

Chapter 8 – Where to Install APS

Summary

In making their facilities and street crossings accessible, state DOT's and municipalities must make decisions about where APS should be installed. Because of funding and other issues, it is often necessary to prioritize installations. This chapter provides information about procedures and rating systems used in some locations.

Chapter contents

This chapter includes discussions on the following subjects

- Where are APS required
- Where are APS needed
- Prioritizing APS installations
- Rating Scales

Examples of rating scales used by some municipalities are included in the Appendix.

Where are APS required?

Current practice

Currently in the US, APS are typically installed upon request along a specific route of travel for a particular individual or group of individuals who are blind or visually impaired. Various states and municipalities have established policies on installation of APS, some of which are not in accord with ADA requirements.

Requirements

The Rehabilitation Act (1973) requires nondiscrimination in all federally assisted programs, services and activities; this means that they are to be available and usable to people with disabilities (Section 504). The ADA requirements for Federal, State and local governments extend and increase the existing requirements in Section 504 of the Rehabilitation Act. The ADA requirements are more stringent and require public facilities to be accessible regardless of the funding source.

Title II of the ADA requires municipalities and states to make their 'programs' accessible. Pedestrian circulation is considered a program, and APS may be necessary to provide access to certain types of intersections. Some municipalities have considered the addition of APS at intersections as part of their ADA transition plan.

The ADA is a civil rights law, guaranteeing non-discrimination in the provision of public programs and facilities. It requires effective communication with persons with disabilities and, in order to meet this requirement, cities must respond to requests for APS from pedestrians who are blind by providing access to the information provided to sighted pedestrians by visual pedestrian signals if they are present.

ADA Accessibility Guidelines are minimum guidelines that must be applied to new construction or reconstruction and to alterations, renovation, or additions. Current Guidelines do not specifically address public rights-of-way or accessible pedestrian signals. (See section below on rulemaking.) However, the lack of guidelines or technical specifications does not alter the obligation to make pedestrian signal information accessible to persons who are unable to see existing pedestrian signals.

Where are APS required?

ADA transition plans

Title II requires public entities to take several steps designed to achieve ADA compliance.

“A public entity may not deny the benefits of its programs, activities, and services to persons with disabilities because existing facilities are inaccessible.

- State and local governments of 50 employees or more were required to prepare a self-evaluation plan to identify program access issues (Rehabilitation Act (1973), section 504).
- From this, a transition plan was to be developed to modify inaccessible services, policies and practices. This includes removing barriers and inaccessible features.
- Transition plan work was to have been completed by January 1995.
- If work was not completed by that date, those entities are out of compliance.
- Many states and localities are out of compliance and this makes them more susceptible to lawsuits.
- Ways of complying with the law are to have an ongoing transition plan for improving existing facilities and providing a citizen’s request program for accessible parking, curb ramps, Accessible Pedestrian Signals (APS) and removing sidewalk and street crossing barriers.” (Barbara McMillen, FHWA Office of Civil Rights, 9/2002)

As part of their compliance with ADA, municipalities should establish a plan to prioritize and make decisions about installation of APS at ‘unaltered’ intersections:

- Where a request for APS is received, and
- Where insufficient information for street crossing using non-visual clues exists.

Rulemaking on Public Rights-of-Way

Draft Public Rights-of-Way Accessibility Guidelines were published on June 17, 2002 for comment. These Draft Guidelines require APS at all newly constructed or reconstructed intersections where visual pedestrian signals are installed. (See Chapter 3, US Rules and Regulations Related to APS.)

A Notice of Proposed Rulemaking on Public Rights-of-Way, based on the draft is expected to be published by the Access Board in 2003.

Where are APS required?

Prioritizing

The remainder of this chapter provides information about establishing a prioritization plan for installation of APS.

The information in the following sections is not intended for application to new or reconstructed intersections; APS should be installed wherever pedestrian signals are installed in new construction or reconstruction projects, in accord with the *Draft Public Rights-of-Way Accessibility Guidelines*.

The ADA does not require wholesale reconstruction and renovation, but it does require municipalities to begin to address and prioritize retrofitting facilities to newer standards.

Where are APS needed?

- MUTCD Guidance** MUTCD, section 4E.06 recommends: “The installation of accessible pedestrian signals at signalized intersections should be based on an engineering study, which should consider the following factors:
- Potential demand for accessible pedestrian signals.
 - A request for accessible pedestrian signals.
 - Traffic volumes during times when pedestrians might be present; including periods of low traffic volumes or high turn-on-red volumes.
 - The complexity of traffic signal phasing.
 - The complexity of intersection geometry.”
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Additional considerations

Too little traffic is as great a problem for pedestrians who are blind as is too much traffic. In the absence of APS, blind pedestrians must be able to hear a surge of traffic parallel to their direction of travel in order to know when the walk interval begins.

Locations that may need APS include those with:

- Intersections with vehicular and/or pedestrian actuation
- Very wide crossings
- Major streets at intersections with minor streets having very little traffic (APS may be needed for crossing the major street)
- T- shaped intersections
- Non-rectangular or skewed crossings
- High volumes of turning vehicles
- Split phase signal timing
- Exclusive pedestrian phasing, especially where right-turn-on-red is permitted
- A leading pedestrian interval

Where these conditions occur, it may be impossible for pedestrians who are visually impaired or blind to determine the onset of the walk interval by listening for the onset of parallel traffic, or to obtain usable orientation and directional information about the crossing from the cues that are available.

Prioritizing APS installations

Existing intersections

As discussed previously, this prioritization information is to be used in prioritizing existing intersections for retrofit with APS either in response to requests, or in updating an ADA transition plan.

Establishing priorities

Prioritization schemes should place only limited emphasis on factors related to frequency or likelihood of use by blind pedestrians. The information provided by APS may be necessary at any time, along any route, to residents, occasional travelers, and visitors. Intersections having high pedestrian volumes are likely to have pedestrians whose vision is sufficiently impaired that they have difficulty using conventional pedestrian signals.

Of greater importance are factors related to determining whether sufficient acoustic information exists — at all times — to permit safe crossing at a particular intersection.

Rating scales

Several rating scales have been developed, some of which have been utilized for over 20 years. These rating scales are used in different ways in different cities.

- In some locations, they were developed as warranting schemes and APS were not installed unless the intersection met a required minimum number of points.
- Other cities use rating scales only to aid in prioritization.

Generally, points are assigned to specific intersection features, as well as proximity to services for all pedestrians, such as transit, government offices, or shopping. San Diego, Los Angeles, Portland, Oregon, and Maryland Department of Transportation use point rating scales as part of their process. Their scales are included as examples in the Appendix and information about their process is discussed in this chapter.

After a request for an APS is made by an individual who is blind or by an organization representing or serving individuals who are blind or visually impaired, the intersection is evaluated using a rating scale.

Individual crossings

Systems developed most recently rate each crossing at an intersection rather than the whole intersection.

- The developers of these schemes have recognized that certain crossings of an intersection may not be problematic, while other crossings of the same intersection may not have sufficient auditory information.
 - This change reflects recent developments in types of APS available as well, which may allow installation on particular crosswalks of an intersection without providing confusing cues to individuals at other crosswalks.
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Prioritizing APS installations

Who evaluates?

Systems for determining the priority of APS installations usually involve participation of one or more representatives of three groups of experts: traffic engineers, orientation and mobility specialists, and pedestrians who are blind.

Different persons in different jurisdictions carry out the evaluation.

- In San Diego, a traffic engineer and an orientation and mobility specialist rate separate aspects of the intersections.
 - In Los Angeles and Portland, the rating is conducted jointly by an orientation and mobility specialist and the traffic engineering department staff member.
 - In Maryland, the DOT engineer determines the rating.
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Prioritizing based on ratings

In San Diego and Portland, the ratings are reviewed by an advisory committee of stakeholders, including blind citizens, that assists the traffic engineering department in prioritizing the installations.

Intersections with the highest number of points are generally considered highest priority, however, date of request, plans for other construction at the intersection in question, and other issues may affect priority of the installation.

Research on a rating scale

As part of NCHRP Project 3-62, a prioritization rating scale will be validated.

After completion of this project, the rating scale will be available for use by jurisdictions involved in prioritization decisions.

Rating scales

Concept

In most schemes, each crosswalk of the intersection is evaluated separately. Items and point values assigned differ on the rating scales now available.

Rating scale items typically include

- pedestrian usage,
- intersection and traffic conditions, and
- a number of special conditions.

A rating scale used in developing a transition plan may be slightly different than one used to determine responses to individual requests.

Pedestrian usage

Pedestrian usage

- Proximity to alternate crossings
 - Proximity to transit stops
 - Proximity to key facilities used by all pedestrians
 - Proximity to facility for persons who are blind
 - Need to cross – frequency of use by requestor
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Intersection and traffic conditions

Intersection and traffic conditions

- Intersection configuration
 - Width of crossing
 - Traffic signal phasing
 - Leading or lagging vehicular turn phasing
 - Leading pedestrian interval
 - Split phasing
 - Exclusive pedestrian phasing
 - Traffic volume
 - Vehicle speed
 - Presence of pedestrian push buttons
 - Right turning traffic
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Special conditions

Special conditions

- Pedestrian accident records
 - Unique circumstances
 - Poor visibility of pedestrians (obstructions, parking lanes, curved street, crosswalk location)
 - Orientation and mobility instructor comment/evaluation
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Rating scales

Prioritizing individual requests

A rating scale used in prioritizing requests for APS at specific crosswalks may include factors such as:

- Number of requests for APS at crosswalk
- Frequency of use by pedestrians requesting APS

It may be appropriate for a jurisdiction, in response to an individual request in an area with extremely low pedestrian counts, to install an APS specifically meeting the requirements of that individual. That APS may not otherwise conform to requirements for new construction, or for installation in a more traveled pedestrian area.

Examples

Examples of rating scales currently in use are in the Appendix. A rating scale will be validated as part of NCHRP 3-62 and will be available by winter 2004.
