

Complete, Safe, and Equitable Streets: What They Are, What They Do, and How Kirk Ridge Can Benefit

What Are Complete Streets?

A complete, safe, and equitable street allows comfortable and safe travel for everyone using various travel types. Examples include walking, bicycling, driving a car, or riding public transportation.



Figure 1: An Example of a Complete Street
Source: www.streetmix.com

Figure 1 shows one of many examples of a complete street. A streetcar runs down the center, with benches for waiting riders. Next is a driving lane, and then a parking lane. Next is a planter box buffer to protect adjacent bike lane from automobiles and also further protect pedestrians. Public transportation, driving, bicycling, and walking are all safely represented in this image.

Complete streets create many benefits for a city and its residents. There are economic, financial, health, safety, and travel benefits.

How Does Kirk Ridge Benefit?

Many of the above benefits apply in Kirk Ridge. With recent revitalization of downtown, shopping and tourism have become important to the town. Complete streets increase pedestrian activity, which increases local businesses profits, a benefit directly applicable to Kirk Ridge.

They increase tax revenue and development, and raise land values, improving the economic health of the town.

They improve work opportunities for struggling families and residents by making it easier for people to get to a variety of work locations. Almost 28% of residents in the town are financially struggling and need more direct connections to work.

Many of the previously stated health and safety benefits also apply to Kirk Ridge. Complete streets make drivers more cautious, making travel safer for pedestrians and bicyclists. They decrease accident severity, which decreases injuries and therefore fatalities.

Unfortunately, the town has lost one pedestrian every year for the past seven years. This is nearly twice the rate of New York City.¹ Complete streets implementation could fix this.

¹ Balsamini 2021

Another health benefit of complete streets is an increase in physical activity. With complete streets, more people are walking and bicycling. This improves physical, mental, and emotional health. 17.7% of the town's population are seniors. Seniors would benefit greatly from more physical activity.

Policy Opportunities for Kirk Ridge

Improvements in Bicycle Infrastructure via Separated Bike Lanes

Kirk Ridge can implement features of complete streets with improvements to bicycle infrastructure. An example is separated bike lanes, shown in Figure 2 below. This separates bikes from drivers, improving bicyclist safety.

Current bicycling rates do not correctly show demand. Cities and towns that build bike lanes see increases in bicycle usage.^{2, 3} "If you build it, they will come" is true for bike lanes. Expected benefits of bike lanes include decreases in bicycle injuries. The most vulnerable bicyclists are children and seniors, and bike lanes provide extra protection for them.



Figure 2: A Separated Bike Lane

<https://bikeleague.org/content/fhwa-implement-separated-bike-lane>

There will be health improvements, as bike lanes will increase the number of bicyclists thus increasing physical activity, a strong health benefit.

Bike lanes further buffer pedestrians from automobiles, increasing pedestrian safety and comfort. To perform a cost-benefit analysis of bike lanes, the town needs data on the number of bicyclists, and where they most commonly ride. This can be gathered by observing bicyclists around town. There is already census data on who use bicycles to commute, but this ignores people that bicycle for leisure. That data could be gathered via surveys.

Improvements in Pedestrian Infrastructure

The next area where Kirk Ridge can implement features of complete streets is improvements to pedestrian infrastructure. Safer and more comfortable pedestrian routes have many benefits, namely an increase in walking. There will also be improved health of residents, as better sidewalks encourage walking.

² People for Bikes n.d.

³ Stromberg 2014

The toolbox of pedestrian infrastructure is large and includes many tools:

Leading Pedestrian Light:
crossing light changes for pedestrians before drivers, making them easier to see
Cost: Low



Pedestrian Scale Lighting:
keeps sidewalks bright without streetlights
Cost: Moderate



Pedestrian Crossing Audio Signals:
tells sight-impaired pedestrians when to cross the street
Cost: Low to Moderate



Pedestrian Crossing Tactile Strips:
bumps in sidewalk let sight-impaired pedestrians know where the curb is
Cost: Low



On-Street Parking and Street Trees:

both create an additional barrier between pedestrians and vehicles, and slow drivers down
Cost: Moderate to High



Pedestrian Refuge

Islands:
give pedestrians a safe place to rest within crosswalks
Cost: Moderate

Pedestrian

Crossing Lights:
tell pedestrians when to cross the street
Cost: Moderate



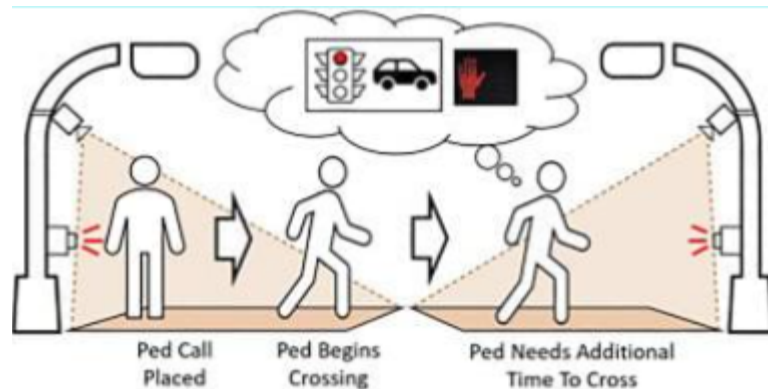
Wide Sidewalks:
create comfortable walking space
Cost: Moderate to High



In-Street Pedestrian Signs:
gives drivers additional reminder about pedestrians, and slows drivers down
Cost: Low



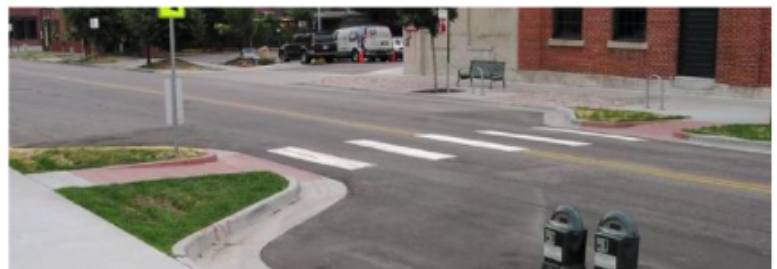
Passive Pedestrian Detection:
increase crossing times when it senses pedestrians in crosswalks
Cost: High



Mid-Block Crosswalks with Warning Lights:
gives pedestrians safe place to cross between traffic lights
Cost: Moderate



Curb Extensions:
curb pushed into street at crosswalks, creating shorter crosswalks, and slows drivers down
Cost: Moderate



Data needed for cost-benefit analyses of pedestrian features include pedestrian counts and pedestrian density. Census data can be used, and additional data can be gathered with observation. The locations of pedestrian fatalities should be mapped to show where better pedestrian infrastructure is critically

needed. Walking may only be 3% of commuters, but public transportation riders are pedestrians too, and they represent 10% of commuters.

Recap

A complete street allows safe travel for everyone, using various travel types, including walking, bicycling, driving a car, or riding public transportation. They have financial, health, and travel benefits, and Kirk Ridge can reap those benefits with the implementation of complete streets.

Bibliography

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