



TRANSPORTATION + INFRASTRUCTURE

Section 3: Transportation + Infrastructure

Transportation Overview

Section 3, Transportation + Infrastructure, is an assessment of the transportation network, infrastructure and facilities along the South Main Street/Illinois Route 2 Corridor. The Corridor's transportation network includes both existing and planned facilities and infrastructure for automobile, bicycles, pedestrians, trucks, buses and other transit facilities and amenities. This assessment provides a snapshot of current transportation network conditions and potential impacts on that network by new transportation investments and planning actions.

Rockford originally developed on the west side of the Rock River and historically, Illinois Route 2 was the main north-south arterial into the City.

South Main/Illinois Route 2 is a major four-lane, north-south arterial roadway under the jurisdiction of the Illinois Department of Transportation (IDOT). For many decades, Illinois Route 2 was Rockford's main north-south arterial and its location along the west side of the Rock River spurred the City's first development and growth.

The area between South Main Street, the railroad yards along Kent Creek, and the Rock River was historically the transportation hub of the Rockford region. Rockford's first passenger rail stations and freight yards serving the region and beyond were first located here given its close proximity to Downtown Rockford and access to the Rock River for transferring freight. As a result, a number of industries developed at this location including the City's many textile manufacturer's such as the Barber-Colman Company.

However, the transportation advantages of South Main Street and its rail yards was significantly impacted during the last half of the 20th Century when transportation infrastructure investment was directed elsewhere in Rockford. Three major interstate projects, the Jane Addams Freeway (Interstate-90), U.S. Grant Memorial Highway bypass (U.S. Route 20), and Interstate-39 (E.J. "Zeke" Giorgi Highway) were constructed between the mid 1950s and early 1990s. As a result, Rockford experienced expanded but decentralized growth away from the City's central area and South Main Street, a growth pattern that occurred in most major metropolitan areas during this period. In Rockford, growth and development occurred initially to the east and later to the south of Downtown Rockford and South Main Street towards these three highways. Minimal growth took place west from the Rock River during this time.

However, other factors influenced South Main Street's decline. Amtrak passenger rail service ended in the early 1980s and the Kent Street rail yards saw less and less activity as long-time manufacturers along South Main Street closed or relocated. With this decline a number of manufacturing, industrial and warehouse buildings and facilities were vacated. Many of the vacated industrial buildings pose adaptive use challenges.

Currently, there are three primary access routes into Downtown Rockford from the Interstate system (I-90 and I-39). These routes include Business

US 20 (East State Street), U.S. 20 to Illinois 251 (11th Street/Kishwaukee Street) and U.S. 20 to Illinois 2 (South Main Street).

Over the next decade, there will be a significant change in the amount of public investment in the South Main Street Corridor and surrounding areas. The Corridor provides an important connection between U.S. 20, the Chicago Rockford International Airport (RFD) and Downtown Rockford. The Illinois Department of Transportation has proposed improvements that are intended to make this section of South Main Street a more important gateway into Downtown Rockford. In addition to these improvements, other investment activities will be undertaken by the City of Rockford, placing a renewed importance on revitalizing the Corridor and the surrounding Southwest Rockford neighborhoods.

Existing Conditions

Traffic

Current average annual daily traffic (AADT) for South Main Street is 16,600 vehicles per day with approximately 7% consisting of truck traffic. South Main Street is designated a City truck route for the entire length of the Corridor study area, which provides access to the Southrock Industrial Park and industrial areas adjacent to Downtown Rockford, U.S. 20, and the Airport. Current AADT and traffic signals in the Corridor are shown in **Figure 3.1: Area Traffic System**.

As shown in Figure 3.1, east-west traffic is less than 10,000 vehicles per day on all routes, and traffic volumes are lower on the west side of the Rock River than on the east, further highlighting South Main Street as an important north-south arterial roadway. The nearest parallel north-south streets, Clifton Avenue and West Street, each carry fewer than 3,000 vehicles per day.



Current average annual daily traffic for South Main Street is 16,600 vehicles per day (Source: Google Images).

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Traffic volume projections for South Main are shown in **Table 1** below.

Table 1: South Main Traffic Projections

	2009	2020	2040
AADT	16,600	22,450	26,800
Trucks	1,160 (7%)	1,450 (6%)	1,880 (7%)

Source: Rockford Metropolitan Agency for Planning

Truck Freight

South Main Street's location west of the Rock River makes it a key truck freight corridor for the west Rockford metropolitan area. Freight traffic is expected to increase with industrial development near the Airport and along U.S. 20. Currently, trucking terminals are located in southern Rockford, along Illinois Route 2, 11th Street and near the Interstate 39 interchange with U.S. 20.

RMAP forecasts an increase in truck movements in the RMAP region. This is due to several factors, including an increase in congestion in the Chicago metropolitan region and an increase in airport-related freight operations at Chicago Rockford International Airport. Truck freight traveling to or from the Rockford metropolitan region are projected to use I-39 as an alternative north-south route to Interstate highways closer to Chicago. Additional growth is projected in truck freight between the metropolitan areas of Milwaukee, Chicago, Rockford, the Quad Cities and Bloomington, Illinois.

Traffic Generators

South Main Street is a major arterial roadway that provides access to residential, commercial, industrial and open space and recreational uses along the Corridor. **Figure 3.2: Traffic Generators** shows traffic generators located on or near South Main Street, including the Airport, Southrock Industrial Park, Klehm Arboretum, Blackhawk Park, elementary and middle schools and Downtown Rockford. These land uses and activity centers generate significant motorized and non-motorized traffic along the Corridor.



The Airport is a key traffic generator along South Main Street.

Infrastructure and Pedestrian Facilities Assessment

Infrastructure conditions and pedestrian facilities along the South Main Corridor were also assessed. Curbs and sidewalks, in general, were in need of repair in several locations. South Main Street has roadway lighting but lacks pedestrian-scaled lighting for sidewalks and pedestrian crosswalks.

Pedestrian facilities were examined. Marked pedestrian crossings across South Main Street are provided at signalized intersections except at Pelley Road, Iroquois Avenue/Sauk Lane and Harrison Avenue. Sidewalks leading to South Main were reviewed to identify and assess their condition leading to IL 2 and pedestrian crosswalks. These results are summarized in **Table 2** below.

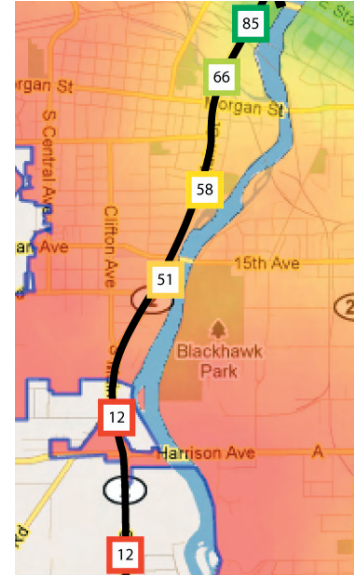
Table 2: Approaching Sidewalk Conditions at Existing Signalized Intersections Along IL 2		
Intersection	Approach Sidewalks	Crosswalks
Airport Dr.	• No sidewalks	• No crosswalks
South Main St.	• No sidewalks	• No crosswalks
Pelley Road	• No sidewalks	• No crosswalks
Southrock Dr.	• No sidewalks	• No crosswalks
Sauk Ln.	• No sidewalks	• No crosswalks
Springfield Ave./ Harrison Ave.	• No sidewalks	• No crosswalks
Clifton Ave.	• Sidewalk in good repair on west side of Clifton Avenue • South leg of IL 2: No sidewalks • North leg of IL 2: Sidewalks on both sides in good repair	• Crosswalks on west, north, and east legs; no crossing on south leg
Ogilby Rd.	• Existing trail on east side of IL 2 in good repair • No sidewalks on west side of IL 2	• Ladder-style marked crosswalk on east leg of Ogilby Road; no pedestrian crossings on IL 2
Marchesano Dr./ 15 th Ave.	• Sidewalk on west side of IL 2 ends at Marchesano Drive • No sidewalks on 15th Ave Bridge	• No crosswalks
Heath St.	• No sidewalks	• No crosswalks
Montague St.	• Sidewalks on most approaches cracked • No sidewalks on south side of Montague east of IL 2	• No crosswalks
Morgan St.	• Sidewalks on all legs in good repair	• Crosswalk markings faded on all legs
Cedar St.	• Sidewalks on all legs in good repair	• Crosswalk markings faded on all legs

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Generally, sidewalks are present along one side of South Main Street in most locations, but sidewalk gaps were observed. Additionally, sidewalks do not always terminate at a pedestrian crossing that connects to a sidewalk on the other side of the street. Pedestrian crosswalk markings are faded in many locations and curb ramps do not meet Americans with Disabilities Act (ADA) accessibility design guidelines.

Walk Score™ is a map-based tool that provides neighborhoods and municipalities with an assessment of a pedestrian environment by taking into consideration the roadway network, pedestrian amenities and adjacent land uses. The assessment scores are provided on a scale from zero to 100, with 0 representing an auto-dependant environment with little or no pedestrian amenities and 100, which corresponds to a highly walkable, pedestrian friendly environment. **Figure 3.3: Walk Score** summarizes Walk Score results for the South Main Street Corridor.

With scores ranging from 12 at Sauk Lane, 51 at Marchesano Drive, to 66 just north of Morgan Street, most of the Corridor is categorized as an automobile-oriented, less pedestrian friendly environment. New infrastructure improvements, such as enhancements to sidewalks and the installation of multi-use paths and trails that increase connectivity from neighborhoods to commercial districts within the Corridor, can significantly improve South Main's Walk Score. The Walk Score can also be increased with new, compact development that adds residential density and generates additional pedestrian activity.



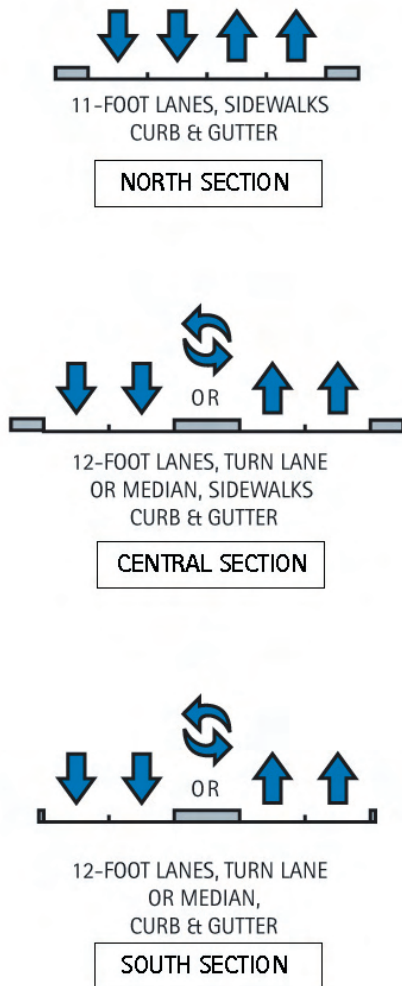
The Walk Score™ assesses the pedestrian environment and “walkability” of an area- Also see Figure 3.3



Sidewalks are present along South Main, although there are some gaps.

Planned Improvements

PLANNED TYPICAL CROSS-SECTIONS



Diagrams of Planned IDOT roadway cross-sections - Also see Figure 3.5

A description of planned improvements along South Main Street, as identified in the *IDOT Phase 1 Report*, includes intersection improvements and roadway widening from U.S. 20 to Cedar Street. No additional travel lanes are planned, which means the roadway's cross-section will remain essentially two travel lanes in each direction. A raised, non-mountable median is planned for several locations along South Main providing opportunities for landscaping and street enhancements. Along the south section of South Main Street near U.S. 20, a painted median is planned. Traffic signals will be upgraded and turning lanes added at select intersections in lieu of planted medians. The US 20 Interchange and the section of South Main Street from US 20 to Sauk Lane was omitted from planned improvements and will be improved separately as part of a US 20 Interchange improvement project by IDOT.

Along the Corridor's northern end between Morgan Street and Cedar Street, the addition of turn lanes at several intersections will result in the elimination of existing on-street parking. Off-street parking locations are identified in the *IDOT Phase 1 Report* to offset the loss of parking along South Main Street.

The roadway itself at this juncture is being relocated to the east to mitigate flooding issues at the 15th Avenue Bridge. This will require the acquisition of properties east of South Main between 15th Avenue and Lane Street. The realignment will affect approximately 15 parcels of land on the east, including displacement of a number of existing businesses and residents. Relocating the roadway will also provide increased public access to the Rock River and provide opportunities for installing a multi-use path in this area. A more detailed description of this improvement and related flood mitigation efforts is provided in the *IDOT Phase 1 Report*.

All sidewalks along South Main Street will be reconstructed with no new ones planned for installation and construction. Existing pedestrian crossings will be improved and signals upgraded to include pedestrian push-buttons and countdown clocks. An additional signalized intersection is planned at a future commercial access and church drive between U.S. 20 and Pelley Road. However, pedestrian crossings are not planned for this intersection. Where sidewalks currently do not exist, a trail along the east side of South Main Street is planned to provide additional bicycle and pedestrian access. The *City of Rockford Ten Year Bicycle Plan* includes this and additional planned bicycle facilities, which are further discussed below in **Bicycle Facilities**.

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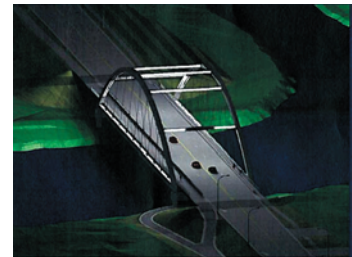
In addition to the IDOT roadway reconstruction, the City of Rockford will also be involved in a number of public transportation, infrastructure and roadway improvements within the next few years. These planned improvements, as identified in **Figure 3.4**, include the following:

- Harrison Avenue Bridge (construction 2012-2013)
- Morgan Street (construction 2010-2011)
- Morgan Street Bridge (construction 2011-2012)
- Central Avenue (construction 2010-2011)
- Jefferson Street Bridge (construction 2014)
- Amtrak Rockford Station (expected construction 2014)
- Trail along west bank of Rock River (2011-2012)

Many participants in focus groups and the Community Open House noted the future Amtrak station as a major key to revitalizing Southwest Rockford by increasing access to the area regionally, providing additional multi-modal options and developing a currently vacant site within walking distance to the prime commercial core of the neighborhood.

Amtrak

A new Amtrak line is planned to run from Chicago to Dubuque, Iowa. Service is expected to begin in 2014 and a station is planned for South Main Street between Kent and Mill Streets at the north end of the Corridor. Local funds will be used for the station's construction. Many focus group and Community Open House participants stated consistently that the new Amtrak station would be a major key to revitalizing southwest Rockford by redeveloping a vacant site adjacent to Downtown and surrounding neighborhoods and increasing transportation options for local residents.



Conceptual Morgan Street Bridge Design - Draft (Image courtesy of City of Rockford + CMT Engineers)



Conceptual Amtrak Rockford Station visualization - Draft only. (Image courtesy of City of Rockford)

Land Use and Transportation Connection

The Corridor's transportation network provides access to and from different land uses. In turn, the traffic generated by those land uses impacts the operation of the roadway. This land use - transportation connection informs the "roadway context" for transportation planning purposes. South Main Street has three major roadway contexts described below in **Table 3** and shown in **Figure 3.5: Roadway Context**. These contexts are also reflected in the planned IDOT improvements.

Table 3: Land Use and Transportation Connection

Section	Existing Land Use Characteristics	Proposed Roadway Characteristics
North	- Urban core - Mixed land use with residential, commercial, and industrial	11-foot lanes, sidewalks - Left-turn lanes at some intersections 30 mph posted speed limit
Central	- Primarily residential - Some auto-related commercial	12-foot lanes - Painted median from Lincoln Avenue to Morgan Street - Concrete barrier median at all other locations - Left-turn lanes at some intersections 40 mph posted speed limit
South	- Industrial park - Low-density residential - Rockford International Airport	12-foot lanes - Painted median from Sauk Lane to Harrison Avenue - Concrete barrier median at all other locations - Left-turn lanes at some intersections 45 mph posted speed limit

Bicycle Facilities



Newer multi-use path on the east side of South Main Street

The City of Rockford and RMAP have prepared plans for on-street bicycle facilities and shared use trails within the Corridor, several of which cross South Main Street. Improvement plans for the Corridor include a proposed trail east of South Main Street along the Rock River that would provide non-motorized access to Blackhawk Park/Marinelli Field, other area open spaces and additional proposed trails. Bicycle connections near the Corridor are shown in **Figure 3.6: Planned Bicycle Improvements**.

Planned bicycle crossings on Illinois 2 are located at Kishwaukee Road, South Main Street just north of Seminole Avenue, Harrison Avenue, Prairie Road, Ogilby Road, Marchesano Drive, Montague Street, and adjacent to Kent Creek at the Rock River. The City of Rockford recently acquired a railroad bridge that crosses the Rock River between Morgan Street and 15th Avenue, which is planned as a bicycle bridge. Bicycle crossings on South Main will be completed separately by the City.

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Transit Facilities

The Rockford Mass Transit District (RMTD) provides bus service along South Main Street with three different bus routes. Between December 2009 and November 2010, the South Main Route #7 provided more than 26,000 rides. According to the RMTD, the Route's main destinations are Southrock Industrial Park and the Airport. Two other bus routes, #5 Clifton and #16 Big Loop South, cross South Main Street creating transfer points at key intersections at 15th Avenue/Marchesano Drive and Montague Street and Morgan Street. The RMTD currently operates a flag stop policy where buses stop along the route where customers wave to the bus operator.

Currently, there are no bus shelters or waiting areas along South Main Street. Some locations have wide shoulders that bus operators use as pull-outs to facilitate boarding and alighting passengers. The type of amenities (bus stop pads, signs, benches, shelters) that would be provided at the proposed bus stops has not been determined at this time. Bus stop amenities are typically not provided by IDOT with roadway improvements. Therefore, any bus stop amenity would likely be provided by RMTD or the City of Rockford.

RMTD is in the process of revising and updating bus stop locations and schedules. This includes identifying permanent bus stops to replace the current flag stop policy and coordinating bus stop relocation concurrent with infrastructure improvements. As part of this process and in response to planned improvements along South Main Street, RMTD has proposed the following permanent bus stops along South Main as shown in **Figure 3.7: Bus Stops**.



Currently, South Main lacks bus shelters and waiting areas.

Environmental Considerations

The Rockford Metropolitan Agency for Planning is in the process of updating the *Boone and Winnebago Regional Greenway Plan*, which identifies critical and sensitive areas within the metropolitan region. This includes Illinois Natural Areas Inventory Sites, Illinois Nature Preserves, state-protected wildlife habitat, wetland, and floodplain areas. These areas are shown in **Figure 3.8: Greenways Map**.

The *IDOT Phase I Report* also detailed commitments to protect natural resources affected by construction. These include two wetland areas west of South Main Street, important mature trees within the future construction zone and the population of cliff swallows that may nest under bridges.

Conclusions

Significant public investment in transportation facilities and infrastructure along the Corridor, between the key anchors of Downtown Rockford and the Chicago Rockford International Airport, will take place in the next several years. Investment has been strategically focused to provide South Main Street and Southwest Rockford a strategic advantage in encouraging private sector investment.

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Utilities and Infrastructure

Street/Right-of-way Infrastructure Assessment

In addition to a review of the streetscape and other infrastructure along South Main Street, an infrastructure assessment was conducted of roadways that intersect or run parallel to South Main Street (also see **Figures 3.9 through 3.12: Existing Transportation Infrastructure**). This included a visual observation of:

- Pavement surface condition
- Drainage
- Sidewalks
- Roadway illumination

Cross streets and nearby parallel streets were observed and given a rating of Good, Fair or Poor, depending on the presence and condition of each of the items listed above.

Good – Areas rated “good” were observed to have roadway surface in good repair, and most or all infrastructure was present and in good repair.

Fair - Roadway segments marked “fair” were lacking in one or more facilities but most facilities were present and were observed to be in good repair. If sidewalks did not exist, wide shoulders were observed of adequate width for pedestrian travel, or roadway travel speeds were low enough that permitted pedestrian travel in shared roadway conditions.

Poor - Roadway segments marked “poor” were characterized by a lack of several facilities or facilities with significant damage including potholes, major sidewalk gaps, a complete lack of roadway illumination, or a combination of these factors.

Sanitary Sewer System

The Rock River Water Reclamation District (RRWRD) owns and maintains the public sanitary sewer system within the City of Rockford. The RRWRD covers nearly 88 square miles of Winnebago County and serves over 250,000 people in Rockford and the communities of Loves Park, Machesney Park, Roscoe, Cherry Valley, New Milford, Rockton and a number of unincorporated areas in Winnebago County. The main treatment plant is located on the east side of the Rock River along Kishwaukee Street. All sewers lead to the plant by a combination of gravity trunk lines and force mains. The sanitary sewer system serving the South Main Street Corridor and adjacent neighborhoods was developed during the City’s gradual growth and expansion. The majority of the sewers date to the time of the original installation and consist of a combination of clay, concrete and PVC sewer pipes. The Corridor study area lies within the limits of 8 sewer basins.

At the present time, there are no documented sanitary sewer capacity concerns or infrastructure issues that need to be immediately addressed and it is unlikely that any redevelopment would exceed current capacity of the existing lines.

Any redevelopment will be subjected to modern ordinance requirements. The City of Rockford has a policy that allows for developments immediately adjacent to the Rock River to discharge into the river without the need for detention, given the water quality meets a standard that upholds City regulations.

At present, there are no documented capacity concerns or infrastructure issues that need to be immediately addressed. The sanitary sewer within the boundaries of the IDOT funded South Main Street reconstruction project will be rehabilitated. Other branch sewer lines within the area are adequately sized for the current land use. Sewers in some of the older industrial areas are sized for a more intense land use function. It is unlikely that any redevelopment would exceed the current capacity of these lines. The capacity and condition of individual branch sewers will be subject to evaluation by the RRWRD as a part of any future redevelopment plan within the Corridor.

Water Supply System

The City of Rockford owns and maintains its own water supply system. Like most water utilities in the United States, a significant portion of Rockford's water infrastructure is rapidly approaching its life expectancy. Assuming a life expectancy of water mains and major supply facilities to be 60 to 80 years, nearly half of the City's water supply infrastructure will need replacement or significant repair over the next 20 to 30 years.

The City's Water Division is the largest municipally owned ground water system in Illinois. Water is obtained from 39 wells, which feed 36 reservoirs and two elevated tanks. Average consumption is approximately 25.75 million gallons per day. However, the system is capable of producing up to 60 million gallons per day. The City will be installing a new water main in conjunction with the IDOT South Main Street construction project north of Pond Street. From all indications, this new main will provide adequate capacity to serve any existing or potential redevelopment within the Corridor study area.

Storm Sewer System

The City's storm sewer network within the neighborhoods off South Main Street consists of concrete storm sewer pipes of varying sizes that migrate from a west to east direction and discharge directly into the Rock River or one of its smaller adjacent tributaries. Since this area was largely developed prior to the adoption of a comprehensive storm water management system, there is limited storm water detention within the neighborhood, which is isolated to recent land developments. Therefore, the bulk of the neighborhood contains no detention system.

Any redevelopment will be subjected to modern ordinance requirements. Currently, City land development policy allows new developments adjacent to the Rock River to discharge into the River without the need for detention systems. Current best practices in land development regulations relating to water quality require some pre-treatment of storm water runoff even from adjacent parcels.

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The City has identified several locations that currently have storm water management deficiencies, including:

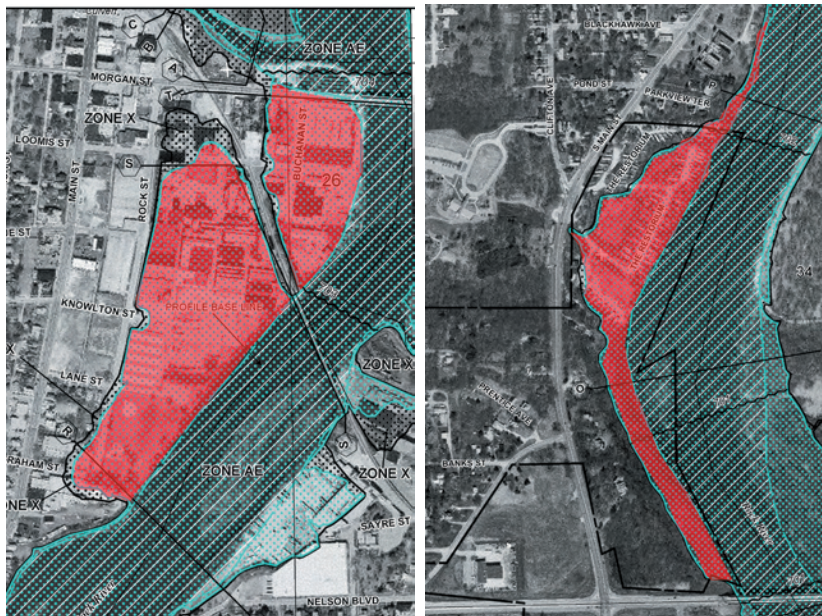
- **Intersection area of South Main and Morgan Streets**
- **South Main Street south of 15th Avenue bridge**
- **South Main Street near Klehm Arboretum**
- **South Main Street south of U.S. 20 experiences standing water during heavy rain events**

Floodplain Issues

Since the South Main Corridor study area is bordered by the Rock River on the east, there is a potential for flooding due to river fluctuations. There are two areas that are of primary concern. The existing industrial area east of Rock Street between Morgan Street on the north and Lincoln Avenue on the south lies within the current 100-year floodplain. In addition, the existing mobile home park east of the intersection of Main Street and Clifton Avenue lies largely within the 100-year floodplain and has experienced flooding in the past. Significant impacts are present within the City's Barber-Colman development area and will need to be addressed with any redevelopment plan.



The mobile home park east of the South Main and Clifton intersection lies within the 100-year floodplain.



The 100-year floodplain, shown in red impacts both the Barber-Colman site (left) and the mobile home park at the South Main/Clifton intersection. (Source: FEMA)

Electrical System

Commonwealth Edison supplies the City of Rockford with electrical power. The majority of the lines within the Corridor study area are overhead due to the age of the development within the area. Some new developments have underground service, but the large majority is along power poles located within public right-of-way. Commonwealth Edison confirmed that there are no apparent service deficiencies within the study area. However, IDOT construction projects along South Main Street will impact the existing power lines and ComEd will be required to relocate power poles outside of the Corridor study area. Many participants in the focus group sessions noted that the overhead powerlines and poles are unattractive and should be buried if possible.

Natural Gas System

Nicor supplies the City of Rockford with natural gas service. The existing mains within the Corridor study area are aging. However Nicor has no immediate plans for any major service upgrades. Service to the general neighborhood is currently adequate from a supply standpoint, but new development may trigger the need for service upgrades.

Technology Infrastructure

The City of Rockford will be installing a fiber optic data cable as part of the South Main Street IDOT reconstruction project. The use of this technology will be limited to government agencies, non-profits, schools, and medical facilities. The City will not be competing with private sector concerns for high speed internet services.