Introduction

Whether out for a walk in the neighborhood or commuting across town on the Constitution Trail, walking and bicycling are important means of transportation and recreation for Normal residents of all ages, abilities, and backgrounds, including those with limited physical mobility who travel with the aid of a wheelchair or other mobility assistance device. Many people walk or bike to work or school, or to run daily errands. Others walk or bike for recreation, enjoying the outdoors, getting some exercise, and exploring the town. Conditions for active transportation are an important determinant of whether people participate in walking and bicycling. With an interconnected system of safe and comfortable places for walking and bicycling, more people will choose these forms of transportation to travel about the community.

This chapter of the plan documents current conditions for walking and bicycling, focusing on the coverage and quality of active transportation facilities, popular destinations and land uses that generate trips, connections to the transit system, and current plans and policies that relate to this planning effort. These current conditions provide the basis for infrastructure, programming, and policy recommendations included in this plan update.
WALKWAYS

Whether walking, pushing a stroller, or using a wheelchair or other mobility assistance devices, pedestrians traveling in Normal rely on the system of sidewalks, crosswalks, curb ramps, shared use paths, neighborhood accessways, and other infrastructure improvements to move about the community. These facility types that comprise Normal’s pedestrian network are displayed in Map 1 on page 6 and described in this section.

Sidewalks

Normal’s 219 miles of public sidewalks and pedestrian paths create an interconnected system to link people to important destinations throughout the community, such as schools, parks, transit, employment opportunities, shops, restaurants, and cultural amenities.

Approximately 88 percent of public sidewalks (193 miles) are owned and maintained by the Town of Normal, while the remaining 12 percent are owned and maintained by other public entities like ISU and IDOT. The majority of sidewalks in Normal parallel public streets and provide a similar level of connectivity and route directness to the road network.

Sidewalk coverage, gaps, quality, width, and compliance with the Americans with Disabilities Act (ADA) vary throughout Normal, in large part reflecting changing development patterns, sidewalk age, and design characteristics at the time of installation. These and other important characteristics of the sidewalk system are described below.

**Sidewalk Network Coverage and Gaps**

Sidewalk coverage refers to the completeness of the sidewalk system and its ability to serve a given area. Looking at the sidewalk system as a whole, the Town of Normal has exceptional sidewalk coverage. Many streets have sidewalks...
on both sides of the street, particularly in and around Uptown Normal and along many arterial roads. Some residential streets have sidewalks along only one side of the street, as do some collector roads.

Further from the urban core, some arterial and collector roads fronting industrial uses, agriculture, new residential subdivisions, and commercial development lack sidewalks altogether. These include roads like Veterans Parkway and portions of Pine Street, East Raab Road, Shepard Road, North Towanda Avenue, White Oak Road, and West College Avenue. These corridors represent linear gaps in the sidewalk network, and pedestrians traveling along these corridors must often choose between walking on the edge of the roadway or grass and finding an alternate route.

There are also spot gaps in the sidewalk network. Spot gaps are singular locations, like a missing segment of sidewalk along a street or an intersection or trail crossing that lacks pedestrian infrastructure or presents pedestrians with uncomfortable or even unsafe travel conditions. Examples of missing sidewalks include Beaufort Street between Main and University Streets, and Virginia Avenue between Main and Center Streets. Multiple intersections along Veterans Parkway, including Parkway Plaza Drive and College Avenue, have no sidewalks or crosswalks to support pedestrian travel in any direction. Spot gaps like these are obstacles to pedestrian connectivity that, in the absence of nearby alternatives, may discourage pedestrian trips altogether.

Students walk along the recently improved sidewalks on University Street south of Beaufort Street and the railroad crossing.
Map 1. Existing and Previously Proposed Pedestrian Facilities

PEDESTRIAN NETWORK

EXISTING

PREVIOUSLY PLANNED

Sidewalk
Shared Use Path
Accessway/Park Trail
Pedestrian Priority Corridor

DESTINATIONS + BOUNDARIES

Schools
Commercial and Mixed Land Uses
Parks
Town of Normal Limits

[Map details such as streets, schools, parks, and boundaries are shown in the diagram.]
Normal Sidewalk Inventory

The Town of Normal is in the process of inventorying sidewalk conditions for all sidewalks in Normal, with the purpose of identifying pedestrian issues and targeting improvements to focus on areas of greatest concern. The inventory documents sidewalk characteristics like compliance with ADA regulations, overall condition, and width. As of Fall 2019, approximately 45 of the 193 miles of sidewalk maintained by the Town of Normal have been inventoried. The Town expects to complete the inventory process by the end of 2021.

There are two important caveats with the sidewalk inventory data presented in this section of the plan. First, documentation of the sidewalk network is an ongoing process, and Normal staff continue to identify sidewalks that have not been recorded. As such, total figures for miles of sidewalk may not reflect the total mileage present in the community. Second, this inventory has been conducted to strategically utilize staff resources and does not reflect a representative sample of the entire sidewalk system. Nonetheless, the data can still provide valuable information about sidewalk character and recurring issues to address in future sidewalk maintenance and improvements.

ADA Compliance. To support sidewalk design and maintenance that accommodates all pedestrians, regardless of their ability, the United States Americans With Disabilities Act, or ADA, sets forth requirements for the design of public spaces. For public sidewalks and paths of travel, ADA requirements include minimum width, maximum slope and cross-slope, and sidewalk surface texture.

Two pedestrians walk along Adelaide Street in front of Oakdale Elementary School.
Sidewalk Condition. As part of the inventory process, the Town has assigned a condition rating to sidewalks. This rating helps the Town document sidewalk conditions over time and prioritize investments in pedestrian infrastructure. The results of this condition inventory are displayed in Figure 1. As the figure shows, 80 percent of all sidewalks inventoried are in good shape or better. Only six percent of sidewalks range from poor to failed condition.

One important factor in the sidewalk condition rating is the presence of deficiencies. As sidewalks age, common deficiencies can arise, from cracking and spalling to heaving and sloping. These deficiencies can impact pedestrian travel and in some cases present hazards and mobility challenges, especially for people with vision impairments, people with limited mobility, and for people using wheelchairs, walkers, and other mobility assistance devices. Of the 45 miles of sidewalks inventoried, 12.6 miles had no deficiencies. Nearly all of these sidewalks were rated as good or better.

As shown in Figure 2, the most prevalent sidewalk deficiency was cracking (36 percent, 16.3 miles), followed by vertical displacement (24 percent, 10.9 miles), which refers to the uneven height between sidewalk slabs caused by heaving or other subsurface issues. Sloping and scaling deficiencies are less common, representing only 11 percent (5.3 miles) of inventoried sidewalks. It should be noted that many failed and poor quality sidewalks have more than one deficiency, most commonly cracking and vertical displacement.

Not included in this inventory are design deficiencies, which can also pose challenges to pedestrians and other sidewalk users. Design deficiencies include sidewalk obstructions in the clear path of travel, curb ramps that do not align with one another, and narrow sidewalks without wider, regularly spaced passing zones.
**Sidewalk Width.** Width data has been collected for roughly 38.7 miles of existing sidewalks located throughout the Town, with the most complete information collected for Uptown Normal. While this constitutes less than 20 percent of the existing sidewalk network, it is a representative sample that includes data for local, collector, and arterial roads. As displayed in Figure 3 to the right, 80 percent of the 38.7 miles of sidewalks are four feet wide, 9 percent are five feet wide, and 11 percent are six feet wide or greater. Most wide sidewalks are located in Uptown, where there are high volumes of pedestrian traffic and a mixture of retail, offices, restaurants, hotels, and residential uses that promote walkability. These wider sidewalks, along with other streetscape enhancements like street trees, pedestrian-scale lighting, outdoor dining, benches, landscaping, and bike racks, create a welcoming environment for both pedestrian activity and social interaction.

Narrower sidewalks can be found on most streets outside of Uptown and the ISU campus. While four- and five-foot sidewalk widths are appropriate for neighborhood streets with lower volumes of pedestrian traffic, these widths are often too small for busier collector and arterial streets. Sidewalk widths of six feet or greater are more appropriate for these busier streets and can support people walking side-by-side, people passing one another, and even two wheelchair users passing one another. Best practice for sidewalk width is at least five feet, and six feet if located adjacent to the curb (AASHTO). ADA regulations require a minimum width of five feet at least every 200 feet.
**Separation from Motor Vehicle Traffic**

Separation from the roadway via planting strips, parked cars, and bicycle lanes can create a more comfortable and enjoyable experience for people walking in Normal. Most sidewalks in Normal are set back from the street by planting strips that range in width from two to 14 feet or greater. In addition to this separation from motor vehicle traffic, many planting strips also contribute to a positive pedestrian environment by providing mature shade trees. This space also provides snow storage in colder months, helping to keep the walkway clear of plowed snow and ice.

**Site Circulation and Access**

In addition to the publicly owned and maintained sidewalks described above, there are also sidewalks and pedestrian paths on nearly every privately owned parcel in Normal, supporting internal circulation and linking buildings and uses with the adjacent sidewalk system. Larger residential developments like the Vernon Stables student apartment complex have extensive sidewalk systems to support pedestrian circulation. Other private developments lack internal pedestrian circulation and connections to the public sidewalk system and create challenges for people walking to shops, restaurants, and other destinations. Many commercial destinations in east Normal along Greenbriar Drive, Landmark Drive, and Plaza Drive lack internal sidewalks and crosswalks, even when a sidewalk fronts the development. Others have pedestrian paths and crosswalks, but only to support people arriving by car. Where internal pedestrian facilities are not provided, pedestrians must travel across driveways and parking lots to access their destinations.
Street Crossings

Pedestrians traveling in Normal rely on safe, accessible street crossings to reach their destinations. Street crossings are just as important to the pedestrian network as sidewalks, and for many people walking in Normal, street crossings present the biggest challenge to reaching their destinations. While nearly all street intersections are legal pedestrian crossings at which motorists are required to yield to pedestrians, not all intersections are marked or otherwise designed to support pedestrian movements.

There are three types of pedestrian street crossings in Normal:

- Intersection Crossings occurring at the intersection of two or more streets;
- Mid-Block Crossings occurring between two intersections; and
- Grade-Separated Crossings supported by a bridge or tunnel.

Intersection Crossings

Pedestrian street crossings at intersections vary considerably in terms of design elements, pedestrian crossing widths, and other characteristics that influence pedestrian activity and perception of safety.

Signalized Intersections. At signalized intersections, pedestrians often have dedicated signal phases to direct them through intersections, as these intersections generally carry higher volumes of traffic than unsignalized intersections. Most signalized intersections in Normal include marked crosswalks and curb ramps to support pedestrian movement across all four legs. Some intersections include additional design elements, like pedestrian signal heads,
countdown timers, median refuge islands, and right-turn channel islands. The Town of Normal uses both transverse crosswalks and ladder crosswalks to promote pedestrian awareness among road users and delineate pedestrian travel space across motor vehicle travel lanes. Transverse crosswalks consist of two parallel stripes running parallel to a pedestrian’s path of travel. The majority of transverse crosswalks in Normal are six feet wide. Ladder crosswalks consist of two parallel stripes and thicker longitudinal markings that, when combined, look like a ladder connecting one side of the street to the other.

There are a small number of signalized intersections with only one or no marked crosswalks, most of which are located along Veterans Parkway, including Parkway Plaza Drive, College Avenue, and Vernon Avenue. These intersections also lack approaching sidewalks. While these intersections do not actively encourage or support pedestrian movements, many people must cross these busy streets to access transit, employment opportunities, and other important destinations. Other intersections along Veterans Parkway, like those at Fort Jesse Road and Von Maur Drive, utilize median refuge islands with pedestrian signal push buttons to help people walking at slower speeds safely cross these wide intersections.

**Unsignalized Intersections.** While motor vehicle traffic volumes at unsignalized intersections may be lower and crossing distances shorter, pedestrians may still find challenges crossing these intersections as they require the pedestrian to negotiate and communicate with other road users to cross. At unsignalized intersections along collector and arterial roads, crosswalks and curb ramps across local roads support pedestrian movement along these key corridors.
Four-way stop-controlled intersections like Beaufort Street and University Street, Beaufort Street and Fell Avenue, Vernon Avenue and Grandview Drive, and Fort Jesse Road and Hershey Road, can be challenging intersections for pedestrian travel, especially during peak travel hours. Crossing multiple lanes of traffic and taking into account turning movements and potential conflicts, pedestrians often find intersections like these difficult to traverse.

**Mid-Block Crossings**

There are a number of mid-block pedestrian crossings throughout Normal. Many of these crossings are located on arterial and collector roads to provide access to important destinations. Examples include Towanda Avenue at Sugar Creek Elementary, North Main Street at Fairview Park, and North Main Street south of McKinley Road.

There are also multiple mid-block crossings that are part of the Constitution Trail. Mid-block crossings along the Constitution Trail include Vernon Avenue, Willow Street, Shelbourne Drive, East Raab Road, West Raab Road, Northtown Road, Grandview Drive, and Lincoln Street. While all of these at-grade crossings include striped crosswalks and yellow warning signs (W11-15 and W11-15P bicycle and pedestrian trail crossing sign combination), they vary in terms of additional design elements to support pedestrian movement and safety. Some of these crossings include flexpost signs bolted to the center of the road that reinforce state law requiring motor vehicle drivers to stop for pedestrians in the crosswalk. A number of residents indicated during the planning process the difficulties they experience when crossing four-lane streets at mid-block crossings without the support or a traffic signal or warning beacon to control motor vehicles.
Grade-Separated Crossings

All six of the grade-separated crossings for people walking and bicycling are part of the Constitution Trail system. These are:

- The Collegiate Branch undercrossing at Main Street and College Avenue
- The Illinois Central Branch under Interstate 55 parallel to Linden Street
- The Illinois Central Branch under Virginia Avenue and the Camelback Bridge
- The Bloomer Line bridge over South Linden Street
- The Bloomer Line undercrossing at Towanda Avenue
- The Bloomer Line undercrossing at Veterans Parkway

These grade-separated crossings support free movement across busy arterial roads (and the interstate), eliminating conflict with motor vehicles altogether. Grade-separated crossings are most valuable to the active transportation system at locations with high volumes of pedestrian and bicycle traffic, like the ISU campus, Uptown Normal, and Constitution Trail crossings at major roads and highways.
**SHARED USE PATHS**

Shared use paths, also referred to as trails, greenways, or sidepaths, form the foundation of Normal’s active transportation system. The Constitution Trail, a major recreation and transportation asset for Bloomington-Normal, spans more than 40 miles across the region, providing valuable connections for people walking and bicycling. With limited access points and motor vehicle crossings, the Constitution Trail provides a comfortable and low-stress experience for people walking, bicycling, using wheelchairs or other mobility assistance devices, inline skating, skateboarding, pushing strollers, or otherwise traveling along the trail. The Constitution Trail is perhaps the most valuable asset the Town of Normal and the surrounding region have with regard to active transportation, recreation, recreational tourism, and healthy and active living.

Five of the seven branches of the Constitution Trail travel through Normal:

- The Illinois Central, which runs north-south along the old Illinois Central Gulf Railroad corridor and functions as the spine of the trail system

- The Bloomer Line, which serves as the main east-west line that runs parallel to Vernon Avenue and General Electric Road

- The Collegiate Branch, which connects Uptown Normal to Illinois State University and further north to Heartland Community College

- The Northtown Branch, which extends east from the Illinois Central line north of Interstate 55

- Route 66, which extends from the intersection of Shelbourne Drive and Towanda Avenue northeast along the Old U.S. Route 66 to Towanda

*The Constitution Trail south of Vernon Avenue.*

*On Raab Road, the Collegiate Branch of the Constitution Trail parallels a sidewalk, which helps to separate trail users and reduce conflicts.*
Roughly 17.5 miles of the Constitution Trail are located within the Town of Normal. As shown in Map 1 on page 6, the Constitution Trail offers convenient access to most neighborhoods and destinations within the Town. Seventy-six percent of all homes in Normal are within a half a mile from the Constitution Trail.

While these levels of coverage reflect the extent to which the Town of Normal and its community partners have worked to expand access to the trail system, there are still some areas of Normal that lack access to the trail system, including some neighborhoods of east and southwest Normal, and all industrial, agricultural, and manufacturing centers west of White Oak Road.

The Constitution Trail includes a number of amenities that set it apart from other trails and increase its visibility and recognition within the region. These include branded wayfinding and destination signage, trash receptacles, picnic tables, shelters, restrooms, system maps, bike racks, fix-it stations, and benches, many of which are part of the Town’s park system.

The Town’s policy to clear the path following snow events supports year-round travel for people walking and bicycling. The policy to close the trail one hour after sunset, however, limits the trail’s effectiveness to support active transportation during evening hours.

In addition to the Constitution Trail, there are other shared use paths located along major roadways and in local parks. Some of these shared use paths are not connected to the larger trail system and therefore do not serve transportation needs beyond local circulation and recreation. Linking these shared use paths to the larger trail system can increase their value as vital links for walking and bicycling.
NEIGHBORHOOD ACCESSWAYS

Accessways are short sidewalks or shared use path segments providing direct pedestrian and bicycle connections to destinations that would otherwise require out-of-direction travel on the surrounding street system. Accessways commonly connect cul-de-sac streets with paths, schools or nearby streets to minimize pedestrian and bicycle travel distance in areas with limited street system connectivity.

Numerous accessways provide connections between local streets and the Constitution Trail. These accessways are shown in Map 1 on page 6 and include connections at Virginia Avenue, Irving Avenue, Cherry Street, Cypress Street, Poplar Street, and Sycamore Street. Over time, people walking and biking have carved informal, dirt path connections to the trail system. These can be seen at the Ardith Drive stub connecting to the Bloomer Line, and the east end of Eagle Road connecting to the Illinois Central Line. Formalizing these connections as paved accessways can increase trail visibility and serve a demonstrated need for increased trail access.

Accessways also provide pedestrian routes to school, such as:

- The bridge linking Oakdale Avenue and Ruston Avenue with Oakdale Elementary
- The route to Chiddix Junior High School from the west end of Karin Drive

Accessways also connect cul-de-sacs and other disconnected streets, such as:

- The accessway between Basswood Lane and Beechwood Court
- Several streets in Eagles Landing and Blackstone Trails
- Collie Ridge at Shelbourne Drive

The neighborhood accessway to Oakdale Elementary includes bicycle racks for student bike parking to limit bicycle use on the narrow bridge.

The narrow neighborhood accessway provides a connection between Karin Drive to the south and Anderson Park to the north.
BIKEWAYS

Bikeways, also referred to as bicycle facilities, consist of shared use paths and roadways distinguished as preferred routes for bicycling through the provision of bicycle route designation, shared lane markings, bike lane striping, or physical separation from motor vehicles in the form of separated bikeways and sidepaths.

Since the adoption of the 2009 Bicycle and Pedestrian Master Plan, the Town of Normal has implemented a number of bikeways proposed in the plan. In addition to the 17 miles of Constitution Trail now in place, over 10 miles of on-street bikeways have been installed in the last ten years. The combined 27 miles of bikeways comprise approximately 30 percent of the full network proposed in the 2009 Plan. These bikeway types and projects are described below. Map 2 on page 22 shows the existing trail system and on-street bikeways in Normal, and Map 3 on page 24 shows both existing and previously planned facilities recommended in the 2009 Bicycle and Pedestrian Master Plan.

Marked Shared Roadways

A marked shared roadway is a general purpose travel lane marked with shared lane markings (SLMs) used to encourage bicycle travel and proper positioning within the lane, and to alert motorists to the presence of cyclists. There are 4.5 miles of marked shared roadways in Normal, including segments of School Street, College Avenue, Adelaide Street, and Grandview Drive. On most of these corridors, the Town has also installed “Share the Road” sign combinations to increase motorist awareness and support a safe environment for all road users. The condition of shared lane markings varies throughout Normal, with some older markings in poor condition and in need of replacement.
Bicycle Boulevards

Bicycle boulevards are low-volume, low-speed streets that are safe for bicyclists of all ages and abilities. Streets are modified to enhance user comfort by using treatments such as signage, pavement markings, traffic calming and/or traffic reduction, and intersection modifications. These treatments allow through movements of bicyclists while discouraging similar through-trips by non-local motorized traffic.

The Town of Normal has implemented 3.2 miles of bicycle boulevards. These bikeways are located on low-volume local roads, offering comfortable, low-stress routes and providing important connections to parks, schools, ISU, the Constitution Trail, and other bikeways throughout Town. Bicycle boulevards are located primarily on east-west streets, including Bryan Street, Dale Street, McKinley Street, and Lincoln Street. The Bryan Street Bicycle Boulevard includes curb extensions at six intersections to calm traffic and shorten pedestrian crossing distances.

Conventional Bike Lanes

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and is used in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

The Town of Normal has installed two miles of conventional bike lanes on segments of Jersey Avenue, Blair Drive, Raab Road, and Shelbourne Drive.
BIKEWAY NETWORK CHARACTERISTICS

With 27 miles of existing bikeways, many of which have been installed in the last ten years, the Town of Normal has laid the foundation of a comprehensive, interconnected bikeway network. To help identify opportunities for improvements to the network, this section of the plan examines the coverage, quality, and other characteristics of existing facilities and general conditions for bicycling throughout Town.

Network Coverage and Gaps

Normal’s on-street bikeway improvements to-date have focused in large part on enhancing connectivity to the Constitution Trail. When combined, the existing network of on-street and off-street bikeways provide extensive coverage to residential neighborhoods, schools, parks, transit stops, and commercial destinations. Over 96 percent of homes in Normal are within a half mile of an existing bikeway. Even in close proximity to an existing on-street bikeway or trail, many residents may find it difficult to reach these facilities due to busier roads, high-volume intersections, and other barriers like rail or interstate corridors.

In addition to coverage issues, there are gaps within the bikeway network itself. Not all bikeways are connected. Some projects, like bike lanes on Raab Road and Blair Drive, do not connect to other bicycle facilities, and thereby create gaps in the network. Other system gaps are evident where bikeways end abruptly at collector and arterial roads, forcing people bicycling to navigate through difficult intersections without the support of dedicated bicycle facilities.

In many cases, on-street bikeway development is an opportunistic process, taking advantage of street resurfacing or reconstruction projects to implement proposed projects. While this can help to reduce overall costs and maximize efficiencies, it can often create gaps in the bikeway network and lead some people to question the presence of a bikeway that does not connect to the rest of the system. As the network continues to grow, however, these gaps are eventually filled, and the value of earlier projects is fully realized. Bikeway network development is a slow process, and the need for a long-range vision, patience, and persistence must be communicated to and shared by the community at-large.

The bicycle lane on Main Street north of Virginia Avenue was installed as part of a bridge reconstruction process and only extends for a few hundred feet. The project included bicycle lanes to help implement the recommendations of the 2009 Master Plan, but a continuation of the project to the north or south has not yet occurred.
Map 2. Existing Bicycle Facilities

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

BIKEWAY NETWORK

BICYCLE FACILITY TYPE
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

SCHOOLS
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

DESTINATIONS + BOUNDARIES
- Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits
Bicycle and Pedestrian Master Plan Update

Bicycle Facility Type
- Signed Connection
- Shared Lane
- Bike Boulevard
- Bike Lane
- Shared Use
- Accessway/Park Trail

Destinations + Boundaries

Northtown Trail
- Route 66 Trail
- Collegiate Trail
- Illinois Central Trail

Bike Way Network
- 0.5 mile
- 3 minute bike ride
- 6 minute bike ride

Schools
- Commercial and Mixed Land Uses
- Parks
- Town of Normal Limits

Normal
- Bloomington
- Normal
- Bloomington
Map 3. Existing and Previously Proposed Bicycle Facilities
Level of Traffic Stress

While the Constitution Trail serves as the spine of the bicycle network and is part of many people’s bicycle trips across Normal, most trips begin and end on the street system. Whether riding on a street with dedicated bike lanes or with no bicycle facilities at all, most people bicycling will have to interact with motor vehicle drivers, negotiate turning movements, and travel on streets designed primarily for motor vehicles.

The experience of bicycling on a given street and the perception of comfort is based on a number of factors, including motor vehicle travel speeds and volumes, number of travel lanes, and the presence of dedicated bicycle facilities. Examining these characteristics on each segment of the street system in Normal can help to categorize roads into more comfortable roads that support people of all ages and abilities, and less comfortable (more stressful) roads that are only likely to be used by more experienced bicyclists.

Using the Level of Traffic Stress (LTS) methodology developed by the Mineta Transportation Institute and refined to incorporate average daily traffic volumes, the street system is categorized into four separate groups as shown below.

The results of this LTS analysis highlight the strengths and weaknesses of the street and trail system’s ability to support bicycle activity. Major arterial roads like White Oak Road, College

INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST IN BICYCLING FOR TRANSPORTATION

Figure 4. Level of Traffic Stress and Likely User Types
Avenue, Main Street, Raab Road, Towanda Avenue, and Veterans Parkway are categorized as LTS 4 and are among the least comfortable streets for bicycling in Normal. Twenty-three percent of all roads in Normal received a score of LTS 4, and 24 percent received a score of LTS 3.

Most local roads and many collector roads are categorized as LTS 1 or LTS 2 and are more comfortable for bicycling and more accessible to a wider range of abilities and skills levels. Almost half of all roads in Normal received a score of LTS 2, and roughly four percent received an LTS 1 score.

It is important to note the influence of posted speed limits, one of the four inputs that factors into the final score for each segment, on the final results of the LTS analysis. Because most neighborhood and local roads in Normal have a posted speed limit of 30 miles per hour, they are not able to be classified as LTS 1, the most comfortable rating, which is limited to certain types of streets with posted speed limits of 25 miles per hour or less. As such, it is likely that many neighborhood streets with low traffic volumes and speeds are more comfortable than the analysis results show.
BICYCLE PARKING FACILITIES

Bike parking is a critical component of a community’s bikeway network, and the presence and quality of bicycle parking at popular community destinations can strongly influence one’s decision to travel by bicycle. The Town of Normal has begun an inventory of existing bicycle parking facilities. Of the 37 bicycle racks included in this inventory, the majority are located in Uptown Normal and along the Constitution Trail.

The quality of existing bike parking facilities varies by location, particularly due to the style of rack chosen and/or placement of the rack. Some existing racks near commercial areas are considered substandard because they do not provide sufficient points of contact to support a bicycle at two points. In other words, they do not allow a bicycle frame and at least one wheel to be locked to the rack without the use of a long bicycle cable or mounting the bicycle over the rack.

The Town has installed one bike corral on North Street in Uptown. Bike corrals can provide up to ten bike racks in place of one motor vehicle parking space. In active urban environments like Uptown, bike corrals remove bicycle parking from the pedestrian furnishing zone and create more opportunities for sidewalk activity like outdoor dining, benches, and other amenities.

Informal bike parking (bikes being locked to hand rails, street signs, light poles and other objects) indicates where there is a demand for additional bike parking supply. In some areas in and around the ISU campus, informal bike parking suggests that insufficient formal bike parking is being provided or that it is not conveniently located in close proximity to a storefront or building entrance.
TRANSLATION INTEGRATION

Connect Transit, Bloomington-Normal’s transit service provider, plays an important role in the surface transportation system. Many transit trips begin and end with a walk or bike ride to and from a bus stop or Uptown Station. It is important that transit stops are accessible to people walking and bicycling and connected to the sidewalk and bikeway networks.

There are several main components of bicycle-and pedestrian-transit integration, as described in this section.

**Bicycles on Transit Vehicles**

All buses in the Connect Transit system are equipped with front-loading racks that support two to three bicycles. The agency maintains data collected by drivers that logs bike rack usage, including bus route and boarding and alighting stop locations. No data were collected to indicate a service denial resulting from a full bus bike rack. From July 2018 through June 2019, transit riders used the bike racks on Connect Transit buses a total of 583 times. The most frequently used routes by people traveling with a bicycle were the Silver, Green, and Red lines, with 131, 94, and 62 trips, respectively. Uptown Station,
which is served by multiple routes, saw the most boardings and alightings by people traveling with a bicycle. More than one in every four trips by transit riders traveling with a bicycle began or ended at Uptown Station. Other popular transit stops in Normal for people traveling with a bicycle included the Parkway Plaza Drive at Walmart stop, and to a lesser extent some stops along Main Street. Many of the most popular stops are located in Bloomington, including Downtown Bloomington Transfer Center, JC Parkway and Bettis Drive (Walmart), 6 Points Road and Springfield Road, and Lincoln and Maple Streets.

Transit Stop Amenities

The character and quality of transit stops can be an important factor in travel decisions for potential transit users. Shelters, benches, route information and stop times, secure bicycle parking, and other amenities can create a comfortable experience for transit riders waiting for the bus. While all bus stops on the Connect Transit System include a bus route sign, there are some that also include seating attached to the signpost, and others with shelters and benches. Very few are equipped with bicycle racks.

Connecting Infrastructure for Walking and Bicycling

The quantity and quality of pedestrian and bicycle infrastructure along and connecting to bus routes varies by location. While many transit stops are connected to the sidewalk network, some stops lack a paved path from the stop to the curb, which can create difficulties for people boarding and alighting a bus. There are also a number of stops in western Normal that lack pedestrian infrastructure. Examples include stops on College Avenue, Wylie Drive, Hovey Avenue, and Raab Road.

The Constitution Trail, and the Collegiate Branch in particular, provide direct access to some of the busiest transit stops in Normal, including Uptown Station, University Recreation Center, Tri Towers, and Gregory Street and Cardinal Court. As the trail and on-street bikeway system continue to expand, it will be important to strengthen these connections between active transportation and transit, focusing on access, experience, safety, and facility design.
HEALTH & EQUITY

Walking and bicycling are critical elements to a healthy and equitable transportation system. Communities in which people are presented with a variety of safe and convenient travel options support people of all ages, means, backgrounds, and abilities as they move about the community and access employment, education, and recreation opportunities. Where travel choices are available, particularly in communities that have developed robust active transportation networks, residents can integrate walking and bicycling into their daily routines, which can have a significant impact on long-term health outcomes.

Health

How we travel within our communities can greatly affect our physical, mental, and social health and well-being. Second only to socioeconomic factors, changes to the built environment that support healthy travel options as the default choices have the most potential to impact health outcomes in our community. When residents have access to connected and safe places to walk and bicycle, it can be easier to expand social connections, address mental health, and engage in more physical activity. In turn, increased physical activity - including even small shifts from sedentary behavior to lower levels of activity - can help reduce the risk of various diseases and health conditions.

While no health data is available for the Town of Normal or smaller geographic subdivisions, information from the McLean County Community Health Needs Assessment highlights the most prevalent health concerns within the region. In developing the assessment, McLean County conducted a survey to identify residents’ top issues and priorities for health. Respondents identified obesity and aging issues among the most pressing health issues facing county residents. The report also noted the lack of physical exercise - only 14 percent of county residents are meeting exercise guidelines (150 minutes per week), despite the fact that the overwhelming majority of county residents live in close proximity to a park or recreation facility. Developing a high quality, active transportation system can be an effective strategy to increase physical activity and address these important health concerns.

Equity

Without access to transportation, Normal residents will have a harder time getting to work, buying healthy food, visiting a doctor, going to school, or connecting with their neighbors, friends, and family. While all communities offer a variety of ways to get around, not everyone has equal access to a wide range of convenient, safe, and affordable means of transportation. Uneven distribution of active transportation infrastructure can provide health, safety, mobility, and economic benefits for some subsegments of a population, while increasing hardships for others.

Considering the needs of Normal’s diverse population in this planning process can help to understand the different transportation needs and challenges that people are likely to encounter when walking and bicycling in the community. This section of the plan examines block group-level data from the US Census Bureau’s 2018 American Community Survey to highlight the demographic characteristics of different neighborhoods in Normal. Included in this examination are datasets that examine race, poverty, age, access to a motor vehicle, and English language proficiency. These demographic characteristics are all linked to transportation patterns and safety and mobility statistics.
Race

Racial or ethnic minorities are more likely to live in areas with poor or limited active transportation facilities, educational opportunities, job resources, and healthy food outlets.\textsuperscript{1,2} Nationally, non-white populations tend to be more dependent on transit and active transportation; black individuals are more than four times and Hispanics are three times more likely to not have access to a household car compared to their white counterparts, regardless of income.\textsuperscript{3} In turn, these deficits exacerbate the disproportionate health burdens communities of color experience. For example, communities of color experience a greater proportion of pedestrian crashes and have increased risk of mortality after pedestrian injury.\textsuperscript{4,5} Improving active transportation facilities and connectivity may promote physical activity, enhance economic opportunities, and increase transportation safety.

Map 6 displays people of color as a percentage of the population for block groups in Normal. Of the 36 block groups located fully or partially within Normal, people of color represent anywhere from 0.2 percent to 47 percent of the population, compared to almost 19 percent of the Town’s total population.
Poverty

Poverty is a socioeconomic vulnerability linked with a disproportionate exposure to poor housing, homelessness, and limited access to resources, such as transportation services, quality food, recreation facilities and health care facilities.\(^1,6,7\) With transportation costs, especially those associated with vehicle ownership, often comprising the second largest portion of an individual’s income (second to housing), reduced access to transit and active transportation networks may lead to greater reliance on an automobile and therefore have significant financial impacts on poor households.\(^8\)

Increasing low-income residents’ active transportation facilities can improve access to economic and educational opportunities, improve health through increased physical activity, and promote safety.\(^9,10\)

Map 7 displays the percentage of people living at or below 200 percent of the poverty level, who represent more than one third of Normal’s population. At the block group level, this demographic ranges from 3 percent to 95 percent of the population. Higher concentrations of this demographic are located near the ISU campus and in other neighborhoods to the northeast, northwest, and southwest of the Town’s core.
Children

The population under 18 years of age is thought to have higher active transportation infrastructure needs because they have less access to motor vehicles and may rely more on alternative modes of transportation. Other youth-related vulnerabilities may include lacking knowledge of safe travel behaviors; greater susceptibility to environmental exposures, such as damage caused to developing bodies through air pollution; and difficulty navigating poorly designed areas. Youth especially need safe transportation to/from places to be physically active and to build social connections. Research on transportation facilities shows that road design and sidewalk conditions determine youth physical activity; safe crossings, well-built sidewalks, and traffic calming strategies are all associated with greater physical activity in youth. Areas with high concentrations of youth populations will benefit from improved crossing conditions and additional separated facilities.

Children represent 18 percent of Normal’s growing population. Block groups with the highest percentages of children can be found to the northeast of Uptown Normal and in more recent residential developments east of Veterans Parkway.

Map 8. Children as a Percentage of Population by Block Group
**Older Adults**

The population over 64 years of age may have more mobility needs than the general adult population, specifically in that they may require more alternatives to driving. Older adults increasingly depend on active transportation modes, such as using public transit, walking and/or biking when they decrease or stop driving. Prioritizing active transportation needs enables older adults to maintain positive well-being, despite the onset of functional limitations.\(^{12}\) Walkable access to adequate public transportation is essential for older adults to maintain their daily activities and independence.\(^{13}\) Additionally, safe, walkable communities that promote physical activity help prevent or delay chronic diseases such as arthritis, osteoporosis, and diabetes in older adults.\(^{14}\)

Adults 65 and older represent almost ten percent of Normal’s population, and that figure is likely to grow as the population ages in the coming years. In some neighborhoods close to ISU and Uptown, older adults comprise less than five percent of the population; in others, older adults represent more than one in every three residents.
Access to a Motor Vehicle

In less urbanized locations, specifically those with limited transit access and coverage, access to a motor vehicle carries strong implications for one’s ability to reach employment, access healthy foods, and reach basic services. A diverse transportation system that offers multiple modes, including transit, bicycling, and walking, reduces reliance on automobiles and can provide for more equitable access to services. Providing access via quality walking and bicycling infrastructure is one method for increasing equity in access for locations with limited vehicle availability. The addition of safe and comfortable walking and bicycling routes, as well as developing improved connections to transit, have the ability to also serve as a reliable means to access work and employment opportunities.

Six percent of all households in Normal do not have access to a motor vehicle, and another 36 percent of households have access to only one motor vehicle. Map 10 shows the distribution of households with limited motor vehicle access in Normal. Motor vehicle access is as high as 99 percent in some block groups, and as low as 77 percent in others. Including one-car households in this analysis acknowledges the challenges of household mobility.
**Limited English Proficiency (Linguistic Isolation)**

Individuals with Limited-English Proficiency (LEP), or who identify as not speaking English well or at all, tend to rely more on active transportation as their primary means of transportation than the average English speaker.\(^9,16\) General low economic status of LEP individuals may correlate with low car ownership rates and high reliance on active transportation facilities.\(^17\) Given low car ownership and poor active transportation conditions, immigrants and LEP individuals are more likely to walk and ride along roads that lack appropriate biking and walking facilities, forcing individuals into unsafe transportation situations.\(^9\) Therefore, access to active transportation services is critical for LEP individuals to access basic employment and other necessities.\(^17\)

LEP individuals represent less than half of one percent of Normal’s population, but are largely concentrated into a few neighborhoods, most notably in the neighborhood bound by Adelaide Street, Gregory Street, Cottage Avenue, and College Avenue, adjacent to the ISU campus. Map 11 highlights these block groups with more significant populations of LEP individuals.

![Map 11. People with Limited English Proficiency as a Percentage of Population by Block Group](map11.png)
SAFETY ANALYSIS

Safety is a major concern of both existing and potential bicyclists and pedestrians. For those who currently walk or bike regularly, safety is typically an on-going concern or even a distraction. For those who do not walk or ride, it is one of the most compelling reasons not to do so.

This section evaluates existing conditions with respect to bicycle and pedestrian safety in Normal. The evaluation includes a review of representative existing bicycle education programs being offered in Normal and surrounding areas. Also included is an analysis of pedestrian and bicycle crash data in Normal between 2013 and 2019, which helps to identify problem areas and crash patterns that can inform the development of network and safety improvements.

Safety Education Programs

While no formal bicycle education programs exist in Normal, several organizations encourage and educate residents about bicycling.

Bike BloNo Safety and Awareness Campaign

Bike BloNo, the region’s advocacy organization promoting bicycling for everyday transportation, developed a safety campaign aimed at humanizing people on bikes. Split-screen photos show a resident in plain clothes or a work uniform on one half, and that same person in the clothes they wear when riding a bicycle.

League of Illinois Bicyclists

The League of Illinois Bicyclists (LIB) is a membership-based organization advocating for bicyclists throughout the State of Illinois. In addition to legislative and policy work, the organization provides safety and education information, cycling maps, and club rides across the state. The organization has developed a short video on motorist-vehicle safety.

Annual Bike Rodeo

The Bike Rodeo is an annual event in Uptown Normal designed for children to learn more about bike safety through participating in fun and educational biking skill stations. The rodeo takes place the last Saturday of September as part of the annual Worldwide Day of Play event.

The Day of Play Bike Rodeo.
Crash Analysis

This analysis is based on crash data provided by Town of Normal staff. In the seven-year analysis period from 2013 through 2019, 268 crashes involving a bicyclist or a pedestrian were reported in Normal, with an average of 38 crashes per year (23 pedestrian, 15 bicycle). As shown in Figure 5, there were more pedestrian-related crashes than bicycle-related crashes in every year for which data were gathered. The greatest number of crashes occurred in 2016, with a total of 47 pedestrian- and bicycle-related crashes.

It is important to note that the number of crashes reported is likely an underestimate of the actual number of crashes that take place because some parties do not report crashes to law enforcement, particularly crashes not resulting in injury or property damage. Although under-reporting and omissions of “near-misses” are limitations, analyzing the crashes can reveal spatial and behavioral trends or design factors that may contribute to crashes in Normal.

Crashes by Month

Crash rates vary considerably by month, reflecting a variety of circumstances such as daylight, weather, bicycle and pedestrian activity, and presence of college populations. Crashes by month are shown in Figure 6. September saw the most crashes during the seven-year period from 2013 to 2019, with 41 total crashes for an average of almost six crashes per year. This is likely due in part to favorable weather conditions and an influx of new and returning university students, many of whom travel primarily by foot or bike. Conversely, the lowest number of combined pedestrian and bicycle crashes (10 total, 1.4 per year) occurred in March. Bicycle crashes in particular were lowest during winter months.
**Crashes by Day of the Week**

Pedestrian- and bicycle-related crashes vary considerably by day of the week, especially between weekdays (Monday through Thursday) and weekend days (Friday through Sunday). **Figure 7** shows that 48 crashes occurred on an average weekday (27 pedestrian, 21 bicycle), compared to just 25 crashes on an average weekend day (16 pedestrian, nine bicycle). This may be due in part to the volume of bicycle and pedestrian commute (work and school) trips taken during the week, as well as higher motor vehicle traffic volumes during the week.

**Crashes by Time of Day**

**Figure 8** shows the percentage of pedestrian and bicycle crashes by time of day. Both pedestrian and bicycle crashes peak in the evening rush hour, with the afternoon and early evening time periods also comprising a considerable share of crashes for people walking and bicycling. Increased congestion during peak travel periods, school dismissals, and lighting conditions during dusk and nighttime contribute to the likelihood of crashes during these periods.

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**Figure 7. Pedestrian and Bicycle Crashes by Day of Week, 2013 - 2019**

**Figure 8. Percentage of Pedestrian and Bicycle Crashes by Time of Day, 2013 - 2019**
**Crash Severity**

The Town of Normal records the severity as part of its crash reporting. Severity ranges from fatal to personal injury to property damage only. Crash severity is displayed in Figure 9 to the right and in Map 12 below. Four fatal crashes occurred during this seven-year time period, all involving pedestrians. Seventy-eight percent of all crashes involving a pedestrian or bicyclist resulted in personal injury or death, while just 20 percent resulted in property damage only.

![Figure 9. Pedestrian and Bicycle Crashes by Severity, 2013 - 2019](image)

![Map 12. Bicycle and Pedestrian Crash Locations by Severity, 2013 - 2019](image)
Crash Location

The 268 pedestrian and bicycle crashes that occurred in the Town of Normal between 2013 and 2019 occurred on 67 different streets, and 68 percent (182) of those crashes occurred on just 10 streets. More than one in every four pedestrian and bicycle crashes occurred on Main Street or Linden Avenue, the two corridors with the highest number of reported crashes. All ten of these high-crash corridors are located in or connect to major destinations in the Town of Normal, including ISU, Uptown, and commercial destinations in east Normal.

Crash report forms indicate if a crash occurred at an intersection or not at an intersection. Intersection-related crashes are typically more common for two important reasons. First, multiple pathways come together, with a greater number of people traveling through an intersection than along one of the two or more streets at that intersection. Second, an intersection presents more conflict points between pedestrians, bicyclists, and motorists.

Location information collected in each crash report documents the street intersection or address at which a crash event occurred. There were ten intersections or addresses at which five or more crashes occurred during the seven-year period from 2013 to 2019. Much like the high-crash corridors described above, the high-crash locations, shown in Table 2 to the right, are located in high-activity areas, including the ISU campus, Uptown Normal, and the commercial corridor in east Normal. The University Street and College Avenue intersection saw the highest number of crashes, with ten pedestrian crashes and two bicycle crashes. Three of the 11 locations are located along US Business 51 (Main and Kingsley Streets), and only one of these locations - the Walmart at 300 Greenbriar Drive - is located in east Normal.

Table 1. High Crash Corridors, 2013-2019

<table>
<thead>
<tr>
<th>Street</th>
<th>Ped</th>
<th>Bicycle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Street</td>
<td>22</td>
<td>19</td>
<td>41</td>
</tr>
<tr>
<td>Linden Avenue</td>
<td>12</td>
<td>17</td>
<td>29</td>
</tr>
<tr>
<td>Fell Avenue</td>
<td>22</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>University Street</td>
<td>19</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>School Street</td>
<td>12</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Towanda Avenue</td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Greenbriar Drive</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Kingsley Street</td>
<td>7</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Adelaide Street</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Veterans Parkway</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 2. High Crash Locations, 2013-2019

<table>
<thead>
<tr>
<th>Location</th>
<th>Ped</th>
<th>Bicycle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>University / College</td>
<td>10</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>300 Greenbriar</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Main / Gregory</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>University / Beaufort</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Linden / Vernon</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Fell / Mulberry</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Linden / College</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Main / Locust</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Main / Osage</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>School / Willow</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
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SYSTEM STRENGTHS & WEAKNESSES

This section provides an analysis of the existing conditions for walking and bicycling in Normal, and outlines improvement opportunities. The section also identifies some potential barriers to accommodating and encouraging bicycle and pedestrian trips, which this Plan seeks to overcome.

System Strengths

People walking and bicycling in Normal benefit from a variety of topographic, land use, transportation, and other community characteristics that support a safe and comfortable environment for active transportation. These system strengths are described below.

A Premier Off-Street Trail System

The Constitution Trail is a regional recreation and transportation asset that draws thousands of walkers, joggers, bicyclists, inline skaters, skateboarders, and other users every year. The trail is a major contributor to Normal's identity and quality of life, and its extensive coverage provides access to nearly all Normal residents.

The Constitution Trail is also a reliable corridor for active transportation and recreation even in winter months. During snow events, the Normal Parks and Recreation Department clears accumulated snow from the Constitution Trail to support year-round trail use and maintain the trail's function as a viable commuter corridor for work, school, and utilitarian trips.

Bicycle Network Development

Since the adoption of the 2009 Bicycle and Pedestrian Master Plan, the Town of Normal has installed over 10 miles of on-street bikeways to enhance connectivity to the Constitution Trail and to key community destinations. These investments represent a significant commitment to active transportation and the foundation for continued network growth and expansion.

Bronze Bicycle Friendly Community Award

An acknowledgment of Normal’s commitment to bicycling, the Bronze-level Bicycle Friendly Community Award was first given to the Town by the League of American Bicyclists in 2014, then again in 2018. The award highlights the Town's major advancements and also provides specific opportunities to better support bicycling and reach the next level: Silver.

Sidewalk Improvements, Infill, and Expansion

The Town of Normal has made targeted investments in sidewalk repairs, improvements, and infill in recent years, with a focus on addressing network gaps and existing sidewalk deficiencies. These projects have been implemented through both stand-alone sidewalk projects and through larger roadway projects.

Uptown Normal Land Use & Urban Design

Land use and urban design characteristics foster a pedestrian-friendly environment. The mixture of commercial, retail, restaurant, hotel, and institutional land uses supports short walking and bicycling trips. Buildings fronting the sidewalk edge create a sense of tight urban form and an inviting pedestrian atmosphere. Street trees, outdoor seating, and public plazas and open spaces create a welcoming environment and encourage social interaction and activity.
**Presence of Walk- and Bike-Friendly Streets**

Most residential areas benefit from a bicycle- and pedestrian-friendly environment. As most homes in Normal are located on low-volume streets with relatively complete sidewalks, bicyclists and pedestrians of all ages and abilities can get around most neighborhoods comfortably and safely.

**Neighborhood Accessways and Local Connections**

Accessways provide convenient walking and bicycling connections in areas with limited street system connectivity. Accessways exist throughout Normal, connecting pedestrians and bicyclists with trails, parks, schools, neighborhoods and other destinations.

**Topography**

The topography of Normal is relatively flat, with few challenging hills to deter bicycling or walking. In addition, the flat terrain allows for long sight distances and allows motorists time to react to obstructions on the road.

**Presence of Available Right-of-Way for Future Bikeways and Walkways**

Normal has a significant opportunity to develop additional bikeways and walkways in the future, including along the community’s waterway corridors. For instance, Sugar Creek in western Normal is a potential shared use path opportunity. However, an agreement with the Bloomington and Normal Reclamation District (BNWRD) would be necessary as much of the creek land is within BNWRD right-of-way.

Utility corridors (for example the north side of College Avenue west of Interstate 55/74) are an additional potential area for walkway and bikeway facility development. The future extension of Cottage Avenue between Gregory Street and Raab Road also presents an excellent opportunity to develop a walking and bicycling environment along this new roadway.

**Excess Roadway Capacity**

A number of corridors in the Town of Normal have greater roadway capacity than needed to support current and projected motor vehicle traffic volumes. Corridors like Vernon Avenue, Wylie Drive, Hovey Avenue, College Avenue, Parkside Avenue, and Raab Road have potential for lane reconfiguration and other improvements to better support active transportation facilities.

**System Weaknesses**

While conditions for active transportation have improved in recent years, people walking and bicycling still face a number of issues and challenges as documented in this section.

**Limited Street Network Connectivity**

Although streets are well-connected in and near Uptown Normal, there is minimal east-west connectivity in other areas of the town, particularly for bicyclists. While the Town of Normal has addressed the lack of east-west connectivity with connected bikeways in the southern half of Town, many of the Town’s major roads providing the most connectivity and covering longer distances tend to be high-volume streets lacking dedicated or separated bicycle facilities. Some of these major streets include Vernon Avenue, College Avenue, Hovey Avenue, Fort Jesse Road, Raab Road, and Shepard Road. Schools tend to be located along these major streets, and where no accessways are provided, students must travel in the roadway or travel out-of-direction and along major streets to access the school.
Certain parts of town are also less-connected to the central area. Northeastern Normal is separated from Uptown by Veterans Parkway, Old Route 66 and the Union Pacific Railroad. Similarly, western Normal is separated by White Oak Road, the Norfolk Southern Railroad, and Interstate 55/74.

**Linear Barriers**

Residents of Normal cite major roads as barriers to bicycling and walking. This is particularly due to higher vehicle speeds and volumes, which create uncomfortable and potentially unsafe crossing conditions.

Veterans Parkway serves as a major barrier due to the lack of bicycle or pedestrian facilities along and across the highway. Interstate 55/74 is also a barrier to bicycle and pedestrian movement, as there are few available crossings on Normal’s north and west sides.

The Union Pacific Railroad represents another significant barrier to nonmotorized transportation in Normal, as at-grade railroad crossing opportunities are limited to major roads that currently have minimal pedestrian or bicycle facilities.

**Limited Wayfinding System**

The Constitution Trail’s wayfinding system provides destination and distance information on branded signs located along the trail. While the trail wayfinding system supports activity along the trail, people traveling on the street and sidewalk network lack wayfinding guidance.

**Trail System Gaps**

Despite the Constitution Trail’s extensive coverage in Normal, there are still a number of gaps that limit the trail system’s ability to provide safe, comfortable connections across the region. In the Town of Normal, there is a major gap on Raab Road between the Illinois Central Branch to the west and the existing sidepath along Raab Road that ends at Linden Street. In addition to linear trail system gaps, there are also coverage area gaps, or parts of the community that do not have safe and convenient access to the trail system, such as portions of west and northeast Normal.

**Sidewalk System Gaps**

Gaps in the sidewalk network limit pedestrian connectivity and can create significant challenges for people with limited mobility, such as children and seniors, and people using mobility assistance devices, like wheelchairs, canes, and walkers. Network gaps on corridors like Pine Street, Veterans Parkway, and County Road 1600 E (N Towanda Ave) isolate neighborhoods and limit access to commercial destinations, employment opportunities, and other areas of importance.

**Sidewalk Obstructions**

Although sidewalks exist on numerous streets, their use is occasionally hindered by obstructions such as vegetation, utility poles, fire hydrants and other items. On Adelaide Street, for example, utility poles disrupt the otherwise clear path of travel for pedestrians on the block between Dale and Hale Street opposite Oakdale Elementary. Additionally, overgrown vegetation obstructs sidewalks and paths in some areas, forcing pedestrians to walk in the planter strip or the road. An example of this can be seen on Main Street between the Union Pacific Railroad and Beaufort Street, where screening shrubs obstruct the pedestrian path of travel.
Limited On-Street Bikeway Connectivity

The on-street bikeway network has begun to take shape in Normal, and in many locations benefits from connections to the Constitution Trail to increase the range of travel for people bicycling. However, the lack of connectivity between on-street bikeways and the lack of facilities connecting to key community destinations present barriers to bicycling that are difficult for many to overcome.

Trail User Conflicts

As the Constitution Trail system has grown in popularity, its very success can create challenges for people walking and bicycling. On days with high trail activity, conflicts can arise between faster-moving cyclists and slower-moving pedestrians along the Constitution Trail, particularly where it passes through ISU and areas with higher usage. Many attendees at the public open house and respondents to the online survey indicated that they avoid the trail on busier days because of fast moving bicyclists, dog walkers, distracted walkers using mobile phones or wearing headphones, and other activities and behaviors that may obstruct travel for trail users.

Maintenance Issues

Maintenance issues can be generally divided into two categories: routine maintenance and remedial maintenance. Routine maintenance refers to activities like snow clearance, debris removal, and clearing of overgrown shrubs and landscaping. Routine maintenance also applies to on-street pavement markings and striping, including crosswalks, bike lanes, and shared lane markings. Many of the Town’s pavement markings and striping that support active transportation show signs of wear and deterioration.

Remedial maintenance issues are most prevalent in the sidewalk system. The presence of sidewalk deficiencies like cracking, vegetation overgrowth, spalling, and vertical displacement can create mobility challenges for people walking, pushing a stroller, and using a wheelchair or other mobility assistance device.

High-Stress Corridors

High-stress corridors consist of larger roadways that carry higher volumes of motor vehicle traffic at higher speeds and often lack safe and comfortable places for walking and bicycling. There are a number of high-stress corridors in Normal that present mobility challenges for people traveling by foot or bike, including Veterans Parkway, Main Street, Towanda Avenue, and parts of College Avenue, Hovey Avenue, Vernon Avenue, and Linden Street. Many of these corridors provide the most direct paths of travel through Normal and provide direct access to many commercial, education, recreation, and employment destinations.

Creating safer, low-stress environments for walking and bicycling on these corridors does not have to come at the expense of motor vehicle level of service or operational efficiency.

High-Stress Intersections

Many of the high-stress corridors already referenced are not just difficult to travel along; they can also be difficult to cross. Intersections along Main Street and Veterans Parkway, and even a number of four-lane road crossings on the Constitution Trail, present uncomfortable situations for people walking and bicycling. These high-stress intersections can be a significant deterrent to walking and bicycling trips, causing many people to choose to drive to their destinations instead.
**ADA Compliance Issues**

Maintenance issues and sidewalk obstructions were previously mentioned in the existing conditions section as weaknesses. It is important to note these maintenance and obstruction issues have a disproportionate impact on the community’s most vulnerable pedestrians, including children, the elderly, people with limited mobility, people using mobility assistance devices, and parents pushing children in strollers. While many able-bodied pedestrians can walk over a vertical crack in the sidewalk or sidestep a utility pole blocking the sidewalk, these same obstructions can force more vulnerable sidewalk users into the street, create long, circuitous detours, or prohibit travel altogether. Sidewalk repairs can be costly, but the Town of Normal has demonstrated its commitment to addressing these issues through strategic investments in recent years.

**Site Circulation and Sidewalk Access**

Many retail, restaurant, and commercial land uses in Normal lack pedestrian paths and crosswalks to support internal circulation and connect to the adjacent sidewalk. This creates challenges for people walking to access popular destinations, particularly in east Normal, including Walmart, Target, and McDonald’s. Without appropriate requirements in the zoning code, the Town of Normal cannot require developers or property owners to add internal pathways to support pedestrian circulation.
CONCLUSION

Normal is on the move. Building on the successes of previous planning efforts and initiatives and fueled by support from residents and stakeholders, the Town of Normal has made significant strides to weave walking and bicycling into the fabric of the community. Trail expansion, sidewalk infill, and on-street bikeway network development have increased safety and connectivity and expanded access to active transportation and recreation for Normal’s growing population.

Even with these advancements, the state of the transportation system leaves much to be desired for those walking and bicycling. The issues and opportunities identified in this current conditions chapter provide context and understanding of the complex factors that influence walking and bicycling and shape the travel experience in Normal. This context and understanding is critical to the development of recommendations later in this plan.

The plan itself marks an inflection point on Normal’s trajectory towards an ideal future for walking and bicycling. Normal has reached this current state of walking and bicycling with the guidance of the 2009 Bicycle and Pedestrian Master Plan and the determined efforts of many Town staff, advocates, and community residents.

With the information gathered through this current conditions inventory and the input shared by community residents through public engagement forums, the Town of Normal can chart a new course for the transportation system underpinned by the principles of safety, connectivity, accessibility, comfort, health, and equity.
REFERENCES

2  Rubin V. Sustainable Communities Series: Regional Planning for Health Equity. PolicyLink. 2015.
7  Active Living By Design. Low Income Populations and Physical Activity. 2012.
15  Blumenberg E., Pierce G., Smart M. Transportation Access, Residential Location, and Economic Opportunity: Evidence from Two Housing Voucher Experiments. Cityscape. v17