6

transportation

Overview

Transportation enables us to connect with people and places in our community, but transportation is more than just covering the distance between destinations. Streets are our largest public space in terms of land area, and public streets have long functioned as places to interact socially, to conduct business, or to gather for events such as markets, parades, or festivals. Rights of way are the foundation of our transportation system and must accommodate the diverse needs of our population, from a child walking to school to a delivery truck taking products to a local restaurant. Additionally, space surrounding streets is where utilities such as telecommunications, water, sewer, and more are typically located. Transportation and the right of way it generally occurs within is complex and impacts our lives, health, economic prosperity, and environment in many ways.

This chapter discusses transportation concepts and provides a perspective on the role they can play in the Bloomington transportation network. Although the document discusses each of these categories separately, they are interconnected and must be considered together to create an equitable, multimodal transportation system.

Multimodal Transportation Planning

The transportation mode we choose—walking, bicycling, taking public transit, or driving—and the route we pursue depend on many variables such as what modes are available to us, what paths are available, the safety of the routes, and the travel time required. It also depends on the relative cost, the quality of the experience, and more.

Since the 1950s, transportation systems across the United States have focused on motor vehicles, specifically on moving lots of motor vehicles quickly through spaces. As cities began to stretch outward, land use policies increased the distance between destinations while auto-focused designs increased the travel speeds: farther and faster. The repercussions of this approach are widely documented and include inequality, increased emissions, and an inefficient system that is expensive to maintain. Many cities across the globe are working actively to diversify their transportation systems and change transportation's focus from one mode to many; from a focus on throughput to a focus on place. Taking this focus it is helpful to replace the word transportation with the phrase "mobility management."

A multimodal transportation system that is accessible to all users has numerous benefits for the entire community. According to the Federal Highway Administration, households, on average, spend 19% of household income on transportation, second only to housing. However, the portion of income dedicated to transportation varies dramatically depending on the home's location and the context: ex-urban locations spend nearly 25% of household income on transportation, whereas homes in compact, connected areas spend only 9% of household income on transportation. Investing in multimodal transportation can result in a reduced cost of living for Bloomington residents: Paying less for transportation means having more disposable income for other necessities (housing, food, etc.) or amenities (shopping at local businesses, dining at local restaurants, etc.). More importantly, approximately 20% of Bloomington's population has a disability(Council for Community Accessibility).

Ensuring greater access to the transportation network can result in better mobility throughout the community for the disabled. By prioritizing our walking, bicycling, and transit networks, more destinations will be more accessible for all residents. Our entire community will receive large returns from transportation investments.

Finally, connectivity within the existing network, and linkages between modes, play a key role in improving a multimodal transportation system. Installing bike racks on transit buses is an easy way to expand the service area for either bicycle or transit users by creating a simple linkage between modes. This can reduce travel times to and from transit stops and increase the area for destinations, compared to a pedestrian using transit. "Smart vehicle" technology is another consideration that can improve the safety and efficiency of the network. Real-time route selection, anti-crash sensing, and self-driving vehicles are examples that offer benefits. The "sharing economy" also contributes to improving the multimodal network. Ride, car, and bike share programs skirt the economic barriers to vehicle ownership and offer very good options over typical mode choices. These are important aspects to incorporate into multimodal transportation planning.

Health Impacts of Transportation

Obesity and physical inactivity are serious public health problems that are related to transportation. According to the Center for Disease Control, approximately 80% of adults do not regularly get the recommended amount of aerobic and muscle-strengthening activity per day. Nearly 70% of adults are either overweight or obese, and childhood obesity (ages 1-19) is also rising across the country. In 2016, for Monroe County, 21% of adults were considered obese (Centers for Disease Control). Improvements in the transportation network that encourage walking and bicycling will result in healthier and more active lifestyles.

Transportation crashes also have a significant impact on health. Nationally, in 2014, accidents were the fourth leading cause of death (136,053); of these fatalities, 35,398 were traffic crashes (Centers for Disease Control and Prevention - National Center for Health Statistics). Locally, from 2012–2014, there were 12,448 car crashes reported in Monroe County, with approximately 21% resulting in injuries or fatalities, and a total of 21 fatalities (BMCMPO 2012–2014 Crash Report). That is an average of over 4,000 traffic crashes per year, or 11 crashes per day.

Around the world, cities and towns are taking a bold new approach to reducing transportation crashes and their associated injuries and deaths. Vision Zero takes the simple stance that traffic crashes are not "accidents," but rather preventable incidents that can be systematically addressed. By using a multifaceted approach to enforcement, education, better roadway engineering and design, and improved emergency response, Vision Zero has transformed attitudes regarding traffic death and injury to a series of actions that can be changed or prevented. Advocates of Vision Zero note that improved safety is possible without losing freedom or mobility. The program aims to reduce speeding, driving under the influence, and other risky behaviors. Sweden successfully chartered Vision Zero in 1997, and the approach continues to pay dividends in that country today. More recently, the Netherlands and many cities in the U.S., such as New York City, San Francisco, Chicago, and Austin, have implemented similar efforts. The United States Department of Transportation has also launched a Road to Zero coalition with a goal of achieving zero fatalities nationwide within the next 30 years. Bloomington should take note of what this concept has to offer and work to reduce the frequency and severity of crashes on our road network.

Pedestrian Transportation

Bloomington is a walking town. Nearly 15% of Bloomington workers walk to work regularly. This percentage is among the highest in the nation (American Community Survey). Beyond walking to work, nearly everyone is a pedestrian at some point in their day, whether by parking a vehicle and walking to the final destination, walking to a transit stop, or walking the entire way. Despite the fact that most people walk every day for a portion of their trips, few people identify as pedestrians.

Many City initiatives have helped make walking a transportation option for many Bloomington residents. People are more likely to choose walking when there are places to walk to and the route is safe, convenient, and enjoyable. In order to ensure there are places to walk to, land uses should be mixed in order to develop destinations. To make walking safe and convenient, infrastructure such as sidewalks, paths, or trails need to be provided and well connected. To be sure that walking transportation is enjoyable, street trees, benches, and streetlights should be included in the right of way as part of the transportation system. Interesting buildings, outdoor seating areas, and public art or creative spaces also greatly contribute to pedestrian interest and enjoyment.

As an example, for more than 20 years, Bloomington has been actively working to improve walking in the community. In 1992, the Common Council established the Alternative Transportation Fund, which receives excess revenues from the Residential Neighborhood Parking permit program. The City Council Sidewalk Committee oversees a portion of the funds and prioritizes projects. The funds are used to improve and build sidewalks across the City in order to enhance walking transportation.

Bloomington will continue to improve walking transportation, and more residents will be comfortable choosing to walk for transportation. Planning and designing for pedestrians results in a town that is more accessible and enjoyable for all. A successful walking transportation system should be comfortable to people in wheelchairs or with other mobility aids, young children, families with strollers, and senior citizens.

Bicycle Transportation

Bloomington residents ride bicycles for transportation, fitness, and enjoyment. According to the 2014 American Community Survey (ACS), 5.3% of Bloomingtonians use a bicycle as their primary transportation to commute to work. This number has been growing steadily as the City has improved its transportation network to better accommodate people on bicycles. Increased bicycling benefits not just those who bicycle, but the whole community by helping to achieve goals in every chapter of the Comprehensive Plan. These benefits are similar to those achieved through increased pedestrian transportation: reduced traffic congestion, improved health, an activated public realm, reduced environmental impact, encouragement of compact and connected development, improved affordability, and much more.

In recognition of Bloomington's commitment to improving bicycle transportation, the League of American Bicyclists identified the City of Bloomington as a Bicycle Friendly Community with a bronze designation in 2003, a silver designation in 2010, and a gold designation in 2014. Bloomington established a goal to achieve platinum designation, which is held by only a few municipalities nationwide, by 2016. To achieve that goal, a Platinum Biking

Task Force was established in 2010 to assess Bloomington's strengths and weaknesses in regard to bicycling and to create a plan for the City to achieve a platinum designation. The resulting report, Breaking Away: Journey to Platinum, was adopted by the City Council in 2011. While Bloomington was not awarded a platinum designation in 2016, the recommendations of this report and the subsequent Bikeways Implementation Plan are well underway, with a 94% increase in mileage of bikeways, trails, and paths since 2010. In order to achieve a platinum designation and to realize the full benefits that bicycling can offer to the entire community, Bloomington must continue working to provide transportation infrastructure that allows people of all ages and abilities to use a bicycle for transportation.

Bloomington's enormously popular rails-to-trails project, the B-Line Trail, was completed in 2011. The trail links many neighborhoods that did not previously have a separated biking and walking route to Downtown. People use the trail for a wide variety of reasons, from transportation and fitness to festivals and people-watching. The B-Line's strong north-south pedestrian and bicycle connection has led to greater demand from residents for other connections that provide improved safety and comfort for bicyclists and pedestrians; such connections should link people's residences with the businesses, parks, schools, restaurants, and other destinations throughout the City.

Recent improvements to the bicycle and pedestrian transportation network have increased users and general interest. However, safety, level of comfort, and seamless integration with other modes remain significant challenges. Safety is a top priority that benefits every user. Improving the level of comfort for a wide range of users provides more options and is more inclusive regarding age and ability. Seamless integration improves connectivity and accessibility such that all modes are more or less equal overall. Addressing these challenges will be an important focus going forward.

A celebrated aspect of Bloomington is its close cultural association with bicycles, brought to national attention with the acclaimed 1979 movie Breaking Away. The film features the Little 500 bicycle race, an annual IU event since 1951. "Little 5" is one of the most well-known collegiate traditions. Additionally, the Hilly Hundred is a major non-collegiate

Photo Credit of Mark Stosberg

bicycle touring event held in the area that attracts thousands of bicycling enthusiasts. These and other recreational activities are integral parts of Bloomington's bicycle culture. Leveraging them is a way to sustain and broaden participation in the bicycle transportation network.

Public Transportation

Public transportation is an important option for community members. Driving is not always an option; in Bloomington, 11% of residents are too young to drive, and among adults, driver's license rates are decreasing in most age groups. For some, the cost of owning and maintaining a motor vehicle is too high. Efficient and frequent public transportation allows residents of all ages and abilities to function independently, avoid isolation, and access destinations around town.

Bloomington Transit has an impressive track record over the last decade. The agency was named the 2010 Outstanding Public Transportation System in North America (Small Transit Category). Ridership has increased 70%, from 2.06 million in 2004 to 3.45 million riders in 2016. Bloomington Transit now offers service to previously underserved areas, such as from the Arlington Park area to the Clear Creek Shopping Center. Service has been extended until 11:30 p.m. on some routes, includes Sunday service for a few others, and even includes a "Night Owl" service that operates near the IU Campus until 3:30 a.m. on Friday and Saturday nights. The opening of a modern downtown Transit Center, investments in hybrid buses, and implementation of a live bus-tracker system have also helped to bolster Bloomington Transit's ridership and success. Indiana University's Campus Bus Service and the Area 10 Agency on Aging's Rural Transit also operate within the City of Bloomington and carry many riders each year.

Even with a great performance record and wide support for transit, service gaps remain. Weekend, Sunday, and extended hours can be improved. Headway time, or the time between buses on a transit route, is another consideration as some headway times are an hour. Reduced headway times make transit a more appealing option to consider, especially when they are less than a half hour. Locating multifamily housing, employment, and other intensive land uses near or along transit routes helps to improve access. For example, transit oriented developments (TOD) are high density or multifamily communities that are compact, pedestrian-oriented, walkable, and located within close proximity to transit service. TOD is one method used to consider new development with transit service. Using access to transit as an analysis tool is necessary for land use decisions. It can improve ridership, mitigate traffic, and lower a household's transportation expenses.

Motor Vehicle Transportation

The City of Bloomington owns and maintains more than 230 center lane miles of streets and 82 traffic signals. This infrastructure, complemented by numerous other State and County facilities, provides an extensive network for motor vehicle use. Personal motor vehicles, delivery vehicles, emergency response vehicles, bikes, and public transit all use this network to reach destinations within and around the City.

With the exception of areas of new development, this network has very few opportunities for new connections. Investments in infrastructure for motor vehicles should focus on maintenance, improved efficiency within existing space, and reductions in crash risk and severity.

High motor vehicle speeds are a constant cause for complaints from nearby residents, other drivers, and people using other transportation modes. Speed is a key contributor to crashes involving people walking, on bicycle, and in motor vehicles, and it is directly related to crash severity. Enforcement and education are important for requiring appropriate speeds. We must also design urban infrastructure that lowers speeds and minimizes crash risk and severity for all users.

Transportation Investments

Transportation investments are significant undertakings, and costs are always a limiting factor. The daily operation and maintenance costs of these facilities are substantial. The total costs associated with network improvements must account for engineering, design, land acquisition, construction, inspection, and maintenance.

Significantly expanding the capacity of the City's motor vehicle transportation system is simply not realistic. The City does not have the space or resources to significantly expand roads and intersections within our built-out, urban environment. In addition, every medium and large-sized city that has attempted to reduce congestion by building more motor vehicle capacity has only induced more demand and created further congestion. The cities that

have most successfully managed congestion and improved transportation long-term have done so by investing in walking, bicycling, and public transportation. While these investments most obviously benefit users of those modes, we must recognize that every person walking, on bicycle, or in a bus represents one less car on the street. These investments are less expensive than road expansions, more equitable for a community with diverse socioeconomics, and much more likely to have positive long-term effects.

The on-going construction of Interstate 69 through Bloomington presents a number of challenges to the community. Alterations to highway access points and local roadway configurations near the corridor will impact residents and the businesses they seek to access. Traffic diverted to new routes on local roads may force the City to re-evaluate its priorities for future transportation projects. In addition, bicycle and pedestrian accessibility across the Interstate 69 corridor are important future considerations. The city must also carefully manage development around highway interchanges to ensure that only the most appropriate land uses develop in those areas.

Making new investments in the transportation network should be carefully evaluated, not only considering fiscal, locational, and demand contexts, but also the implications for climate change, economic prosperity, and community health. One tool to foster such evaluations for our transportation objectives is the Master Thoroughfare Plan. Understanding that the "shared" or "access" economy and "driverless" or autonomous vehicles will also have long-term effects.

Master Thoroughfare Plan

As a requirement of Indiana code IC-36-7-4-502, the comprehensive plan must contain a "statement of policy for the development of public ways, public places, public lands, public structures, and public utilities." The Master Thoroughfare Plan fulfills this requirement by establishing general policy guidance for public ways. Other chapters provide policy guidance on the development of public places and lands (such as parks), public utilities, services, and structures. The Master Thoroughfare Plan establishes a means to plan for various investments needed to address a wide range of community transportation needs.

Because public ways provide the conduits that transport goods, services, and utilities across all land uses, transportation policy guidance must be closely tied to land use. Public ways and land use influence one another. Without consistent policies in both areas, unintended consequences from growth and development could occur. Providing even basic services, such as sanitary sewers, police services, fire protection, and walkable public schools, becomes problematic if not coordinated with land use development and public ways policies.

In the past, the Master Thoroughfare Plan (MTP) served Bloomington well in this basic fashion. It established right-of-way needs for roadways and utility infrastructure for a growing community. The Plan shaped street design to handle traffic flows and addressed general safety concerns through typical cross sections. It also prioritized roadways to accommodate traffic flows and to establish automobile speeds. The MTP aided in annual maintenance schedules for paving, snow plowing, and emergency routes. All of this was achieved by using a standard functional classification system commonly used throughout the U.S. However, this method is antiquated because it fails to respect context, land uses, and most of all people. The functional classification system prioritizes automobile mobility over the mobility and safety of people.

National trends in context-sensitive solutions and "Complete Streets" have begun to address these shortcomings. New approaches balance speed, traffic flow, and roadway design while enhancing historic neighborhoods and natural features in order to create streets that support vibrant work, living, and shopping areas. Streets are public spaces that must interact with and enhance surrounding land uses, both existing and planned. Therefore, Bloomington is adopting a new approach in planning and designing public streets that will draw on the concept of Complete Streets and focus on the movement of people using inviting, context-sensitive design.

The MTP update should include a local classification system to provide spatial guidance for the application of its general policies. Major future public ways (for example, Adams Street) that will provide main connections would be identified and classified in the plan, while minor future connections (for example, new connections off of Adams Street) would not be identified but are expected to be consistent with the MTP, most specifically Goal 6.1 of this section.

Purpose of the Master Thoroughfare Plan (MTP):

- Preserve and establish rights of way
- Establish street design guidelines that follow Complete Streets policy and provide continuity for each mode: pedestrians, bicyclists, transit, and motor vehicles
- Promote context-sensitive designs for the many different land uses and natural contexts within the community that the transportation system serves and/or transects
- Coordinate the upgrade or development of new transportation system investments

Operations and maintenance programs should use roadway classifications as criteria when prioritizing work. Other factors may include pedestrian and bicyclist use, presence of transit routes, and quantitative condition ratings. Operations and maintenance programs include, but are not limited to, the following:

A. Establishment of emergency routes
B. Establishment of truck routes and delivery zones
C. Establishment of snow removal routes and priorities
D. Establishment of paving and signal needs and priorities
E. Establishment of detour routes

General Policies of the Master Thoroughfare Plan:

Provide and maintain a safe, efficient, accessible, and connected system of transportation that emphasizes walking, public transit, bicycling and shared travel methods to enhance options that reduce our overall dependence on the individual automobile.

To the greatest extent possible, minimize injury and the loss of life from transportation-related crashes by using vehicle speed suitability linked to the context of adjacent land uses, modal safety priorities, and congestion and air quality outcomes.

Ensure that the safety and convenience of all users of the transportation system are accommodated in the daily operations and maintenance of the existing transportation network, and that future transportation system investments likewise accommodate all users.

Recognize the City's constrained ability to expand or widen most roadways within an urban and built context, such that retrofitting existing roadways and designing innovative solutions for pedestrians, transit users, shared riders, and bicyclists are considered before roadway widening.

Identify locations where new or improved transportation facilities are needed while establishing a land use and transportation context to guide the scope, scale, context, and priority for any (public/private) transportation capital improvement project.

Goals & Policies

Policies in this chapter respond to the adopted 2013 Vision Statement objectives to:
"Meet basic needs and ensure self-sufficiency for all residents"; to
"Fortify our progress toward improving public safety and civility"; to
"Invest in diverse high quality economic development that provides equitable job opportunities to our residents, supports an entrepreneurial small business climate, enhances the community's role as a regional hub, and is responsive towards larger concerns of sustainability," to
"Ensure all land development activity makes a positive and lasting community contribution"; to
"Provide a safe, efficient, accessible, and connected system of transportation that emphasizes public transit, walking, and biking to enhance options to reduce our overall dependence on the automobile"; and to
"Enhance the community's role as a regional economic hub."

Goal 6.1 Create and maintain a sustainable transportation system.

Policy 6.1.1: In land use decisions, require sufficient density to promote infill, redevelopment, and reuse of vacant or under-utilized parcels and also to support multimodal transportation.

Policy 6.1.2: Locate transit and multimodal facilities near higher-density developments and employment and retail centers.

Policy 6.1.3: Balance economic, environmental, accessibility, and equity issues in local transportation decisions.

Policy 6.1.4: Support public transit access to regional destinations, high-density residential areas, social services, community facilities, and employment centers.

Policy 6.1.5: Encourage the provision of seating, lighting, and signage (including real-time arrival information) at transit stops to increase rider comfort, safety, and convenience.

Policy 6.1.6: Prioritize pedestrian and bicycle infrastructure within Bloomington and to connect with surrounding communities.

Policy 6.1.7: Encourage and require (where legally feasible) new private developments to dedicate easements or right of way and provide improvements for pedestrian and bicycle facilities to complete the connectivity in the networks.

Policy 6.1.8: Enhance the pedestrian and bicycle network with benches, pedestrian-scaled lighting, bicycle parking, street trees and landscaping, interpretive stations, public art, and/or other features to further improve the physical conditions that support walking and biking.

Policy 6.1.9: Encourage, and when possible require, pedestrian-friendly design features.

Policy 6.1.10: Continue to support the adoption and use of technologies that reduce emissions of greenhouse gases and pollutants from vehicles.

Policy 6.1.11: Ensure City transportation and land use decisions are coordinated with anticipated developments in automated/autonomous vehicles, such that City decisions complement multimodal transportation, improve safety and mobility, and support urban growth without encouraging sprawling development with longer commutes.

Goal 6.2 Maintain an efficient transportation network for all users.

Policy 6.2.1: Maintain a local Master Thoroughfare Plan, as required by state law, that plans for all modes of transportation.

Policy 6.2.2: Consider all ages, all abilities, and all modes, including pedestrians, bicyclists, transit vehicles, emergency responders, and freight when planning, designing, modifying, and constructing transportation facilities.

Policy 6.2.3: Focus on increasing capacity through multimodal improvements and optimization of the existing transportation system.

Policy 6.2.4: Permit the use of public right of way and parks for necessary and desired activities such as construction, maintenance, and special events as appropriate.

Goal 6.3 Protect neighborhood streets that support residential character and provide a range of local transportation options.

Policy 6.3.1: Implement traffic calming measures where safety concerns exist to manage motor vehicle traffic on residential streets.

Policy 6.3.2: Balance vehicular circulation needs with the goal of creating walkable and bike-friendly neighborhoods.

Policy 6.3.3: Continue to improve connectivity between existing neighborhoods, existing and proposed trails, and destinations such as commercial areas and schools.

Goal 6.4 Balance demands for public parking and the function it serves in transportation and economic development and other community needs.

Policy 6.4.1: Implement creative parking strategies to minimize inefficiencies, facilitate equitable use of public space, and adhere to best practices for parking, including potential adaptive reuse of structures as needs may evolve.

Policy 6.4.2: Encourage attractive and environmentally sensitive parking areas.

Policy 6.4.3: Prioritize on-street parking spaces for equitable and environmentally conscious uses.

Policy 6.4.4: Develop on-street parking design and typical application standards and specifications.

Policy 6.4.5: Encourage provision of covered bicycle parking.

Goal 6.5 Improve the safety of Bloomington's transportation network.

Policy 6.5.1: Prioritize safety and accessibility over capacity and level of service in transportation planning, design, construction, and maintenance decisions.

Programs

General

- Update the existing Master Thoroughfare Plan to include pedestrian and bicycle facilities in addition to traditional motor vehicles. The Plan should be updated regularly, identify long-term needs for preservation purposes, and provide a mechanism for prioritizing projects.
- Formally adopt a city-wide Complete Streets Policy that requires accommodation for users of all ages, abilities, and modes.
- Create City Street Design Specifications and Standards that are consistent with Complete Streets best practices, and long-term maintenance costs.
- Enhance safety for all modes by reducing motor vehicle speeds through engineering, enforcement, and education.
- The City Capital Improvement Plan (CIP) should spread capital investments geographically through the City.
- Prioritize connectivity improvements on bicycle and pedestrian use while also supporting motor vehicle connections.
- Partner with private developers to expand the transportation network and improve pedestrian and bicycle facilities.

- Require installation of vertical curbs, rather than rolled curbs, when constructing, maintaining, or modifying roadways.
- Encourage appropriate community events at appropriate locations and times.
- Enhance the understanding of and standards for approvals, maintenance of traffic, and ADA compliance.
- Manage right of way use and excavation policies, permits, and work to meet desired standards and specifications.
- Utilize Smart City technology to improve efficiency, energy savings, and signal preemption for transit.
- Utilize options for experimentation, the use of temporary traffic countermeasures, and pilot programs or Urban Mechanics that increases civic participation, improves streets, and boost educational outcomes through art and other creative activities.

Mass Transit

- Develop transit-oriented development standards.
- Coordinate with area transit providers (BT, IU, Rural, etc.) for opportunities to enhance service and efficiencies from a regional perspective.
- Work with area transit providers (BT, IU, Rural, etc.) to study opportunities for Park & Ride at strategic locations around the community.
- Work with Bloomington Transit to expand bicycle storage on public transit vehicles.
- Support statewide initiatives to assist in funding area transit.
- Assess the expansion of transit service (days, times, service areas) and accessibility to transit stops (sidewalks).

Bicycle and Pedestrian Transportation

- Update the Unified Development Ordinance (UDO) to ensure pedestrian-friendly buildings and pedestrian interest along streets.
- Design, maintain, and construct pedestrian facilities to be compliant with Public Rights Of Way Access Guidelines (PROWAG) and the Americans with Disabilities Act (ADA).
- Improve pedestrian and bicycle access to and between local destinations, including public facilities, schools, parks, open space, employment districts, neighborhoods, shopping centers, and more.
- Implement the prioritized bicycle and pedestrian facilities improvements included in the most recent Transportation Plan.
- Identify, prioritize, and program/fund pedestrian roadway crossings that should be improved.
- Support the creation of a pedestrian environment for all ages and abilities through improvements to accessible curb ramps, elimination of tripping hazards, landscape maintenances, lighting, benches, and other innovative strategies.
- Use engineering, enforcement, and educational tools to improve traffic safety on City sidewalks, paths, trails, and roadways. Monitor the performance of safety initiatives.
- Partner with Indiana University to further investigate and analyze a bike-sharing program and facility improvements to better serve trips between the University and the City.
- Continue to periodically publish a local area bicycle route map in coordination with adjacent jurisdictions.
- Install bicycle parking corrals in on-street parking locations in order to increase the availability and convenience of bicycle parking, especially where demand is high.

Motor Vehicles

- Continually monitor traffic patterns and evaluate changes (e.g., signal timing adjustments) to enhance efficient flow of traffic.
- Make safety improvements that reduce crashes. Quickly respond to emergencies.
- Update the Neighborhood Traffic Safety Program to aid in the identification of appropriate contexts and tools for traffic calming.
- Assess the new Bloomington Hospital campus and its influence on access, emergency response, and general trip-generation demands.
- Measure and consider the effects of street modifications on emergency vehicle response time. Any negative effects to response time should be carefully weighed against potential safety benefits achieved by the modifications.
- Employ an annual monitoring program to identify locations with high crash risk, and use that information to prioritize infrastructure investments.
- Adopt a City-wide Vision Zero policy that recognizes traffic crashes as preventable incidents and establishes a goal of eliminating all transportation-related fatalities and serious injuries.
- Promote incentives and create public-private partnerships to establish programs within the City that help reduce emissions of greenhouse gases and pollutants, such as vehicle-sharing, electric- or alternative-fuel vehicles, and other strategies to increase multimodal trips.

- Promote programs to encourage ride-sharing among employees within specific districts.
- Further encourage the installation of facilities that support alternative-fuel vehicles by reviewing and amending the UDO where appropriate.
- Update City policies and codes as necessary to address the needs and impacts of emerging forms of transportation like ride sharing, autonomous vehicles, and electric vehicle charging stations.

Motor Vehicle Parking

- Regularly examine parking demand, utilization, and alternatives in the Downtown area and City-wide.
- Develop a Parking Management Program for the Downtown area that supports downtown businesses while encouraging a walkable, urban core.
- Provide clear information about parking and transportation options, such as educational materials about the parking meter hours and garage locations.
- Develop criteria and standards for neighborhood parking applications.
- Assess appropriate ADA/PROWAG design and compliance for on-street parking locations.
- Assess layout configurations to minimize safety risk (sight distance, bike lanes, space, function).
- Utilize on-street parking to assist in managing traffic speeds.
- In existing parking areas, encourage and develop incentive-based approaches to beautify, reduce negative environmental impacts (heat, storm water, etc.), promote ADA compliance, and improve safety.
- Update City ordinances to encourage parking areas that reduce stormwater runoff, increase compatibility with street trees, and add visual interest.
- Explore the use of both temporary and permanent "parklets" in parking areas to diversify public space, promote local businesses, and improve livability.
- Prioritize accessible parking spaces in compliance with the City's adopted accessibility guidelines.
- Plan, prioritize, and designate on-street parking spaces for car-share vehicles.
- Encourage special events, like Open Streets and balance them with their impacts on mobility, parking, business, and emergency response and consider parking needs and access for the special events.

Outcomes and Indicators

Outcome: The transportation network supports all travel modes for people of all ages and abilities.

- Percent of people walking to work
- Percent of people bicycling to work
- Percent of people taking transit to work
- Percent of students walking and bicycling to school
- City-wide vehicle miles traveled (VMT)
- Percent of people driving alone to work
- Motor vehicle lane, sidewalk, path, trail, and bike lane mileages

Outcome: Public streets and rights of way have positive public health impacts.

- Number of fatalities and incapacitating injuries
- Crash rates for people walking and bicycling
- Motor vehicle crash rates
- City-wide obesity levels
- Average pavement condition index by road typology
- Number of known sidewalk and ramp ADA violations

Outcome: Public parking demands are managed efficiently and effectively.

- Downtown public parking utilization rates


STOP
ups