from groundwater should be developed. The City is pursuing groundwater sourcing as an element of the system and testing well impacts in proximity to the treatment plant. Although discussion of sourcing from the Mahomet Aquifer is ongoing, using the aquifer as a supply source would not correct the nitrate issues at the treatment plant. (see Figure 6.6 for water supply planning options).

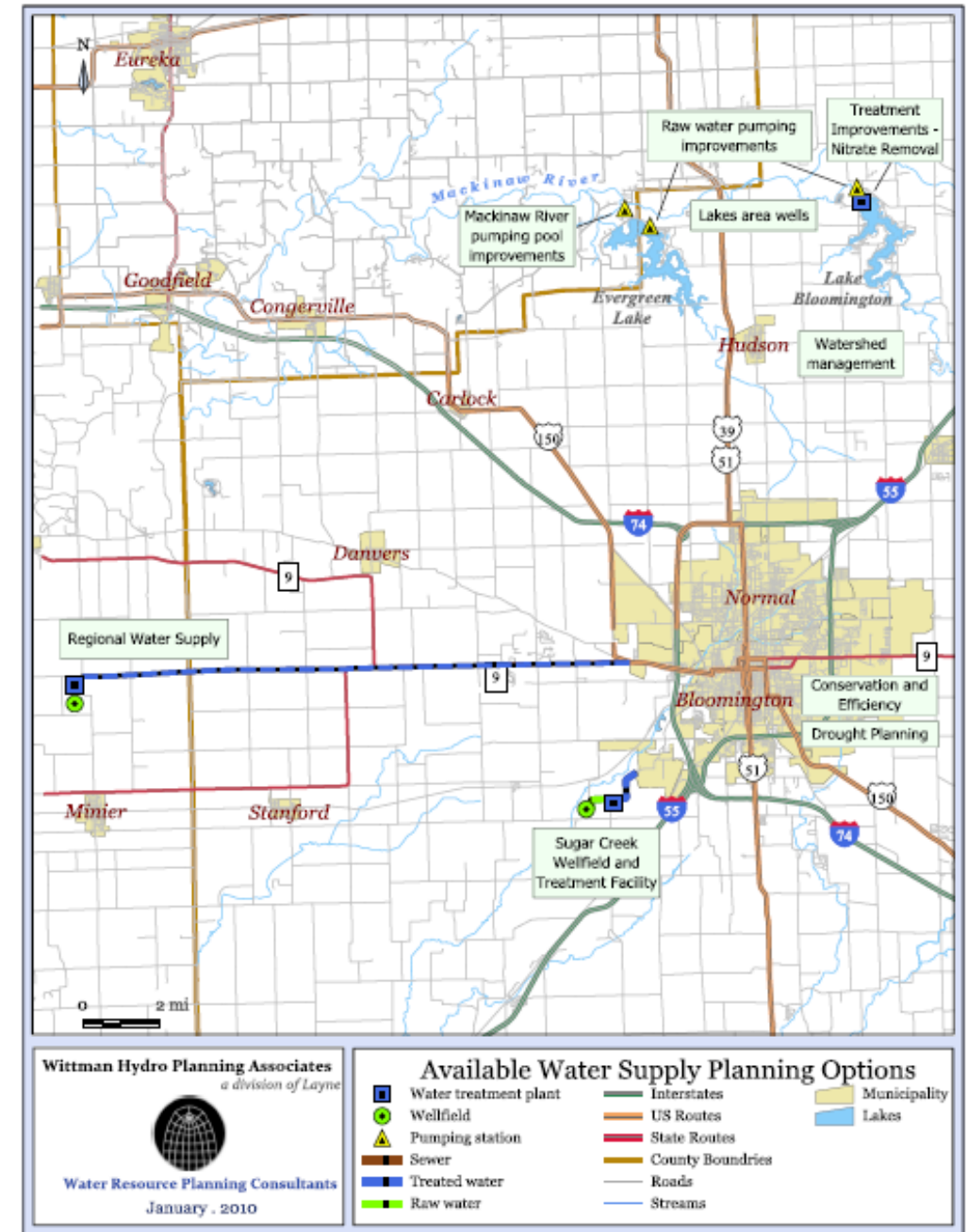
In addition to considering supply and treatment issues, the City must also consider delivery to users. This system includes the transmission mains from the treatment plant, pumping stations and various storage facilities located around the city, as well as the network of water mains that carry the supply to water customers. The system is monitored to evaluate conditions and determine repair needs. Water main breaks are a continuing occurrence, in a system installed over many decades, and were particularly troublesome during the harsh winter of 2013-2014. Damage to water systems not only interrupts supply, but can also cause damage to adjacent systems below ground and at ground level.

The need for continuing assessment and maintenance of the water delivery system is no less urgent than the effort to secure an adequate future water supply for the community.

TRANSPORTATION

Transportation infrastructure is both

Figure 6.6 Available Water Supply Planning Options for the City of Bloomington



Data Source: City of Bloomington Water Department

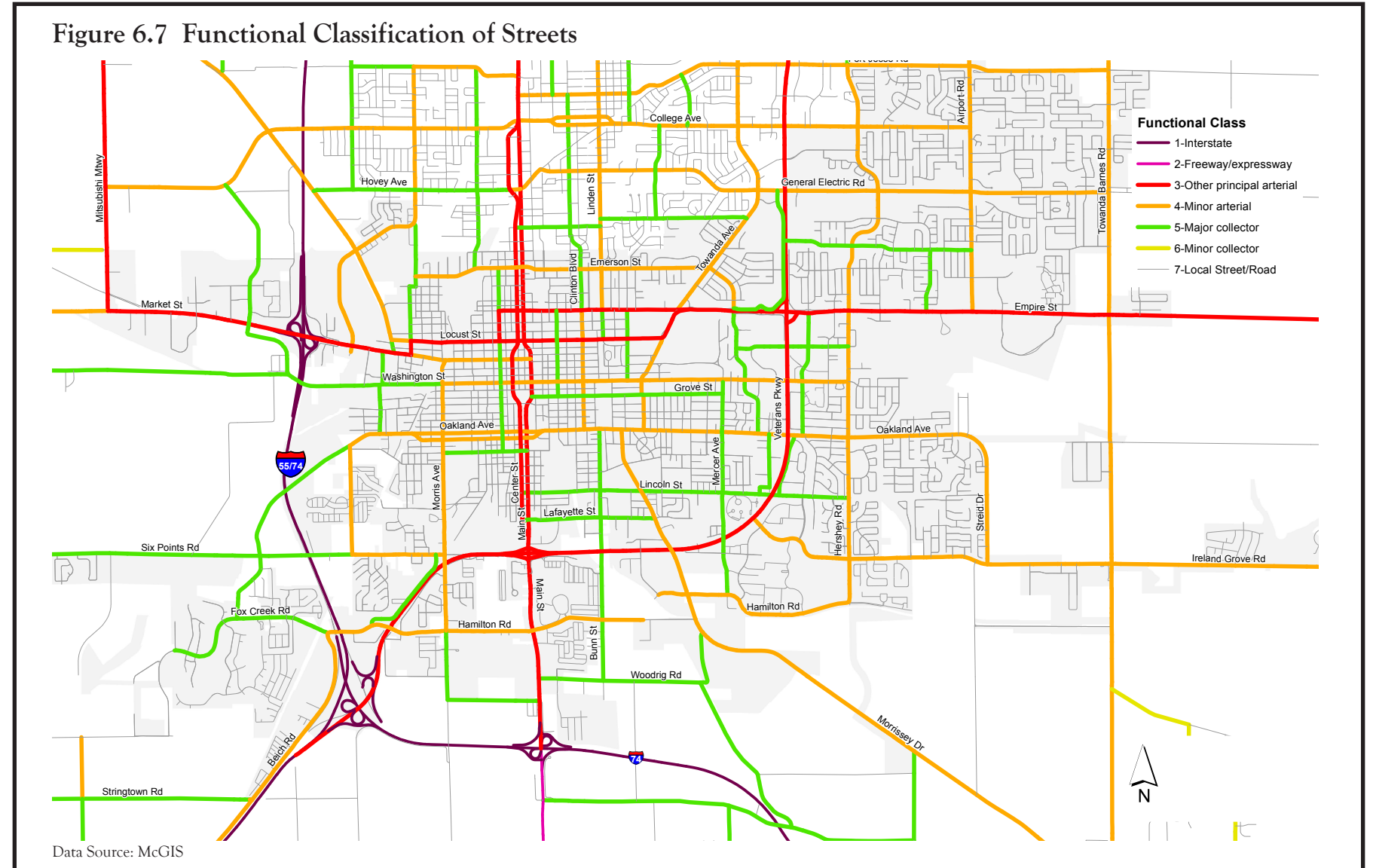
highly visible and highly complex. It includes elements as simple as the sidewalk, and as intricate as a bridge, a railway crossing or a regional airport. The system includes whatever technology is used to traverse it, from trains and airplanes to motorized vehicles to bicycles, to one's very own feet. It includes the many signals, signs, pavement markings, railroad gates, and airport control towers needed to guide its use. It includes the materials used to build its various elements, ranging from gravel to integrated circuits, and its construction and maintenance draws from many disciplines.

As with other City infrastructure, the Department of Public Works continues to assess the balance of repair, maintenance and capacity expansion needed in the transportation system, and to plan for the required expenditures.

STREETS

The street network is a basic transportation system of any community. Like other communities, Bloomington's street network is an extensive and diverse mix of local streets and classified streets such as minor collectors, major collectors, minor arterials and major arterial streets. The street network also connects the community to the surrounding region and beyond. In Bloomington, these connections include three interstate highways, U.S. Route 51 to the south, and several thoroughfares such as state and county highways, which are maintained by the County or IDOT.

Another aspect of the classification



system is that federal transportation funds may be used for certain projects on classified streets, but not on local streets. People often ask why the City is spending scarce resources on large street projects when other streets need immediate repairs. Often this is because the large project has federal funding allocated

in the budget, and has deadlines for the use of that funding. Federal transportation dollars cannot be used for maintenance projects, and for the most part are not available for projects on local streets.

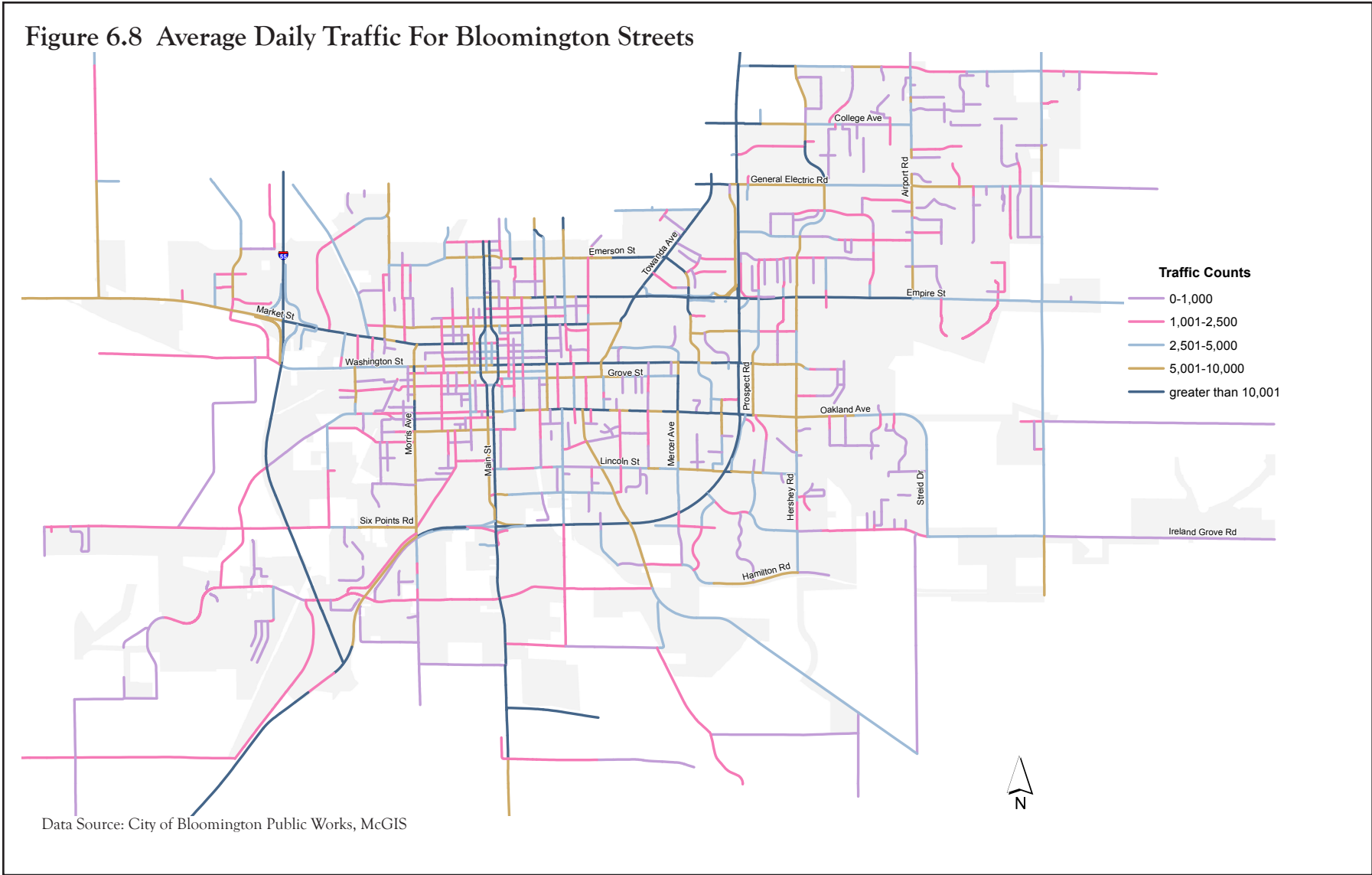
The City street network includes several principal arterial facilities, including

Main Street (Business 51), Route 9, U.S. Route 150 and Veterans Parkway (Business 55), which cross substantial portions of the city and provide access throughout Bloomington. Figure 6.7 illustrates the distribution of classified streets in Bloomington. Other City streets are designated as local streets, and are

not subject to the rules that apply to classified streets.

Bloomington has identified community gateways at the City’s edge where the transportation system defines the most concentrated points of entry, and thus establishes first impressions of Bloomington for visitors. As shown in Figure 6.9, the primary gateways include the Interstate 55/74 interchange on West Market Street, U.S. Route 51 from the south, Central Illinois Regional Airport on Empire Street (Route 9), and North Main Street (Business Route 51) at Division Street. Figure 6.9 also illustrates some secondary gateways to Bloomington. These are locations where travelers are not as directed to routes crossing through the City core, and may be included to limit their travel to Veterans Parkway. The City applied for a federal highway enhancement grant to create a community gateway at the Market Street interchange, but did not receive a grant. The funding source, now known as the Transportation Alternatives Program, may still be a source for future funding of such projects. Further analysis of the gateway concept may assist in developing a consistent approach to welcoming visitors to Bloomington.

Bloomington works with the Illinois Department of Transportation (IDOT) to monitor the volume of traffic on City streets. IDOT conducts a periodic traffic count, which was last collected in 2010. The next IDOT count will be done in 2015, and will provide improved data to support implementation of priorities set in the comprehensive plan. The City also collects traffic volume



information relating to requests for installation of traffic calming submitted to the Staff Traffic Advisory Committee (STAC). This information is added to the data from the IDOT survey to produce the Bloomington Traffic Volume Map, available on the City website. As a result, the map shows traffic counts collected over a period of several

years. The traffic map shown here (Figure 6.8) aggregates the data across time to show generally where high traffic volume occurs.

High traffic volumes sometimes lead to a higher incidence of vehicle crashes and injuries. IDOT collects crash information from police incident reports, and local agencies use the information to analyze locations

at which crashes are most common. Not all crashes occur at high volume locations, and in those instances the staff examines the location and the information about the crash to determine if aspects of the street, traffic signals or other factors may create an unsafe situation that needs corrective action. This identification and review of crash

incident locations is the basis for a proposal in the *2012 Long-Range Transportation Plan for the Bloomington-Normal Urbanized Area* (2012 LRTP) that IDOT and local governments consider formal corridor studies of these areas. Such studies would identify any structural causes or design issues contributing to traffic crashes, and outline corrective action.

Facing increasingly damaged streets in recent years, the DPW discussed street maintenance and repair policy options with the City Council. Using the Pavement Surface Evaluation and Rating (PASER) system, the DPW reported that bringing the street network to a PASER score of “good” would require \$60 million over five years. At the Council’s direction, DPW formulated a street repair and maintenance program aimed at achieving the median PASER score of 5, or “fair.”. This rating shows approximately 30% of the street pavement that is rated below the “fair” score of 5. Much of the program consists of using various pavement preservation technologies to extend street life. Figure 6.11 provides the PASER rating. As of June 2014, a similar plan is being considered for ongoing sidewalk repair.

DPW has also developed a management plan for the surviving brick streets in Bloomington. A three category system to rank brick street conditions, and classifies them as needing restoration, repair or reconstruction. The City Brick Street Strategic Plan describes the criteria for brick street preservation, and is available for review on the DPW web page.

BICYCLE AND PEDESTRIAN TRAVEL

Working with the League of Illinois Bicyclists, Bloomington is currently developing a bicycling master plan, which is expected to be completed in the Fall of 2014. Some recommendations are already being implemented, such as the designation of “sharrows,” shared street space for bicycles and motorized vehicles, on various streets. The bicycling plan will discuss the interface between Constitution Trail and streets judged to be bike-friendly, to allow bicycle users to navigate the City freely.

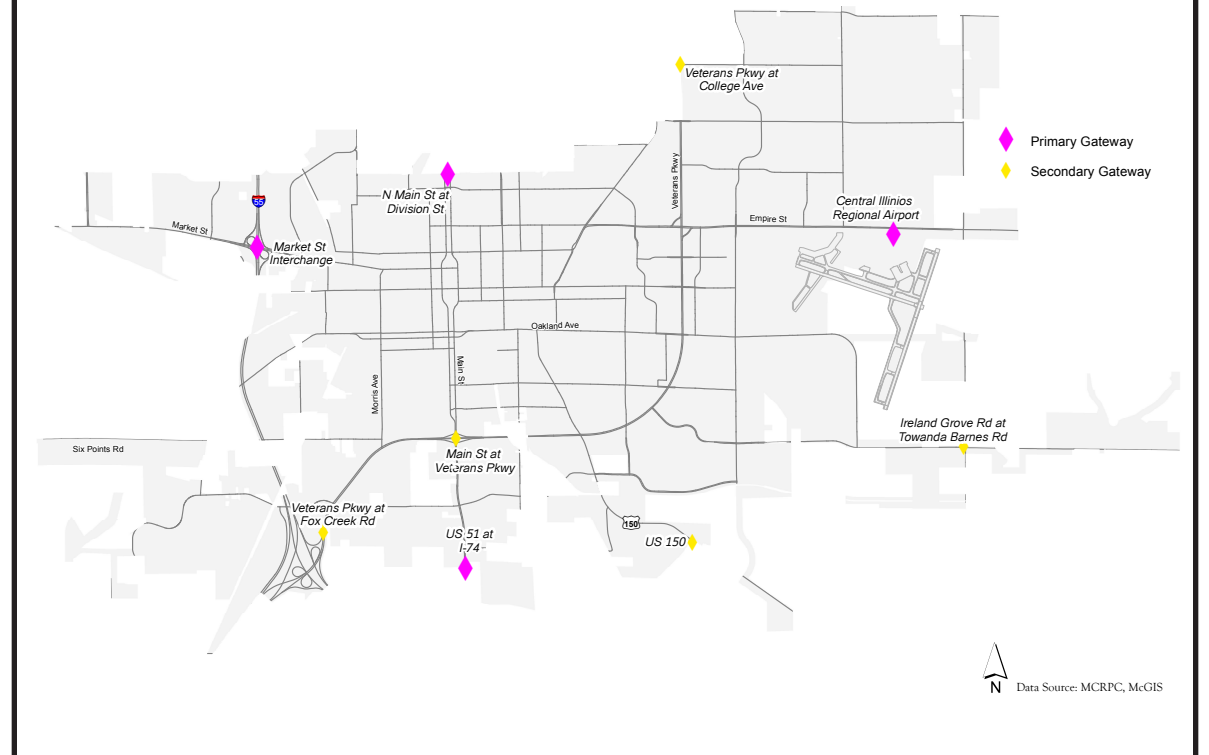
Constitution Trail is the premier bicycle facility in the Bloomington-Normal area. The trail celebrated its 25th anniversary in 2014, and has grown to more than forty miles of paved surface. Shared with pedestrians, Constitution Trail follows the old Illinois Central rail corridor, extends eastward to multiple residential neighborhoods, connects to schools and parks, and extends west towards Danvers, southwest to Fox Creek Road and southeast to the State Farm Corporate South complex.

The Friends of Constitution Trail offer a detailed map of the Trail and adjacent amenities. Illustrations of the constitution trail, planned trail extensions, and possible future trail extensions to extend the Constitution Trail into natural areas surrounding the community are shown in the Health and Safety chapter.

SAFE ROUTES TO SCHOOL

Bloomington is pursuing another

Figure 6.9 Community Gateways, City of Bloomington



category of funding support for bicycle infrastructure, through the federal “Safe Routes to School” (SRTS) program. This funding is available for construction of bicycle facilities for schools as well as education programs for children, enforcement of relevant traffic laws, encouragement of bicycling and walking, and monitoring of outcomes. The engineering component of the program funds trails and other infrastructure for improved safety.

Bloomington has applied for funding to create trail access to Benjamin Elementary School in the Grove subdivision. This project would develop a trail between the two sections of the Grove, and take advantage of an

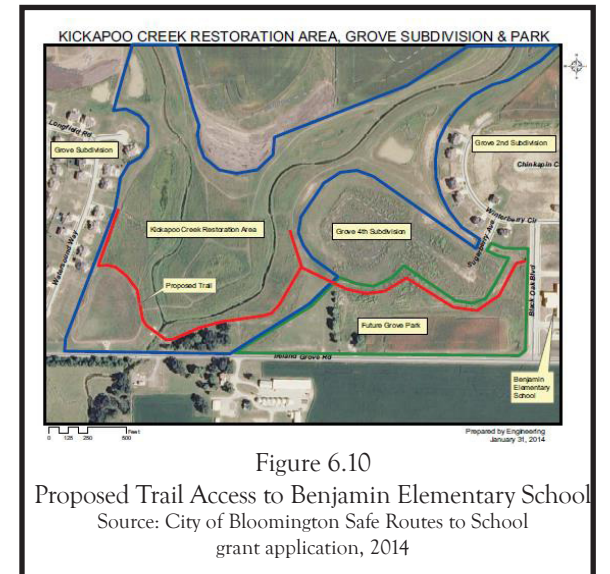


Figure 6.10
Proposed Trail Access to Benjamin Elementary School
Source: City of Bloomington Safe Routes to School grant application, 2014

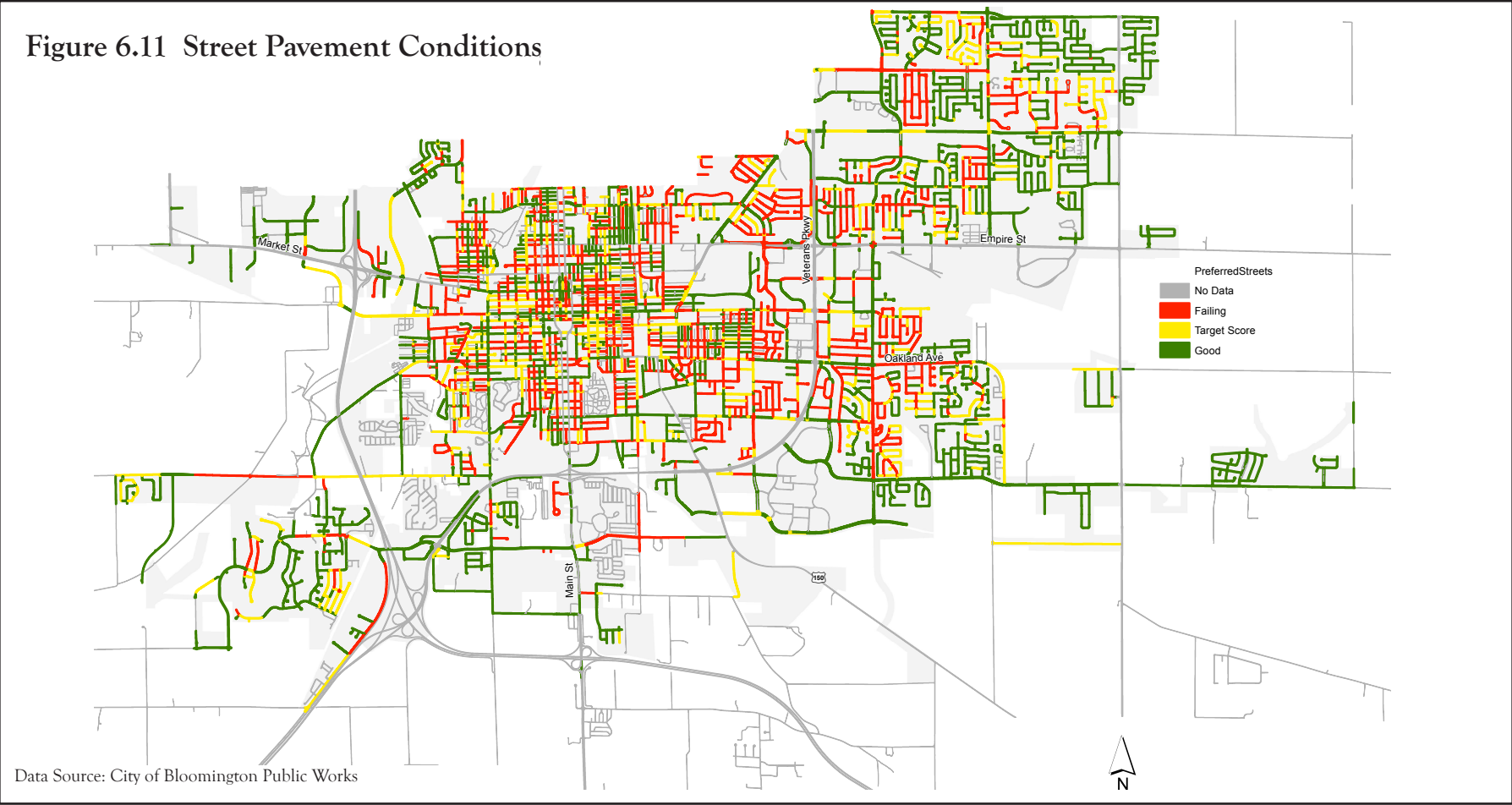
existing bridge and underpass to create safe access to the school through the Kickapoo Creek restoration area and a future park, as illustrated in schematics submitted with the application, as shown in Figure 6.10.

PUBLIC TRANSIT

Substantial infrastructure investments in local public transit have led to service re-configuration and equipment additions, and a new identity for the Bloomington-Normal Public Transit System as Connect Transit. The most significant investment was the construction of a new facility on the west side of Normal, which is designed to satisfy operation needs well into the future. In the last three years Connect has undertaken route revisions, conducted a study of future funding needs for operations and capital investment, and continued with a vehicle expansion program to enable service enhancements. The Board of Trustees, on which Bloomington and Normal have representation, continues to review proposals for organization changes, including the possibility of configuring the transit system as a transit district. The primary identified need for Connect Transit is stable and dedicated funding to permit further expansion and replacement of aging vehicles.

Connect Transit operates eleven fixed routes, including a revised route that now serves the State Farm Corporate South campus. The transit system also provides Redbird Express service on routes through and surrounding the Illinois State University campus. Connect has continued its universal access program with several local colleges and

Figure 6.11 Street Pavement Conditions



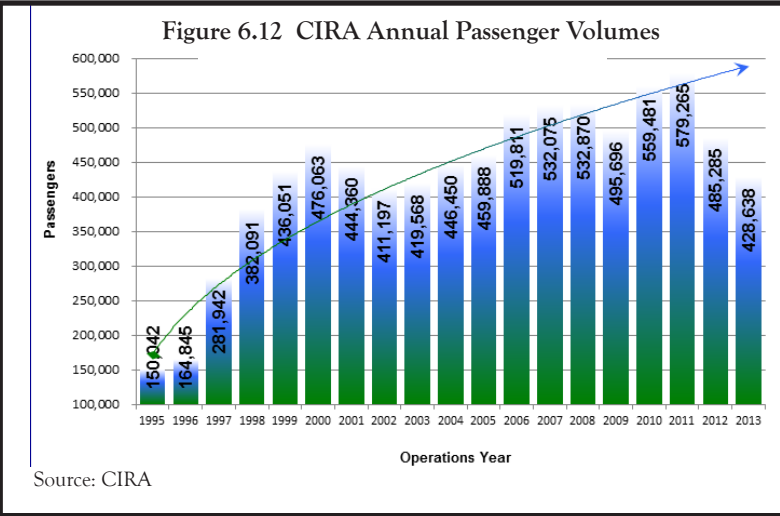
Illinois State University.

Connect Transit also operates as Connect Mobility, providing paratransit services, and other services using paratransit vehicles. The public transit system also works cooperatively with not-for-profit agencies providing transportation services.

CENTRAL ILLINOIS REGIONAL AIRPORT

Bloomington is a partner in the Airport Authority (AA) that oversees airport operations at the Central Illinois Regional

Figure 6.12 CIRA Annual Passenger Volumes



Airport (CIRA). CIRA has benefited from a series of infrastructure investments over the past fifteen years, including the construction of a substantially larger terminal east of the original site. Some reconfiguration of the terminal and adjoining parking was required as a result of restrictions that followed the September 11, 2001 attacks, before the terminal was opened on November 5, 2001. The terminal has nine boarding gates, most of which have jetways to accommodate larger aircraft. Two runways, 8,000 feet and 6,525 feet in length, also allow service by larger jets. The airport serves passenger and freight operations.

CIRA is currently served by four airlines serving seven direct destinations. Services realigned after AirTran, the first airline to fly direct from Bloomington to Atlanta and Orlando, ceased operations at CIRA.

| Airline Carriers | Destination |
|------------------|---|
| American | Chicago, IL Dallas-Ft. Worth, TX |
| Delta | Atlanta, GA Detroit, MI Minneapolis, MN |
| Allegiant | Orlando, FL |
| Frontier | Denver, CO Orlando, FL |

As shown in Figure 6.12, after a peak in passenger volume in 2011, annual passenger volume has declined. Recently, an expansion of airport freight operations was begun with the development of a new hub facility for FedEx, which will relocate from the Peoria airport to CIRA. FedEx indicates that the

CIRA hub will provide earlier delivery times, later pickup times, and expand the FedEx delivery service area.

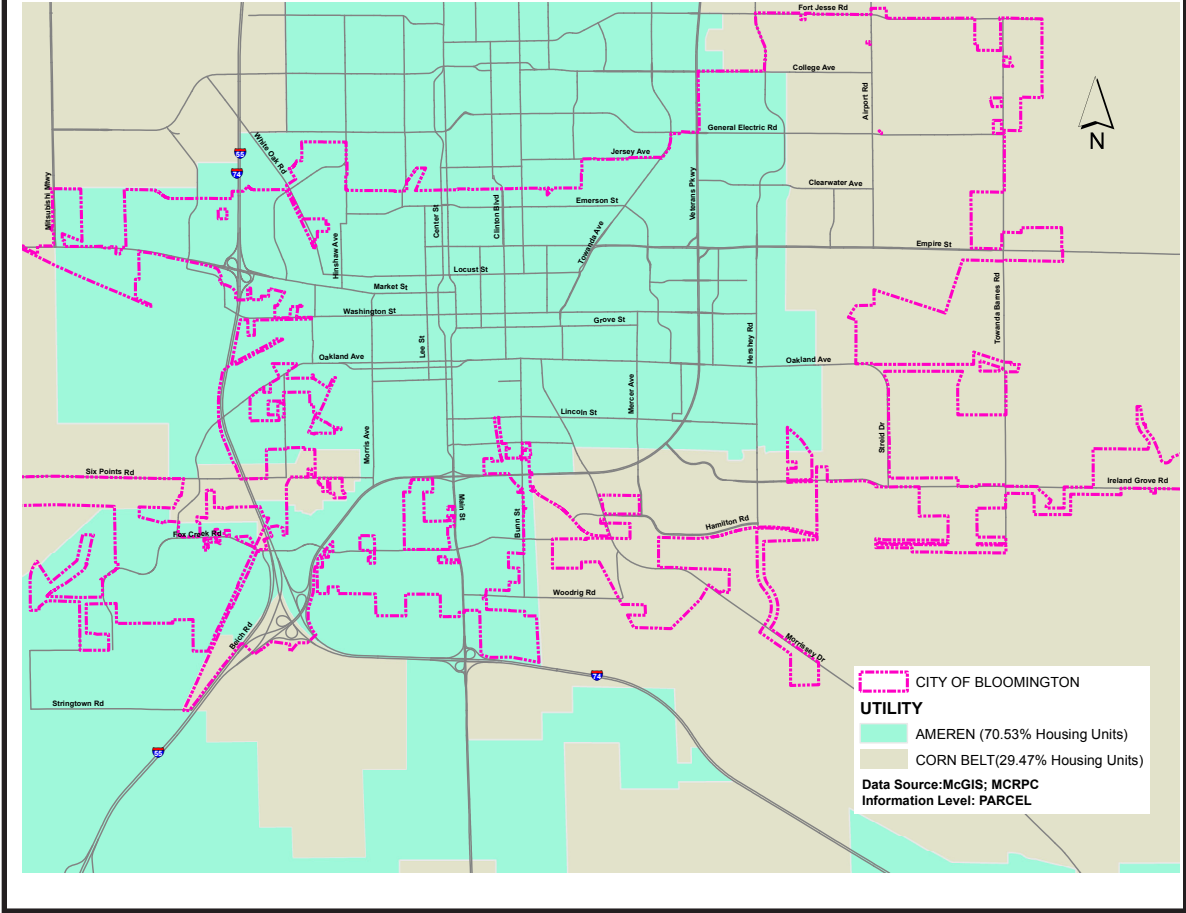
The AA is interested in spurring new private investment in the community through the development of CIRA property. Looking toward both aeronautical and non-aeronautical development, the AA hopes selective long-term development will help sustain and attract new jobs for the community. Working closely with the Economic Development Council, the AA is also requesting the expansion of the enterprise zone to facilitate development in the airport area, and interest warehousing, logistics and transportation companies in locating near CIRA.

The comprehensive planning process is a great time to partner with CIRA to address the land use related issues surrounding the airport property such as airspace protection, interference of electronic signals, excessive light emanation, and wildlife attractants.

RAIL

Amtrak provides passenger service on the Union Pacific rail lines from Chicago to St. Louis, through Uptown Station in Normal, which also serves Connect Transit for service into Bloomington. Work continues on the implementation of high-speed passenger rail service to Bloomington- Normal. The Bloomington-Normal Amtrak service consistently serves a high volume of passengers, and the substantial investment in the multimodal and intermodal Uptown Station is expected to support continued growth, especially as high-speed rail service becomes more exten-

Figure 6.13 Electric Service Territories



sive.

Freight service is provided by the Norfolk Southern and Union Pacific railroads operating through the Bloomington-Normal urban area. Norfolk Southern has six freight trains that pass through the urban area daily. Union Pacific traverses the urban area from the Northeast to the Southwest. Rail lines in Bloomington continue to work with the railroads to solve issues regarding rail operations in the city, including traffic and connectivity issues created by rail bridges and crossings.

Bridge replacement, the development of new rail crossings and safety infrastructure for high-speed rail are continuing points of discussion.

PRIVATELY OWNED UTILITIES

A number of privately owned utilities such as electric, gas, telecommunications and broadband are all critical for our community. The majority of these operate on user fees.

Electricity

The City of Bloomington is served by two electricity service providers, Ameren Illinois Corporation (Ameren) and Corn Belt Energy Corporation (Corn Belt). Each service provider has a designated territory for distribution of power to homes and businesses. The service providers buy power from a third party supplier and transfer the cost to the end user.

Ameren is a publicly traded utility and is regulated by the Illinois Commerce Commission (ICC). Corn Belt is a local cooperative formed in 1939, mainly to serve the rural parts of McLean County, and is governed by a board of directors.

As is Illustrated in Figure 6.13, 70.53% of Bloomington households are currently with Ameren, with 29.47 % in Corn Belt territory. It should be noted that the majority of newer developments in the City and future growth areas are in the Corn Belt service territory.

Illinois law allows municipalities and counties to purchase electricity on behalf of the residential and small-business utility customers (businesses using no more than 15,000 kilowatt-hours of electricity a year) within their corporate limits. This is referred to as “Municipal Electric Aggregation”.

Bloomington’s residents passed a referendum in early 2013 allowing the City to buy electricity on their behalf. Due to the low prices obtained through the aggregation

program, Bloomington residents in Ameren territory pay up to 40% less per Kwh in comparison to that of Corn Belt customers.

Natural Gas

Nicor Gas is the primary natural gas utility in Bloomington. Being a midwestern community where cold months begin in November and the last killing frost can occur in mid-May, natural gas is an essential commodi-

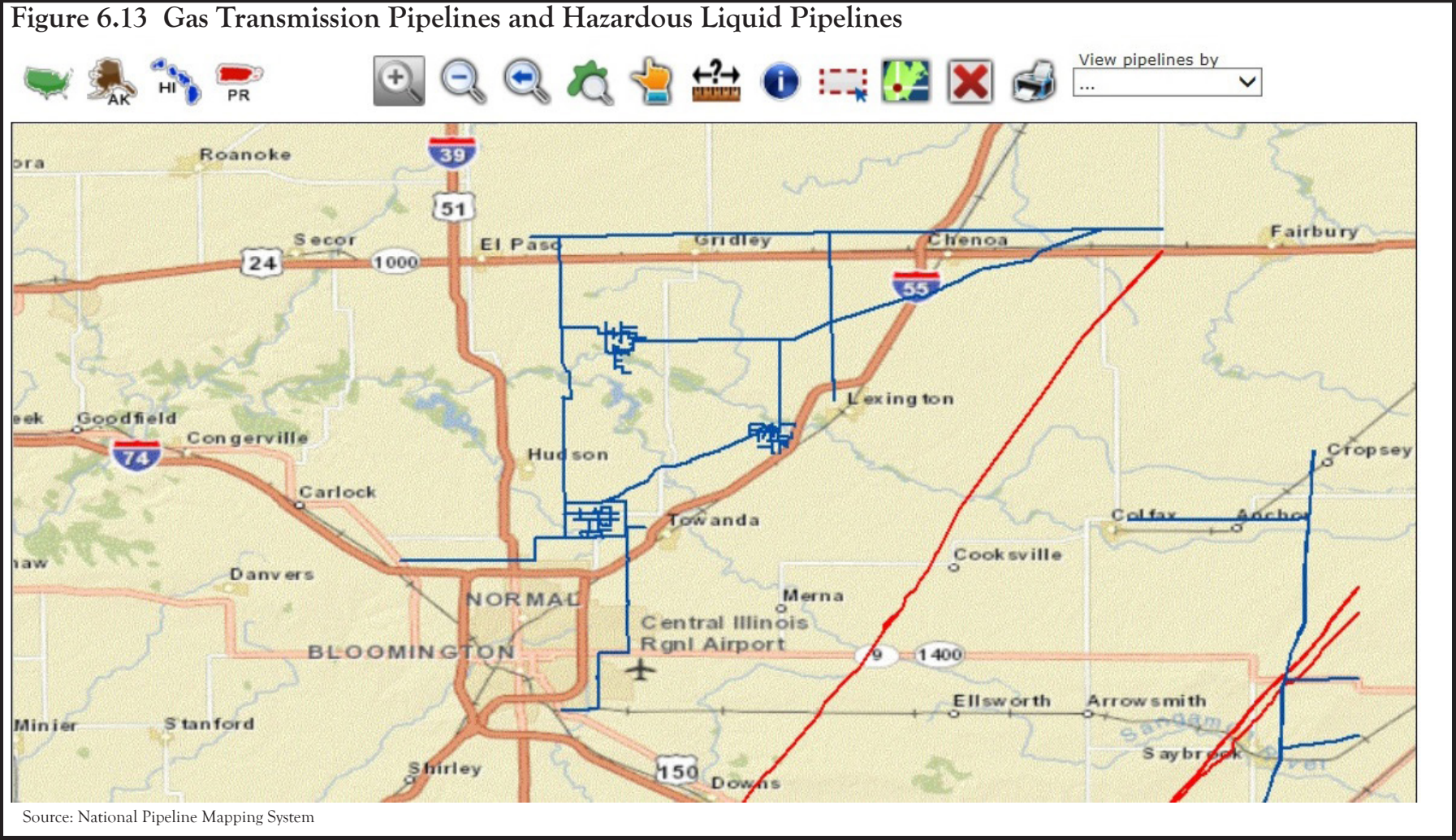
ty in Bloomington.

However, natural gas is not produced in the area. It is transported to the Bloomington area by pipelines and stored in underground aquifers for supply during the winter months.

While gas pipelines are underground and unnoticeable for the most part, they pose a potential threat to the surrounding environment and life. The Transportation Research

Board (TRB), special report 281 “Transmission Pipelines and Land Use” published in 2004⁽⁸⁾ found:

- 1. Pipeline incidents have potential for significant impact on life, property, and the environment.
- 2. Just as transmission pipelines pose a risk to their surroundings, so does human activity in the vicinity of pipelines pose a risk to pipelines. These risks increase with



Foot Note 8): TRB Special Report 281: <http://onlinepubs.trb.org/onlinepubs/sr/sr281.pdf>

3. Land use decisions can affect the risks associated with increased human activity in the vicinity of transmission pipelines.
4. Pipeline safety and environmental regulation have generally focused on (a) the design, operation, and maintenance of pipelines and (b) incident response. They have not directed significant attention to the manner in which land use decisions can affect public safety and the environment.
5. For the most part, state and local governments have not systematically considered risk to the public from transmission pipeline incidents in regulating land use.
6. Risk-informed approaches are being used effectively in other domains (e.g., natural hazard mitigation, industrial hazard mitigation, nuclear reactor and waste disposal programs, tanker safety). These techniques are also being used to address other aspects of pipeline safety (e.g., pipeline integrity), but they have not been used to make informed land use decisions.
7. Currently, decision makers lack adequate tools and information to make effective land use decisions concerning transmission pipelines.
8. Many different forms of pipeline easements are in effect, and the terms and conditions vary widely. To the extent that an easement lacks clarity, enforcement of the right-of-way is more difficult.
9. Encroachments and inappropriate human activity within the right-of-way can

This report also provided a wide variety of recommendations to mitigate the risks associated with the pipelines in urban areas. In Figure 6.13, the blue lines indicate natural gas lines and the red lines indicate hazardous liquid lines. As can be observed, Bloomington has gas transmission pipelines running through the dense urban settings. While new regulation cannot change much of the existing condition, the plan can certainly prepare us for the new pipe lines potentially coming to the area. This comprehensive plan should address the potential environmental issues related to the pipelines as well as safety from a land use perspective.

The City of Bloomington and the metro area is well served by telecommunications infrastructure and holds a competitive edge in certain areas such as fiber optics.

The B-N metro area and 20 other central Illinois communities are also served by the Central Illinois Regional Broadband Network (CIRBN) fiber optic network. This new tool enhances the capability of expanding the economic development opportunities in the community. The comprehensive plan process should engage the technology community to

McLean County

Round Nine – Data Current as of December 31, 2013
(excluding Satellite and Cellular Data)

Legend:

- Greater than or equal to 1 Gbps
- Greater than or equal to 100 Mbps and less than 1 Gbps
- Greater than or equal to 50 Mbps and less than 100 Mbps
- Greater than or equal to 25 Mbps and less than 50 Mbps
- Greater than or equal to 10 Mbps and less than 25 Mbps
- Greater than or equal to 6 Mbps and less than 10 Mbps
- Greater than or equal to 3 Mbps and less than 6 Mbps
- Greater than or equal to 1.5 Mbps and less than 3 Mbps
- Greater than or equal to 768 kbps and less than 1.5 Mbps
- No Broadband Service

Disclaimer: This map is meant to be used for preliminary review purposes only. The information depicted on this map is based on a limited amount of available data, and thus there are inherent inaccuracies. As more complete data is collected, the map will be updated and will contain more accurate information. This map should not be used to make any decisions regarding the served, underserved, and not served areas. The NTIA definition of Broadband is greater than or equal to 768Kbps at this time. (c) 2012 The Partnership for a Connected Illinois and/or the State of Illinois

Source: Broadband Illinois

In the 21st century, faster speed internet or broadband has become a necessity. As indicated in Figure 6.14, Bloomington has internet speeds equal to or exceeding 1 Gigabytes per second. While coverage in the area may not be a problem, a digital divide might still exist. The digital divide refers to inequality in quality and access to technologies and the internet. A survey conducted through

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RELEVANT

PLANS, STUDIES & ONGOING EFFORTS

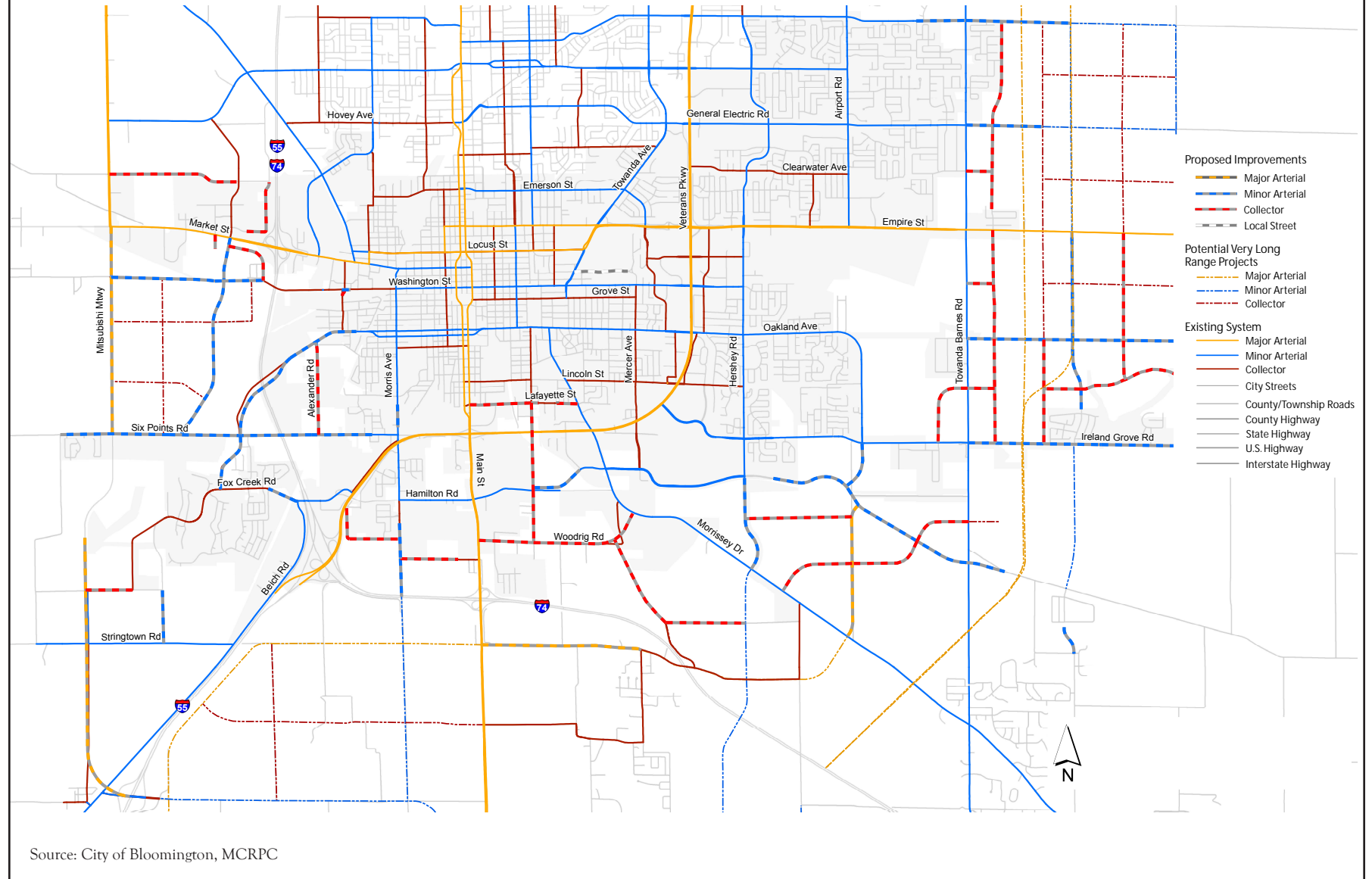
SUSTAINABLE TRANSPORTATION TO THE MID-21ST CENTURY: LONG RANGE TRANSPORTATION PLAN 2040

The Long Range Transportation Plan (LRTP) for the Bloomington-Normal urbanized area is developed by the McLean County Regional Planning Commission, and updated and revised every four to five years. The LRTP considers all transportation modes, and the infrastructure and operational funding required to sustain the system. The current 2040 plan was adopted in October 2012.

The plan documents both short-term programmed transportation improvements, as reflected in the annually revised transportation improvement program, and longer term planned improvements anticipated in later years. The plan also estimates the cost of all projects, and provides a budget framework for determining funding sources and the ability of funding to provide for total costs. For the first time, the LRTP 2040 also considers the cost of maintaining the transportation system, and considers priorities for system maintenance. Federal standards for the LRTP require that it demonstrate fiscal constraint, a finding that funds are available to meet program needs, so project priority is also considered.

The LRTP establishes current transportation system conditions as a baseline for

Figure 6.15 Potential Roadway Improvements



evaluating needs over the planning period. This analysis includes roadways, transit service, bicycle and pedestrian facilities, and rail and air for passengers and freight. The plan process also included a detailed public survey regarding current transportation behavior and preferences.

The plan establishes performance measures for goals and objectives. These are reviewed on a continuing basis to evaluate progress on or completion of goals.

The plan has developed goals, objectives and strategies in three categories:

- Sustaining safety and security
- Sustaining mobility and access
- Sustaining quality of life

For each goal and contributing objectives, the plan specifies performance measurement standards which are periodically reviewed by MCRPC staff and the Transportation Technical Committee.

As illustrated in Figure 6.15, potential projects within the City include:

- Extension of bike-pedestrian trail system along stream networks
- Modification of Ireland Grove Road-Towanda Barnes Road intersection
- Completion of Hamilton Road east to Towanda-Barnes Road
- Extension of Hershey Road south and design and construction of a rail crossing to accommodate the extension
- Future Interstate 55 interchange at Oakland Avenue, and associated street realignment

MAIN STREET TRANSPORTATION FEASIBILITY STUDY

A review of *Main Street: A Call for Investment* resulted in a decision by the participants in that planning process to move forward with technical analysis of the plan's recommendations that related specifically to the transportation functions of Main Street. This study would not address the land use and economic development aspects of the plan. It would examine the specific suggestions for adapting and improving the street itself, through reconfigured pavement cross-sections, recommendations to accommodate public transit, pedestrians and bicycle users, and other modifications.

The study is grounded in a statement of purpose for Main Street:

- Main Street supports all modes of transportation.
- The roadway and surrounding corridor must be multimodal, and require an integrated modal approach, such as Complete Streets, as defined in the Illinois statute.
- Main Street must be planned and designed to accommodate both current and future transportation and land uses.

The study reviewed local comprehensive and transportation plans, and consolidated the recommendations reflected in those and in *Main Street: A Call for Investment* to 27 key transportation-related proposals for which feasibility would be evaluated. These included proposals for roadway improvements, parking, bicycle facilities, pedestrian accommodation and transit.

The study evaluated Main Street by

segments, of which three are in Bloomington as a whole or in part. They include the sections of Main Street defined by the following cross-streets:

- College Avenue in Normal, to Locust Street in Bloomington
- Locust Street to Oakland Avenue, incorporating Downtown Bloomington
- Oakland Avenue to Interstate 74

For each segment, the study includes analysis of existing conditions and an evaluation of the suggested improvements as applied to the segment. For each segment, the report offers desirable design elements, an analysis of the tradeoffs between current conditions and the suggested improvements, analysis of specific traffic patterns, and an analysis of the most feasible improvements for implementation. The plan report also illustrates street cross-sections deemed most suitable within each segment. Finally, an alternatives analysis for each segment is presented.

Planning for Downtown Bloomington at the ward level should include a detailed review of the recommended improvements, which focus on modifying traffic patterns to enhance both pedestrian, bicycle and vehicular access, particularly with respect to the Center for the Performing Arts and the U.S. Cellular Coliseum, as well as access improvements for businesses in the downtown area.

Ongoing efforts

- The current development of the Bloom-

ington Bicycle Plan addresses some bicycle access issues raised in the Main Street Feasibility Study.

- Connect Transit is applying for funding to improve the transfer stop on Front Street.

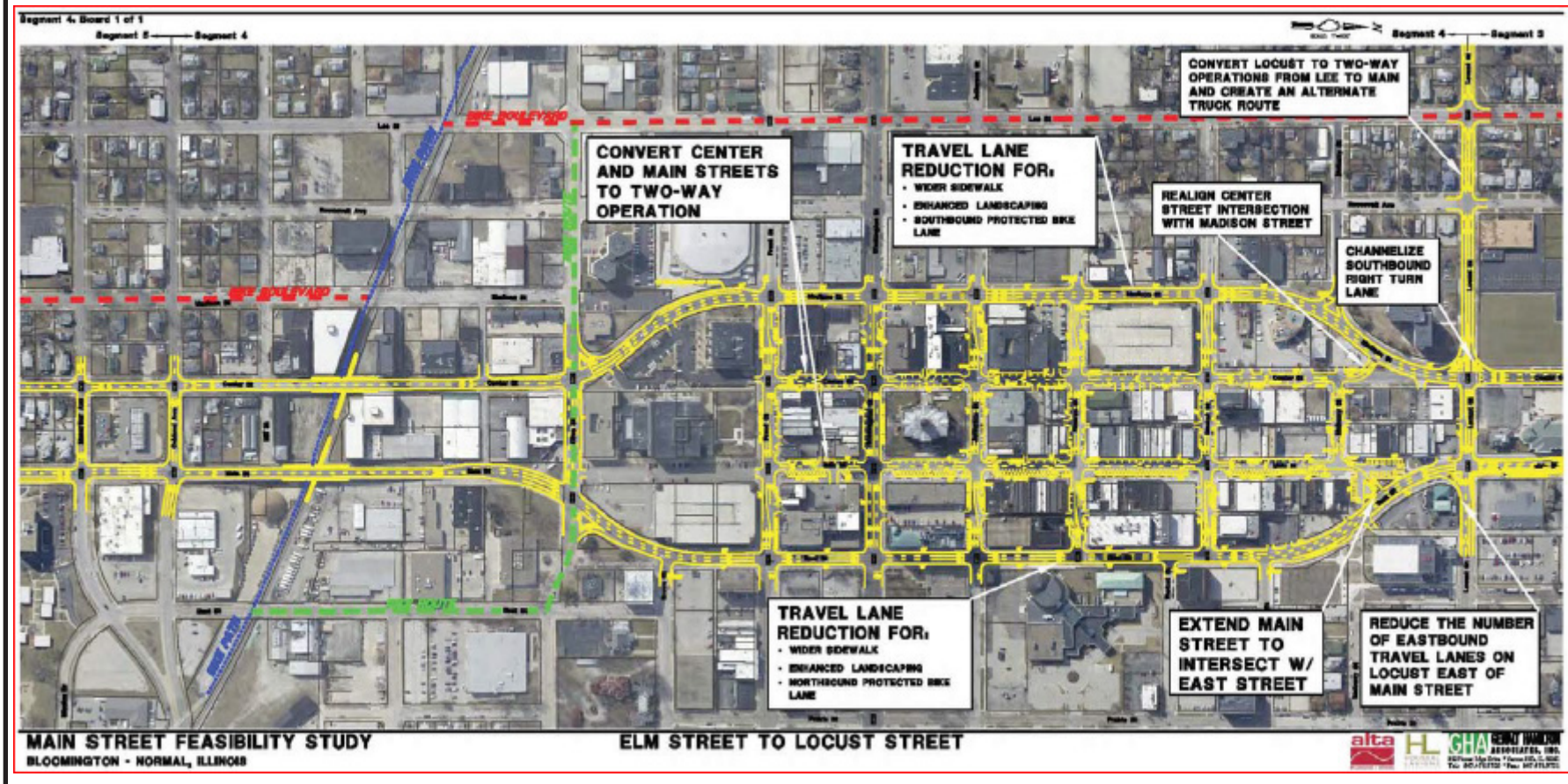
EAST SIDE HIGHWAY PHASE 1 ENGINEERING: PROJECT STATUS

Over the past fifteen years, the city of Bloomington has been a core participant in the ongoing study of a proposed East Side Highway, conceived as a connection between the east side development areas and the rest of the urban area. This proposal has been part of long-range transportation planning for the community since 1994, and has received considerable public attention and comment.

The project as currently proposed (Figure 6.17) would provide Bloomington with an additional direct connection to the interstate system, to Interstate -74 between Bloomington and Downs. Bloomington interchanges on the highway would also be available at, from south to north, Morrissey/Route 150, at the future intersection of Hamilton Road/Towanda-Barnes Road/Cheneys Grove Road, Ireland Grove Road, Empire Street/Route 9, GE Road and Fort Jesse Road. Refinement of the highway includes interchange design, inclusion of bicycle and pedestrian trail elements and linkages, and integration of the highway into adjacent neighborhoods.

The current study has used an extensive and iterative process to evaluate the envi-

Figure 6.16 Street Improvement Concept, Main Street Feasibility Study



ronmental impacts of the proposed highway, including impacts on existing development, and most importantly on agricultural land. The study considers the relationship between future conversion of agricultural land through new development, a process already in evidence through the construction of the Eagle View, Harvest Pointe, and the Grove subdivisions. Both the corridor study and the Environmental Assessment have featured extensive public outreach programs.

EAST SIDE HIGHWAY ENVIRONMENTAL ASSESSMENT

In 2010, McLean County initiated the final study phase for the East Side project, the Environmental Assessment (EA) conducted in compliance with the requirements of the Federal Highway Administration. The EA, now in its final stages, has reexamined the findings of the corridor study, as well as variations on the corridor options previously evaluated, and the no-build option. The study complies with the National Environ-

mental Policy Act (NEPA), which requires projects using federal funding to integrate socio-economic and environmental values into the decision making process. The study has also considered transportation demand strategies, compatibility with transit, support of alternate modes of transportation, location of a specific alignment, roadway geometry, and interchange types. Completion of the EA and approval by federal agencies will result in a specific alignment with a centerline, and the identification of preliminary right-of-way

needs.

It is important to note that no funding for the East Side Highway project is in place for substantial action beyond the Environmental Assessment. However, the completion of the study will enable future planning for implementation should the highway be needed to meet future growth. Further information and current project status is available at the project website, eastsidehighway.com.

Potential impacts on Bloomington:

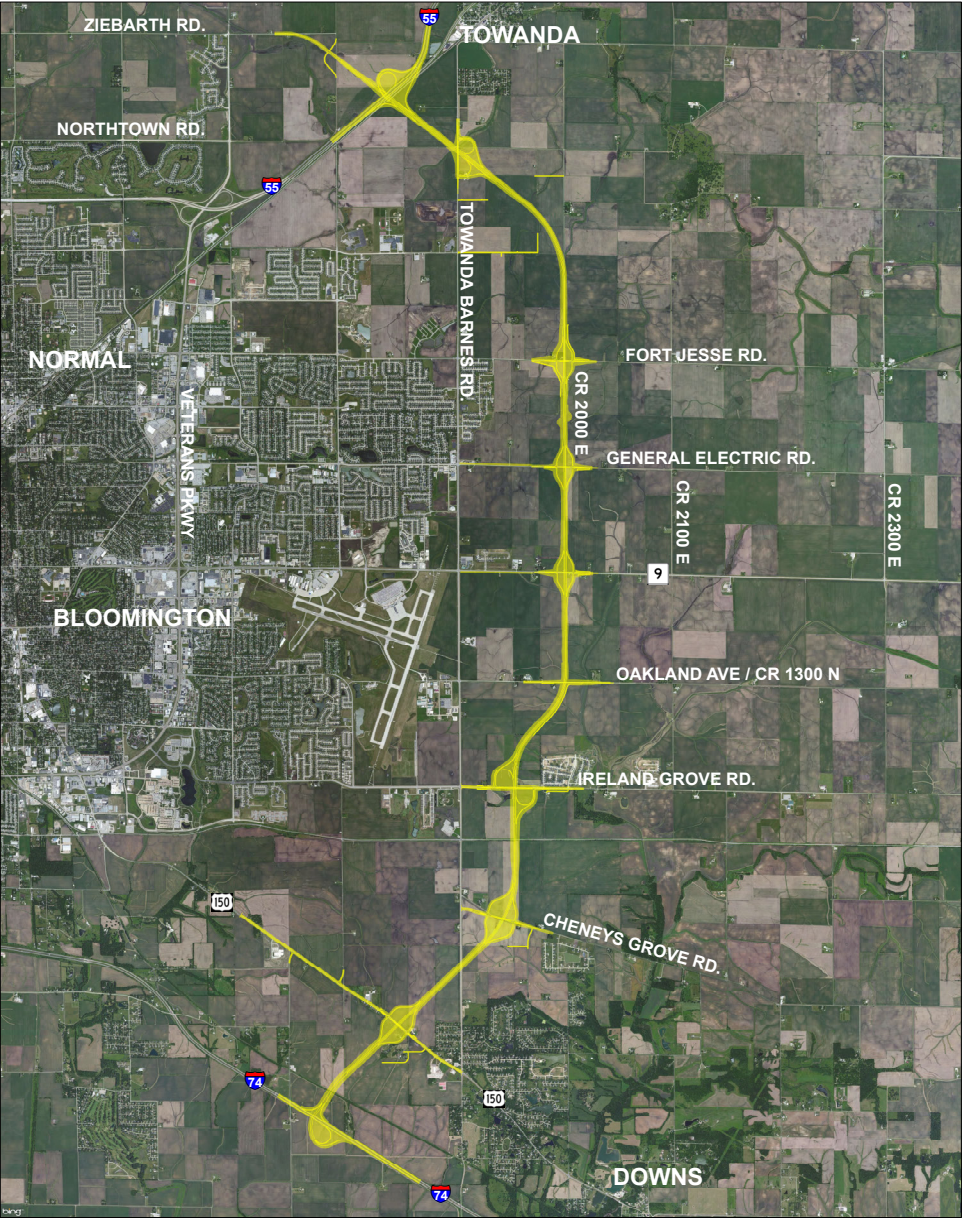
- Enhanced regional access to CIRA, including more direct interstate access for freight distribution
- Access to State Farm corporate campus areas in southeast Bloomington
- Connectivity to east-west transportation network
- Connection of bicycle trail element to existing and future trails and neighborhoods

DIGITAL DIVIDE SURVEY REPORT

In December 2013, Illinois Wesleyan University Action Research Center conducted a survey of District 87 teachers to determine the “digital divide” among District 87 students. The digital divide is defined in the report as “inequality in quality and access to technologies and the internet.” The survey posed questions on student internet access, internet use, and whether they felt the digital divide was a concern in District 87.

The survey responses showed that the

Figure 6.17 Eastside Highway Preferred Alignment



Alternative 127
June 19, 2013

Source: Clark Deitz

Legend

- Pavement
- Right-of-Way

0 0.5 1 Miles



digital divide is an issue in District 87 that needs to be addressed.

The report concluded that there is a significant portion of District 87 students that do not have internet access at home, putting them at a disadvantage compared to their classmates with internet access.

Recommendations in the plan to address the digital divide include community and school based approach:

- Community-wide access to low-cost internet
- More time for students in computer labs
- Laptop rentals
- More supervised computer access at school, or at before and after school locations

