**3.5.5 Crossing Times**
Crossing times that are based only on the 4-feet-per-second (1220-mm/s) walking speed of able-bodied adults will not be sufficient for pedestrians who do not start to cross immediately after the walk interval begins or whose walking speed is affected by a mobility impairment, stamina, or age ([SEE FIGURE 36](http://www.access-board.gov/publications/PROW%20Guide/figure36.htm)). Pedestrians who are blind or have low vision, those who have cognitive disabilities, and elderly pedestrians typically delay leaving the curb until they can satisfy themselves that vehicles have stopped.

Pedestrians who use wheelchairs typically travel faster than 4 feet per second (1220 mm/s), but those who use other mobility aids or who have gait or stamina impairments may travel at 1.5 feet per second (455 mm/s) or less. Although the needs of elderly and disabled pedestrians have been widely studied, many of these research projects seem based on prescribing for the “special” circumstance in which such pedestrians are the only or the primary users of a crossing.

In fact, a truly representative sample of pedestrians would always include a few individuals whose travel speeds fall well below 4 feet per second (1220 mm/s). Options available to the traffic engineer include increasing the crossing time, decreasing the distance (using smaller curb radii or neckdowns and bulbouts that extend intersection corners across the width of the parking lane), subdividing the distance (using medians or refuge islands, with separate pedestrian controls on the median), or providing a pedestrian-actuated control that permits extended-time crossing on demand.

**3.5.6 Marked Crossings**
In a Canadian study now more than 15 years old, elderly and disabled pedestrians identified marked crossings as the single most valued intersection improvement. Like audible crossing signals, however, the subject of marked crosswalks has generated much industry discussion. Some believe that marked crossings threaten pedestrian safety by leading pedestrians to act on the belief that marked crosswalks offer them some protection. Others maintain that marked crosswalks do protect pedestrians and enhance their safety. Research currently underway for the FHWA may settle this debate. Accessibility provisions requiring the foot of a curb ramp to be contained within a crosswalk, where one exists, suggest that marked crossings are viewed as safety features.

MUTCD marking standards require white lines; where pavement is light colored, black edging is recommended to improve contrast. No test or value for contrast is provided. A 1988 FHWA study found that high-visibility/ladder-type crosswalk markings using a 12- inch (305-mm) stripe with 24-inch (610-mm) spacing had the highest level of motorist recognition. Because juvenile, elderly, and disabled pedestrians are highly dependent on transit, such markings are recommended at crossings that serve bus and other transit stops and stations.