

PEDESTRIAN HYBRID BEACON (PHB)

Purpose

Signalized crossing for pedestrians allowing motor vehicles to proceed unless pedestrians are present.

Description

Signals at major street crossing locations that remain dark until pedestrian activates via a pushbutton. Also called High Intensity Activated Crosswalks, or HAWKs.

Estimated Cost



Applicable Street Types

- Downtown Boulevard
- Downtown Street
- Boulevard
- Town Center Boulevard
- Town Center Street
- Neighborhood Connector
- Neighborhood Street
- Neighborhood Yield Street
- Industrial Street
- Country Connector
- Country Road

Applicable Locations

Can be used at the midblock or at corners, but not placed in the functional area of signalized intersections. PHBs can also be used:

- Where traffic signals do not meet MUTCD warrants.
- Outside of turn lanes.
- Along bicycle routes where bicyclists must cross a major road.
- On roads with three or more lanes and where the number of daily vehicles is greater than 9,000.





Safety Benefits

- Reduce pedestrian delay.
- May reduce multiple threat crashes.
- May reduce pedestrian crossing at undesignated crossings.

Expected Crash Reduction

55 percent for vehicle-pedestrian crashes.⁴⁰

Design Guidance

- Install pedestrian signal heads and pedestrian pushbuttons on either side of the crossing.
- Mark crosswalk with high-visibility markings.
- May be installed with pedestrian warning sign (MUTCD W11-2 or MUTCD R1-5 series).
- See Maryland MUTCD Chapter 4f and the Montgomery County Complete Streets Design Guide for additional information.

Considerations

- Beacons are preferably placed above the crosswalk, rather than the side of the road.

- Most effective when motor vehicle speeds are too high or gaps in traffic are too infrequent or for pedestrians to cross safely.
- PHBs are not common; consider outreach efforts when implementing a PHB to educate drivers and pedestrians.

Systemic Safety Potential

- Pedestrian Hybrid Beacons have the potential for systemic implementation at crossings on multi-lane roadways with higher traffic volumes, speed limits at 30 mph or more, and longer intervals between crossings.
- Can be a systemic treatment for all midblock crossings where roadway speed limits are 40 mph or higher.

Additional Information

- NCHRP 562 & TCRP 112: Improving Pedestrian Safety at Unsignalized Intersections
- Pedestrian Hybrid Beacon Guide, Recommendations and Case Study
- FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- Safety Effectiveness of the HAWK Pedestrian Crossing Treatment