3 Community Mobility

Community mobility includes a multitude of components that collectively create a system that facilitates the movement of goods and people to, and throughout, the community. These components include not only roadways for motorized vehicles, but also sidewalks, bike lanes, multi-purpose pathways, and transit facilities. A comprehensive and efficient transportation system provides not only for the ease of circulation within a community, but also enhances the community's environmental, economic, and social environs. People of all ages, abilities, and modes of movement must have the ability to circulate throughout the community from one's home to workplace, shopping, dining, and entertainment activities. To achieve this end, a systematic and multi-faceted strategy must be implemented that addresses the interconnections between land use and mobility demand.

3.1 Introduction

Much of the emphasis of this chapter is on the roadway system as it connects the region and is the predominant form of mobility in Carbondale. While traveling by car is the most common mode of travel, this plan recognizes that building and improving roadways alone will not fully address the transportation needs of the community. Continued economic growth, escalating infrastructure and fuel costs, and impacts on air quality and the environment all warrant a view of transportation as an interconnected system of roadways, paths, trails, and sidewalks, as well as options for public transportation and freight movement.

The transportation system has a strong influence on the type and quality of growth. Therefore, it should be closely coordinated with the community's overall land use goals and policies. Likewise, an integrated and interconnected system of roadways is important to maintain an efficient and safe traffic flow. It is necessary to effectively convey traffic within and between areas of the community. Roadways must be continuous and offer some redundancy. This allows multiple alternatives for traveling within the community, while keeping traffic flowing and alleviating congestion on roadways. Options should be encouraged, not only in terms of different travel routes, but also in modal choices along the system's corridors. Providing such options and enhancing mobility will also require promotion of development patterns that encourage alternative land

GETTING FROM HERE TO THERE IN CARBONDALE

The quality of the transportation experience (which includes the efficiency of traffic movement, as well as the attractiveness of the roadway environs) contributes to quality of life. In the original town area where the local streets are laid out on a grid, there is good interconnectivity. In the more recently developed areas, and particularly where there are creeks and drainageways, there are fewer connections. Discontinuous streets interrupt the efficient flow of traffic and create congestion elsewhere. For this reason, as the community continues to develop, it is important for the street system that connections are made in new developments or retrofitted in existing neighborhoods.

uses and shorter trips (i.e., mixed use developments and compatible commercial uses within close proximity to neighborhoods). It will also require multi-modal improvements, such as sidewalks and bike lanes, to existing and proposed corridors.

3.2 Purpose

The purpose of this chapter is to identify and address key transportation issues in the community and make recommendations to help improve mobility in the area and accommodate anticipated growth. Additionally, included in this chapter is a Thoroughfare Plan map that can be used by City staff and the City Council to address necessary thoroughfare connections and extensions as new development occurs.

This transportation chapter is divided into three sections:

1. Discussion of existing conditions and trends affecting mobility in Carbondale.
2. Recommended focus areas, strategies, and actions for maintaining and improving Carbondale's transportation network.
3. Existing and future Thoroughfare Plan discussion.

A summary of the key focus areas and strategies is as follows:

Focus Area 3.1: Improving Mobility

- **Strategy 1**: Improve continuity of the street system to provide connections within and between neighborhoods and districts.
- **Strategy 2**: Preserve adequate rights-of-way for future street extensions and the traffic carrying capacity of roadways, particularly in the outlying rural areas of the extraterritorial jurisdiction.

Focus Area 3.2: Enhancing the Street Environs

- **Strategy 1**: Visually enhance the aesthetic appearance of the community's primary entranceways and major roadway corridors.
- **Strategy 2**: Establish a direct relationship between the character of development and the design of the adjacent roadways.

Focus Area 3.3: Becoming a Walkable Bikeable Community

- **Strategy 1:** Interconnect citywide destinations (e.g. neighborhoods, schools, parks, retail centers) with pedestrian linkages such as sidewalks, trails, and pathways.
- **Strategy 2**: Emphasize pedestrian and bike accessibility in the funding and design of corridor planning and construction efforts.

Focus Area 3.4: Enhancing Public Transit Services

- **Strategy 1**: Improve the propensity of public transit use through strategic investments, public improvements, targeted advertising, and direct marketing.

3.3 Existing Conditions

Pedestrian and Bicyclist Connections

As a university community, there is an increased propensity for walking and bicycling. This is especially true on and around campus, which itself has a dense web of sidewalks and pathways, but also extends to many off-campus destinations of student living, shopping, and recreation (see **Figure 3.1, Proposed Campus Master Plan**). Moreover, based on the community input received, there is a call by residents for improved pedestrian connections citywide. A comprehensive trail and sidewalk system would be for leisure and recreation, health and fitness, better access to the community's parks and natural areas, and a conscious effort to reduce vehicle trips and lessen the use of – and reliance on – fossil fuels. In this way, the City could take steps to fulfill its sustainability goals.

Figure 3.1 | **PROPOSED CAMPUS MASTER PLAN**

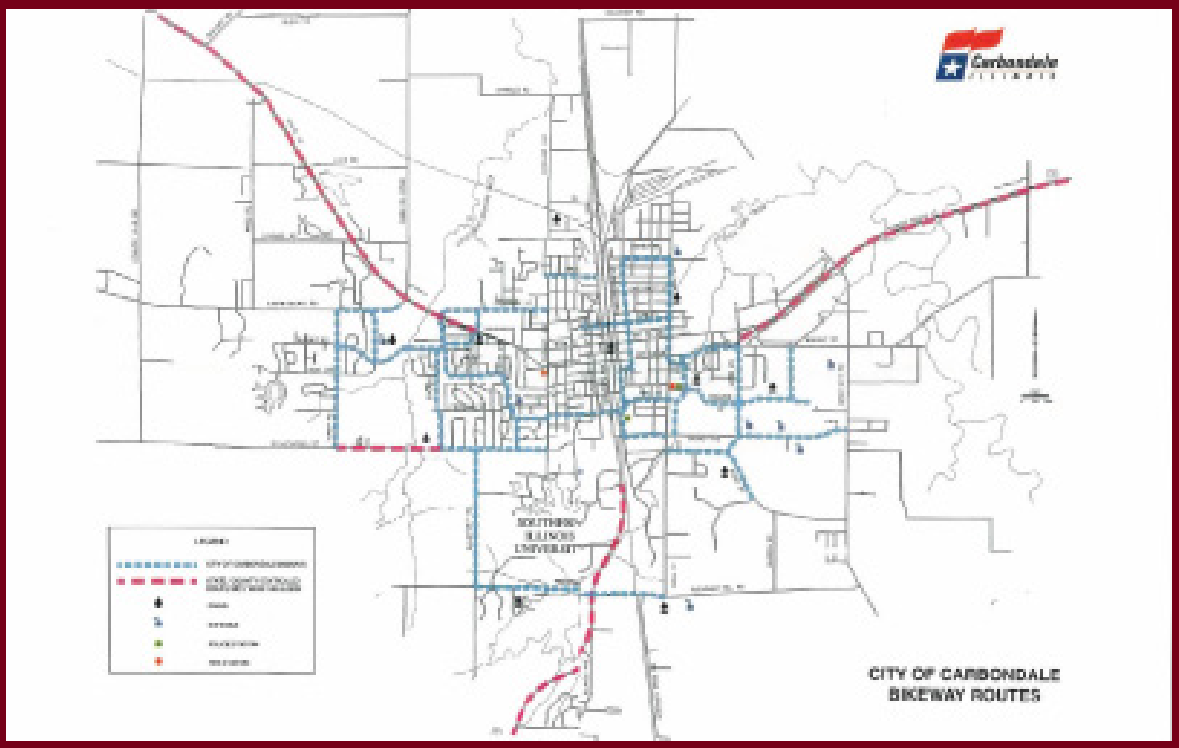
Source: Southern Illinois University

Presently, there are neighborhoods that have a good network of sidewalks (both within and around the periphery) and other neighborhoods that do not (see **Map 3.1, Existing Sidewalk System**). Improving walkability requires the design of walkable neighborhoods and seamless connections between them. Missing sidewalk links, unusable sections, and/or poor access and street crossing treatments at intersections can make it easier to decide to drive rather than walk in the interest of safety. Barriers like the railroad, major arterial highways like U.S. 51 and IL 13, wide and busy intersections like that at Illinois/University/Mill, and noncontiguous development must be overcome. In short, "pedestrianism" must be considered in all aspects of development and design if Carbondale is to improve its attractiveness as a place to bicycle and walk.

There are places within the community that are walkable from the perspective of having stores, schools, and parks in close proximity to housing. While there may be nearby conveniences to these locations, there are also obstacles and barriers to walking/bicycling that will require good planning and design solutions.

Currently, the City has several on-street and off-street trails through the more densely developed areas of the community as pictured in **Figure 3.2, Bikeway Routes** (see next page). However, they are not yet tied together in a comprehensive system of trails, sidewalks, and pathway connectors. Fortunately, there are several

Figure 3.2 | **BIKEWAY ROUTES**



The current bikeway system consists of a series of wide shouldered streets, bike lanes, and bikeway signs. While it is a good start, future efforts need to focus on bicyclist safety and establishing a more uniform treatment of bike routes. Following a Complete Streets policy would be one mechanism for citywide implementation.
Source: City of Carbondale Planning Services Division

good opportunities for locating off-street trails along the City's main streams and natural corridors (see **Map 3.2, Conceptual Trail Opportunities**). Together with the existing trails, the City has the beginnings of a pedestrian framework.

Developing a well-utilized trail system requires good connectivity. As such, constructing a trail alone is insufficient to maximize its use. Rather, it must be conceived as one among a comprehensive network of pedestrian ways. This means weaving together each neighborhood and district by way of sidewalks leading to trail heads or other points of access and a combination of bike lanes (striped bicycle-only lanes along appropriate streets), bikeways (shared rights-of-way), and pathway connectors. This necessitates improving, restriping, and signing existing roadways; altering the cross sections of new streets; redesigning intersections and mid-block crossings; and possibly even repurposing the use of alleyways (where applicable). It also requires new subdivision provisions for trail rights-of-way, public access easements, and improved pedestrian systems.

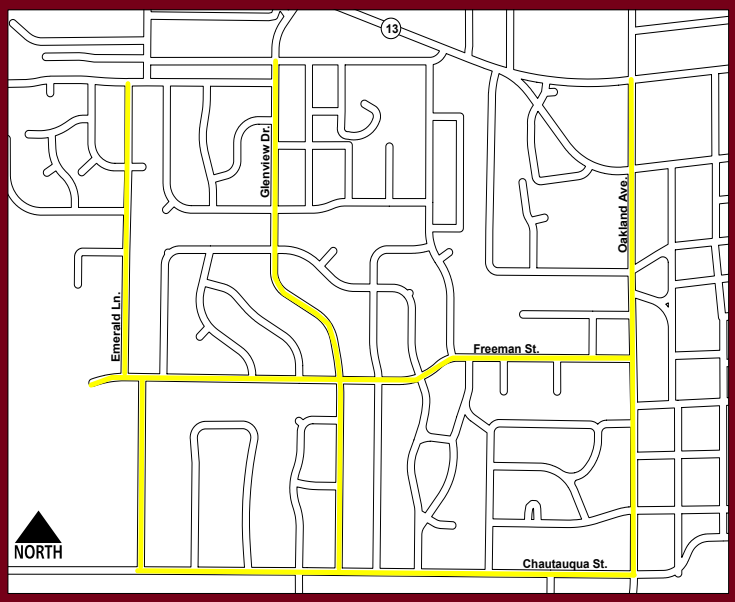
Existing Street Network and Connectivity

A surface transportation system is formed by a network of highways and streets, each with different designations as to their function and their designed traffic carrying capacities within the overall system. Each street segment contributes to the interconnectivity of the network. Without a continuous system, there are unnecessary interruptions, thereby altering natural traffic movement patterns and inadvertently directing traffic onto street segments that are not designed – or intended – to carry the associated traffic volume. This creates congestion and increased traffic volumes and speeds on neighborhoods streets, raising concerns of pedestrian safety and quality of life.

For a street network to operate efficiently, it is important for there to be a complete system of roadways designed in a hierarchy from highways (U.S. 51 and IL 13), to arterial roads (Pleasant Hill Road, Giant City Road, New Era Road, etc.), and collector streets (W. Sycamore Street, Washington Street, Glenview Drive, etc.) to the local residential street network. Each link is intended to function according to its design capacity, in effect, distributing traffic from the lowest design classification – local streets – to the highest functional classification – regional, state, and federal highways. Connectivity is key to providing an efficient, safe, and convenient roadway network for vehicular traffic.

An optimum street network has a principal or secondary arterial roadway spaced roughly each mile. Within this arterial street grid, collector roadways should be spaced at one-half mile intervals in each direction – north-south and east-west. A good example of this is the area bound by Main Street/IL 13 on the north, Chautauqua Street on the south, Emerald Lane to the west, and Oakland Avenue on the east (see **Figure 3.3, Street Continuity**). Within this grid are W. Freeman Street and S. Glenview Drive that currently function as collector streets. These two streets collect traffic from the local neighborhood streets and convey it to the primary and secondary arterial street network. In this location, W. Freeman Street is a viable collector street because it is continuous between Emerald Lane and Oakland Avenue. However, its continuity is broken east of Oakland Avenue, and it has not yet been extended westward. Due to railroad rights-of-way, the presence of SIU, extensive floodplain, and existing land development and ownership patterns, there are few other examples of continuous collector roadways. This has led to congested conditions on the cross town arterial roadways – primarily Main Street/Walnut

Figure 3.3 | **STREET CONTINUITY**



Street and Illinois Avenue/University Avenue – as there are few other continuous east-west routes that cross the railroad. There are also no continuous north-south roadways other than U.S. 51. While the street pattern is established in the developed areas of the City, except for areas of potential redevelopment, such situations must be avoided within the newly developing areas of the City. Specific subdivision regulations that stipulate design criteria are necessary to accomplish an efficient collector and arterial street network. Left to the decisions of individual landowners and developers and without a thoroughfare plan, the street network will naturally be constructed in a piecemeal fashion.

Existing Street Hierarchy

Streets are grouped into functional classes according to their role for traffic movement and land access. Characteristics of each functional class differ to meet the intended purpose. The functional classification of area streets includes principal and minor arterials, collectors, and local streets.

Local Streets

Local streets are intended to provide direct property access. Through the use of techniques such as geometric designs, traffic control devices, and traffic calming, thru-traffic and higher speeds should be discouraged.

The current standard for local streets is a right-of-way width of 50 feet and a pavement width between 27 and 32 feet. These widths do not specify the street cross section as to how the right-of-way is allocated. As a result, local street widths tend to vary. Furthermore, increased pavement width adds to development costs, occupies additional space (thereby reducing development efficiency), may encourage higher speeds, and results in increased impervious surface and stormwater runoff. Therefore, this plan advocates the use of alternative street cross sections that are based on characteristics including the type of access, number of dwelling units served, and the units' average frontage dimensions. The characteristics relate to density and the number of vehicles generated by the development. The benefits of this approach are definitive standards that tend to reduce travel speeds and provide more green space and a greater distance between the street and sidewalk.

Collector Streets

Subdivision street layout plans and commercial and industrial districts must include collector streets in order to provide efficient traffic ingress/egress and circulation. Since collectors generally carry higher traffic volumes than local streets, they require a wider roadway cross section and added lanes at intersections with arterial streets to provide adequate capacity for both thru-traffic and turning movements. However, since speeds are slower and more turn movements are expected on collectors versus arterials, a higher speed differential and much closer intersection/access spacing can be used than on arterials.

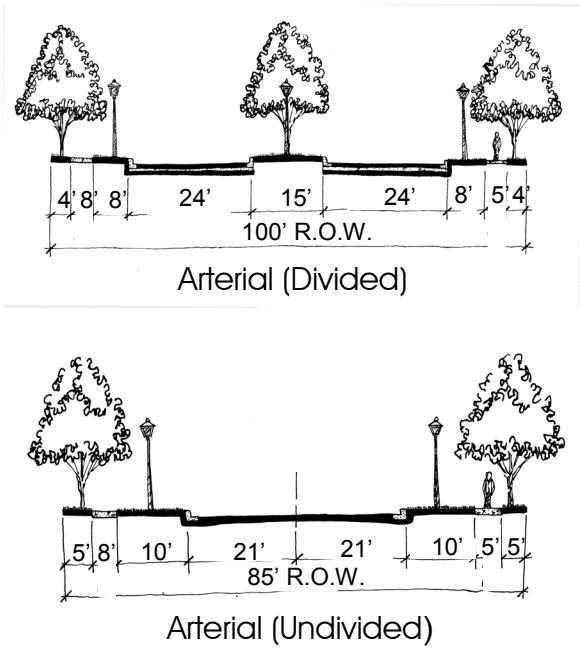
Arterial Streets

Arterial streets form an interconnecting network for broad movement of traffic. Although they usually represent only five to 10 percent of the total roadway network, arterials typically accommodate between 30 and 40 percent of an area's travel volume. Since traffic movement, not land access, is the primary function of arterials, access management is essential to avoid traffic congestion and delays

caused by turning movements for vehicles entering and exiting driveways. Likewise, intersections of arterials with other public streets and private access drives should be designed to limit speed differentials between turning vehicles and other traffic to no more than 10 to 15 miles per hour. Signalized intersection spacing should be long enough to allow a variety of signal cycle lengths and timing plans that can be adjusted to meet changes in traffic volumes and maintain traffic progression (preferably one-quarter to one-half mile spacing). According to the current thoroughfare design standards listed in the subdivision regulations, right-of-way for arterials is required to be 100 feet, with a pavement width of 49 feet.

This plan proposes developing alternative cross sections for arterial streets, as shown in **Figure 3.4, Arterial Street Sections**. In this example, one is a divided four-lane street section with a 15-foot center median and 48 feet of pavement within 100 feet of right-of-way. The alternative section reduces the right-of-way to 85 feet and includes four undivided lanes. Both sections include an eight-foot trail on one side and a five-foot sidewalk on the other. The latter may also be within the same 100 feet of right-of-way, offering flexibility for widening or constructing a median and/or intersection turn lanes at a later date.

Figure 3.4 | **ARTERIAL STREET SECTIONS**



Arterial streets may be divided or undivided and may vary in widths.

Existing Public Transit Service

As a university community, there is naturally a higher propensity for walking, bicycling, and transit use. This is because many students live near campus or because they do not have a vehicle available. The 2000 U.S. Census indicated that 10.6 percent of Carbondale residents walked to work, while 3.1 percent used public transit and 2.6 percent used their bicycle. Together, this amounts to 16.1 percent who use non-vehicular means for their trip to work. These percentages are assumed to be reflective of the trip to school, as well, with possibly even higher non-vehicular percentages. Citywide, 15.5 percent of residents do not have a vehicle available. Of those who rent their housing, the percentage of those without a vehicle climbs to nearly 20 percent. Therefore, there is a real opportunity to capture these trips on public transportation and to encourage other non-vehicular modes, e.g. walking and bicycling. This highlights the warrant for exploring the opportunities for expanding transit service for broader trip purposes.

Through the input received from residents, the community recognizes that they are fortunate to have a local public transit system. The fixed-route transit service is offered through SIU by Saluki Express, and a dial-a-ride service is operated by

Figure 3.5 | **SALUKI EXPRESS**

Saluki Express provided over 415,000 rides in 2008, which equates to 18.68 riders per hour.

the Jackson County Mass Transit District. The Saluki Express operates 11 routes that consist of one daily route (No. 1), four routes (Nos. 3, 9, 10, and 52) that operate on weekdays, three shuttle routes (Grand Avenue, East, and West) around campus and to the east along Grand Avenue, a Friday-Saturday late night route (No. 8), and a Saturday-Sunday mall/cross-town route (No. 11). These routes operate while University classes are in session and carry a substantial number of riders, as depicted in **Figure 3.5, Saluki Express**. During breaks, there is an individual daily route (Break Route) that provides service between SIU, Downtown, Murdale Shopping Center, University Mall, and many points in between.

The Saluki Express service area encompasses the SIU campus, Downtown, Murdale Shopping Center, University Mall, areas of student living both on- and off-campus, a route extending to the Jackson County Health Department, Southern Illinois Airport, and the Hickory Ridge Golf Course (see **Map 3.3, Saluki Express Routes**). Service is also provided to John A. Logan Community College. The neighborhoods close to campus are served, as are those in northwest and northeast Carbondale. The areas that are not well served are the southwest, far west, and northernmost neighborhoods, as well as those around the periphery of the community.

National rail service also exists for Carbondale on the City of Chicago to City of New Orleans Amtrak line. Amtrak currently offers three daily routes to Chicago and points in between. The Amtrak service allows students and residents to easily travel north to Chicago and south to New Orleans. Amtrak ridership on the Carbondale line is up in recent years and there are current opportunities to examine site improvements at the station. Locating a multi-modal facility at or near the existing site is one potential option as it would allow the Amtrak train service to link to Amtrak Thruway Motorcoach Service, which connects Carbondale to St. Louis. The current Greyhound bus station is in need of a permanent home and might also be relocated to such a facility.

3.4 Plan Focus Areas and Strategic Recommendations

Focus Area 3.1 - Improving Mobility

With the amount of development occurring in the extraterritorial jurisdiction, an adopted Thoroughfare Plan and sound thoroughfare planning policies are essential. A Thoroughfare Plan will ensure that adequate rights-of-way are dedicated to the City concurrent with development and on general alignments that are consistent with the plan. A complete grid of highways, primary and

secondary arterials, and collectors are needed to ensure an efficient and safe local transportation system. Currently, there is no thoroughfare plan in the extraterritorial jurisdiction. Development that is occurring is taking access to existing rural roadways with no mechanism for accepting right-of-way dedication that is in accord with an adopted plan. Since this area is within the influence of future growth, extension of a Thoroughfare Plan to include this area is essential to achieve an adequate and complete roadway network.

The grid street pattern throughout Carbondale is generally effective for conveying traffic to the collector and arterial roads. However, there are significant barriers to developing continuity in the street system. These barriers include:

COMPLETE STREETS POLICY IN ILLINOIS

Illinois is now one of the leaders in DOT policy related to 'Complete Streets.' The recent 'Complete Streets' policy mandates multi-modal planning from the outset rather than installing pedestrian and bicycle amenities as a retroactive measure after a death or series of high profile crashes.

In 2007, the Illinois legislature voted unanimously in the Senate and 109-3 in the House to nullify former Democratic Governor Rod Blagojevich's amendatory veto on the comprehensive Complete Street Law (AB 314). Under this bill, the Illinois Department of Transportation must include safe bicycling and walking routes in all planning for urbanized areas immediately and in construction by August 2008.

- The Illinois Central Gulf Railroad, which has at-grade crossings at Dillinger Road, Oak Street, Jackson Street, Main Street, Walnut Street, College Street, Grand Avenue, and Boskydell Road; an underpass at Mill Street; an overpass at Pleasant Hill Road; and two pedestrian bridges that cross South Illinois Ave.
- Floodplain along Piles Fork Creek, Crab Orchard Creek, Drury Creek, and Little Crab Orchard Street.
- The significant land holding of Southern Illinois University (SIU).
- Wetlands and water bodies that dot the landscape around the community.
- Heavily vegetated areas that are not conducive to intensive development.

The design and layout of existing subdivisions has also created a barrier to street continuity by presenting limited opportunities for improving the existing street system without significant costs. Also, the introduction of curvilinear streets in the more recent rural subdivisions further complicates the ability to make much needed connections. As a result, traffic is diverted to the arterial streets, thereby adding to the congestion during peak periods. To improve the situation, it will be important for the City to adopt better subdivision layout standards and street design criteria.

Furthermore, the efficiency of a street in conveying traffic is predicated upon preserving its traffic carrying capacity. Situations that affect its efficiency include:

- the number of access points (driveways and alleys);
- lane width;
- synchronization of signals;
- number of intersections;
- impedance of traffic flow by vehicles entering and existing properties;
- allowance for deceleration/acceleration at each ingress/egress point; and
- the presence or nonexistence of a center turn lane or median, among other factors.

Of relevance to this plan is the management of property access along each of the arterial roadways. Driveway access to arterial roads slows traffic and creates potential points of conflict. The numbers of access points affect the operating efficiency of the street system. Solutions to this problem include shared access to reduce the number of breaks in traffic; cross access easements to move vehicles between properties without accessing the arterial street; and, in feasible locations, boulevard street sections.

Strategy 1: Improve continuity of the street system to provide connections within and between neighborhoods and districts.

Rationale

The majority of the City's older residential areas are on a grid system providing good connectivity within and through neighborhoods. However, newer neighborhoods in the periphery have been designed with a curvilinear street pattern, cul-de-sacs, and, often, one point of entry/exit. While this pattern is desirable by residents for reasons of safety and aesthetics, concerns are typically raised regarding connectivity. Also, as new subdivisions are developed, plans should be made for adequate connectivity within and between neighborhoods. New subdivisions and commercial centers should be developed in a manner that allows multiple transportation options. It is not sufficient to simply designate where new corridors will expand, but there is much gained or lost in the manner of their development. A well-designed, multi-modal corridor can be a boon to a neighborhood, while a poorly designed street may only signal a lost opportunity.

Actions and Initiatives

a. Amend the subdivision regulations to include more provisions that standardize connectivity and discourage one-way in/one-way out subdivisions. Connectivity improvements may include requiring street connectivity between subdivisions and more than one point of access for subdivisions over twenty lots.

b. Adopt a policy requiring the extension of collectors to and through a new subdivision (similar to utilities).

c. Create a new railroad crossing at Sycamore Street and consider closing an existing crossing.

d. Improve citywide mobility, including better north-south and east-west access via local roadways. Current transportation patterns use IL 13 and U.S. 51 as the primary means of cross-town circulation due to the lack of parallel roadway alternatives. The City can overcome these barriers to street continuity through right-of-way acquisition and community investments as listed on the Thoroughfare Plan.

e. Consider as potential community investment projects the extension of collector streets in developing areas. Sycamore Street, or Oak Street, between Wall Street and Lewis Lane, for example, is a project that will alleviate traffic on other local streets and greatly improve the mobility in the adjacent neighborhoods. Another collector roadway connection might include Rigdon Street, between New Era Road and Oakland Avenue. Projects of this nature, however, must be sensitive in their design.

f. Conduct transportation demand management (TDM) and transportation systems management (TSM) studies and improvement projects for U.S. 51, IL 13, and other applicable roadways. These strategies may include synchronization

of traffic signals, access management and consolidation of access points, medians and left-turn lanes.

g. Develop a neighborhood traffic calming manual with policies, guidelines as to their warrant and applicability, and specific design standards. Though not necessary in all neighborhoods, the installation of speed humps on Elm Street as illustrated in **Figure 3.6, Traffic Calming**, are indicative of one such type of traffic calming method.

h. Establish a policy whereby an assessment district may be used to fund costly rehabilitation of reconstruction projects. This may be particularly applicable where an improvement project is requested by a majority of the owners in a neighborhood.

j. Perform a street continuity assessment to identify possible extensions and improvements to enhance area and citywide mobility. Subsequently, identify potential land acquisitions or land dedication requirements necessary to improve mobility and community safety.

Figure 3.6 | **TRAFFIC CALMING**

Traffic Calming. A past traffic calming project on Elm Street has focused on reducing the speed of through traffic.

Strategy 2: Preserve adequate rights-of-way for future street extensions and the traffic carrying capacity of roadways, particularly in the outlying rural areas of the extraterritorial jurisdiction.

Rationale

In order to seize economic opportunities and preserve the community's special quality of life, there must be a long-range plan for growth of the transportation system concurrent with new development. A primary role of this transportation element is to preserve sufficient right-of-way on sufficient alignments to facilitate expansion of the street system. Furthermore, this section seeks to coordinate regional and citywide transportation projects and corridors that will benefit the community.

Actions and Initiatives

a. Seek to acquire railroad right-of-way for roadway or trails.

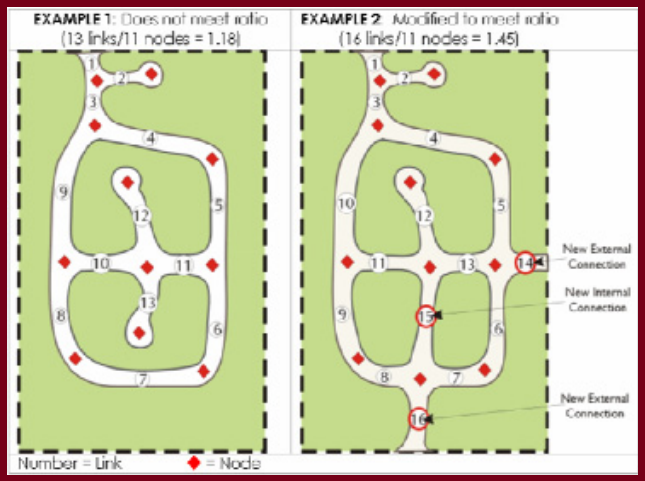
b. Amend the subdivision regulations to address roadway access.

c. Commission a study with IDOT to investigate options for identifying an alternate truck route.

d. Adopt local thoroughfare classifications and standards including the widths of rights-of-way, number and widths of travel (and parking) lanes, and design character, consistent with IDOT's Bureau of Local Roads and Streets Manual.

e. Development of a hierarchical, interconnected, and continuous street network throughout the extraterritorial jurisdiction.

Figure 3.7 | **CONNECTIVITY INDEX**



f. Preserve the traffic carrying capacity of arterial and collector roadways by requiring shared driveways and cross access easements between adjacent properties with commercial frontage to minimize the number of access points to arterial streets.

g. Develop explicit thoroughfare planning policies to guide decisions relating to the pattern of land development and the design of subdivisions relative to the thoroughfare plan. For instance, adopt a policy restricting subdivisions from terminating an existing or planned collector street. Alternatively, a subdivision may propose a realignment of a collector road as long as its function is preserved.

h. Consider adoption of a connectivity index, as conceptually illustrated in **Figure 3.7, Connectivity Index**. This ordinance provision conditions curvilinear, discontinuous streets, dead-ends, and cul-de-sacs on the basis of their continuity and external points of access. In general, a point is required as a condition of subdivision approval.

i. Adopt an access management ordinance that specifies authority for limiting access on certain roadway types, and delineates standards pertaining to the number and width of access points.

j. Incorporate provisions requiring a traffic impact study for conditions that exceed a certain traffic generation threshold or specified development conditions. Require submission of a study prior to the official acceptance of an application for subdivision or property development.

Focus Area 3.2 - Enhancing the Street Environs

Throughout the public involvement process, there were often repeated concerns regarding the appearance of the community's entranceways and corridors. Residents recognize the influence these corridors have on the impressions of their community, and they wish to improve them. Improvements may include enhanced treatments within the public right-of-way and better design of sites and districts adjacent to and outside of the right-of-way. The focus of this section is on the improvements that may occur within the right-of-way, which, to be effective, must be coordinated with the character of adjacent development. Enhancements adjacent to the right-of-way are addressed in **Chapter 2, Land Use Character and Community Growth**.

A Thoroughfare Plan serves the purpose of designating the functional role of the City's major streets. These include those that serve a citywide capacity (arterials), several adjoining neighborhoods (collectors), and individual neighborhoods (local streets), as well as the rural areas. Therefore, each of the major streets is assigned a role according to their traffic carrying capacity. The design capacity of each classification translates into its design requirements pertaining to the width of rights-of-way, the

number and width of travel (and parking) lanes, locations of medians and turn lanes, and the types of traffic control. The City uses the Bureau of Local Roads and Streets Manual published by the Illinois Department of Transportation (IDOT). The street classifications and dimensional standards outlined in this manual are as follows: The State standards are not overly specific, but rather rely on on-site conditions, reference to other design guidelines, and additional analysis to make specific determinations. For instance, minimum rights-of-way for each classification are not established in the manual. This makes it overly difficult for the local development community as there are no specific standards, per se. Through the plan implementation process it is advisable to amend the subdivision regulations to establish clear standards and design criteria for making these determinations.

The State standards are used to guide the design and construction of streets. These apply within the City limits and also within the extraterritorial jurisdiction where the City has subdivision authority. Standards would be helpful to ensure consistent application and regulatory simplicity. However, there must also be great care to prevent a "one size fits all" approach to roadway design that bears little relationship to the character of development. In other words, different characters of development warrant different road cross sections. Simply put, the design of the road is a significant contributor to the character of an area. Therefore, whether the abutting development is more or less dense or near downtown (urban) or on the rural fringe, the street design standard must adjust accordingly. If not, as is the case presently, the street design is among the causes for less than desirable corridor appearance. This creates a lost opportunity to produce neighborhoods and districts that are unique and have a symbiotic, quality appearance.

Table 3.1
Street Classifications

Classification	Travel Lanes	Lane Widths
Rural Highways	2	9' - 12'
Urban		
- Local	1 -2	10' -11'
- Collector	2	10' - 12'
- Arterial	4 - 8	10' - 12'

This new plan offers an opportunity for the City to reshape and repurpose its corridors. This may be accomplished through the use of *context sensitive design.* This refers to roadways that are designed in a manner that is cohesive with and compliments the surrounding environs. Implementing this approach to street design means that there are different sets of street cross sections to fit different environments. Interestingly, the State standards refer to "rural" and "suburban" facilities, which acknowledge the need to design roadways in the context of development form and density/intensity. Each cross section would be designed to meet the design capacities, although this approach would also tie into the character of development. By way of example, IL 13 passes from the rural fringes through downtown (an urban area) where the cross section is designed to the character of development. This relates to the volumes and speeds of traffic, numbers and spacing of driveways and intersections, requirements for signalization, pedestrian improvements, and other traffic operating conditions.

In the rural and suburban areas around and on the fringes of the community, the natural landscape and increased amount of open space contribute to the attractiveness of the roadway environs. In the auto-urban (strip commercial) and urban (downtown) areas, though, the importance of corridor aesthetics is

heightened. In these more densely developed areas, there must be an increased level of attention to design features and treatments.

In 2008, the City submitted an application for the Illinois Green Streets Initiative. This funding request was for tree planting along Grand Avenue, Giant City Road, Walnut Street, Main Street, and portions of U.S. 51, and while this grant was not funded it may be used as a basis for future planning. This proposal was consistent with the objectives of the Forestry Management Division, the charges of the Keep Carbondale Beautiful and the Carbondale Park District, as well as the input of residents received during this planning process. This is among the many opportunities for corridor enhancement. Others include:

- Pavement texturing in strategic locations such as Downtown, around SIU, entrances to historic and other special districts, etc.
- Public art displays (e.g. sculptures, monuments, etc.) in the public right-of-way.
- Pedestrian amenities like benches, trash receptacles, planters, low-level lighting, and interpretive displays.
- Preservation and/or enhancement of natural features such as woodlands, wetlands, prairielands, etc.
- Upgraded standards for light poles and fixtures, as well as signal poles and mast arms.
- Parallel facilities such as trails, green utility corridors, etc.

Strategy 1: Visually enhance the aesthetic appearance of the community's primary entranceways and major roadway corridors.

Rationale

The character of a corridor is influenced by the City's ordinances and standards that regulate the form of development, including the location and design of buildings, arrangement of parking areas, extent of open space and vegetation, perimeter fencing and bufferyard treatments, and size and placement of signage. Street trees and gateway signage also increase the aesthetic appeal of major corridors.

Actions and Initiatives

a. Re-vegetate or reforest the rights-of-way of IL 13. An example of tree preservation is evident in **Figure 3.8, Tree Preservation Along Major Corridors**, which features the Wal-Mart site that includes a significant stand of trees between the parking lot and IL 13.

b. Regularly pursue grants through IDOT and other funding sources to seek funding for enhancements along Grand Avenue, Giant City Road, Walnut Street, Main Street, and U.S. 51.

c. Explore the possibility of creating boulevard street sections along major corridors, particularly near the entries to the community. Illustrated in **Figure 3.9, Giant City Road Streetscape Design**, the existing turn lane is updated with a median strip and street trees. An alternative median design is illustrated in **Figure 3.10, Streetscaping Concepts Along IL 13**.

d. Coordinate with IDOT to identify groups and organizations to adopt segments of U.S. 51 and IL 13 near the community entrances. Consider partnering with these organizations and providing seed money for special enhancement projects along these rights-of-way.

e. Coordinate with IDOT regarding standards for lighting and signal poles and mast arms along state roads.

f. Develop a corridor art display program within the right-of-way.

g. Develop street-wide pedestrian improvements that include pedestrian-scale lighting, benches, walking surfaces, etc.

h. Prepare conceptual streetscape master plans for each of the major roadways followed by detailed design for individual roadway enhancement projects.

Strategy 2: Establish a direct relationship between the character of development and the design of the adjacent roadways.

Rationale

Coupled with the aim of improved mobility is the influence of the local transportation system on the character and appearance of the community. For example, Walnut transitions from a suburban residential character between Old West Main Street and Poplar Street to an auto-urban commercial character when it runs through Downtown (and when it reunites with Main Street). Therefore, this plan seeks to accentuate the adjacent land character through the design of context sensitive streets.

Figure 3.8 | **TREE PRESERVATION ALONG MAJOR CORRIDORS**

Actions and Initiatives

a. Amend the subdivision regulations to include street design standards that are tied to the character of development. These standards may remain generally consistent with IDOT's Bureau of Local Roads and Streets Manual although variation is warranted for the purpose of enhancing their design and appearance.

b. Ensure that any improvements to IL 13 & Hwy 51 are done in a context sensitive manner with an emphasis on preserving the integrity of the surrounding area. Any improvements should include significant public input.

c. Adopt a policy for context sensitive design and, subsequently, develop applicable standards and criteria. For instance, street cross sections should be developed for each of the City's designated character types, e.g. rural, suburban, auto-urban, and urban.

d. Specify within the street cross sections the provision for and dimensions of design elements including sidewalks, trails, bike lanes, and parkways.

e. Include among the street cross sections a boulevard section that includes a center median (see *Figure 3.9, Giant City Road Streetscape Design*). This would provide for improved access management as an alternative to the continuous turn or 'suicide lane.'

f. Consider amending the subdivision regulations to include performance standards for local streets, where the type of access, number of dwelling units served, and the units' average frontages determine the right-of-way, pavement width, parking lanes, curb width, parkways, and sidewalks. Therefore, the right-of-way and street design are directly tied to development density and traffic volumes.

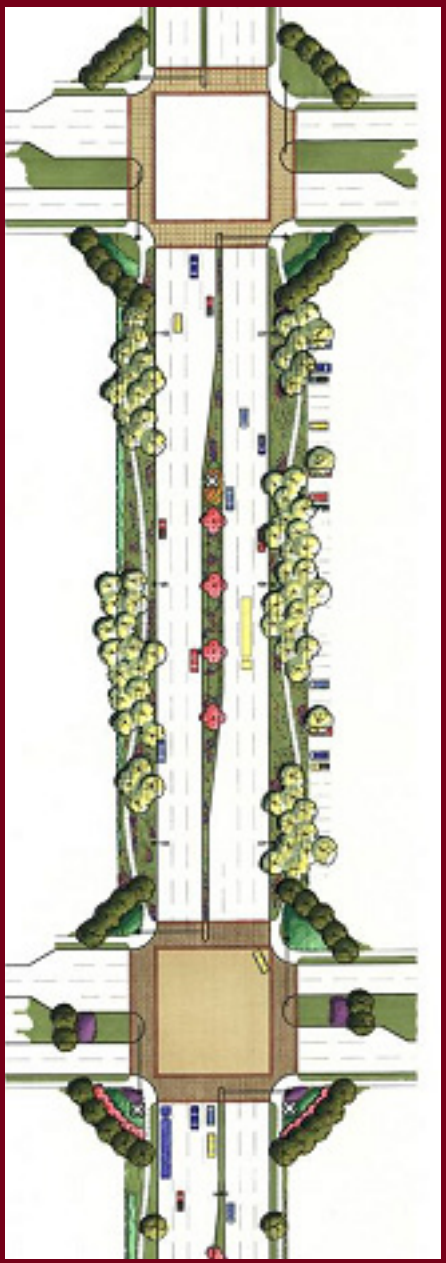
Figure 3.9 | **GIANT CITY ROAD STREETSCAPE DESIGN (FACING SOUTH)**

Figure 3.10 | **STREETSCAPING CONCEPTS ALONG IL 13**

STREETSCAPE MASTER PLANS

These studies should include an assessment of existing conditions, including land use and zoning, building footprints, driveways and parking lots, signs, trees and vegetation, power poles and overhead lines, street cross sections, sidewalks and pedestrian improvements, pervious and impervious surfaces, and general visual characteristics. The design plans should include regulatory recommendations and identified improvements and their costs. An implementation plan should identify priorities, funding options and sources, and a timeline. Design principles for corridor design and enhancement may include:

- Raised or depressed medians to break up the expanse of pavement and create space for runoff and drainage, grass, trees, signage, gateway treatments, and other amenities.
- Street trees allowing a canopy to be formed over the roadway. The species of trees must be tolerant of the environment and have roots that can coexist with streets and sidewalks. Incorporate xeriscaping to be more natural in appearance, environmentally sustainable, and require little maintenance.
- A streetscape buffer on either side of the street pavement to create separation between the public and private realms and provide space for more "green" adjacent to the roadway. This area may be planted in grass or some form of groundcover or may include rock or mulch in some locations, which helps to alter the monotony of the street and create visual interest.
- Limiting the number, width, and location of new driveways, consolidating existing driveways, and defining the edges with curb cuts and patterned crossings to create a more appealing pedestrian environment.
- At gateways and near Downtown, using decorative street lamps to form a unique community identity. The use of banners affixed to the lampposts would allow the community to personalize itself by advertising upcoming community festivities or public events.
- Placing overhead wiring underground or relocating them away from the primary corridors, replacing the typical wood poles with concrete poles, and consolidating the lines onto a single set of poles.
- Enhanced standards for traffic control devices and consolidating signs onto single poles or relocating signs to enhance the appearance of corridors.



Focus Area 3.3 - Becoming a Walkable and Bikeable Community

Today, the design of streets is primarily for the purpose of traffic movement. Pedestrian use of the right-of-way, in most instances, is clearly secondary. While the City maintains a well developed sidewalk system, there are some areas that could use improvement. Additionally, the right-of-way must be more multi-functional. This is to say that the right-of-way should be designed to serve a complete array of mobility needs including vehicular traffic, public transit, bicyclists, and pedestrians, as well as utility transmission. This notion is referred to as complete streets.

Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and transit riders of all ages and abilities must be able to safely move along and across a complete street. This concept is growing across the country and is also gaining traction with possible new federal legislation. Benefits of complete streets include:

- Accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations.
- Reduced accidents through safety improvements.
- Encouraging more walking and bicycling.
- Easing transportation woes by providing more travel choices.
- Helping children get physical activity and gain independence.
- Cutting carbon dioxide (CO2) emissions.
- Fiscal responsibility by avoiding later retrofits for sidewalks, bike lanes, transit amenities, and safe crossings.[1]

Strategy 1: Interconnect citywide destinations (e.g. neighborhoods, schools, parks, retail centers) with pedestrian linkages such as sidewalks, trails, and pathways.

Rationale

Bicycle and pedestrian facilities add to the quality of life in Carbondale. Not only do these facilities offer important mobility options within the community, they also help to meet the recreational needs of citizens. Through the public involvement process, residents articulated their desires to become a more walkable community. The City has taken a good first step with the recent sidewalk inventory and the construction of the initial Piles Fork Creek Trail segment, as well as the designation of bike routes and lanes. Incremental implementation of this plan will eventually form a thorough network of non-motorized connections. These improvements must remain a funding priority for the City to achieve this objective.

Actions and Initiatives

a. Extend the existing trail along Piles Fork Creek to the north and south. Building upon the existing backbone will allow for a longer trail system that can tie more neighborhoods together and allow for recreational biking and jogging.

b. Re-stripe and install signs as part of a bicycle infrastructure maintenance program that receives attention on a regular basis. Investigate new coating options for striping projects that are longer lasting, more visible to drivers, and MUTCD-approved.

1 www.completestreets.org

c. Re-evaluate the current zoning and subdivision regulations with respect to neighborhood design. The standards of the subdivision regulations must relate to street and block patterns, mid-block rights-of-way or easements, provisions for the location and use of open space, and other applicable design guidelines.

d. Acquire railroad right-of-way for rails-to-trails projects that will establish an opportunity for long-distance off-road biking and walking. Funds may be available through rails-to-trails grants, transportation enhancement funds, and stimulus funding.

e. Include provisions in the zoning ordinance to allow (and encourage) mixed use development.

f. Perform a barrier analysis to identify the major constraints and obstacles for pedestrians and bicyclists near parks and schools, and subsequently prepare an improvement program together with funding options (e.g. Safe Routes to School).

g. Work with individual neighborhoods to improve their internal circulation systems through sidewalk repairs and bicycle improvements. One such improvement is the connecting of nearby cul-de-sacs and adjoining subdivisions with pedestrian linkages.

h. Seek access to and use of natural corridors for trail system development, which may be by way of dedication, conservation or access easement, or right-of-way acquisition. Amend the subdivision regulations to require dedication of right-of-way or public access easements for trail connections.

Strategy 2: Emphasize pedestrian and bike accessibility in the funding and design of corridor planning and construction efforts.

Rationale

The other vital component of a multi-modal system is the planning and engineering of new connections. A complete sidewalk and bikeway network is essential to provide adequate and safe connections within neighborhoods and to nearby trails, bike lanes, parks, and schools. Subdivision, zoning, and engineering standards can all support the creation of corridors that allow walking and biking.

Actions and Initiatives

a. Develop a comprehensive trail and pedestrian system master plan that coincides with the planned thoroughfare network and is carefully tied to the land use and growth plan.

b. Restore funding to the sidewalk improvement program for the purpose of repairing, reconstructing, and/or installing new sidewalks in priority locations, e.g. near schools, parks, and public facilities. Previous budget years included a $100,000 budget items for sidewalks, which is no longer available. Ensure that all new and repaired sidewalks meet or exceed the accessibility standards as established by the Americans with Disabilities Act (ADA).

c. City-owned facilities should retrofit buildings and sites to include indoor bike parking, outside bike parking, and perhaps showers.

d. Collaborate with employers and bicycle advocacy groups to promote bike awareness and bike-to-work programs. The City might also encourage bike-to-work programs for its employees.

e. Initiate a citywide bike rack installation program to create more bicycle parking

Figure 3.11 | **INTERNAL PEDESTRIAN CONNECTIONS**

options, especially in the Downtown. Such a program may rely on grants and/or private funds in addition to public investment.

f. Develop site design standards to better accommodate pedestrians and bicyclists in commercial developments, especially big-boxes that feature large parking lots. An existing pedestrian connection through the Kohl's' parking lot, **Figure 3.11, Internal Pedestrian Connections**, is an example of the types of internal circulation connections that should be incorporated into design standards.

g. Amend the zoning ordinance to include specific standards (location, type, etc.) for bike parking at multi-family complexes and commercial developments, as described in **Figure 3.12, Bike Parking Standards**.

h. Set goals for bikeway improvements ("20 miles by 2020") and detail a multi-year improvement plan in order to achieve the infrastructure specified in the trails plan. For instance, a phasing schedule of bikeways would set priorities and be a potential asset for grant applications.

i. Coordinate with SIU to design and promote pedestrian and bike access between the off-campus student housing. Recent developments along Grand Avenue are prime candidates for sidewalk and off-street pathway improvements that would facilitate better access between housing and campus.

j. Continue to update and publish a map showing current bike routes, including recreational routes and linkages to schools or parks.

k. Seek a compact community form that is more conducive to non-vehicular trips, as emphasized in **Chapter 2, Land Use Character and Community Growth**.

l. Prepare a public awareness and marketing program to encourage bicycling and walking in Carbondale, which may include educational resources, maps of trails and bikeways, etc.

m. Prepare a map showing Sidewalk Improvement Priority Areas for those neighborhoods and areas for which there are limited or no sidewalks. This plan may prioritize connections according to their proximity to parks, schools, etc.

n. Regularly submit applications for Safe Routes to School grants administered by IDOT.

o. Develop a source of funds or a reasonable financing mechanism for the improvement of neighborhood off-street trails and pathways. This funding mechanism should be for capital improvements and route extensions in addition to ongoing maintenance.

p. Adopt a complete streets policy and corresponding design standards. This policy should include specific criteria as to the improvement of street corridors to include bike and pedestrian accommodations. An example of a 'complete

streets' improvement would be the expansion of narrow sidewalks to a wide, off-street pathway.

q. Prepare standard street cross sections for each functional class and character type that include right-of-way and pavement width, number and width of lands and medians (as applicable), and provision for on- and/or off-street bikeways, sidewalks, and transit improvements.

Figure 3.12 | **BIKE PARKING STANDARDS**

Encouraging bike travel also means providing adequate parking spaces at key destinations. The zoning ordinance denotes the number of bike parking spaces, but does not address the manner of the bike parking. Bike parking must be safe and provide secure options to lock up the frame of the bicycle.

Focus Area 3.4 - Enhancing Public Transit Services

The Saluki Express is funded by a mass transit fee assessed to students and by a subsidy from the City. The subsidy from the City allows the Saluki Express to continue operating while SIU is on Summer and Winter break. Students ride for free, while faculty, staff, and the general public are welcome to ride for a small fee. Since the service is primarily funded by students, the route alignments are expressly for the purpose of transporting students to/from campus and other popular student destinations. As a result, the route schedules do not coincide with typical work hours nor are the route origins and destinations suitable for daily work trips. While many of the routes operate in proximity to many of the major employers, they are not counted among the primary stop locations. As a result, Saluki Express is viewed as student transportation.

The transit system is serving a valuable role as it had 415,235 boardings in 2008. Since 1996 when there were 277,040 boardings, the service has steadily grown, on average, by 3.6 percent annually.[2] This is to say that roughly 207,618 vehicle trips were saved in 2008.[3] This helps relieve congestion, reduce potential traffic incidents, and cut vehicle emissions. Should the City, University, and other benefactors collaborate to adapt the service for the general public, the benefits would likely increase exponentially. Doing so, however, will require a new funding model whereby expanded routes and extended days and hours of service are underwritten by transit patrons, together with the City, benefitting businesses and institutions, and other public and private funding.

Most of the routes originate on campus at the student center. While there are stops at the Amtrak Station, there has been public dialogue as to the warrant for a multi-modal transit center at (or near) the Downtown Amtrak Station. This would allow better coordination of routes, times, and providers, thereby potentially increasing ridership and generally improving local and regional mobility. It could also serve as an impetus for a significant mixed use Downtown redevelopment project focused around a transit station. It could be a central hub for a citywide transit system with connections to the Amtrak Service to Chicago, Greyhound service to St. Louis and Chicago (and beyond), direct transfers to Jackson County Mass Transit (see **Figure**

2 This is based on ridership numbers provided by Saluki Express.

3 This assumes a boarding each for the original and return trips and that the vehicle trip would be by a single occupant.

3.13, Local Transit Connections), and local taxi services (see **Figure 3.14, Regional Amtrak Connections**). It could also include retail outlets and upper floor or nearby attached living options.

There are a variety of improvement needs necessary to support a well-utilized bus system. These include bus stop improvements and amenities such as weather shelters, benches, trash receptacles, security lighting, handicap accessible curb cuts and ramps, non-slip boarding/alighting surfaces, landscaping, and informational kiosks. Additionally, there is an array of other essential considerations including:

- Means of access to stop locations via sidewalks and/or trails;
- Convenient and safe street crossings;
- Access design of nearby neighborhoods including provisions for direct public access ways;
- The design of nonresidential building sites relative to the pedestrian avenue from the building through parking areas and across drives to the transit stop;
- The number of vehicular/pedestrian crossing points and the treatments to mitigate conflicts;
- Citing the stop location either on- or off-site and the pedestrian, car, and bus circulation patterns; and
- Street side improvements such as pull-out bays that are warranted so as not to impede through traffic patterns.

Figure 3.13 | **LOCAL TRANSIT CONNECTIONS**

Adding a hub for transit connections would benefit transit ridership by facilitating linkages between service providers. Bus improvements could include bays that allow buses to pull out of street traffic. This would be an improvement to the existing situation, above, where buses need to compete with cars, bikes, and pedestrians for street space when picking up passengers.

Strategy 1: Improve the propensity of public transit use through strategic investments, public improvements, targeted advertising, and direct marketing.

Rationale

A true transportation "system" must include a variety of travel options and mode choices, among them public transit. It is expected that the demand for service will increase in the community over time. This is due, in part, to an aging population and the presence and general desire for more retirement living options, as well as increased gas prices and a better understanding and concern for the environment. Therefore, ensuring alternative transportation options will be important to enhance mobility. Likewise, given limited resources, maximizing partnerships will be important as a long-term implementation strategy.

Actions and Initiatives

a. Study the warrant for and feasibility of a multi-modal transportation center at or near the Amtrak Station in

Downtown Carbondale. An expanded complex or entirely new facility should be contemplated near the existing station. Improvements will not only include expanded access, but can include aesthetic improvements as well. One current initiative displayed in **Figure 3.15, Amtrak Station Improvements** is the sound wall and art installation that serves as a sound buffer for adjacent residential units while offering a home for public art displays.

b. Seek to become actively involved in the state discussions concerning the improvement of Amtrak's Illinois routes (now operating between Chicago and Carbondale, St. Louis, and Quincy). While most current studies are focused on upgrading the Chicago to St. Louis route to 110-mile per hour service, there is interest in improving all the Midwest rail lines. Presumably, studies would be performed on the Carbondale route in the future to analyze the possibility of rail infrastructure improvements.

c. Coordinate with the officials of the Canadian National railroad to further improve safety conditions at all railroad crossings. The City may consider the designation of "quiet zones" whereby passing trains are prohibited from sounding their horns in order to decrease the noise level for nearby residential communities. The train horns can be silenced only when other safety measures compensate for the absence of the horns.

d. Explore ways the City can support the expansion of local transit services provided by the Saluki Express and Jackson County Mass Transit District, especially to benefit the area's senior population and households without automobiles. Continue to provide an annual operating budget to Saluki Express for specific programming during the school breaks so that service continues during these periods.

e. Coordinate with the hospital, medical clinics, and social service agencies for opportunities to coordinate transit services.

Figure 3.14 | **REGIONAL AMTRAK CONNECTIONS**

f. Expand Saluki Express service to the southwest, far west, and northernmost areas that are currently not well served.

g. Seek revenue through sponsorships of transit stop improvements/shelters. Allowing advertising will generate revenue that can be used for stop improvements or other transit improvements.

h. Commission a citywide transit study to include feasibility of expansion, route and stop locations, headways, transfer points, employer transit program, vehicle and fuel technologies, and funding alternatives and financing options.

i. Commission a study jointly with SIU to evaluate current operations, identify strategies for increasing ridership, outline advisable route and schedule changes, determine an approach for public education and marketing, and investigate and recommend funding sources and financing options for developing a robust citywide public transportation system.

Figure 3.15 | **AMTRAK STATION IMPROVEMENTS**

j. Develop a capital program aimed at making street-side transit stop improvements, e.g. bus pull-out bays along major arterials, sidewalk improvements, pedestrian amenities, etc.

k. Amend the development regulations to incorporate provisions regarding site design standards for improved transit access and pedestrian circulation.

l. Amend the parking regulations to allow flexibility in the number of spaces required for employers who enhance public transit service through programming or on-site improvements.

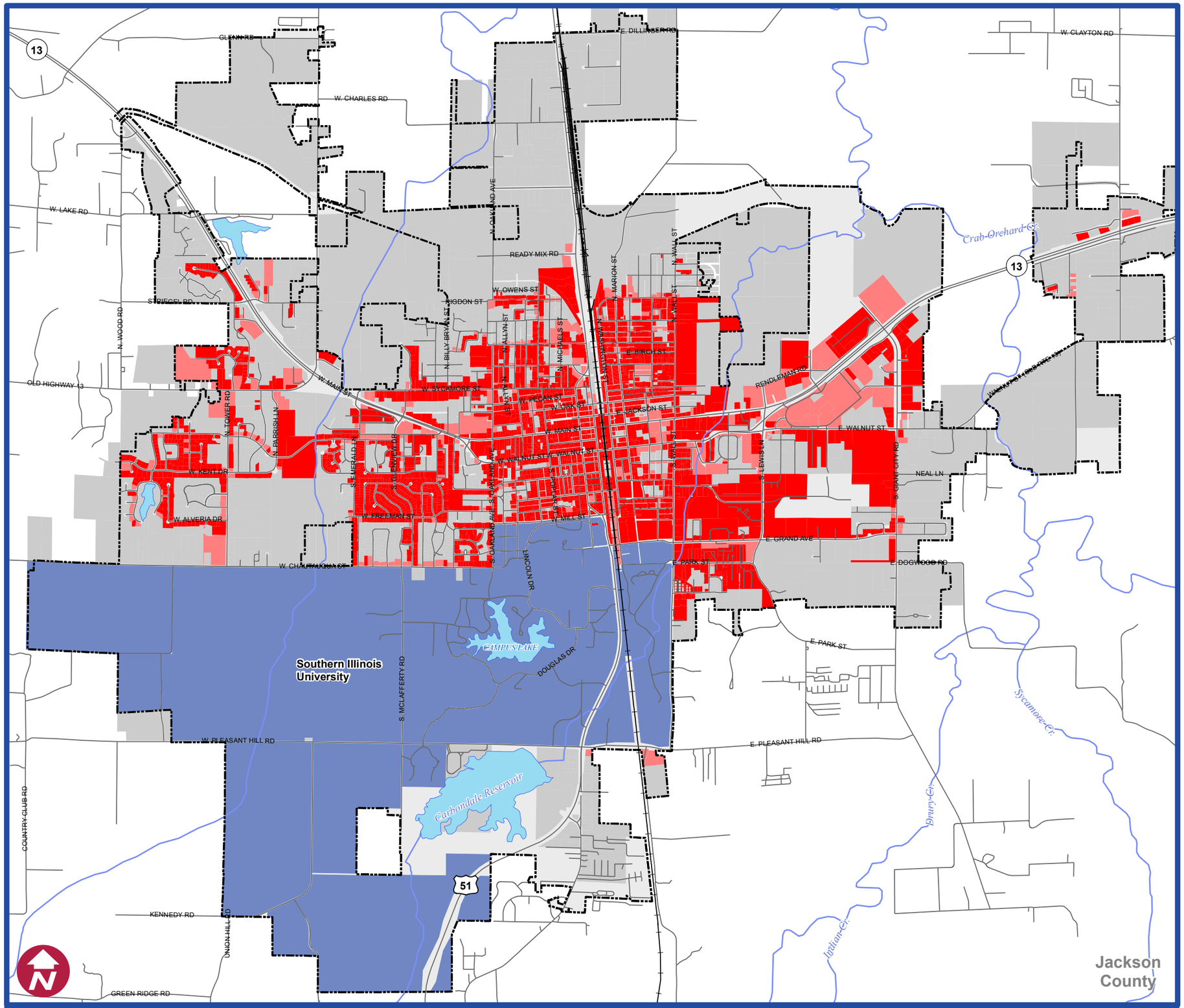
3.5 Future Thoroughfares: Plan and Policies

Carbondale Thoroughfare Plan

Implementation of thoroughfare system improvements will occur in stages over time as Carbondale grows and, over many years, builds toward the ultimate thoroughfare network shown by the Thoroughfare Plan. The fact that a future thoroughfare is shown on the plan does not represent a commitment to a specific timeframe for construction or that the City – or other jurisdiction – will build the roadway improvement. Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including the City, Jackson County, and/or the Illinois Department of Transportation, as well as private developers and land owners for sections of roadways located within or adjacent to their property. Road construction can be implemented by individual entities or in partnership. (see **Map 3.4, Thoroughfare Plan**)

The City, County, and IDOT, as well as residents, land owners, and subdividers, can utilize the Thoroughfare Plan in making decisions relating to planning, coordination, and programming of future land development and transportation improvements. Review of preliminary and final plats for proposed subdivisions in accordance with the City's subdivision regulations should include consideration of compliance with the Thoroughfare Plan. This will ensure the consistency and availability of sufficient rights-of-way for the general roadway alignments shown on the plan. It is particularly important to provide for continuous roadways and through connections between developments to ensure mobility and emergency access. By identifying thoroughfare locations where rights-of-way are needed, land owners and subdividers can consider the roadways in their subdivision planning, dedication of public rights-of-way, and provision of setbacks for new buildings, utility lines, and other improvements located along the right-of-way for existing or planned thoroughfares.

3.1 Existing Sidewalk System



SIDEWALK ACCESSIBILITY

- Parcels with Sidewalk
- Parcels with Partial Sidewalk
- Parcels without Sidewalk

BOUNDARIES & INFRASTRUCTURE

- City Limits
- Lakes
- Streams
- Railroad

Feet
0 750 1,500 3,000 4,500 6,000

Carbondale ILLINOIS

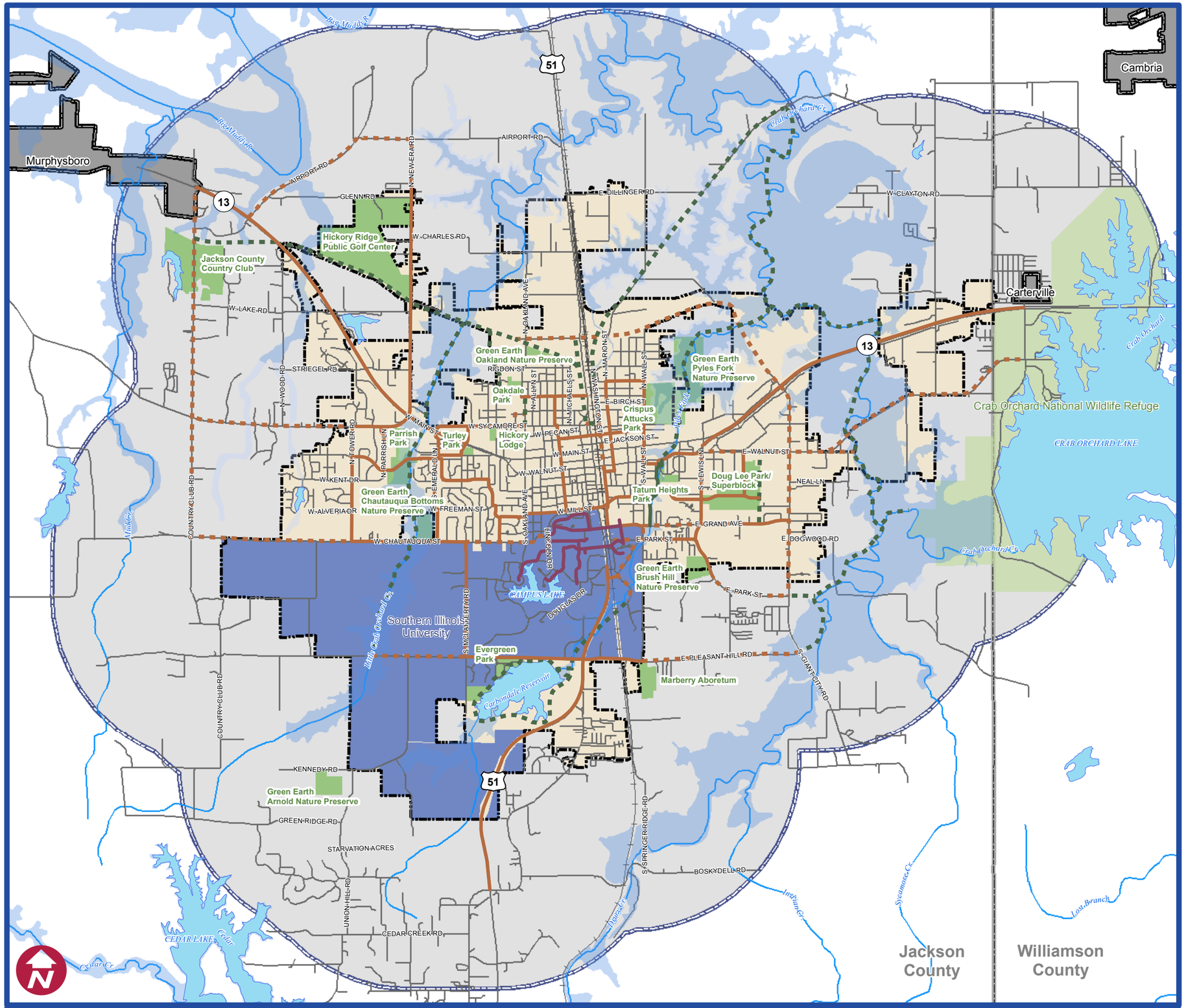
KENDIG KEAST COLLABORATIVE

City of Carbondale

May 2010

Existing Sidewalk System

3.2 Conceptual Trail Opportunities



BICYCLE / PEDESTRIAN FACILITIES

- Multi-Use Path
- Proposed Multi-Use Path
- On-Street Bike Lane / Parallel Trail
- Proposed On-Street Bike Lane / Parallel Trail
- Campus Pathway

FLOODPLAIN

- 100-year Floodplain
- 500-year Floodplain

BOUNDARIES & INFRASTRUCTURE

- City Limits
- County Boundary
- Study Area (1.5 mile)
- Places
- Parks and Recreation
- Lakes
- Streams
- Railroad

0 0.25 0.5 1 1.5 2 Miles

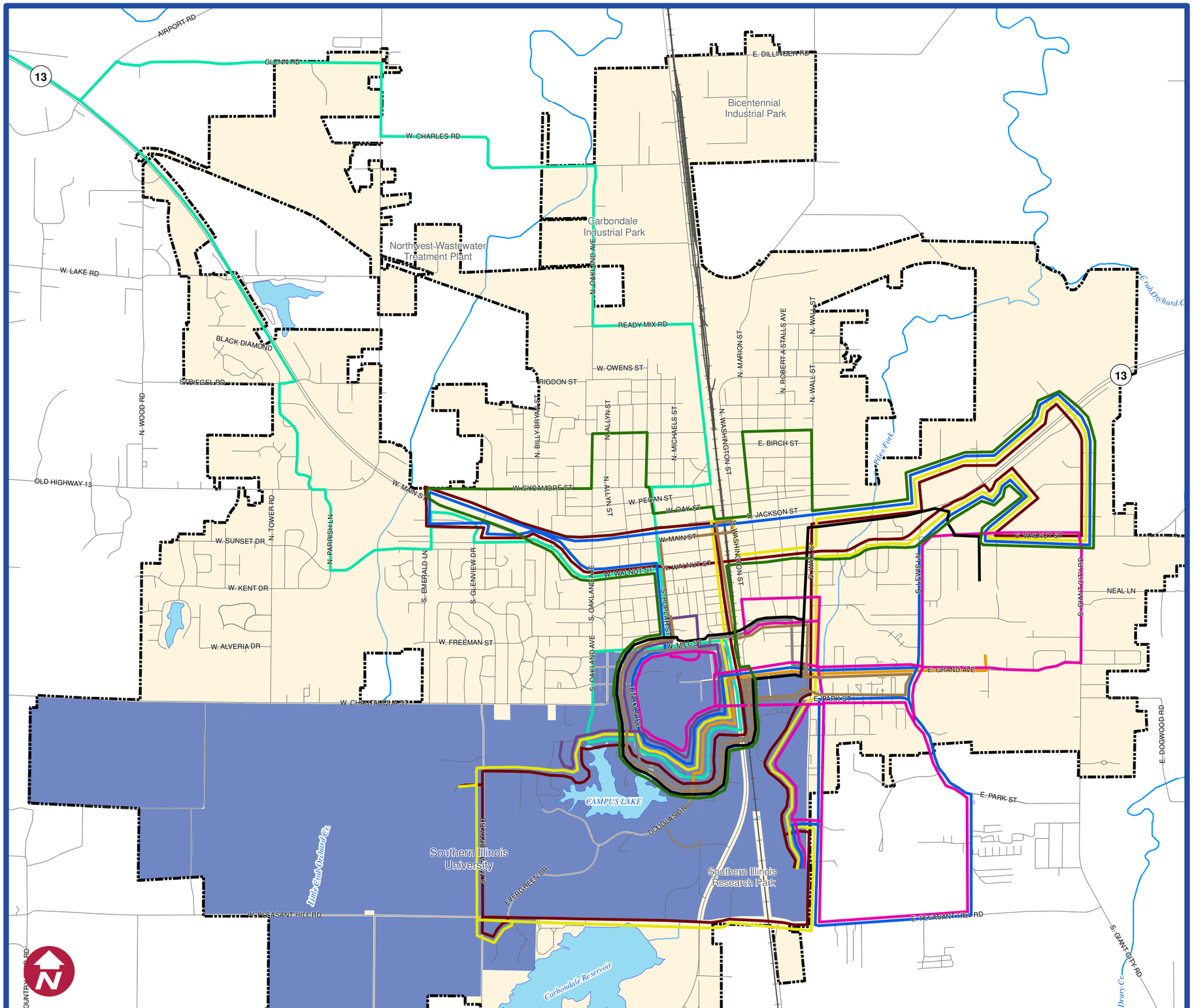
Carbondale ILLINOIS

KENDIG KEAST COLLABORATIVE

City of Carbondale

May 2010

3.3 Saluki Express Routes



Saluki Express Routes

TRANSIT ROUTES

- Rt. 1, Downtown/University Mall
- Rt. 3, Airport/Poplar Street
- Rt. 8, Late Night
- Rt. 9, C.A.S.A./Logan
- Rt. 10, University Mall/Cross Town
- Rt. 11, Weekend Mall/Cross Town
- Rt. 52, Southern Hills/Grand Ave
- Break Route
- Grand Avenue Shuttle
- Shuttle Route East
- Shuttle Route West

BOUNDARIES & INFRASTRUCTURE

- City Limits
- County Boundary
- Study Area (1.5 mile)
- Lakes
- Streams
- Railroad

0 6251,250 2,500 3,750 5,000 Feet

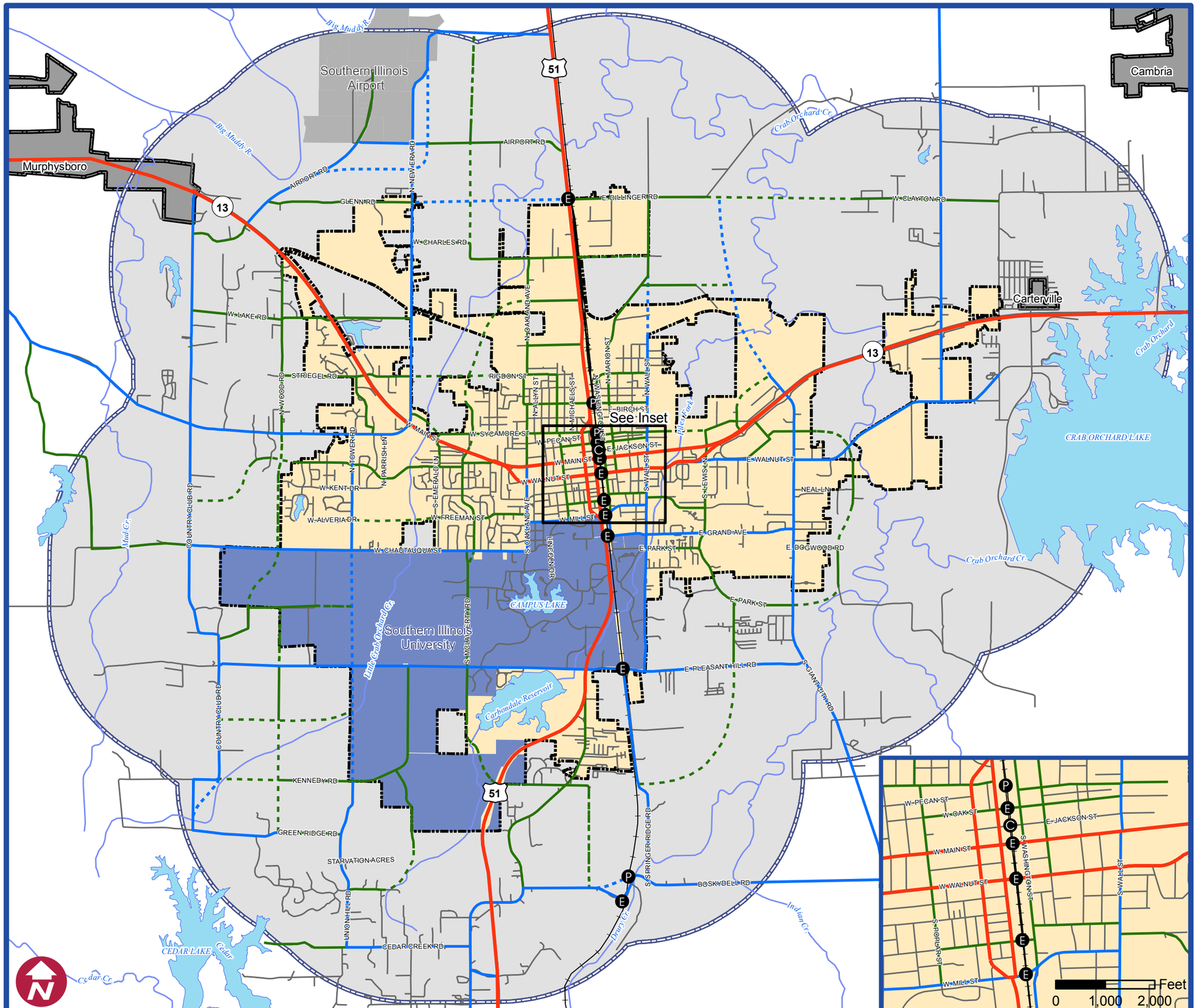
Carbondale ILLINOIS

KENDIG KEAST COLLABORATIVE

City of Carbondale

May 2010

3.4 Thoroughfare Plan



Thoroughfare Plan

EXISTING / PROPOSED CLASSIFICATIONS

- Principal Arterial
- Minor Arterial
- Collector

CROSSINGS AND INTERSECTIONS

- Existing Crossing
- Closed Crossing
- Planned Crossing

BOUNDARIES & INFRASTRUCTURE

- City Limits
- Streams
- Railroad
- Places

Miles
0 0.25 0.5 1 1.5 2

Carbondale ILLINOIS

KENDIG KEAST COLLABORATIVE

City of Carbondale

May 2010