



Illinois Department of Transportation

Memorandum

To: Regional Engineers
From: Amy Eller *Amy Eller*
Subject: OPS-T-13. Policy on Accessible Pedestrian Signals and
Pushbuttons for Traffic Signals and Pedestrian Hybrid Beacons
Date: October 18, 2021

Please find attached a revised policy outlining requirements for the placement of accessible pedestrian signals and pushbuttons for traffic signals/pedestrian hybrid beacons. The requirements of this policy shall be followed in order for the department to comply with legal obligations including the Manual on Uniform Traffic Control Devices (MUTCD) and the proposed Public Rights-of-Way Accessibility Guidelines (PROWAG). Please distribute this policy to district personnel involved in the design, approval, inspection, and programming of pedestrian pushbuttons for traffic signals. This policy supersedes the Policy on Pedestrian Pushbutton Locations and Accessible Pedestrian Signals dated July 31, 2013.

If you have any questions, please contact Kyle Armstrong at 217-782-2076.

Attachment

Cc: BDE
Construction
BLRS
Civil Rights
BSPE

Policy on Accessible Pedestrian Signals and Pushbuttons for Traffic Signals and Pedestrian Hybrid Beacons
October 2021

To comply with legal obligations, further the goals of the Department's ADA Transition Plan, and meet the needs of all pedestrians, all new and altered pedestrian signals including those used in conjunction with pedestrian hybrid beacons (PHB) shall include accessible pedestrian signals (APS) with pushbuttons. APS shall be designed and installed according to the BDE Special Provision for Accessible Pedestrian Signals and the requirements of Part 4 of the MUTCD. The pushbuttons, as "operable parts", shall meet the requirements of Section R403 of the (Proposed) Public Rights-of-Way Accessibility Guidelines (PROWAG) and Part 4 of the MUTCD.

The requirement to install APS with pushbuttons also applies to traffic signals interconnected with railroad grade crossing warning devices, traffic signals equipped with emergency vehicle preemption systems, and traffic signals utilizing pretimed operations where pedestrians are not currently required to activate a pushbutton to receive a walk signal indication. At pretimed traffic signals, the use of APS with pushbuttons are required to provide signal status information in non-visual formats to pedestrians with visual disabilities.

For purposes of this policy, an altered pedestrian signal only includes construction projects that are planned for implementation and not emergency or routine maintenance work. Emergency replacement of any components of the controller cabinet or traffic signal hardware including existing pushbuttons does not require existing pushbuttons to be immediately upgraded to APS. In addition, signal timing/programming adjustments initiated by district personnel or from signal coordination and timing studies do not establish altered pedestrian signals. APS upgrades shall be included for signal modernization contracts or any other contract involving signal modifications. The installation of APS does not require existing ramps/sidewalks to be modified to meet ADA requirements. APS shall also be installed if leading pedestrian intervals will be implemented. When pushbuttons are upgraded to APS, all pushbuttons at the same intersection shall be upgraded to avoid the use of APS and non-APS devices at the same location.

To ensure the facilities we construct or alter are readily accessible and usable by pedestrians with disabilities, the requirements shown below shall be followed when positioning pushbuttons during the design phase and during construction.

- Pushbutton locations shall have a clear space complying with the following:
 - o A firm, stable, and slip resistant surface
 - o A minimum size of 2.5 ft x 4.0 ft
 - o Connected to an accessible pathway

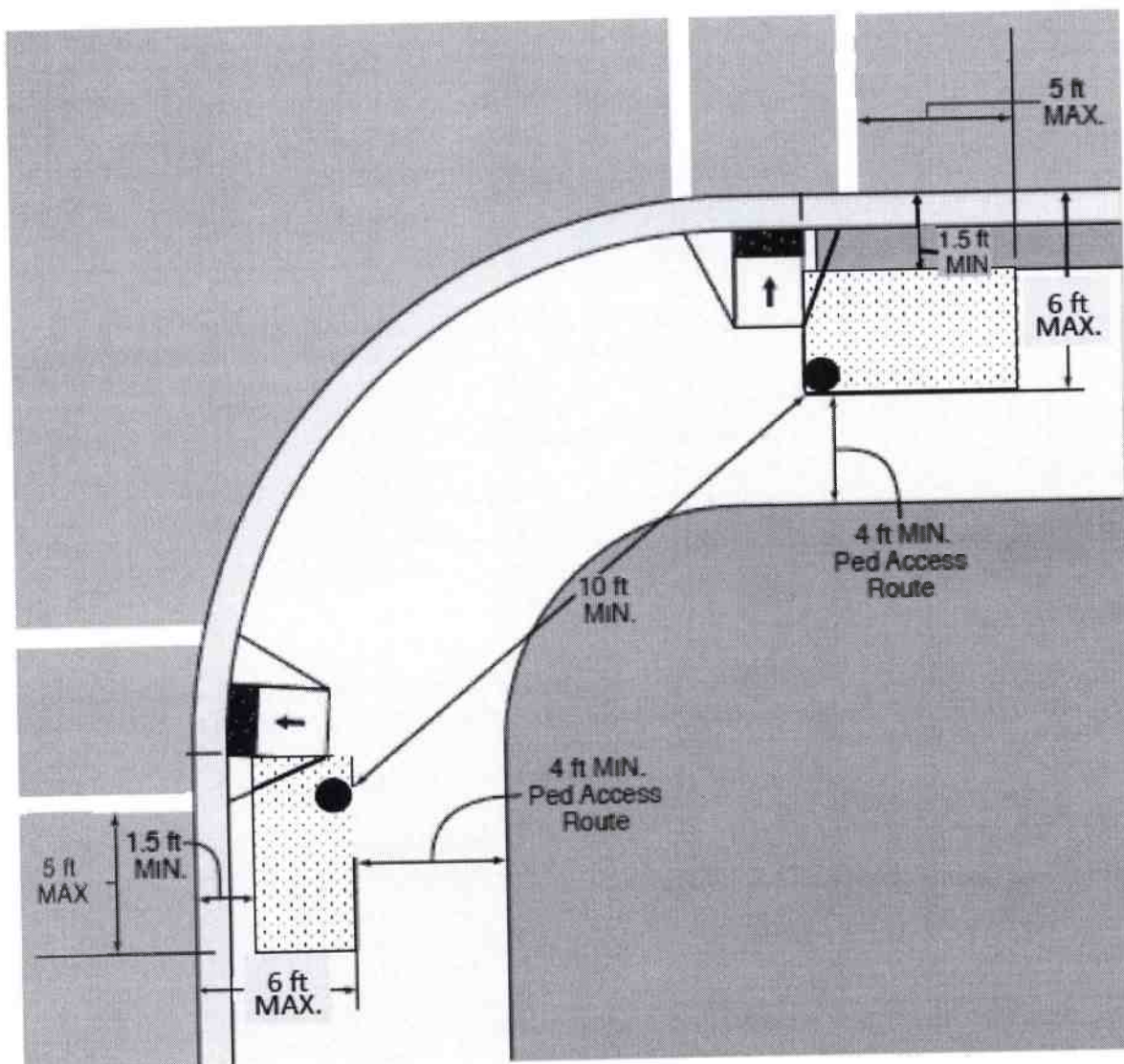
Note: When a pushbutton is located along a pedestrian access route (i.e. the sidewalk or curb ramp) with a 4 ft minimum width as shown in Figure 1, the clear space requirement is automatically met and there is no need to create a separate clear space.

- The front face of a pushbutton should be directly adjacent to the pedestrian access route but shall in no case be further away than 10 inches. If the installation of a pushbutton on a signal mast arm or post cannot allow for the 10-inch maximum side reach requirement, then either a separate post or an extension of the mounting hardware shall be installed.

- Pushbutton locations shall always allow for a user to reach sideways to activate the device.
- Pushbuttons should be located between 1.5 feet and 6 feet back from the edge of curb, shoulder, or pavement. Where there are constraints that make it impractical to place the APS pushbutton within this range, it should not be further than 10 feet from the edge of curb, shoulder, or pavement.
- Pushbuttons should be located within 5 feet of the crosswalk limit that is furthest from the intersection for the crosswalk that the APS pushbutton controls. The distance parallel to the roadway from the APS pushbutton to the crosswalk should be less than the distance from the stop line to the crosswalk if a stop line is present.
- The pushbutton face shall be parallel to the crosswalk it controls; except in small corner islands where there is only room for one pushbutton serving two separate crossings of the same pedestrian signal phase (see Figure 2).
- Pushbuttons located in the same corner of the intersection should be at least 10 feet apart. Where physical constraints make it impractical to provide 10-foot separation, they may be placed closer together or mounted on the same post. In this case, each APS pushbutton shall be provided with a speech walk message for the WALKING PERSON indication and a speech pushbutton information message.
- Pushbuttons should be typically mounted at a height of 36 inches above the accessible pathway elevation but shall be mounted no lower than 30 inches and no higher than 42 inches above the pathway elevation.
- Pushbuttons should be installed for crosswalks established across right or left turn lanes that are separated from through lanes by an island or median. In these cases, measures should be implemented to help avoid potential conflicts between pedestrians and turning vehicles. These measures may consist of implementing right turn on red restrictions, assigning the crosswalk to a pedestrian signal phase that doesn't conflict with the turn lane vehicular signal phase, or use of exclusive pedestrian signal phases.
- If the pedestrian clearance time is sufficient only to cross from the curb or shoulder to a median of sufficient width for pedestrians to wait, additional APS with pushbutton shall be provided in the median.

The following figures illustrate recommended areas for APS pushbutton installation based on some of the above criteria.

Figure 1: APS Pushbutton Location Areas—Intersection Corner



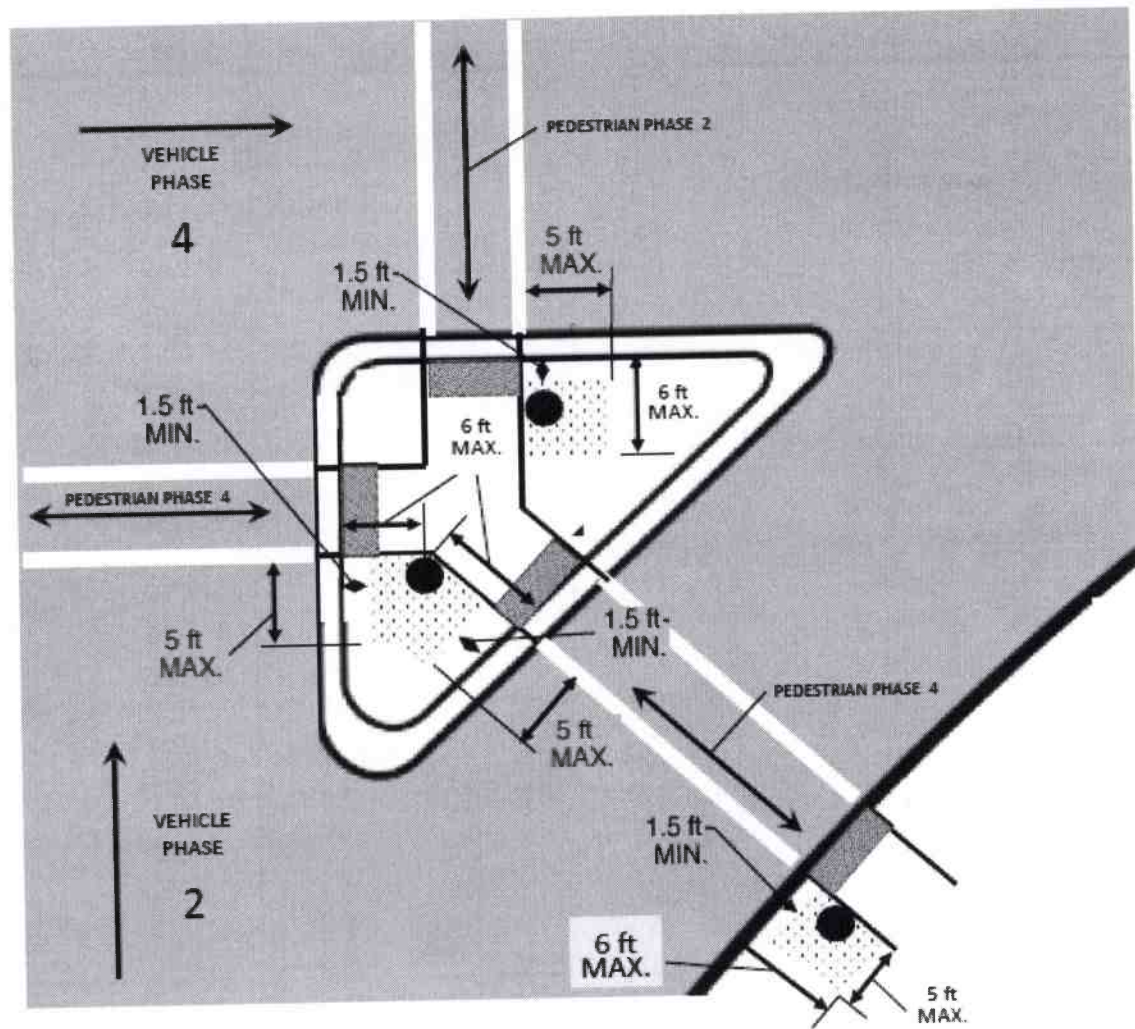
Notes:

1. While this figure shows the entire recommended area for APS pushbutton locations, pushbuttons shall still be located within 10 inches of the pedestrian access route.
2. APS pushbuttons should not be greater than 5 ft. from the outside edge of the marked crosswalk farthest from the intersection.
3. APS pushbuttons should not be farther from the crosswalk than the stop line, if present.

Legend:

-  Recommended area for APS pushbutton Locations
-  APS Pushbutton

Figure 2: APS Pushbutton Location Areas—Corner Island



Notes:

1. While this figure shows the entire recommended area for APS pushbutton locations, pushbuttons shall still be located within 10 inches of the pedestrian access route.
2. Larger islands may require the use of three APS pushbuttons within the island in order to meet placement recommendations. The use of one APS pushbutton to control multiple crossings associated with the same pedestrian signal phase (as shown) may be allowed for smaller islands.
3. APS pushbuttons should not be greater than 5 ft. from the outside edge of the marked crosswalk farthest from the intersection.
4. APS pushbuttons should not be farther from the crosswalk than the stop line, if present.

Legend:

- Recommended area for APS pushbutton Locations
- APS Pushbutton

Other APS pushbutton installation considerations include the following:

- APS pushbutton installations at locations with railroad interconnection or emergency vehicle preemption shall include an additional speech message stating "Walk time shortened when train approaches" or "Walk time shortened when emergency vehicle approaches" to notify pedestrians of truncated pedestrian clearance times due to preemption.
- For quiet residential areas or other areas where a pushbutton locator tone may create public complaints, consideration may be given to deactivating the push button locator tone when the DONT WALK upraised hand signal indication is being displayed for the associated crosswalk. This allowance may only be considered if a passive pedestrian detection system is implemented that always activates the locator tone when a pedestrian is present within a 12-foot radius of the APS and within the pedestrian access route. This allowance is established through FHWA Official Interpretation 4(09)-26(1) - Passive Activation of Locator Tones at Accessible Pedestrian Signals and is proposed to be included in the next edition of the MUTCD.