

CHAPTER 7: PEDESTRIAN VISION

INTRO

Virtually every trip we make involves a pedestrian component – whether it be walking between a building and an automobile or bus, parking a bike and walking to a destination, or simply walking between home and the corner store. Walking is an essential part of our daily activities and the pedestrian network of sidewalks, trails, crosswalks, and paths is an important element of a multi-modal transportation system.

In addition to serving basic traveling needs, the pedestrian system can enhance the character of our community. For example, amenities such as wide sidewalks, good lighting, benches and planters (i.e., street furniture), distinctive street crossings, and curb extensions make Champaign’s downtown a unique, inviting place.

Walking is fundamental to an urban area’s efficient ground transportation system. In order to elevate the pedestrian travel mode in the transportation network, special pedestrian districts have been designated, each with different needs and investment levels. The pedestrian districts specified in the long-range transportation plan provide a focus for investment for this affordable and healthy travel mode.



ISSUES

Several issues were identified as part of the pedestrian system analysis. They include:

- Enhancing street crossing safety;
- Accessibility for all populations;
- Completing the pedestrian system along City arterials;
- Provide a system of pedestrian connections from residential areas without sidewalks; and
- Modifying the City’s development review process, codes, and standards to increase pedestrian opportunities.

PEDESTRIAN VISION PLAN

Ideally, it would be desirable to be able to walk everywhere within the City of Champaign with a system of integrated sidewalks, pathways, and safe street crossings. Implementation of complete streets as depicted in the City's street standards will go a long ways in providing this pedestrian network in new development areas, however adding sidewalks on the miles and miles of arterials, collectors and local streets is not financially possible in existing neighborhoods and nodes.

Therefore, the Pedestrian Vision has two primary objectives. The first is to set policy that all new developments and arterials be constructed with complete street standards that include sidewalks. This objective if met, will cap the existing pedestrian deficiency so that it does not become worse. The second objective is to target where pedestrian improvements should be made. Obviously pedestrian safety, such as Safe Routes to Schools, is critically important. Targeting pedestrian improvements to areas with the highest probability of pedestrian activity is also important. To this end, the Pedestrian Vision map highlights nodes and connectors within the City which have the greatest potential for pedestrian activity, and hence the greatest investment.

Elements of a Quality Pedestrian Network

Since its introduction in the 1960's, traffic engineers have used a computational method for evaluating the street and roadway system, referred to as Level of Service. Although there is no universal way to evaluate the pedestrian network, there are five pedestrian characteristics that affect pedestrian mobility.

- **Directness:** Making a decision to walk is highly correlated to distance and how long it takes to walk. If the sidewalk network is direct and minimizes the travel time, a person is much more likely to walk than if the route is circuitous and adds length and time to the trip. Directness is the measure of distance between destinations including home, transit stops, schools, parks, commercial areas, or activity areas. The grid street pattern has traditionally been recognized as the ideal system.
- **Continuity:** If there is not a continuous pedestrian network between point A and B, and a pedestrian would have to walk in the street in an unsafe condition, the pedestrian trip is typically not made. Continuity is measured by the completeness of the sidewalk/walkway system and by identifying whether gaps exists. Other aspects of continuity is whether there are sidewalks along one or both sides of the street and whether there exists an overall continuity of sidewalk that provides a line of sight from block to block. As an example, if a street has the continuity of a continuous sidewalk network that is separated by a landscaped parkway, that continuity is broken with a block or segment where an attached sidewalk might be placed.
- **Street Crossings:** The Achilles heel of the pedestrian system are the intersections where pedestrians must cross. This is the area where the pedestrian must interface with automobiles, which can result in safety concerns. As streets get wider and carry higher volumes of traffic, potential use by pedestrians are avoided as safety becomes a concern. There are many factors that affect the pedestrians real and perceived comfort and safety for crossing the street including number and width of travel lanes, travel speeds, and traffic volumes. These concerns can be off-set with traffic control, crosswalks and ramps and intersection design such as curb radius and pedestrian street lighting.
- **Visual Interest and Amenities:** Pedestrians often choose to walk or not depending on the quality of the environment. Areas that are pleasing and appealing with activities along the route are used much more than areas that are stark and uninviting. To promote pedestrian activity in nodes and use of transit, the pedestrian system needs to have an appealing visual quality with basic amenities.
- **Security:** Pedestrians require a sense of security, both through visual line of sight with others and separation from vehicles. They also require well-lighted pathways and sidewalks for night use.

CHAPTER 7: PEDESTRIAN VISION

As presented in the Pedestrian Vision, Figure 21, are three categories of pedestrian districts, downtown, community and neighborhood, and multi-modal connectors between these pedestrian districts and from neighborhoods and the pedestrian district. The character of these pedestrian districts varies somewhat by type as described as follows. These pedestrian districts and multi-modal connectors complement the land use plan with nodes and connections.



Walkable distance, and hence district size, are extended by appropriate facilities, frequency of interest, and environmental quality. Density and diversity of land uses and proximity of interrelated pedestrian destinations, closely clustered within a quarter-mile or greater walkable radius, support the concept of a pedestrian district and the development of one or more transit facilities to serve it. A viable pedestrian district has sufficient user population density and walkable proximity of destination to create a high-level of pedestrian activity. A pedestrian district land use, spatial characteristics, and its alternative transportation facilities provide incentives that encourage walking and bicycling as the transportation modes of choice for trips within the district and transit as a significant mode to and from the district. All corridors within a pedestrian district contribute towards a closely coupled network of connectivity to provide balanced access and movement to an array of destinations.

Downtown Pedestrian District



The Downtown Pedestrian District is characterized by dense, and close-coupled mix of land uses including commercial, retail, cultural, hospitality, governmental, educational, institutional, a strong residential component, and remainder historic industrial uses that are often adapted to a more urban center uses. This mix and density of uses creates the economic and user population base imperative for multi-modal transportation and walkability. The district is bounded and bisected by several multi-modal corridors,

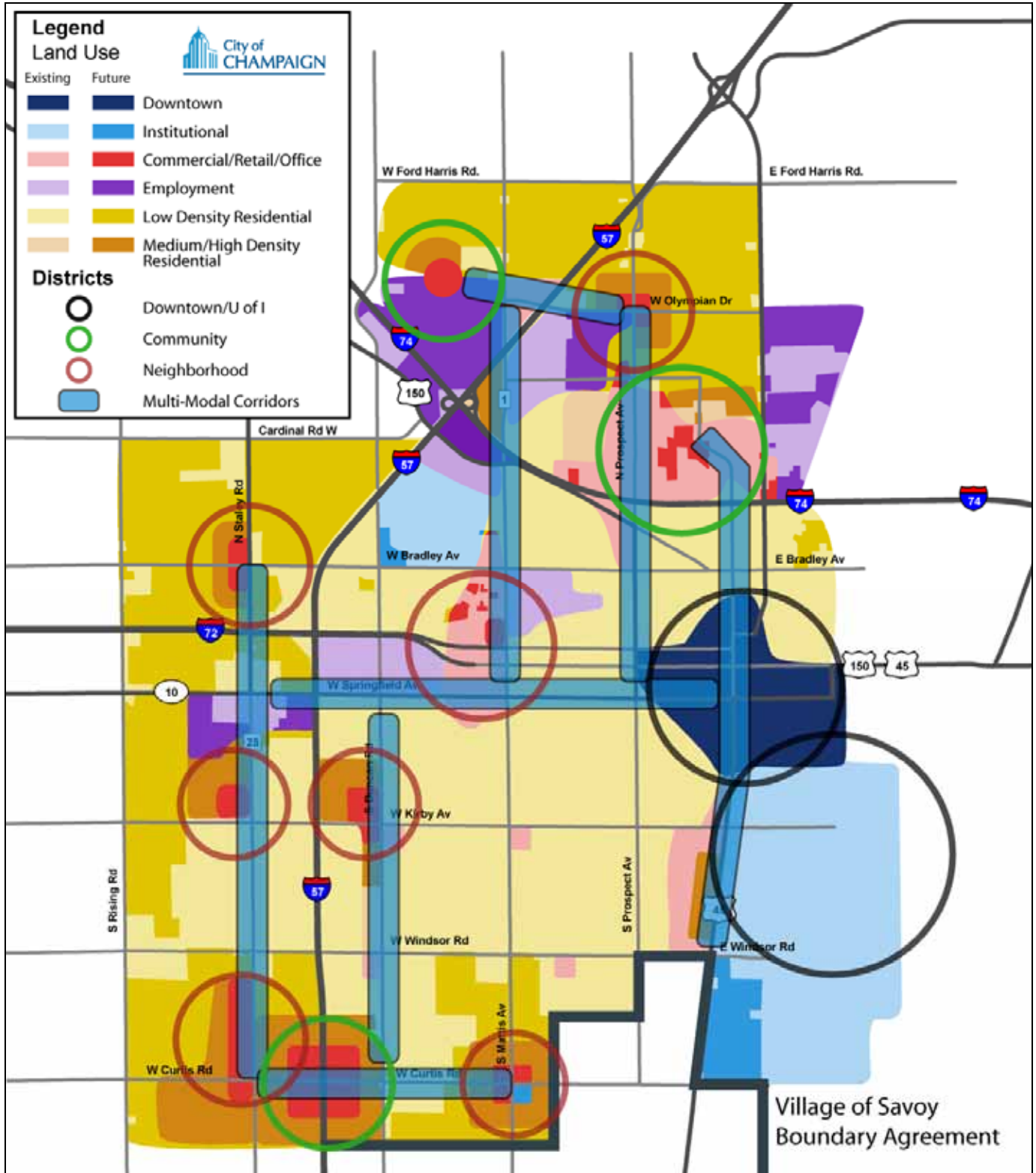
where transit and pedestrian activity are prevalent. A healthy and vital Downtown Pedestrian District has extended hours and weekend pedestrian presence based on quality of life characteristics achieved through a rich mix of land uses and a walkable environment.

Characteristics:

- Short blocks and grid network.
- Transit center and hub for Citywide transit connections.
- Convergence of two or more multi-modal corridors and regional inter-modal transportation hub.
- Slower vehicular traffic.
- Sense of identify throughout the district.
- Programmable community gathering space available for public use.
- Region's most valuable real estate.

CHAPTER 7: PEDESTRIAN VISION

FIGURE 21: PEDESTRIAN DISTRICTS



Source: LSA Associates, Inc.
October 24, 2007

CHAPTER 7: PEDESTRIAN VISION

- Building design and site development that considers the needs of pedestrians, bicyclists and transit users first in terms of form, function and aesthetics.
- Inclusion of government institutions and services to support retail and commercial destinations.
- First floor uses that generate foot traffic 18 hours a day and visual interest to passerby.
- Residential base that generates 24-hour activity.

Community Pedestrian District

The Community Pedestrian District is an area characterized by a dense clustering of various types of destinations and activities. This district is typically characterized by ground floor uses which are regional and community commercial retail, entertainment, and hospitality. Contiguous or adjacent dense residential development is served by, and economically supports, the non-residential land uses. Its residential population proximity justifies optimization of pedestrian facilities, links to the regional multi-modal transportation network, and is supported by a larger demographic including the automobile user. Newer town center and lifestyle center developments, with adjacent residences, are also considered Mixed-use Development Pedestrian Districts. A visible pedestrian presence enhances the social appeal of the district and its economic viability.

Characteristics:

- Centrally accessible transit.
- At least one multi-modal corridor through or along one edge.
- Slower vehicle traffic.
- Sense of identity throughout the district.
- Building design and site development that considers the needs of pedestrians, bicyclists, and transit users first in terms of aesthetics, form and function.

Neighborhood Pedestrian District

A Neighborhood Pedestrian District serves core residential areas. Typically, a Neighborhood Pedestrian District serves the adjacent neighborhood and becomes the neighborhood node for daily shopping, services, and entertainment. The Neighborhood Pedestrian District is a popular walking and biking area, with either a multi-use paths or bike routes and collector sidewalks connecting the neighborhood with the node.

Characteristics:

- Direct walking/bicycle connections from adjacent neighborhoods to commercial retail and services.

CHAPTER 7: PEDESTRIAN VISION

- Centrally located transit stop/station.
- Slower vehicle traffic.
- Sense of neighborhood identity.
- Multi-modal site design.
- Neighborhood commercial uses with mix of services, office, and higher density residential.

CONNECTED NEIGHBORHOODS AND NODES PEDESTRIAN IMPROVEMENTS

The following provides a list of pedestrian improvements and features that should be implemented in all nodes and multi-modal corridors.

Sidewalks and Street Lighting

5-foot pedestrian sidewalks and street lighting are proposed for all multi-modal corridors and nodes on both sides of the street per the City of Champaign's Proposed Street Standards. The landscaped pedestrian buffer zone between travel stream and pedestrian sidewalk should be provided for all corridors. This recommendation is to provide better and safer conditions for pedestrians using these corridors.

Trees and other landscaping should be incorporated wherever possible to add shade, separate the pedestrian and vehicular realms, and increase pedestrian safety by lowering curbside vehicular speeds. Streetscapes and other pedestrian paths should be adequately linked to transit access points, open spaces, and entrances to retail and commercial establishments.

Pedestrian Crossings

Crosswalks at major intersections with signals should provide pedestrian pushbuttons and pedestrian count down signal heads. Pedestrian activated flashing pedestrian crosswalks signs and markings should be installed along the multi-modal transportation corridors at locations of school crossings, transit stops, parks and high pedestrian demand areas. Pedestrian crossing should be provided at a minimum of one per every quarter of a mile along the multi-modal corridor and one every 1/8 mile (660 feet) with nodes. These crossing may occur at mid-block locations. Design should include use of refuge islands, medians, pork chop islands and intersection islands. Crosswalk design shall meet Americans with Disability Act (ADA) guidelines.

Consolidate Driveways and Adopt Shared Parking Requirements

Frequent driveways cause problems for pedestrians and bicyclists as well as motorists. Consolidate driveways to improve safety and accessibility. Implement shared parking requirements to provide a better pedestrian-scaled environment.

CHAPTER 7: PEDESTRIAN VISION

Provide Pedestrian Scale Lighting and Furnishings

Provide pedestrian scale lighting and site furnishings like benches, trash receptacles and bicycle parking at appropriate locations.

Include Pedestrian Circulation Requirements in Land Use Regulations

Ensure that land use regulations include specifications to provide safe pedestrian access to existing and proposed building entrances and activity centers.

Develop Pedestrian Rest Areas

Develop standard rest areas or plazas for pedestrians within nodes and along multi-modal corridors.

Provide Pedestrian and Bicycle Signage

Install different types of signage (way finding, location maps and bilingual) where applicable in order to improve pedestrian and bicycle access and safety.

Develop Educational Programs

Develop educational programs on pedestrian and bicycle safety and regulations.

Provide Enforcement

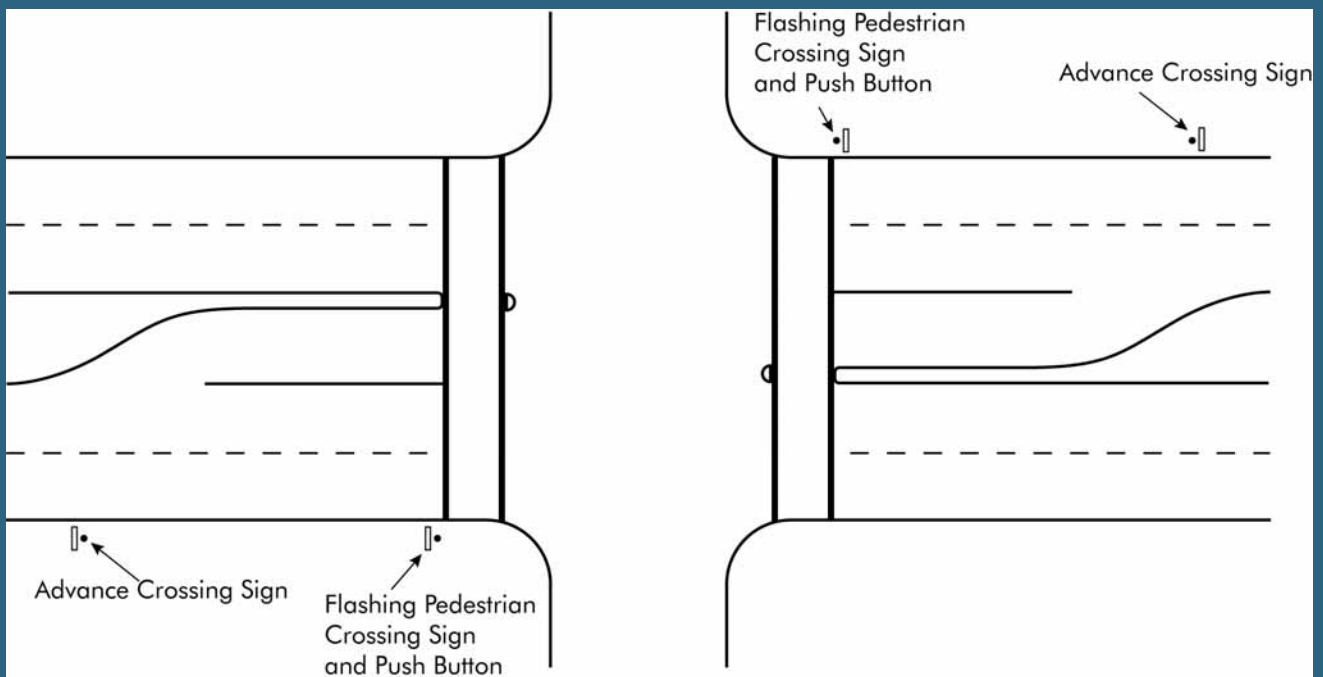
Establish and enhance the enforcement of pedestrian, bicycle and vehicular laws and safety.

CHAPTER 7: PEDESTRIAN VISION

Pedestrian Crossing Treatment at Unsignalized Intersections and Mid-Block Crossings

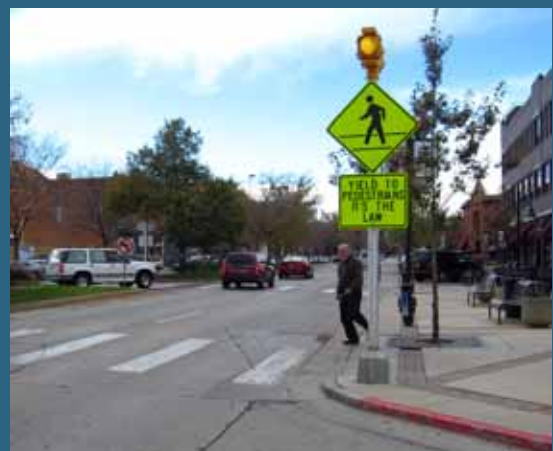
Along many of the City's arterials, such as Mattis, Prospect, Kirby, Winsor Road and Curtis, it is difficult for a pedestrian or bicyclist to cross these high speed roadways with increasing traffic. Whereas pedestrian and bicyclist can cross at signalized intersections, the long distances between signalized intersections make it impractical for a pedestrian that want to cross in between these intersections. Installing signals at strategic locations might seem practical to provide safe crossings, except signals should only be installed when warranted based on the Federal Highway Administration (FHA) Manual on Uniform Traffic Control Devices Signal Warrants. Adding new signals to a corridor can also impact the overall traffic flow along the corridor, reduce capacity and create congestion.

This concern of safe pedestrian and bicycle arterial crossings is occurring throughout the United States. Many jurisdictions are implementing other traffic control solutions to address this need. The following provides a low cost option for improving pedestrian and bicycle arterial crossings based on a pedestrian yield crossing sign and striping with a pedestrian activated flashing indicator. This concept is presented in the graphic below.



The design includes a pedestrian-activated flashing yield to pedestrian sign that provides convenience and safety for pedestrians.

There are a number of arterials in the City of Champaign that could benefit from a pedestrian crossing similar to the design above. Examples include the bicycle path where it crosses Mattis south of Kirby or Mattis at Broadmore.



CHAPTER 7: PEDESTRIAN VISION

Pedestrian Policies and Five Year Action Plan

Policies

- PP-2. Identify needed pedestrian improvements in pedestrian districts and focus resources for improvements.
- PP-3. Continue to identify and complete missing segments of the sidewalk system on the City's existing arterial streets.
- PP-4. Elevate the pedestrian travel mode in the community with increased education and signage identifying pedestrian rights and enhancing safety.
- PP-5. Implement the University District Streetscape Master Plan.
- PP-6. Improve downtown intersections to improve pedestrian safety by incorporating bump-outs and enhanced pedestrian crosswalk facilities.

Five Year Action Plan

- PA-1. Modify standards and codes for new developments to include pedestrian access to activities within the site, to transit stops near the site, and sidewalks along streets bordering the site.
- PA-2. Coordinate with CU-MTD to incorporate changes in standards and codes to integrate sidewalks into the site design which provide pedestrian connections to transit stations and to bus stops.
- PA-3. Implement safe street crossing improvements for crucial intersections.
- PA-4. Incorporate a safe pedestrian crossing checklist when proposing intersection widenings.