



# Brookline Street Reconstruction







# You Choose











Ready,  
Set.  
Go.....!

Ready,  
Set,  
Go.....!







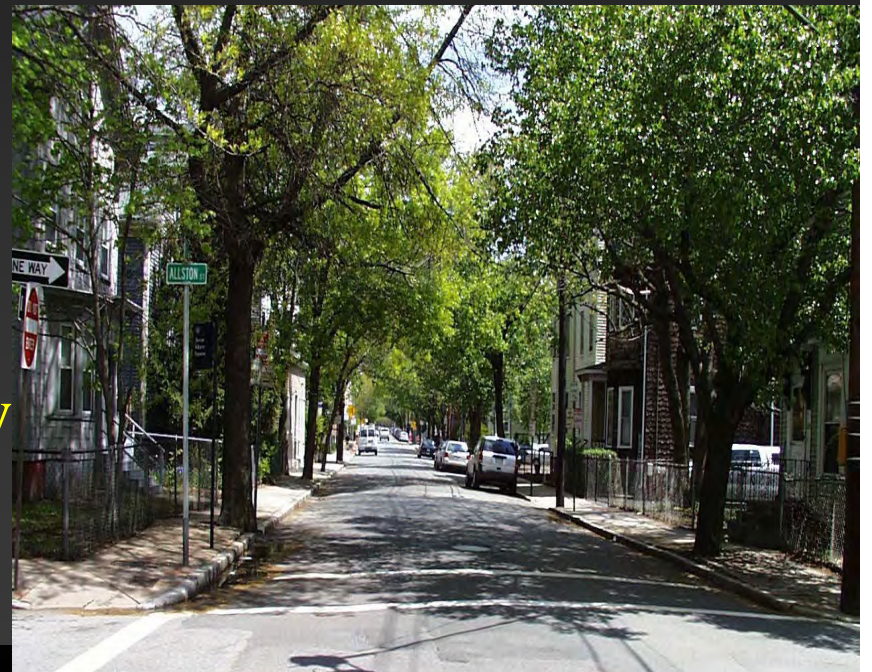




# Streetscape Improvements

# Goals For Brookline Street

- Improve Safety & Comfort for All Users
- Reduce Traffic Speeds
- Improve Pedestrian Experience
- Improve Conditions for Bicycling
- Improve Pedestrian Crossings
- Ensure Safe and Convenient Bus Travel
- Balance Parking and Visibility at Corners







Crossing the Street Should be Safe and Comfortable

# Crosswalk Visibility



International or “zebra”  
striping is best







Drainage:

Make sure  
it works!



Improve Conditions for Cycling



# Safe and Convenient Bus Travel

bus travel



## Review Bus Stop Conditions



# Transit: Provide Easy, Safe Crossings







Improve Sight Lines at Intersections





Rationalize signs and avoid visual clutter



# Increase Streetscape Amenities



Trees  
Benches  
Pavers







## Hastings Square, Nunes Park, Pacific Street Park

Access to Parks









**Yo! Please Go Slow.**





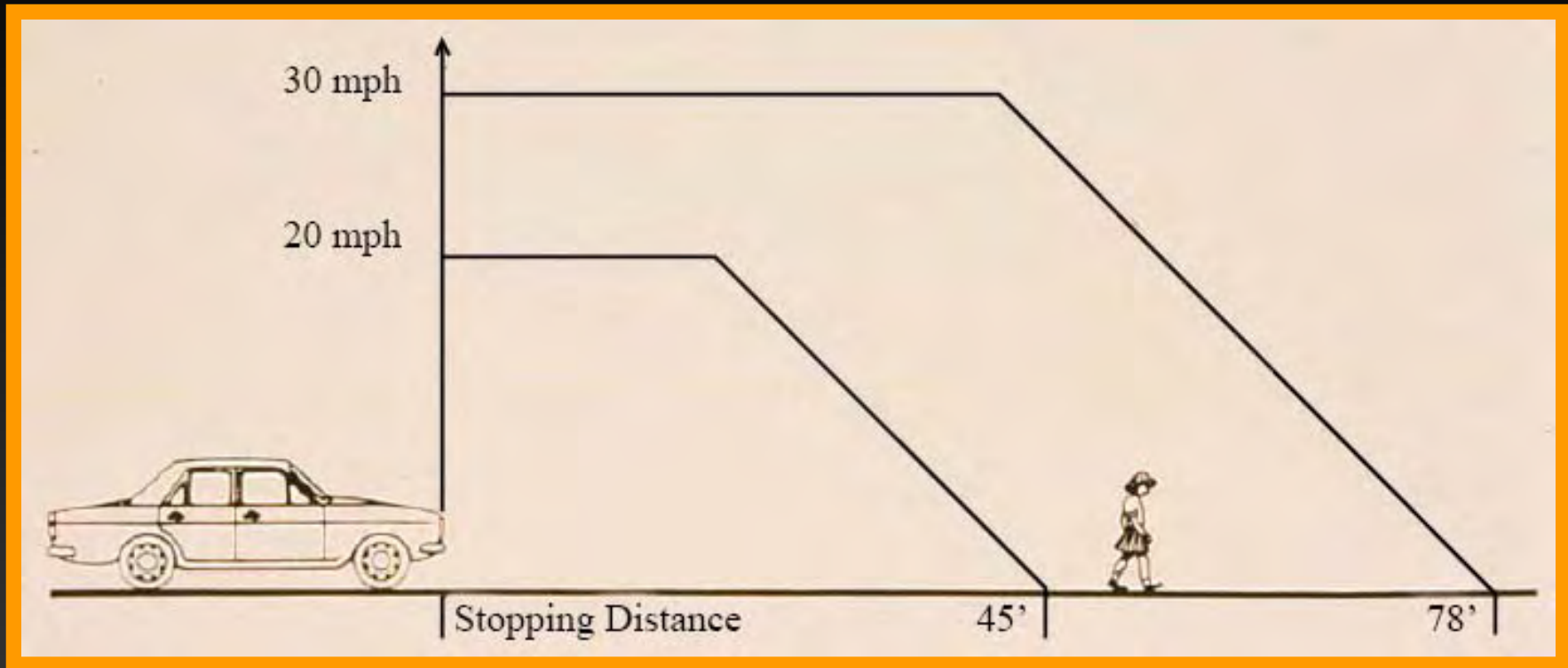
# TRAFFIC CALMING

## FATALITIES BY SPEED

Percent fatal to Pedestrians



# Slower Is Safer



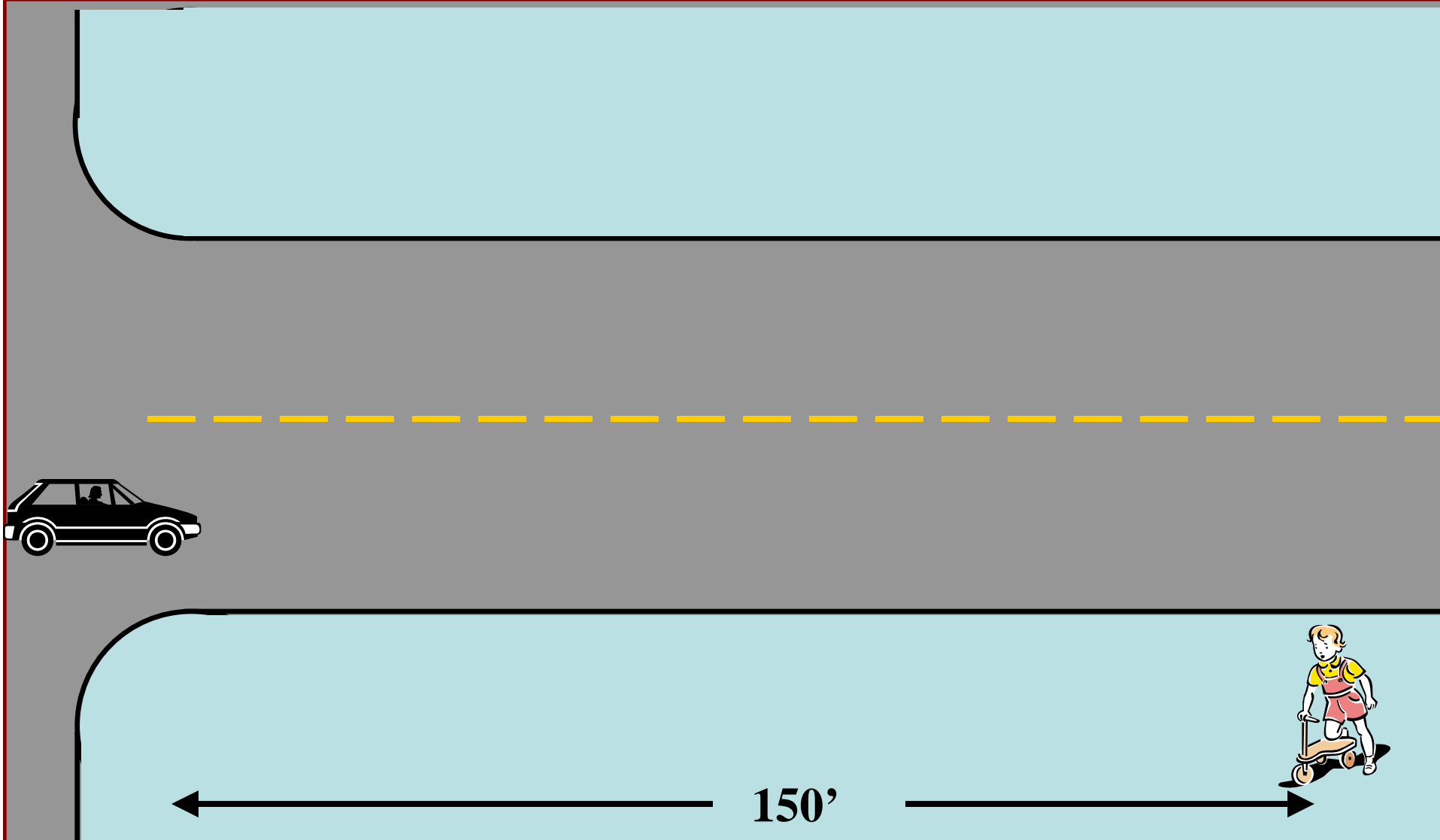
Distance needed for a vehicle to stop vs. speed:

30 mph ===== Approximately 78 feet.

20 mph ===== Approximately 45 feet.



# Pedestrian Safety: Speed as a Factor



# First scenario: Speed 25 MPH

100' = distance covered in 2.5  
sec. perception/reaction time



100'

150'



# First scenario: Speed 25 MPH

100' = distance covered in 2.5  
sec. perception/reaction time



100'

150'

# First scenario: Speed 25 MPH

Driver applies brakes



100'

150'



# First scenario: Speed 25 MPH

50' stopping distance  
(wet pavement)



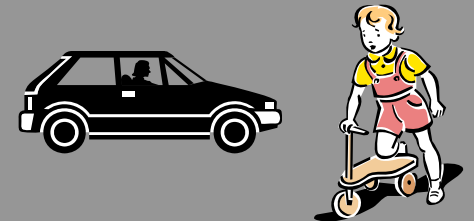
100'

50'

150'

## First scenario: Speed 25 MPH

**Result: Nothing happens beyond  
one scared child, driver & parent!**



← 100' →

← 50' →

← 150' →



## Second scenario: Speed 38MPH

140' = distance covered in 2.5  
sec. perception/reaction time



140'

150'

## Second scenario: Speed 38MPH

140' = distance covered in 2.5  
sec. perception/reaction time



140'

150'



## Second scenario: Speed 38MPH

Driver applies brakes



140'

150'

## Second scenario: Speed 38MPH

In the last 10' car slows  
to 36 MPH



140'

150'



# Traffic Calming

- Narrow the road
  - Add Parking
  - Pavement Markings (edge line for bikes)
  - Visual Narrowing by Adding Trees
- Horizontal Devices: make the road less straight
  - Chicanes
  - Crossing Islands
- Vertical devices: make vehicles go over something
  - Raised intersections & crosswalks











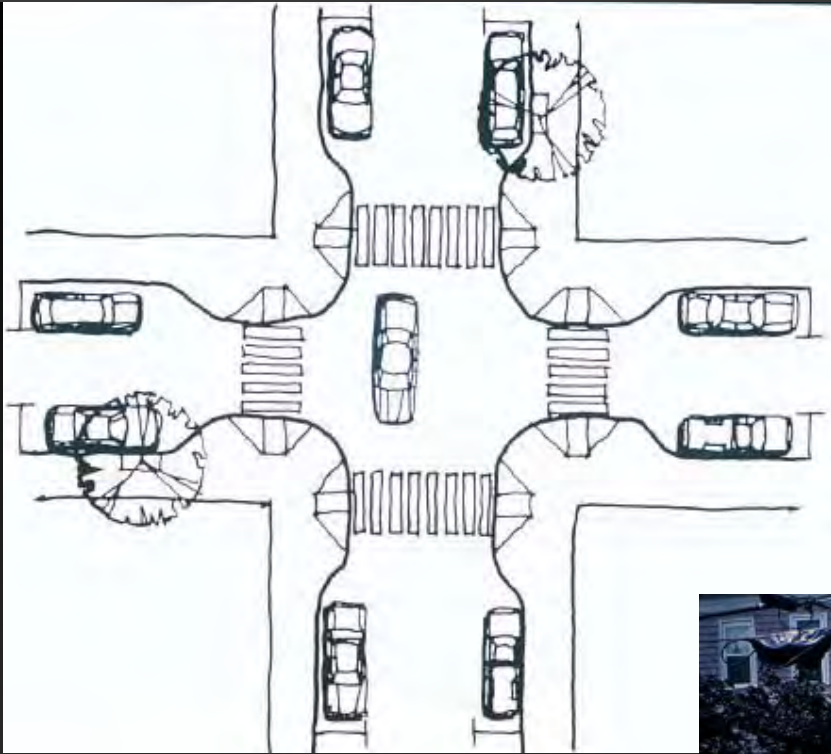




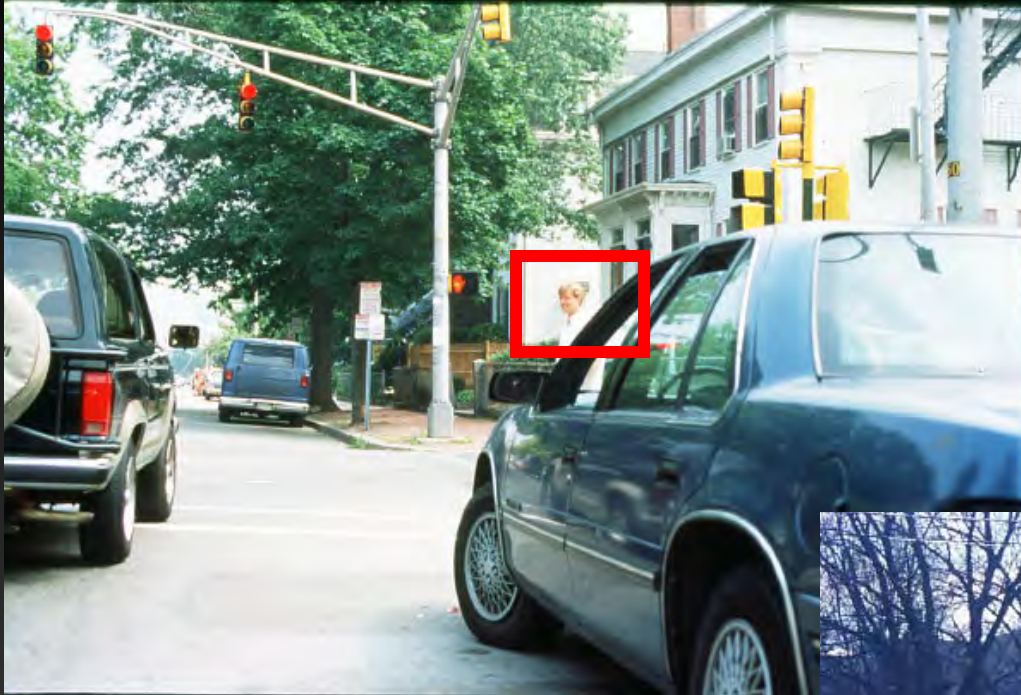
Edge Ledge Line Visually Narrows Road



# Curb Extensions



# Find the Pedestrian







Curb extensions reduce crossing distances and improve visibility







A place for  
street furniture











# Chicanes

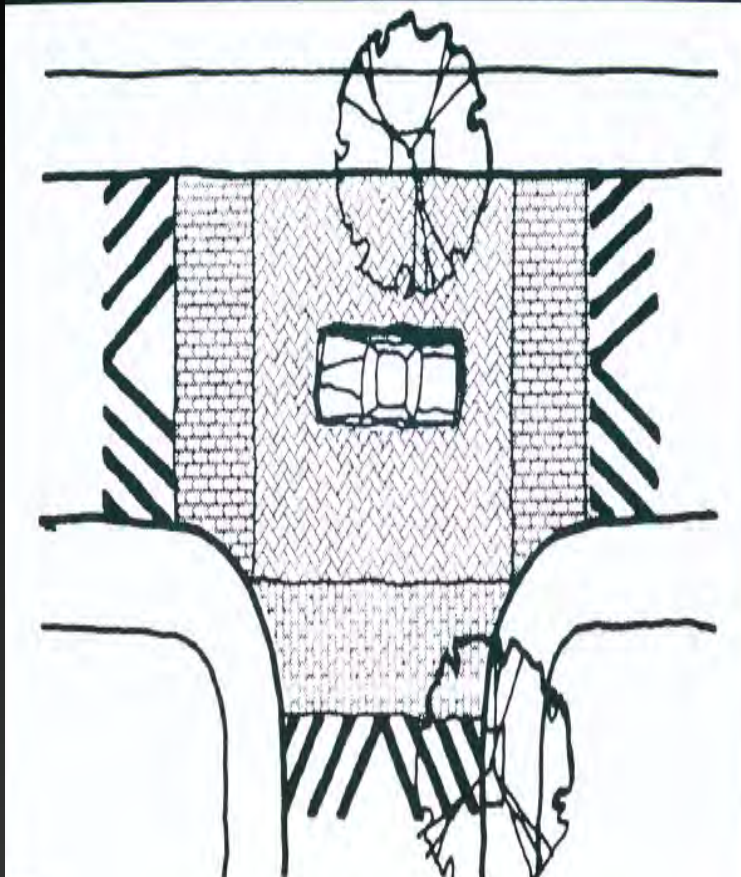




Chicanes Create Horizontal Curvature to Slow Speeds



# Raised intersection

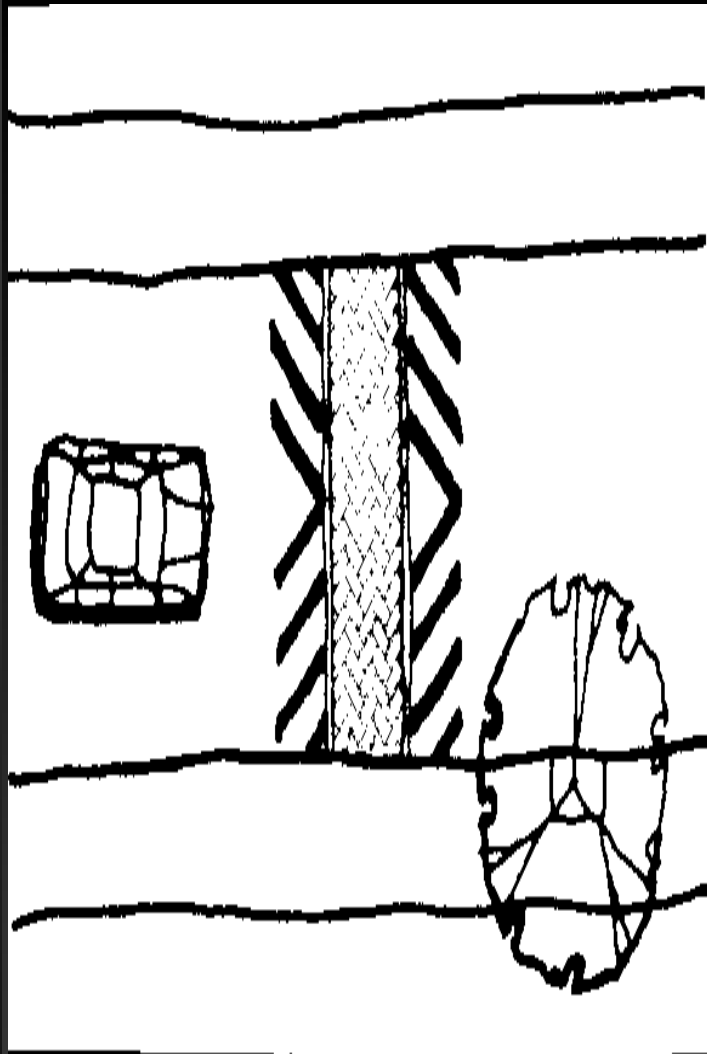








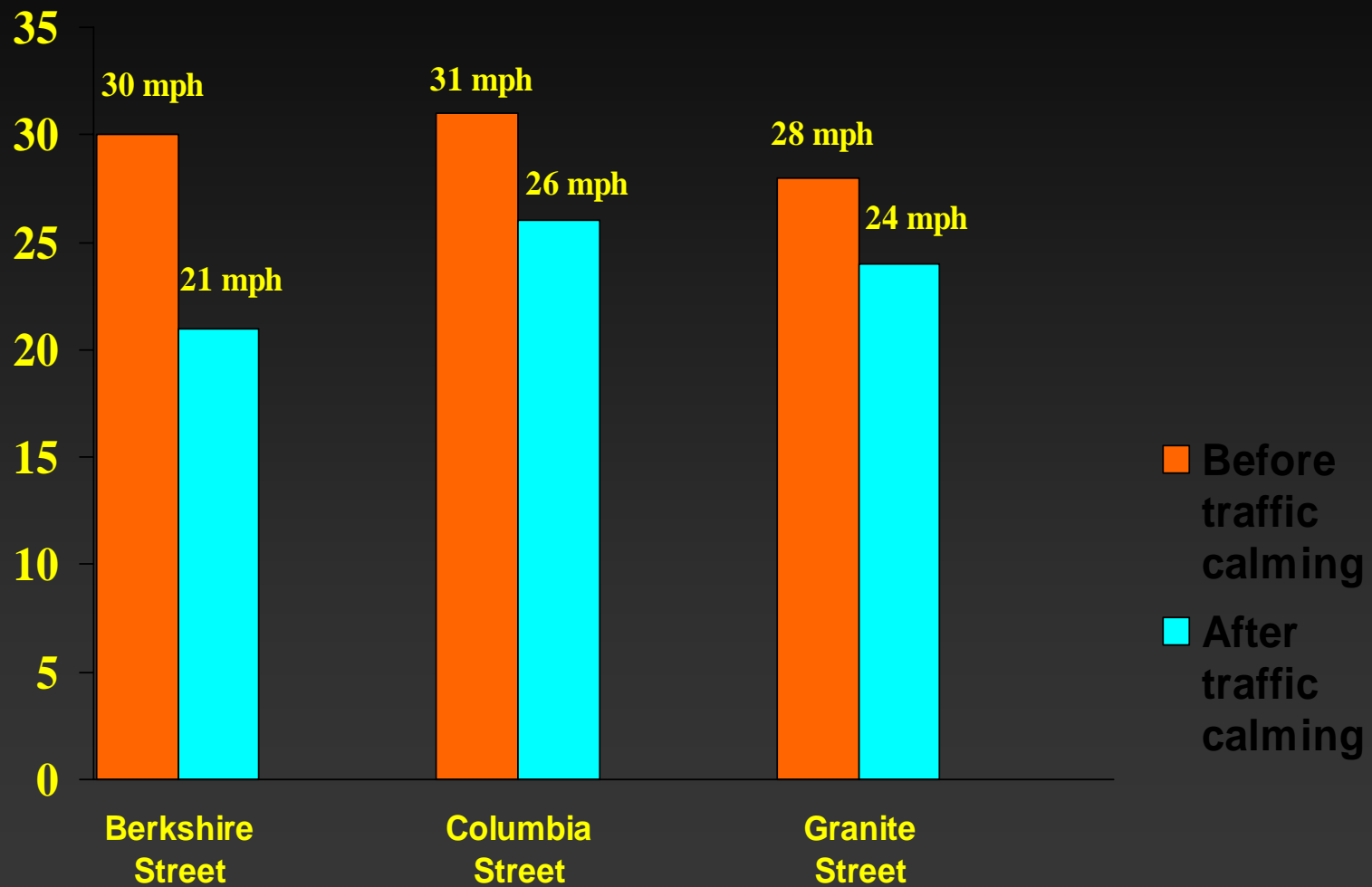
# Raised Crosswalk







## Effects of traffic calming projects on speeds



# Brookline Street Speeds

(at Tudor St)

7-8 AM 30mph

2-3 PM 28 mph

Speed  
Limit





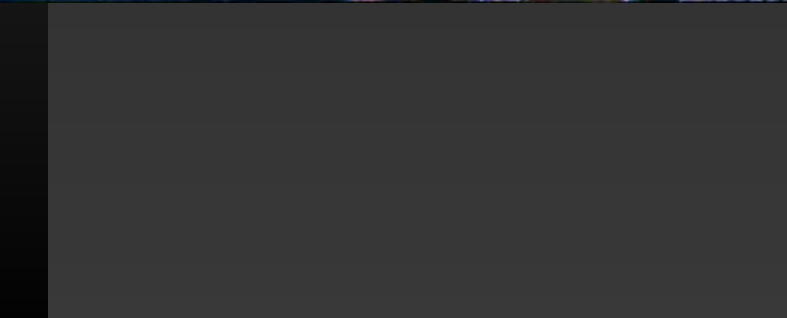
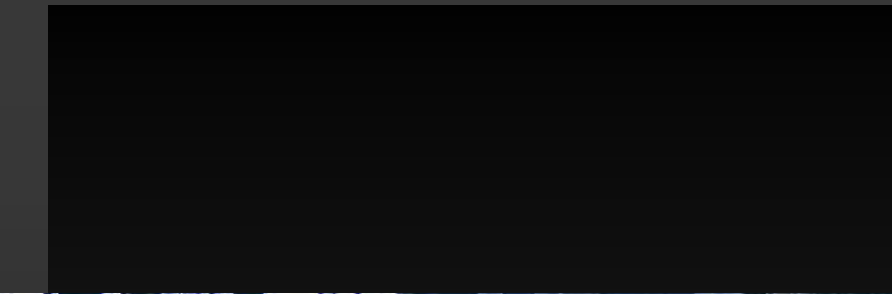
More than safety



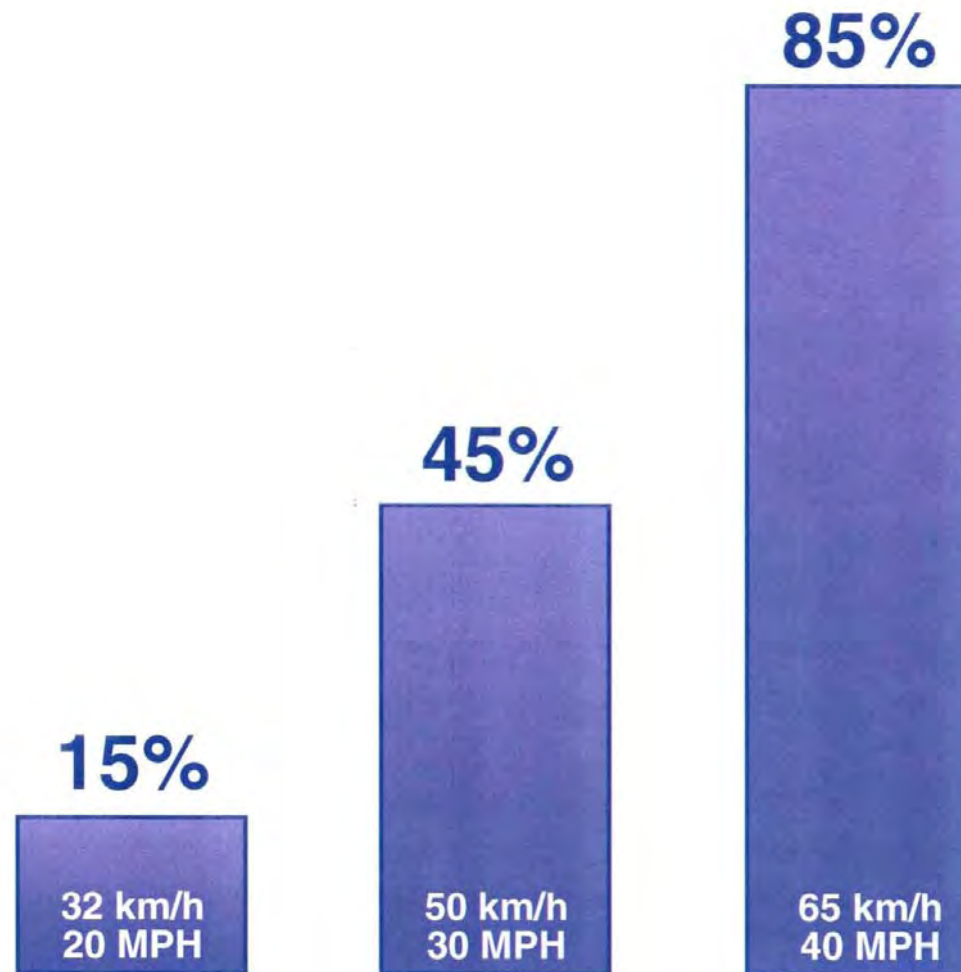








# The relationship between speed and severity of ped/vehicle crashes



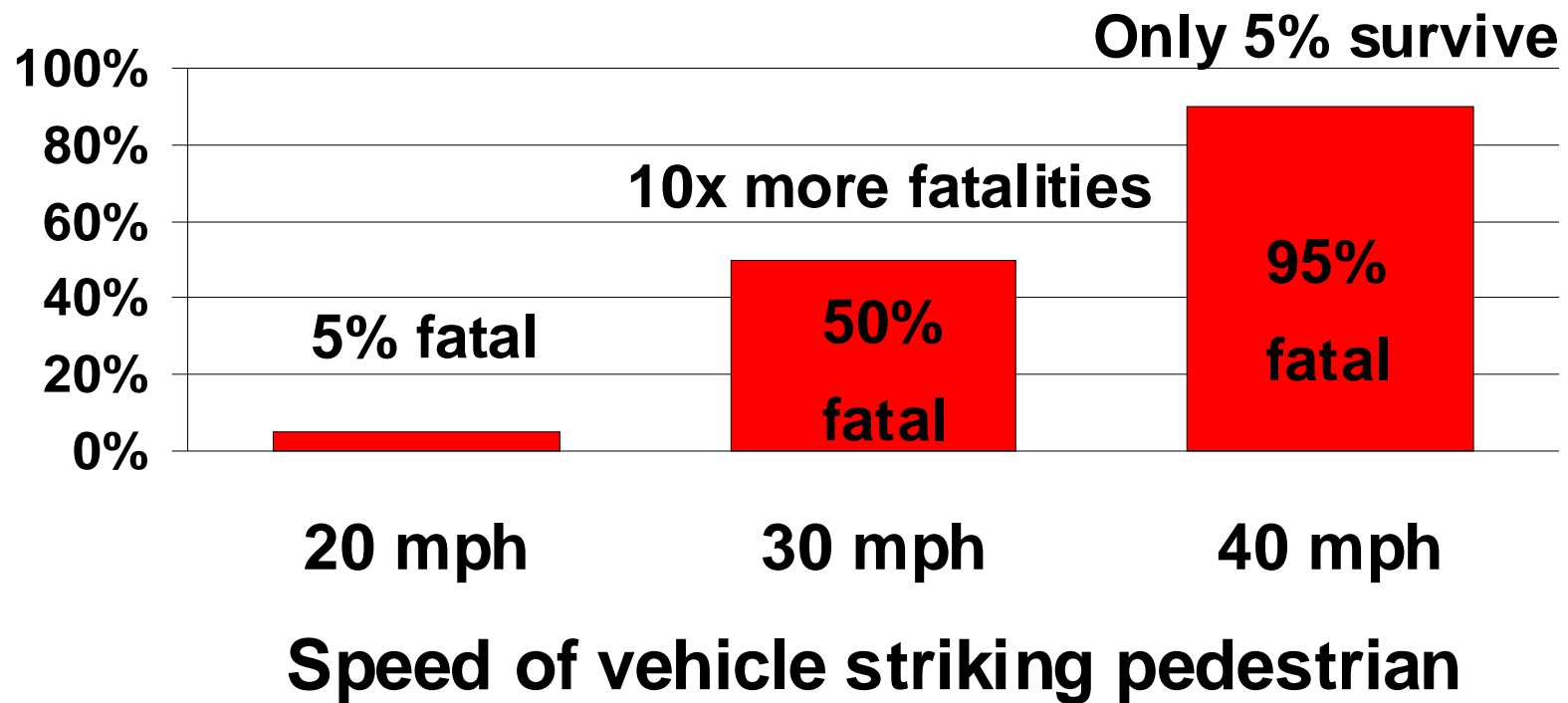
**Pedestrians' chances of death if hit by a motor vehicle**

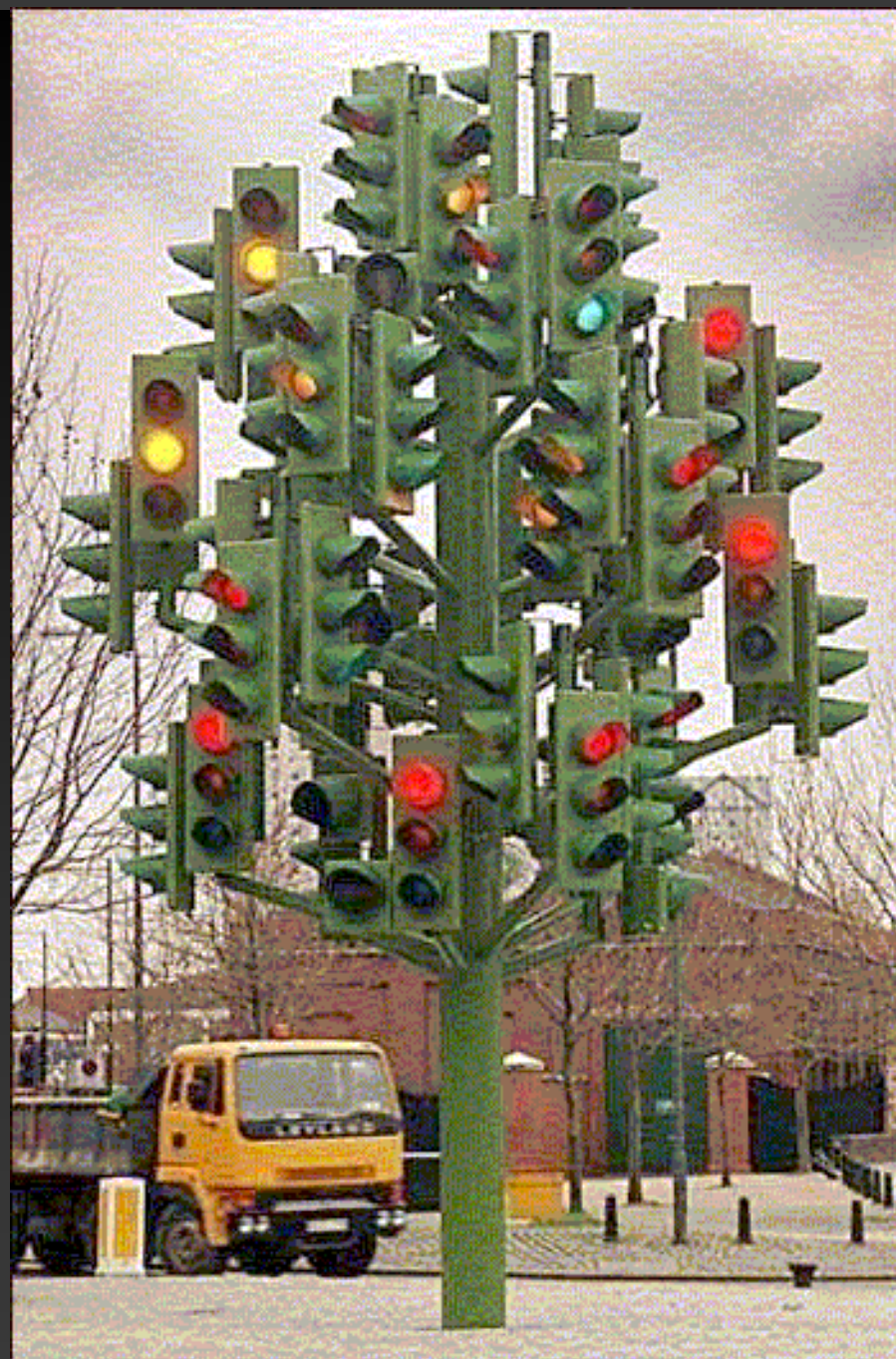
SOURCE: *Killing Speed and Saving Lives*, UK Department of Transportation



# Moderate Speeds Kill Pedestrians

## Pedestrian **Fatalities** by Speed







# Children Walk Less and Weigh More

