



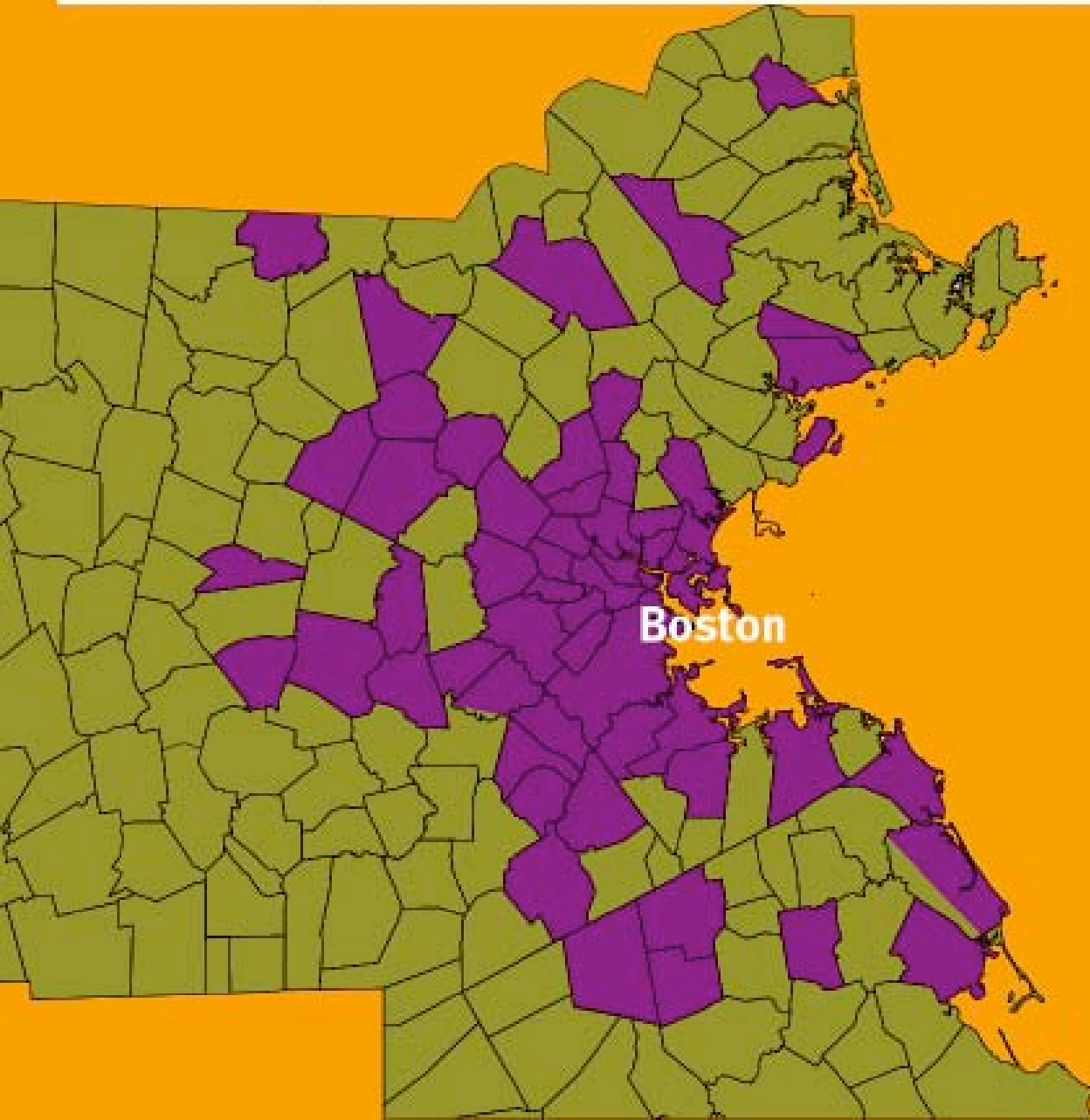
| ped advocacy 201

DURING THE NEXT 20 MINUTES

1. who we are and what we do
2. what makes a neighborhood walkable
3. how you can make a difference

1. who we are/what we do

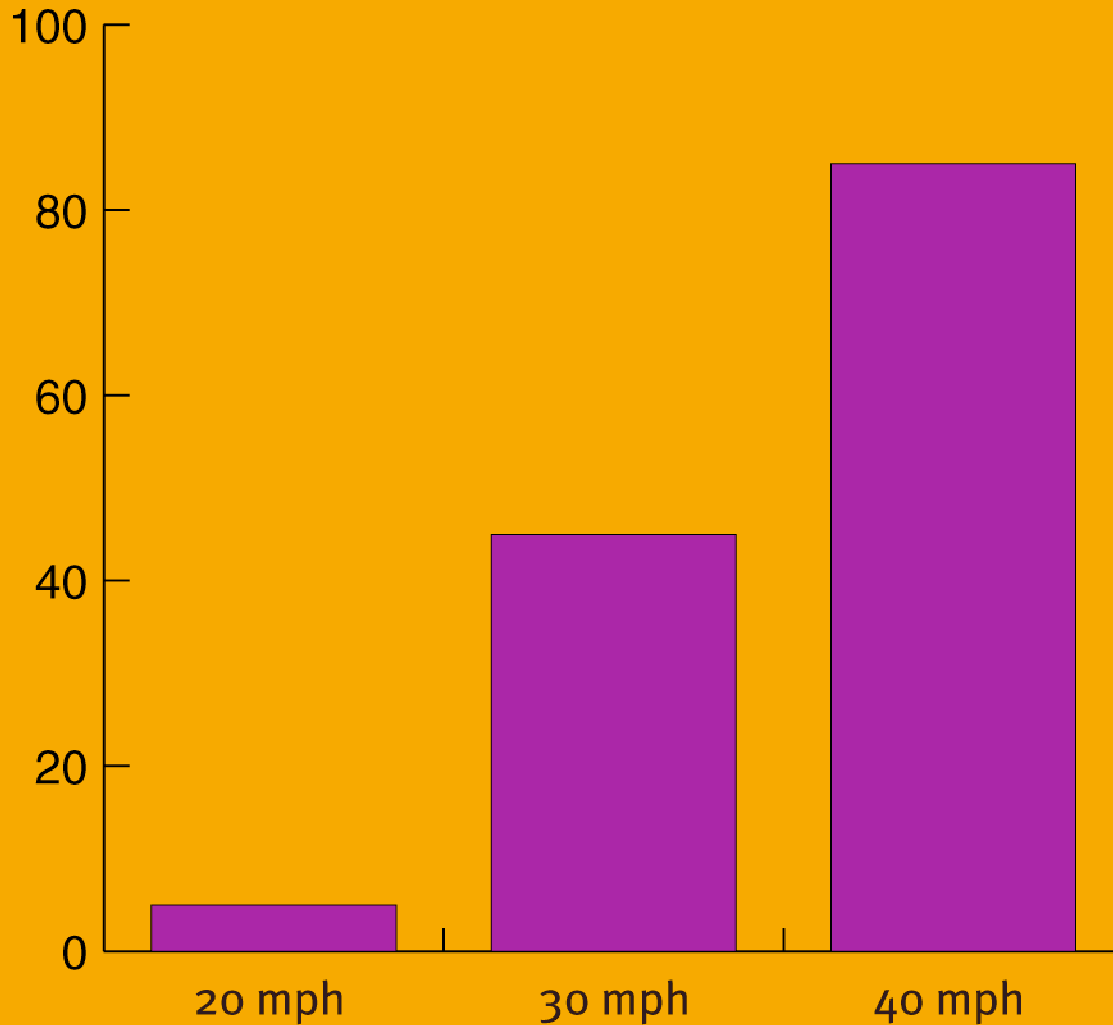
Membership distribution in Eastern Massachusetts



making communities more walkable

WalkBoston encourages walking throughout Massachusetts for transportation, health and vibrant communities. Our education and advocacy programs give voice to citizens to make their communities walkable.

Speed kills—pedestrian probability of death



Speed
well-designed
neighborhood
streets keep
motorists at
20 or 25 mph

2. walkable neighborhoods

What makes a neighborhood walkable?

- good sidewalk design
- good street design
- safe intersections & crossings
- safe and consistent light timing
- clean streets & maintenance

sidewalks



Sidewalk zones

- Furnishing zone — attractive/useful amenities and infrastructure
- Walking zone — a clear walking path
- Shy zone — a two foot buffer since people can't walk right up against storefronts or benches



Furnishing zone

- trees, benches and cafes, mail boxes, trash cans, bike racks should be confined to this area
- buffered by a 2 ft. shy zone
- this will allow a clear walking area



Walking zone

- clear of mail boxes, trash cans, trees, benches, bus shelters, cafes, sign boards, signal/sign poles, etc.
- width is based on the number of people anticipated



Residential Area

- WalkBoston recommends a **minimum 5-foot** clear walking path
- enough to accommodate two people walking side-by-side, or passing



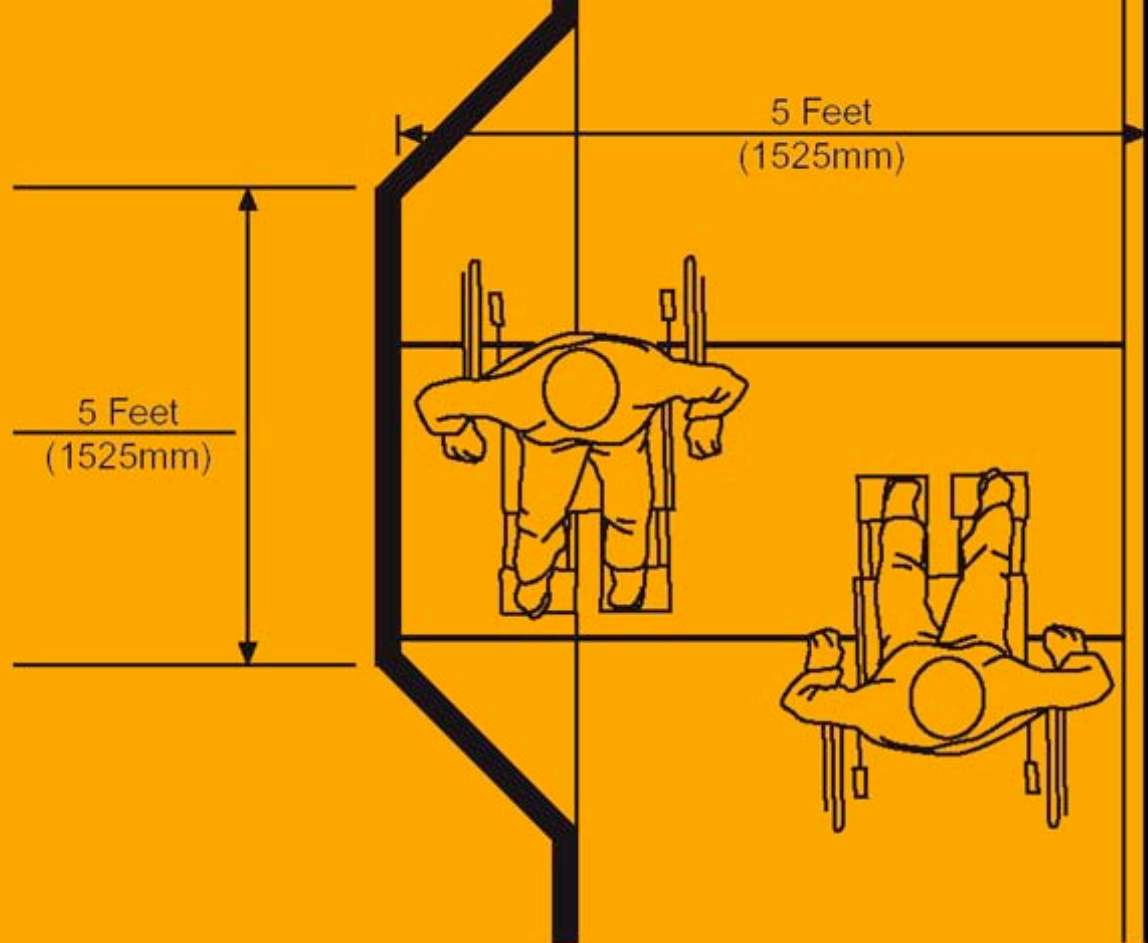
Commercial Areas

- WalkBoston recommends a **minimum 8-foot** clear walking path
- width is based on the number of people anticipated
- plus a “shy zone” and a “furnishing zone”



Use your feet to measure

- it's an easy way to estimate on the fly



Minimum width

- the Americans with Disabilities Act [ADA] requires a **minimum 3 feet** of unobstructed sidewalk passageway
- public sidewalks less than 5 feet wide are required to include a 5-by-5 foot passing space every 200 feet



Tree grates

- provide tree grates if tree pits extend into the walking zone



Curb cuts

- driveways/entryways should be narrow with flat, continuous sidewalks
- limit the frequency
- slope should be moderate



Walking surfaces

- flat and smooth concrete or asphalt are best
- uneven surfaces trip walkers and cause vibrations for wheelchair users



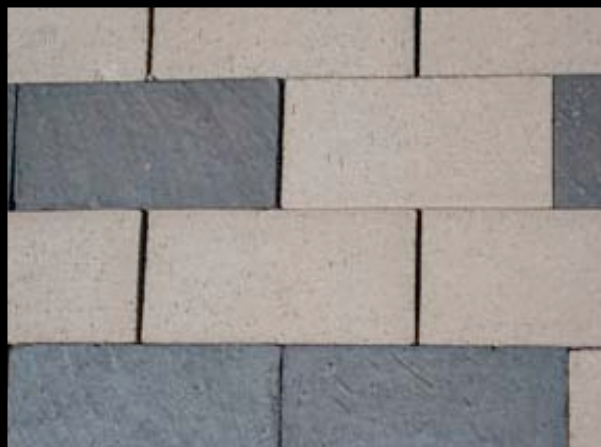
Surfaces of bricks and pavers

- can trip walkers and cause vibrations for wheelchair users
- are slippery when wet and hard to shovel in snow
- require frequent and expensive maintenance



Accent paving

- visually appealing
- walking surface is smooth



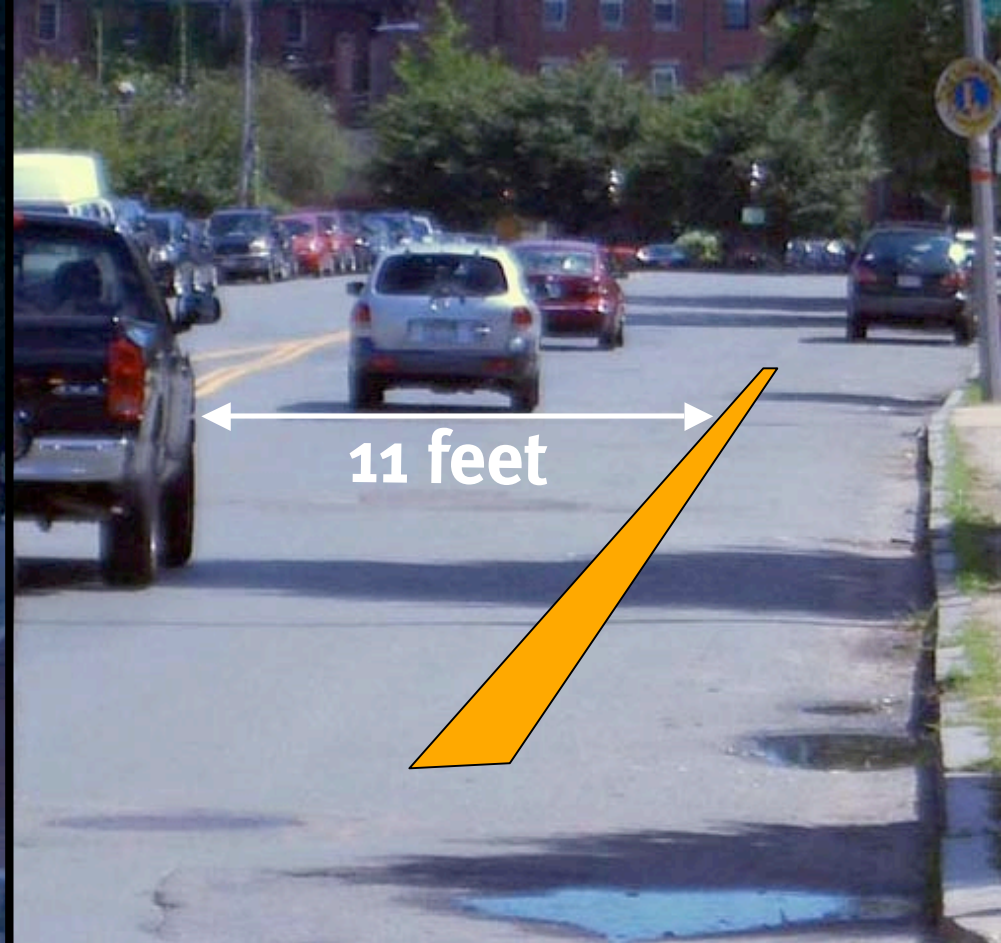
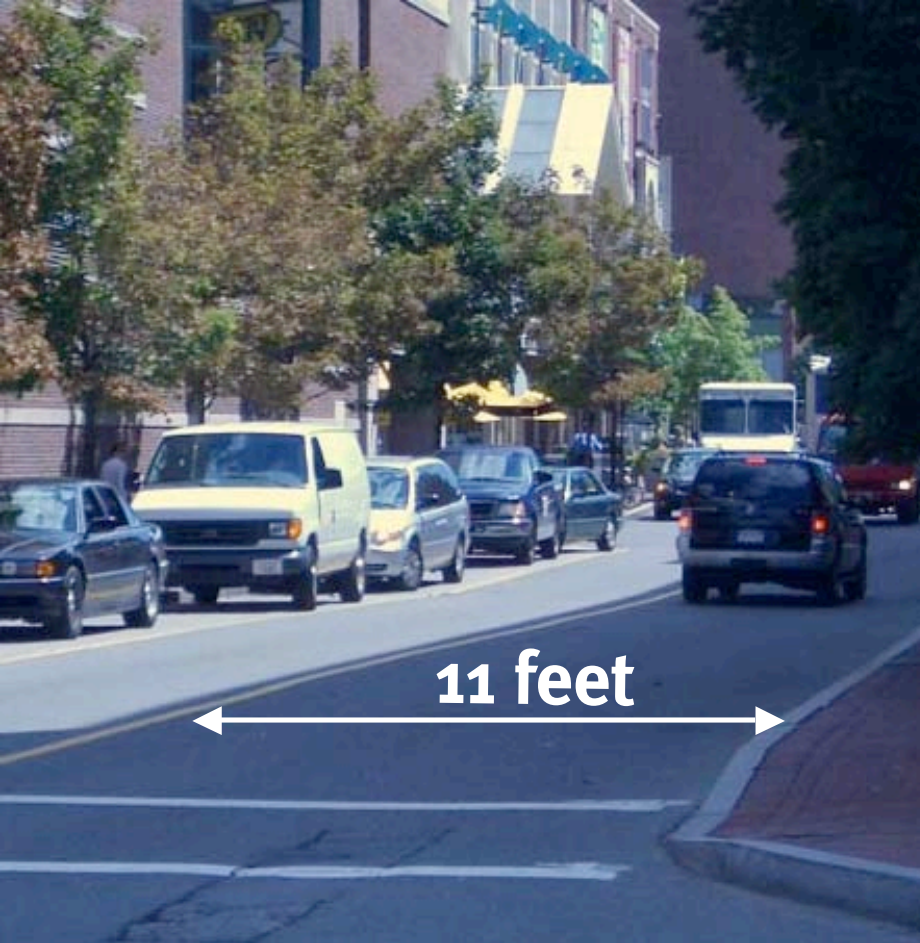
Suitable options

- minimize trip hazards
- smooth for wheelchairs
- easy to use and maintain in winter

street design

Elements that keep pedestrians safe

- slowing traffic speeds
- narrow lane widths
- parking buffers
- vertical elements
- raised crosswalks



Lane widths

- lanes should be no wider than 11 feet on main streets
- narrowing a travel lane from 11 feet to 10 feet reduces speed by 7 mph
- striping can cut a 16-foot lane down to an 11-foot lane



Parking

- buffers walkers from traffic
- slows down traffic



Vertical elements

- trees, streetlights, etc. along the roadway narrow its perceived width and naturally slow drivers

crossings & intersections

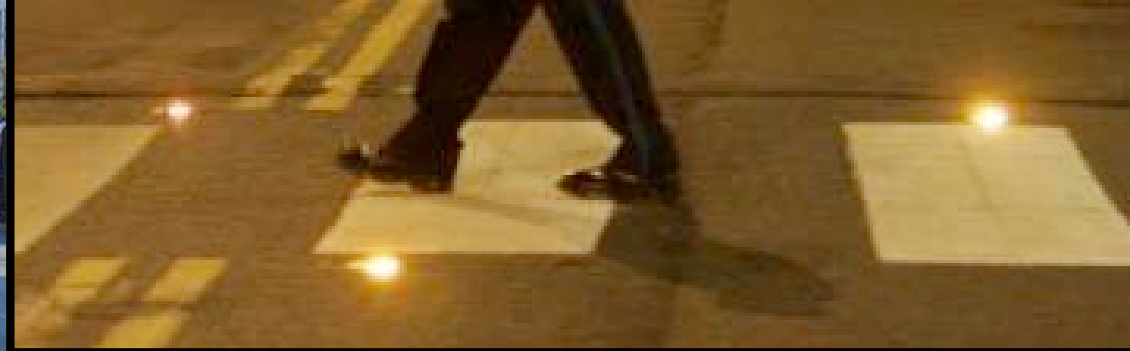
Fact:

54% of pedestrian/vehicle crashes occur at intersections. Repainting, reshaping, retiming make a big improvement.



Crosswalks

- two parallel lines is standard
- ladder is better and worth the extra cost
- repainted regularly to maintain safety and effectiveness



Innovative crosswalk treatments

- sunken lights
- ground in design
- heavy painted



Safer crossings

- raised crosswalks are visual, acoustical and physical reminders to slow down
- in-street crosswalk signs effectively warn drivers of mid-block crossings



Curb extensions

- shorten crossing distance
- make walkers more visible
- provide larger waiting areas



Slowing traffic speeds

- break up long straight aways with mid-block crossings
- install curb extensions, alternate-side parking, rumble strips, etc.



Passable sidewalks

- sidewalks should be continuous, unobstructed and clear
- be sure to keep your hedges and trees trimmed



Access to crosswalks

- keep free of street furniture, light poles etc. [infrastructure]
- these things belong in the furnishing zone with other amenities



Curb ramps

- accommodate people with functional [wheelchairs, canes, walkers] and hidden [arthritis, cognitive impairments] disabilities
- accommodate baby strollers, small children, rolling suitcases



Ramp position

- should be in-line with crosswalk
- not a detour into traffic or 1/2 way down the street



Textured paving

- when street and sidewalk are the same level, texture can differentiate
- this is especially important for the visually impaired [ADA requirement]

light timing



Exclusive vs concurrent

- Exclusive — ped and vehicle movements never occur at the same time
- Concurrent — ped movements run parallel with vehicle movements



Exclusive signalization [ped/vehicle movements never occur at same time]

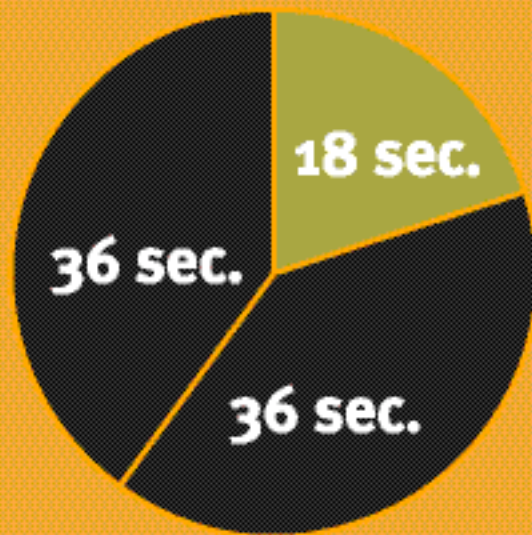
- no ped/vehicle conflicts
- good for elderly, school children and busy crossings
- promotes jaywalking
- causes longer wait times for peds [studies show peds wait only 30 secs.]
- causes longer wait for vehicles
- short WALK times [7 secs.]



Concurrent signalization [peds move on green, parallel w/ vehicle movements]

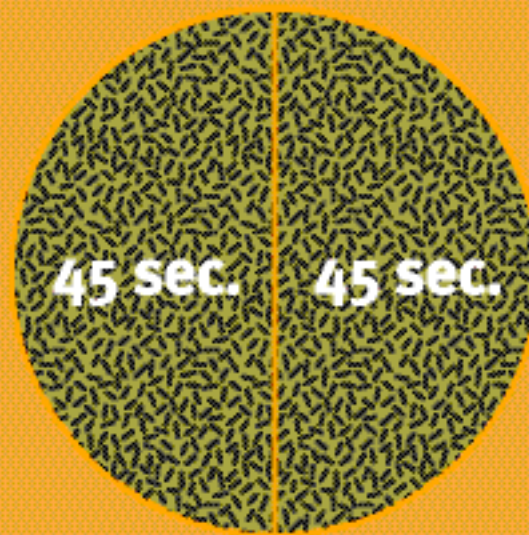
- reduces wait for peds
- reduces jaywalking rate
- reduces wait for vehicles
- provides longer WALK times
- turning vehicles conflict with peds
- bad for intersections with high-turning volumes

Traffic light signal cycles 90 sec. cycles shown. Studies show peds only wait 30 sec.



exclusive signal

[cars, peds move separately]



concurrent signal

[cars, peds move together]

Leading pedestrian interval [LPI]

- gives the pedestrian a head start of 3–5 seconds
- turning vehicles are more likely to yield to a pedestrian already in the crosswalk
- little additional delay for vehicles

Enhancing concurrent signalization

- leading pedestrian interval [safety]
- countdowns [expectation]
- no right turn on red at busy intersections [safety]
- 90-second maximum cycle length [expectation]
- no walk buttons [expectation]



Countdown lights

- studies show that when countdown lights are installed at a high-accident intersection, pedestrian accidents drop by 50%

WalkBoston signal timing recommendations

- frequent & longer WALK times
- short pedestrian wait times
- automatic WALK / eliminate push buttons
- WALK concurrent with vehicle green
- include LPI for safety
- eliminate right turn on red at busy intersections

3. maintenance



Clean streets

- residents, merchants and municipalities can work together to keep streets and sidewalks free of debris and graffiti
- solar bins need emptying 2x's daily, traditional ones up to 15x's per day



Crosswalk repainting

- request repainting regularly to maintain visibility and safety
- this is something you can get done easily and can ask for right now



Snow clearance

- municipalities, property owners and residents are responsible for clearing snow from sidewalks & crossings
- clear adequate width for pedestrians & wheelchairs
- clearing curb ramps is essential

Resources

- Institute for Human Centered Design [adaptenv.org]
- walkablecommunities.org
- walkboston.org
- pedestrian transportation plan [cambridgema.gov]
- masshighway design manual [mhd.state.ma.us]
- Natl. Ctr for Bicycling & Walking [bikewalk.org]
- Federal Highway Admin. Ped & Bicycle Program [safety.fhwa.dot.gov/ped_bike/ped/index.htm]

...and support WalkBoston



making our communities
more walkable