

CASE STUDY

Building a Walkable Future Columbus, Ohio Puts Crosswalk Beacons on its Forward-Thinking Agenda

What do crosswalk beacons have to do with building a vibrant community? Columbus, Ohio can tell you.



Carmanah R920 Solar Crosswalk Beacon

Each year Columbus, Ohio receives more than 60 requests for crosswalk improvements across the city. For the officials considering these requests the crosswalks represent more than just pedestrian safety, they represent an opportunity to help the community achieve its forward-thinking agenda of a sustainable, walkable, and vibrant city atmosphere.

Columbus is taking its place among cities across the US that are recognizing the value of walkable urban spaces. Studies are showing that the walkability of a city is a major draw for young and creative talent, as well as the baby boomer generation – all of whom value safe, comfortable, and convenient access to amenities, public transit, and their places of employmentⁱ.

The movement is putting community planning on a new path towards multi-modal transportation infrastructure, increased pedestrian service levels, and compact development principles. And Columbus is keeping step. Recently, the City hosted "Advancing Ohio's Urban Agenda: Walkable Communities for Globally Competitive Cities", a forum that brought local developers and officials from the Urban Land Institute, the Smart Growth America LOCUS program, and Columbus district council together to discuss the City's agenda for future growth.

But the City isn't just talking about the principles of walkability, they're also taking action. Recently the City of Columbus, Department of Public Service released a study outlining the process and criteria officials will use to determine where and what kind of crosswalk enhancements will

best improve pedestrian service levels in the city.

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Leveraging

NCHRP Report 562 and FHWA standard categorizations, officials will use criteria such as vehicle speeds, road volume, and pedestrian volume to determine which uncontrolled crossings require safety enhancements¹. The NCHRP worksheet process is employed and once a crossing has met the criteria as an "enhanced/active" crossing, the City looks to rectangular rapid

¹ Report guidelines include intersection and midblock locations with no traffic signals or stop sign on the approach to the crossing. They do not apply to school crossings.



flashing beacon (RRFB) technology for helpⁱⁱ.

Since 2011, the State of Ohio has had blanket FHWA interim approval to install RRFBs at uncontrolled pedestrian crosswalk locations statewide. California, Minnesota, Arkansas, Oregon and several other states have also been granted this approval. Through FHWA research RRFB technology has been shown to improve pedestrian safety across high-speed, multilane roads with no proximity to traffic signals, and has produced long-term results that show driver yield rates jumping from 0% to 96% in some casesⁱⁱⁱ.

It isn't just impressive results and federal approvals that make RRFB technology attractive to the City. The technology is actually quite cost-effective and makes use of existing hardware by slipping easily onto crosswalk sign posts that are already there. Additionally RRFBs can be solar powered to avoid expensive trenching procedures. This means the City spends much less time and money on making crosswalk improvements, which enables them to respond to a greater number of requests with the dollars available.

Through the new Department of Public Service report, Columbus is leveraging federal approvals and recommendations to implement RRFB technology as an integral part of the movement towards walkable urban development. Forward thinking, technologically savvy, and ambitious, the City of Columbus is finding new ways to implement cost-effective, time-proven, and simple solutions that will set their city on the right path to a sustainable, vibrant, and economically stable future.

Carmanah and Columbus – Crosswalk beacons for walkable urban development

As part of their move towards RRFB technology for a sustainable future, Columbus, Ohio recently developed specifications to guide the purchase of 12 RRFB crosswalk systems for use at locations across the City. Carmanah R920 solar-powered rectangular rapid flashing beacon systems were proposed by Carmanah-authorized distributor Path Master, and were chosen as the successful candidate. Installation of the systems will begin soon.

To learn more about how Carmanah RRFB technology can help your community, visit <u>www.carmanah.com/traffic/crosswalks</u> or reach out to us directly at traffic@carmanah.com or 1.877.722.8877.

ⁱ Kaid Benfield. "Why Smarter Land Use Can Help Cities Attract and Retain Young Adults." *Kaid Benfields Blog.* Switchboard National Resources Defense Council Staff Blog.

http://switchboard.nrdc.org/blogs/kbenfield/why smarter lan d use can help.html?utm source=feedburner&utm mediu m=feed&utm campaign=Feed%3A+switchboard kbenfield+ %28Switchboard%3A+Kaid+Benfield%27s+Blog%29

ⁱⁱ Terry Steward & Jodi Stefanik. "Enhancing the Study, Engineering and Implementation of Safe Crosswalks." The City of Columbus Department of Public Service. <u>http://www.dot.state.oh.us/engineering/OTEC/2012%20Pres</u> <u>entations/06A-StewartStefanik.pdf</u>

^{III} U.S. Department of Transport Federal Highways Administration. "Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multi-Lane Uncontrolled Crosswalks." Publication No. FHWA-HRT-10-043. <u>http://www.fhwa.dot.gov/publications/research/safety/pedbik</u> <u>e/10046/index.cfm</u>