

Section 6: Active Living/ Healthy Population

This section presents issues associated with land use and transportation planning that should be considered in creating an environment that is conducive to active lifestyles. In many newer developments, the transportation system and land use are not conducive to walking and bicycling. Planning challenges associated with creating a built environment that facilitates physical activity along with tools to address the challenges are presented at the end of the section.

The importance of physical activity has been understood for many years. Yet, many Americans have difficulty achieving the activity necessary to maintain a healthy lifestyle. The Journal of the American Medical Association published ten imminent public health concerns and related challenges to counteract those concerns, of which one is for individuals to integrate physical activity into daily life¹. Walking and bicycling for transportation can be an easy way to incorporate regular activity into one's life, if these modes are accommodated by the built environment.

The roadway system should be planned to accommodate all users, not just vehicles. After all, roadways are in public right-of-way and should not isolate those who do not drive. This is especially important when one considers that nearly one-third of Americans do not drive due to age, income, disability, or by choice.

Suburban land use practices have been influenced by age-old zoning and development regulation that work against active lifestyles. Communities have separated land use, increased distance between buildings, moved buildings away from the roadway, and paid little attention to providing bicycle and pedestrian facilities. Land use practices should promote closer proximity of pedestrian generators and encourage roadway connectivity. Site design practices should incorporate comfortable walking environments and promoting building orientation and pedestrian facilities that connect to sidewalks along the roadways.

Land use and transportation should be undertaken in a comprehensive and coordinated manner. Land use planning efforts are often undertaken separately from transportation planning. Land use planning is conducted at the municipal level and focuses on individual properties and site layout. Meanwhile, transportation planning that primarily happens at the regional and state levels has limited interaction with municipal land use planners. Land uses and transportation facilities influence one another and should be planned for in a comprehensive manner.

Roadway Design Guidelines

In the last half of the twentieth century, transportation practices and policies focused on motor vehicle travel with less regard for public transportation, walking, and bicycling. A case in point can be made from the IL 47 SRA Report, prepared in 1995. As seen from the cross-sections shown in **Figure 5.5: IL 47 SRA Cross-Sections (IDOT 1995)**, little attention was paid to bicycle, pedestrian, and transit facilities.

Roadway systems should have variable designs depending on roadway function to accommodate all users; ranging from local streets meant to carry low volumes of traffic at slow speeds, to higher volume, higher speed roadways that carry regional traffic. For instance, a roadway with higher traffic volumes and speeds necessitates greater separation or buffer between pedestrians and motorists. Buffers can be provided by parkways, on-street parking, and bike lanes. Likewise, bicyclists require more separation from moving traffic as the volumes and speed of a roadway increases. Separated bike lanes or sidepaths, where the bike lane is buffered from the roadway by a barrier or planting strip, may be appropriate on regional arterials. More robust pedestrian crossing treatments, such as high-visibility crosswalk markings, center medians, and pedestrian countdown signals, are also appropriate and may be necessary to ensure safety on streets with high volumes and speeds.

Roadway design guidelines also should vary based on the adjoining development context. Some streets will be more suitable to pedestrian and bicycle traffic than others. However, a balance should be reached so that the network as a whole can accommodate all modes safely and conveniently.

Design guidelines for vehicle movement are well established. However, it has only been in the last decade that greater attention has been paid to the guidelines for pedestrian and bicycle facilities. Municipalities should consider adopting roadway design guidelines that address all forms of transportation. National and state guidelines and standards are available and can be utilized in this effort. Still, it is important for municipalities to consider guidelines that are applicable to specific local conditions.

Land Use

Active living can be encouraged through land use practices that decrease travel distances through proximity of land use, higher density and mixed-use development. The National Household Travel Survey (NHTS) found that increased land use density yields a higher percentage of the population that achieves the recommended goals for daily physical activity.²

Retail commercial and industrial land uses will locate where it is economically beneficial to the business. As municipalities plan for these land uses, locating residential land in proximity to employment centers should be considered. Such a practice can improve the jobs/housing balance and reduce commute times. In addition, a mix of land uses, as opposed to zoning districts that separate land uses, can shorten the distances between residences and commercial districts, entertainment venues, or employment centers. Denser environments with mixed uses support physical activity by bringing destinations closer together. The compact development patterns also are often accompanied by transportation facilities that better accommodate pedestrians and bicyclists.

Facilities that tend to generate bicycle and pedestrian travel, such as parks and schools, can be located close to residential neighborhoods to encourage these modes. Ample opportunity for recreation at parks or trails should also be ensured for all residents. This may include new facilities to fill in gaps in the park system or improving connections from residences to existing parks and trails.

¹ Koplan, Jeffrey P. MD, MPH, David W. Fleming, MD. *Current and Future Public Health Challenges*. Journal of the American Medical Association, October 4, 2000 – Vol. 284, No. 13

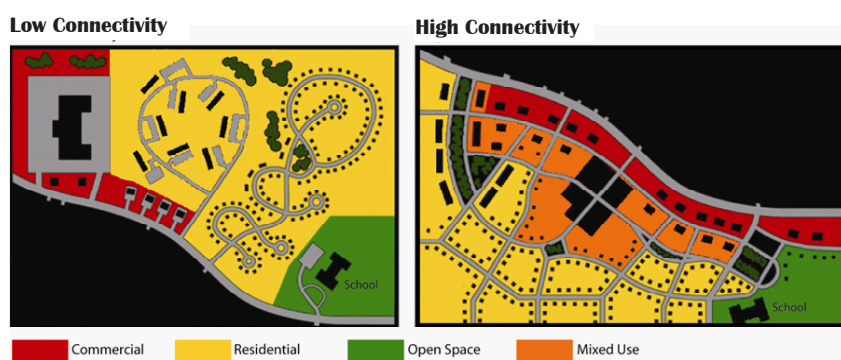
² Litman, Todd. "If Health Matters: Integrating Public Health Objectives into Transportation Planning." Victoria Transport Policy Institute, June 13, 2006.

Roadway Connectivity

Land use planning also affects roadway connectivity. Walking and bicycling are more sensitive to distance than driving. Land use proximity can affect the viability of walking and bicycling as an alternative to driving.

Figure 6.1: Land Use Patterns and Roadway Connectivity shows two examples of a neighborhood with different roadway networks. They demonstrate two ways in which neighborhoods can be laid out to provide low or high roadway connectivity. In areas with low connectivity, a trip may be seen as too long or intimidating unless made by vehicle. Low roadway connectivity also puts a greater strain on the arterial road, as it forces a greater amount of traffic onto that one roadway. The arterial strain is relieved in networks with higher connectivity. The neighborhood with high connectivity provides more direct routes between destinations and makes walking and bicycling more convenient. As an example, a trip to school in the neighborhood with low connectivity requires traveling on the main arterial, whereas in the neighborhood with high connectivity, the school can be accessed by local roads and the overall route is shorter. The latter route is likely perceived as safer and more pleasant to a pedestrian or bicyclist.

**Figure 6.1:
Land Use Patterns and
Roadway Connectivity**



Site Design Guidelines

Site design guidelines can promote alternative forms of transportation by encouraging building orientation and facilities that promote bicycling and walking. Facilities should be provided to accommodate a pedestrian or bicyclist from the roadway to building entrance. Convenient bicycle parking should be provided close to building entrances.

The site layout, especially the building orientation towards the roadway, can have an important affect on the ability to use sidewalks. Sites where buildings front the roadway are more inviting to pedestrians. In order to provide good access for all users, parking lots should not be located in between a roadway and the entrance to a building, and instead should be accommodated behind the development. The buildings provide something to look at and also create a buffer between a pedestrian zone and vehicle zone. If a parking lot does separate a building from the roadway, safe access (such as a sidewalk) should be provided through the lot to the building entrance.

Right-of-way landscaping, signage, and streetscape are additional site design considerations that can enhance the pedestrian environment and encourage walking.

Municipalities should consider adopting site design guidelines that encourage building orientation, site layout, and amenities that encourage active living. Establishing a set of design guidelines would help municipalities negotiate with developers and create the desired atmosphere for their communities.

Planning Challenges and Tools

The previous section presented issues associated with creating a built environment that is conducive to more active living and a healthy lifestyle. The planning challenges associated with creating an environment that promotes active living lifestyles are presented below. Tools to address these planning challenges are listed and additional detail can be found in the **Toolbox for IL 47**.

Planning Challenge #17:

Roadways often have been designed without regard for the movement of pedestrians, bicyclists, or transit. As public facilities, the roadway network should routinely balance the needs of all potential users.

Tools:

- Bicycle Plan
- Complete Streets Policy
- Cross Section Alternatives
- Multi-Modal Level of Service
- On-Street Parking
- Pedestrian Crossings
- Pedestrian Plan
- Roadway Design Guidelines

Planning Challenge #18:

The roadway network in the vicinity of IL 47 does not always provide direct connections between destinations. Increased roadway connections will reduce travel distances and encourage walking and bicycling as modes of transportation.

Tools:

- Connections between Subdivisions
- Collector Roadway Grid
- Traditional Neighborhood Design

Planning Challenge #19:

Land use development does not always support the residential densities, site design, and mixed-uses that encourage bicycling and walking. Municipalities should identify growth nodes that would encourage mixed-use and densities supportive of bicycling and walking. Site design standards should be used to further promote active lifestyles.

Tools:

- Clustering Development
- Identify Locations for Growth Nodes
- Mixed-Use Development
- Schools Located within Walkable Distance
- Site Design Guidelines
- Streetscape
- Transit-Oriented Development
- Update Comprehensive Plans