Pedestrian Access Issues and State of Art Solutions for Signalized Intersections

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Accessible Design for the Blind
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Street crossing tasks

- Locate edge of the street
- Determine where to begin crossing (locate crosswalk)
- Establish crossing direction and alignment
- Determine traffic control
- Use pushbutton, if necessary
- Decide when to begin crossing
- Maintain alignment during crossing
- Monitor traffic during crossing
- Recognize end of crossing
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Detectable warning = truncated domes
Detectable warnings to indicate edge of street
Also needed to indicate edges of medians or islands
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Blind person may not cross at crosswalk

Adding planter strip could help
Curb ramps
Crosswalk offset from corner can be problematic for blind pedestrian
And also for wheelchair user
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Pedestrian Pushbuttons

Is there a pushbutton?
Where is it?
Have I found the pushbutton for the street I’m crossing?
Well-located pushbutton

▲ Near crosswalk line furthest from center of the intersection
▲ Level clear space to reach pushbutton
Pushbutton not in accessible location
Features of new types of APS

- Speakers at the pushbutton
- Pushbutton locator tone
- Audible and vibrotactile Walk indications
- Tactile arrow
- Automatic volume adjustment
- + specific locations
Pushbutton-integrated APS

- Pushbutton locator tone during Don’t WALK and Flashing DON’T WALK
- Rapid tick WALK indication
APS Location is critical

- Provide information to the user through proximity to the departure point
- Signal can be quieter due to proximity
Installation example
Installation example - APS aligned with crosswalk lines
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Beaconing APS

- Prototype system
  - Quieter sounds from pushbutton on the departure curb
  - Louder beacon sounds at specific times from additional speaker at opposite end of crosswalk
Guidestrip
Key resources

▲ Accessible Pedestrian Signals
  ▲ www.apsguide.org
  ▲ APS bulletin on installation at www.access-board.gov/research/pedestrian-signals/bulletin.htm

▲ ITE Accessible Intersections pages
  ▲ www.ite.org/accessible/
For more information, contact:

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