

Livability and the role of Transportation



Where do we go from here?



BUILDING HEALTHY LIVABLE COMMUNITIES



Ashland, Oregon

Dan Burden, Walkable and Livable Communities Institute

HAVING LESS OF THIS...



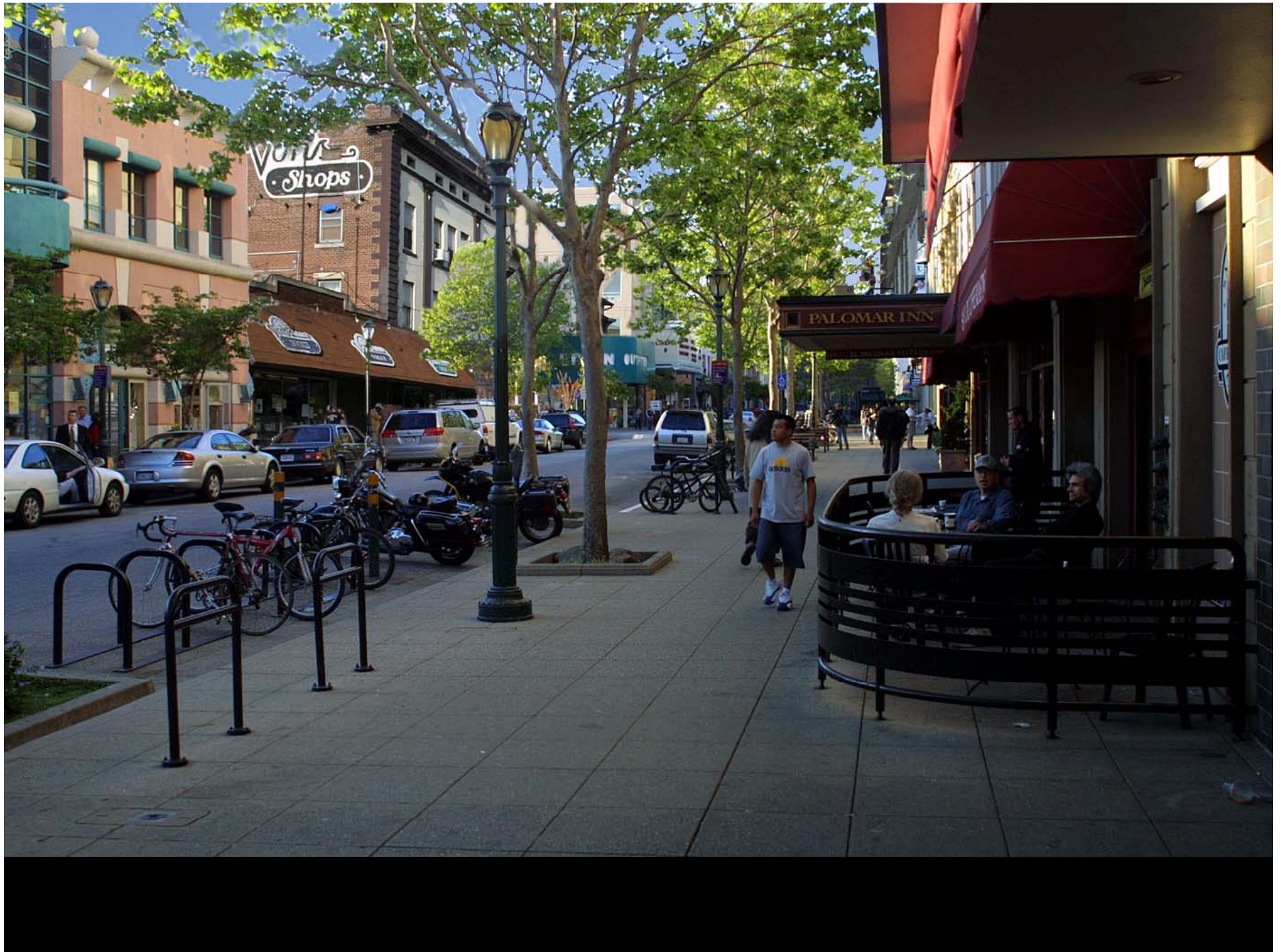
REQUIRES MORE OF THIS...













**Streets must become
“right-sized” for their
greater mission.**



We see things that
others fail to see



Complete Streets





University Place,
Washington

Road Diets









Abbott Road, E. Lansing, Michigan



This:

One less travel lane; bike lanes; parallel to back-in diagonal parking on one side; new pavement



Road Diets

**1800 vehicles
per hour
per lane**

**800 vehicles per hour
Per lane**







Benefits

Motorist: Safety 25- 40% improvement

Traffic moves with greater uniformity

Compact intersections more efficient

Greater cost savings

Turns are easier

Senior friendly (as motorists)

Others:

Senior friendly (as pedestrians)

Supports transit, walking and bicycling

Emergency response friendly

Increased property values (and tax base)

Community economic development









California Street, Mountain View, California

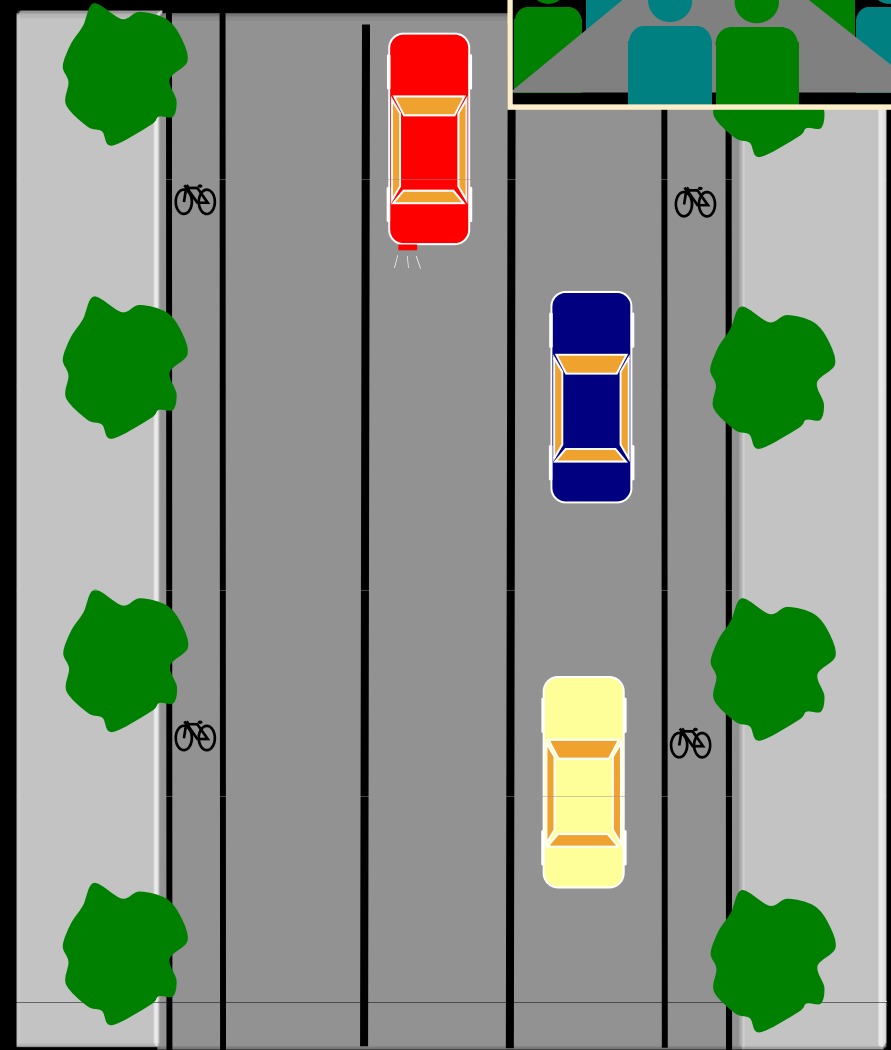
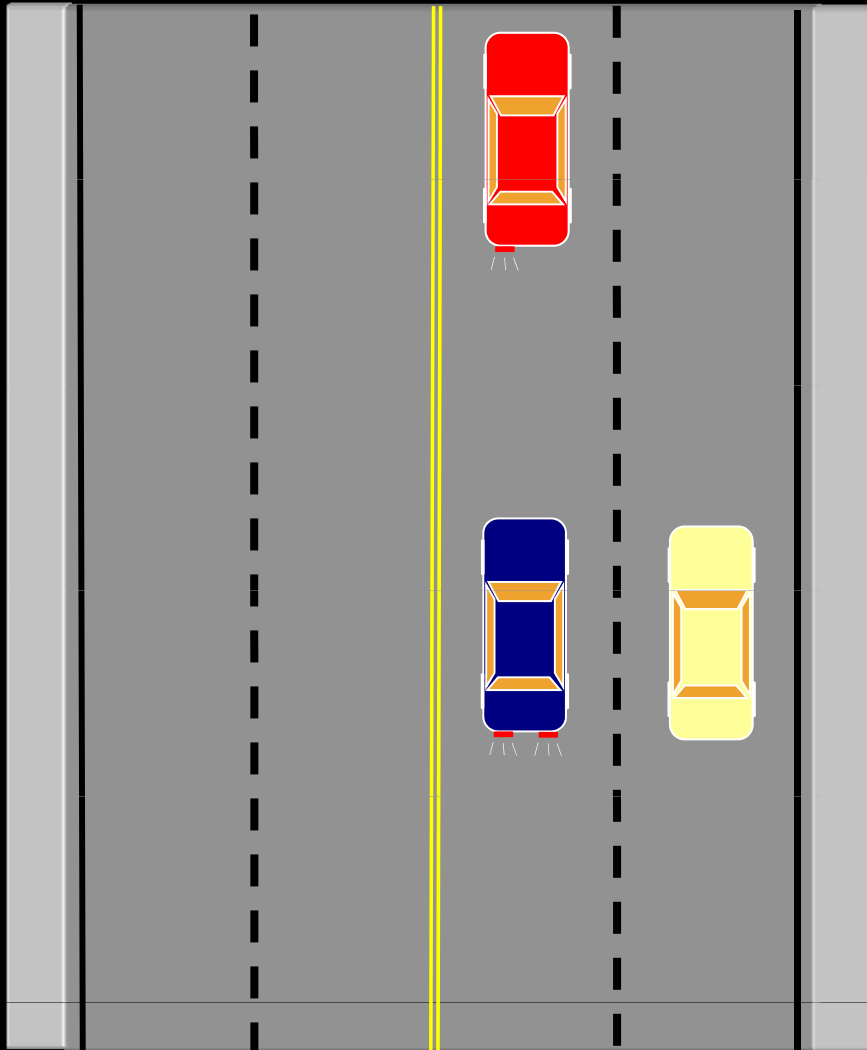




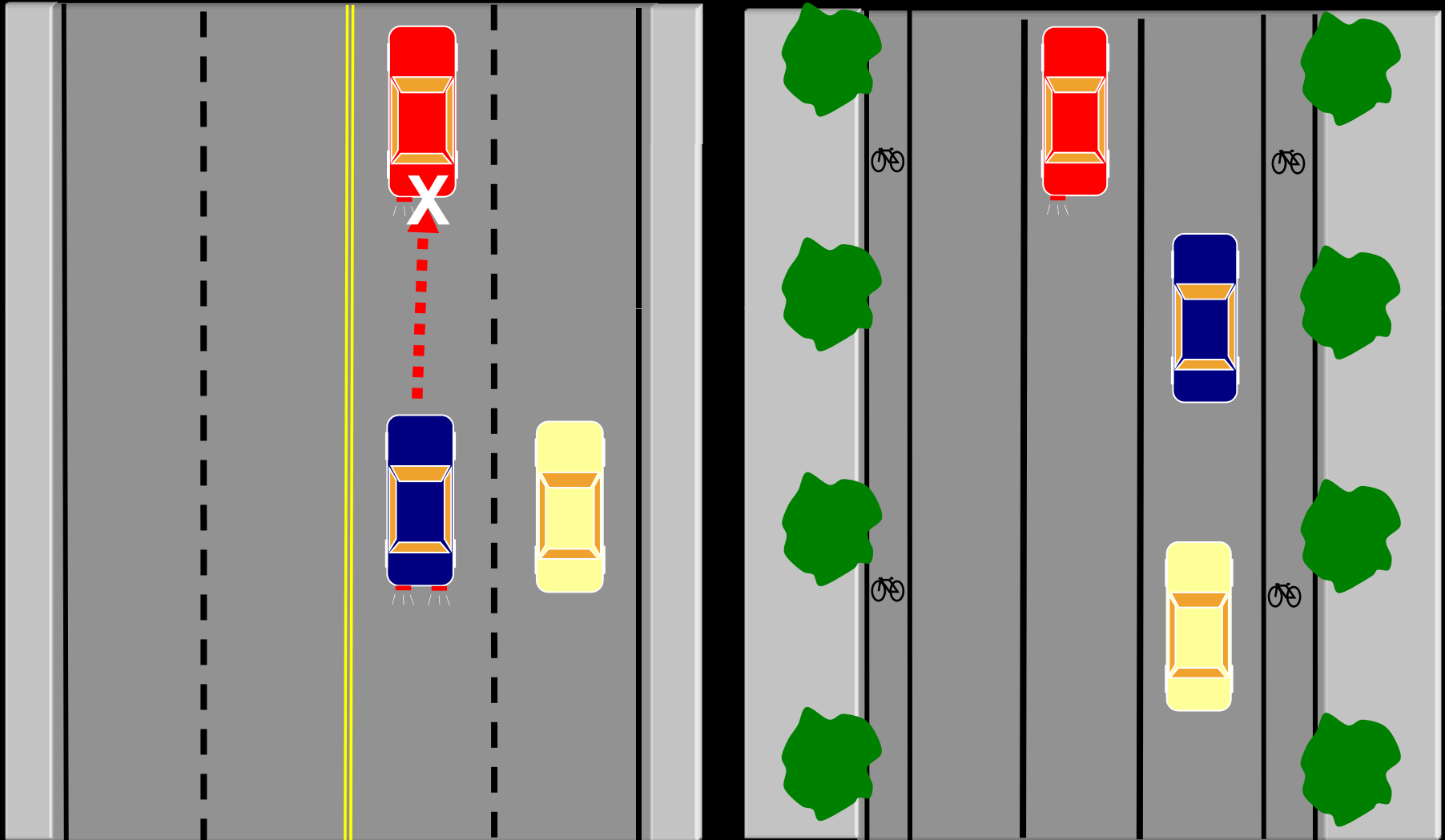
Speed reductions of 3-7 mph are
common

Hartford, Connecticut

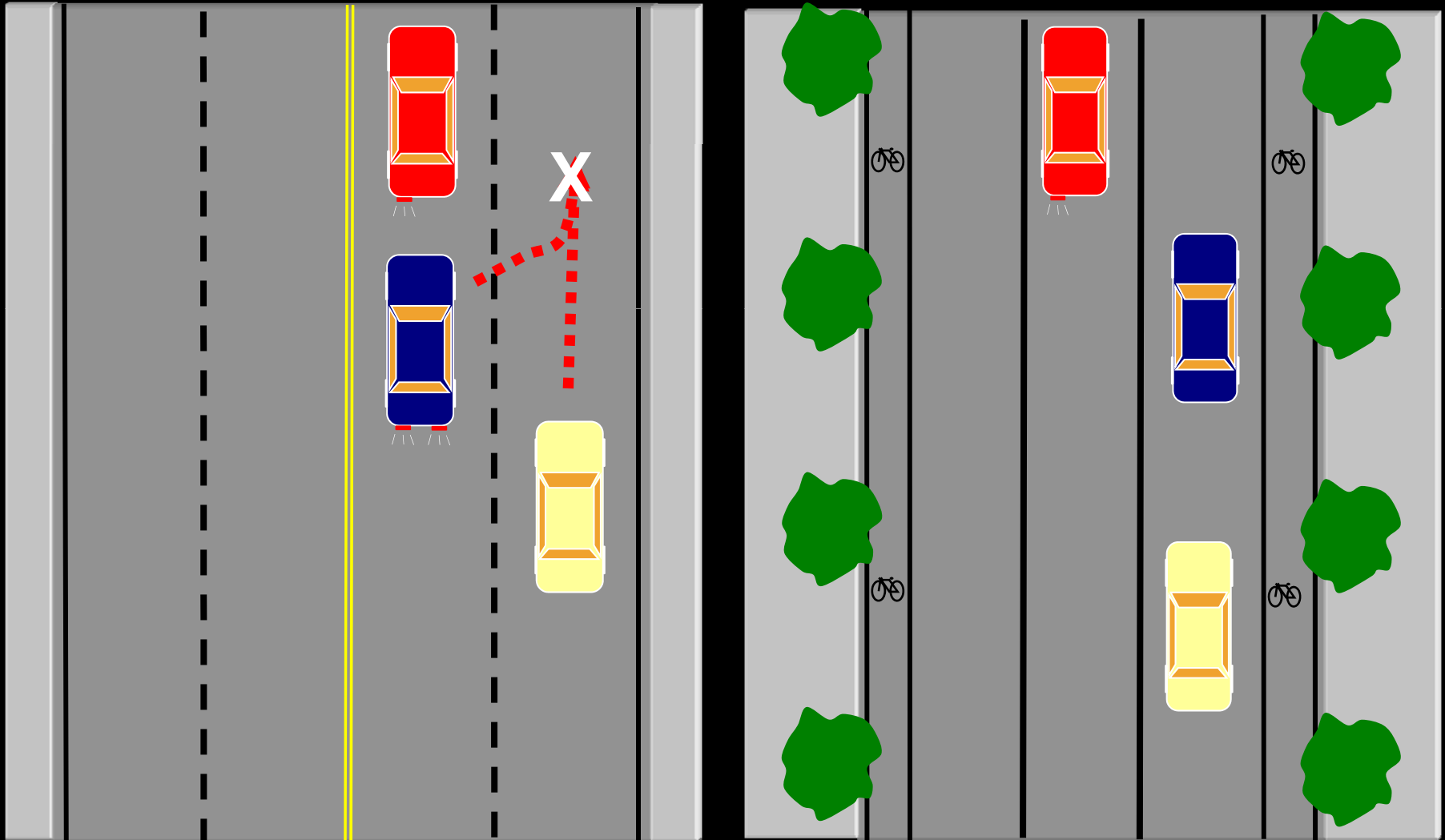
3 crash types can be reduced by going from 4 to 3 lanes: which ones?



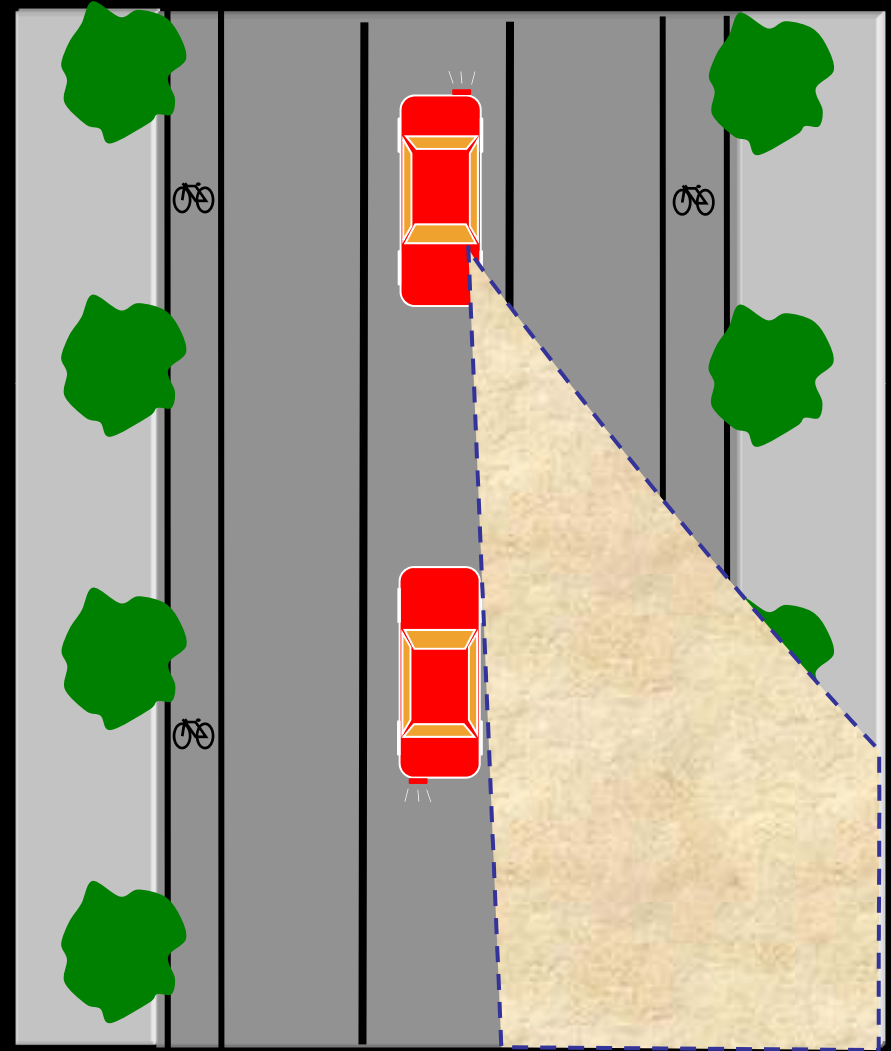
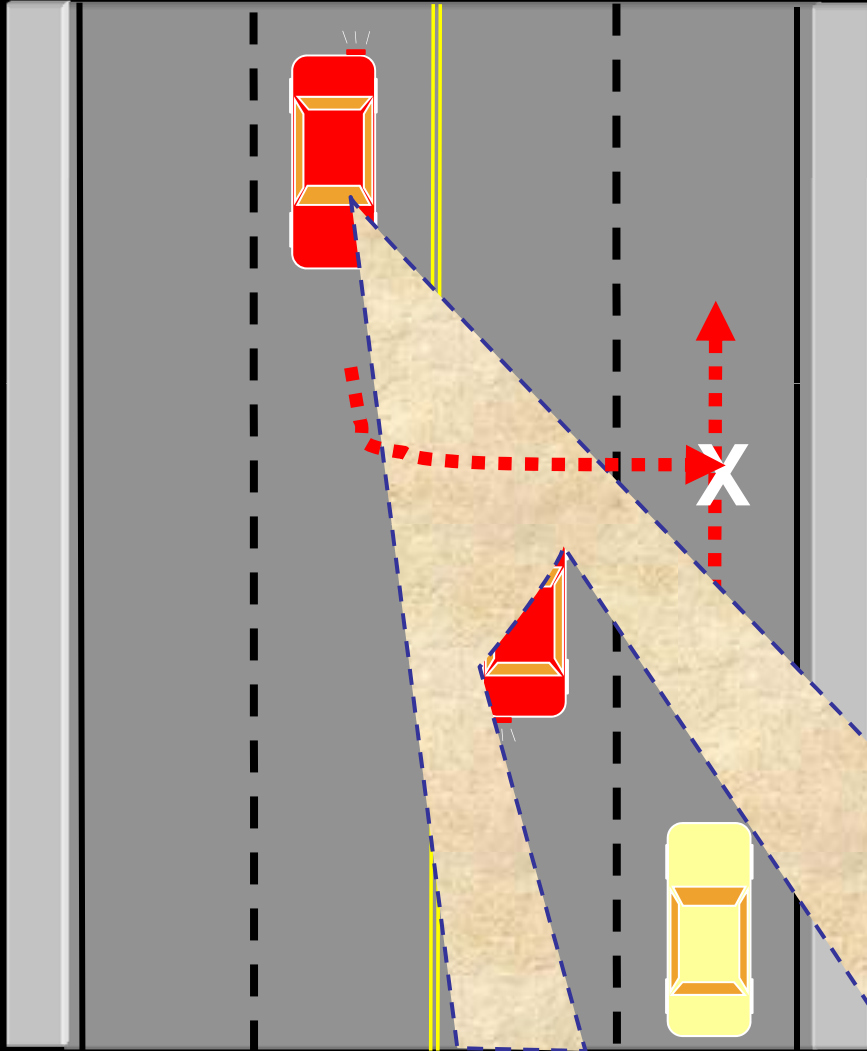
3 crash types can be reduced by going from 4 to 3 lanes: 1 – rear enders



3 crash types can be reduced by going from 4 to 3 lanes: 2 – side swipes



3 crash types can be reduced by going from 4 to 3 lanes: 3 – left turn/broadside





Reality: Before

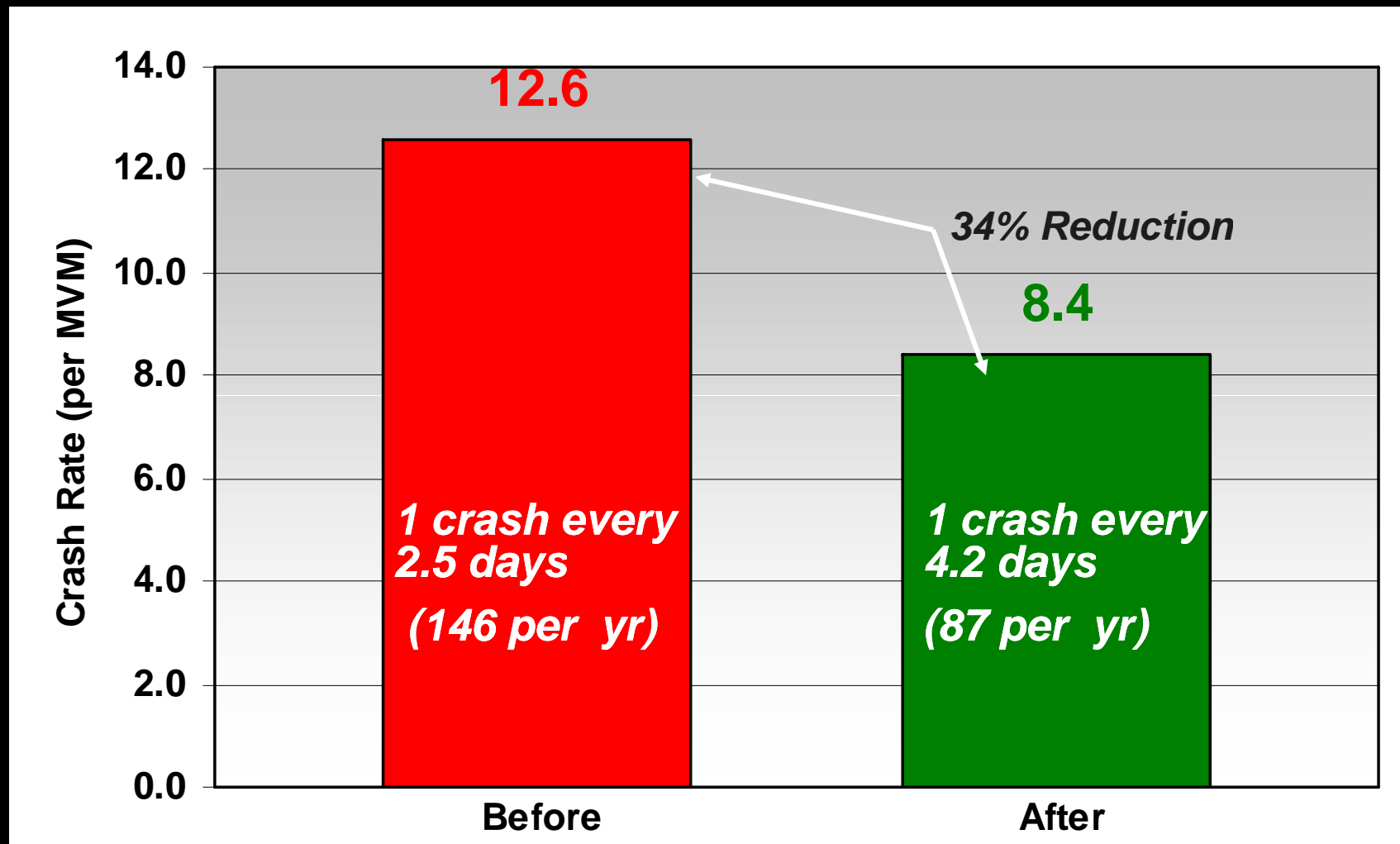
Designing for Pedestrian Safety – Road Diets



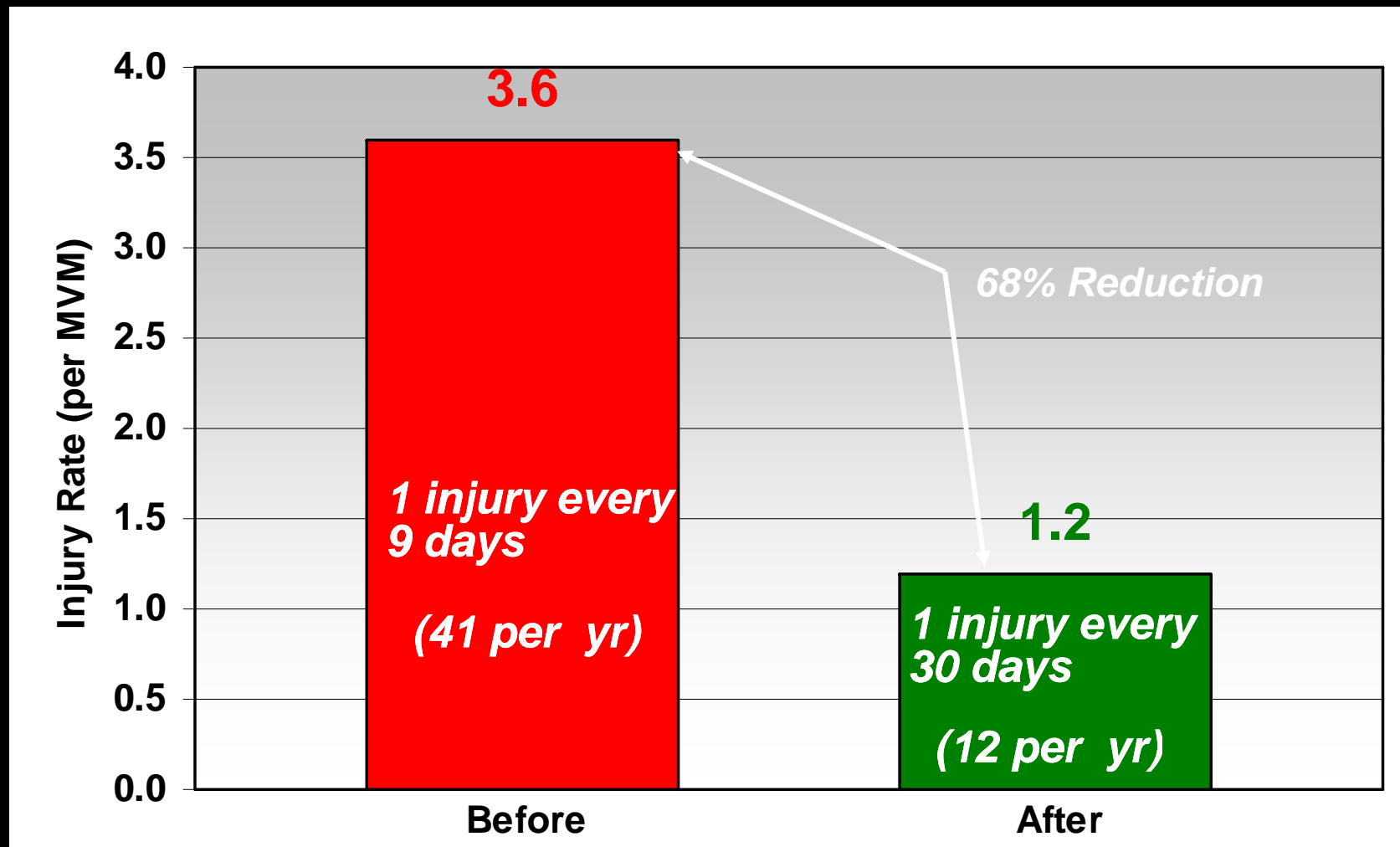
Reality: After

Designing for Pedestrian Safety – Road Diets

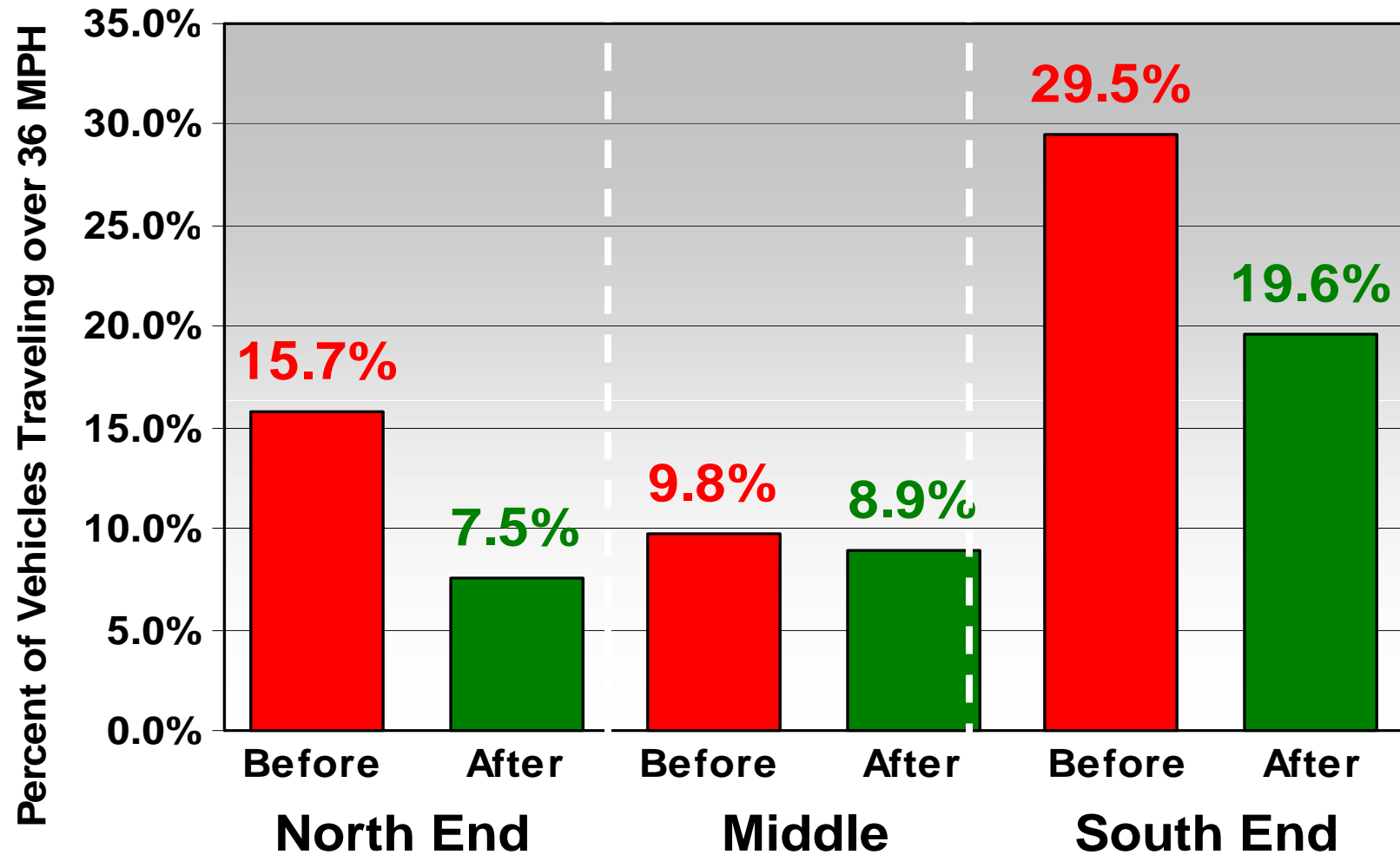
Before/after studies: 1. Crash rate



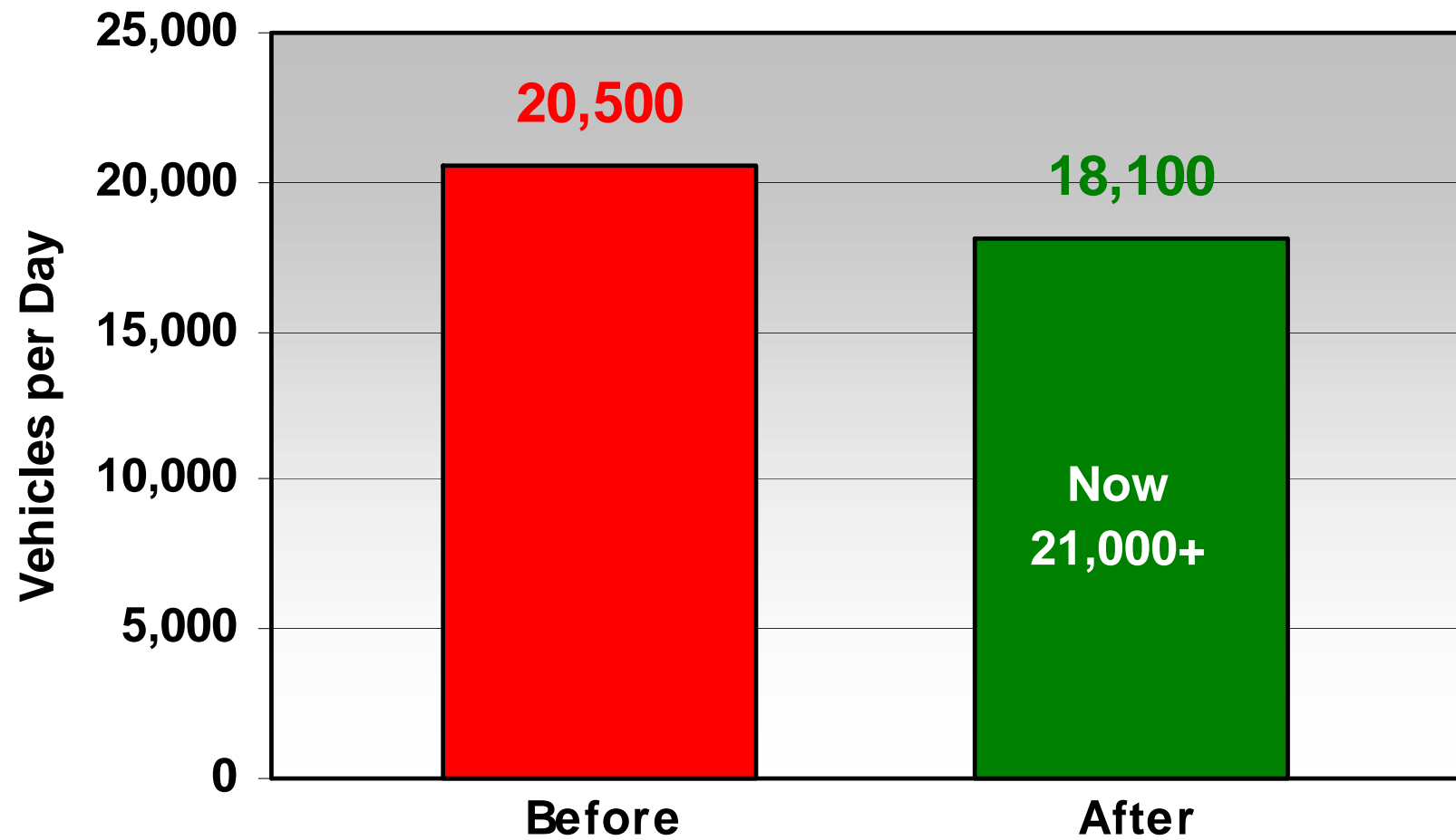
Before/after studies: 2. Injury rate



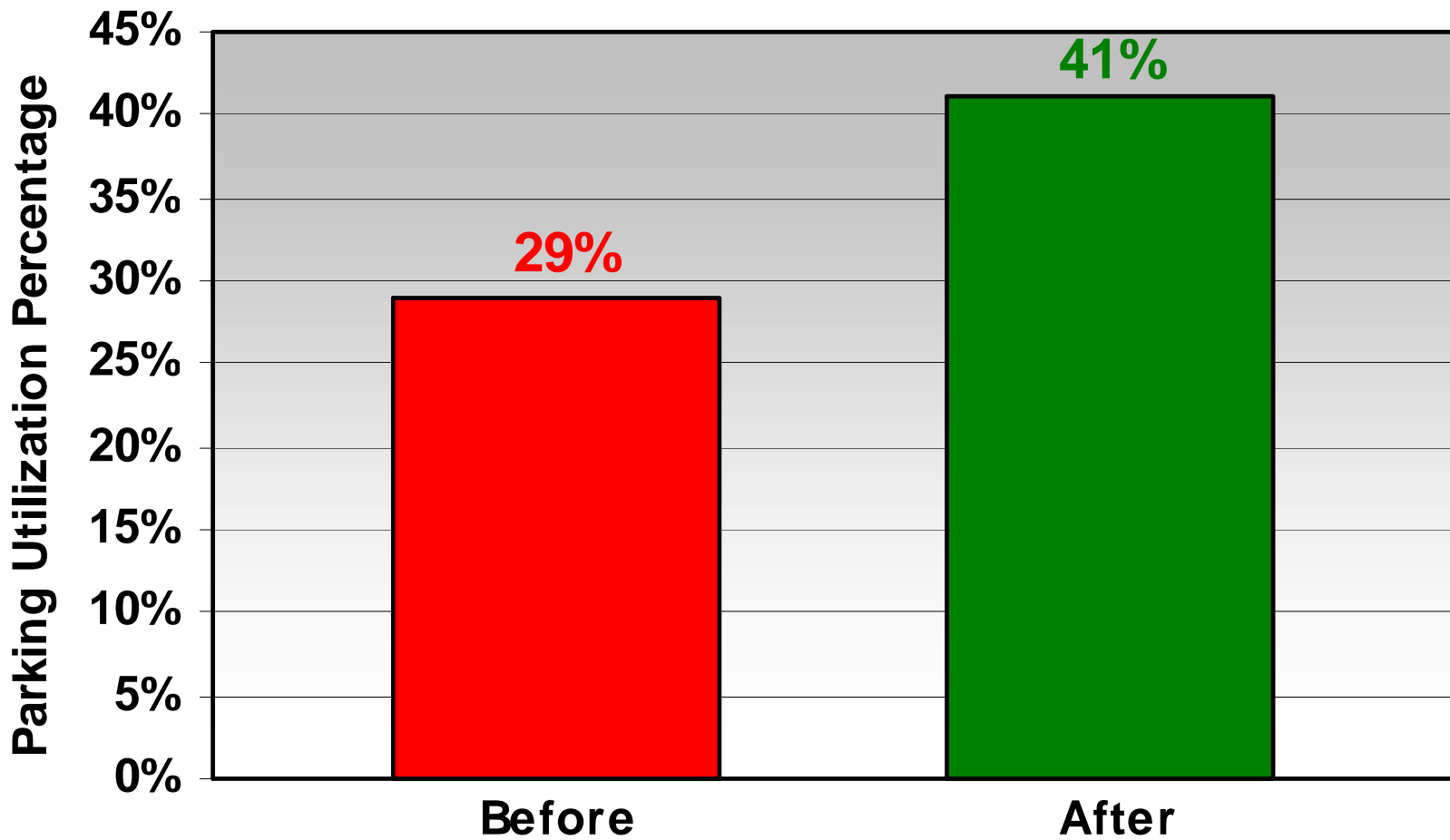
Before/after studies: 3. Speeding analysis



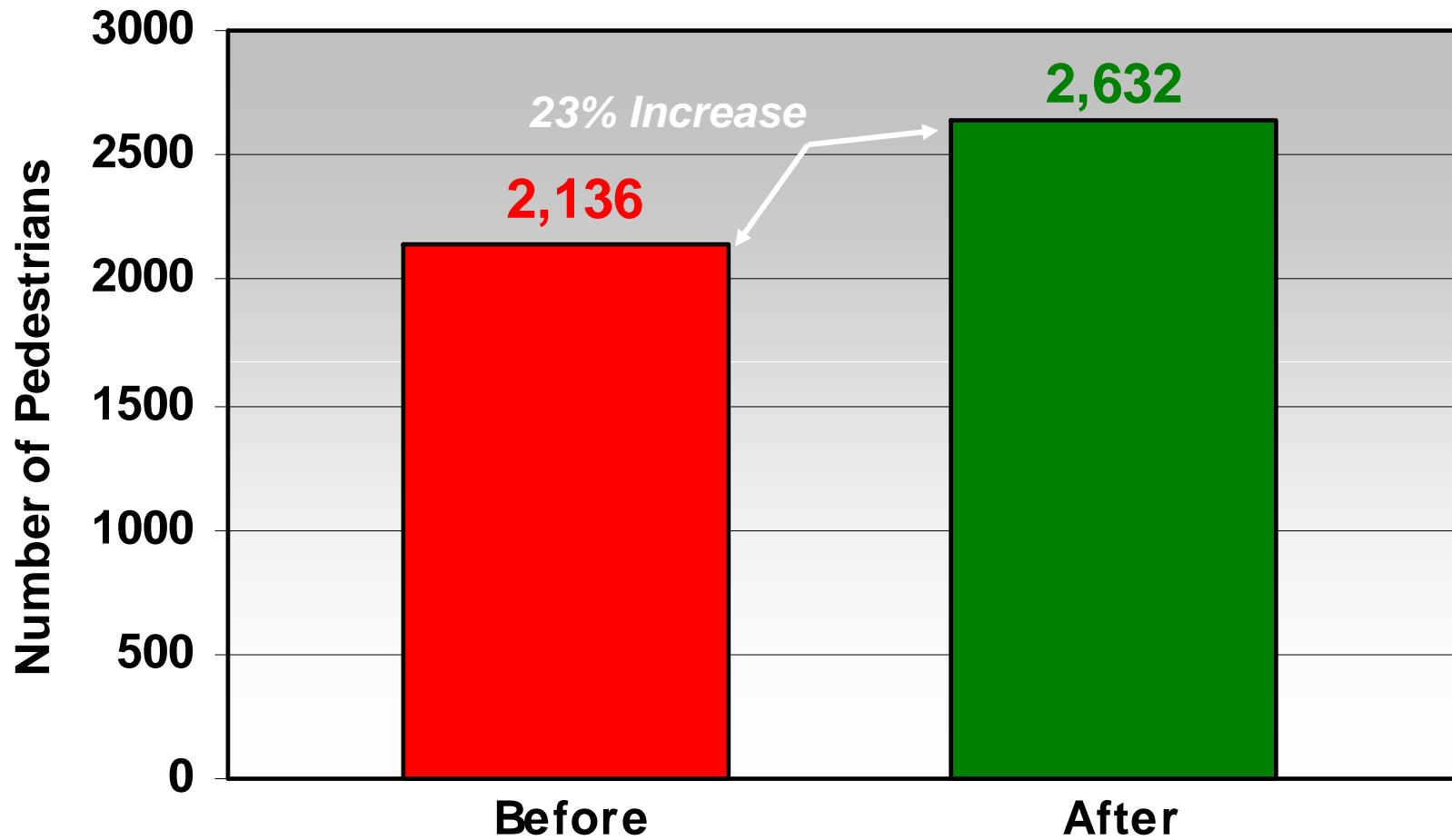
Before/after studies: 4. Traffic volumes



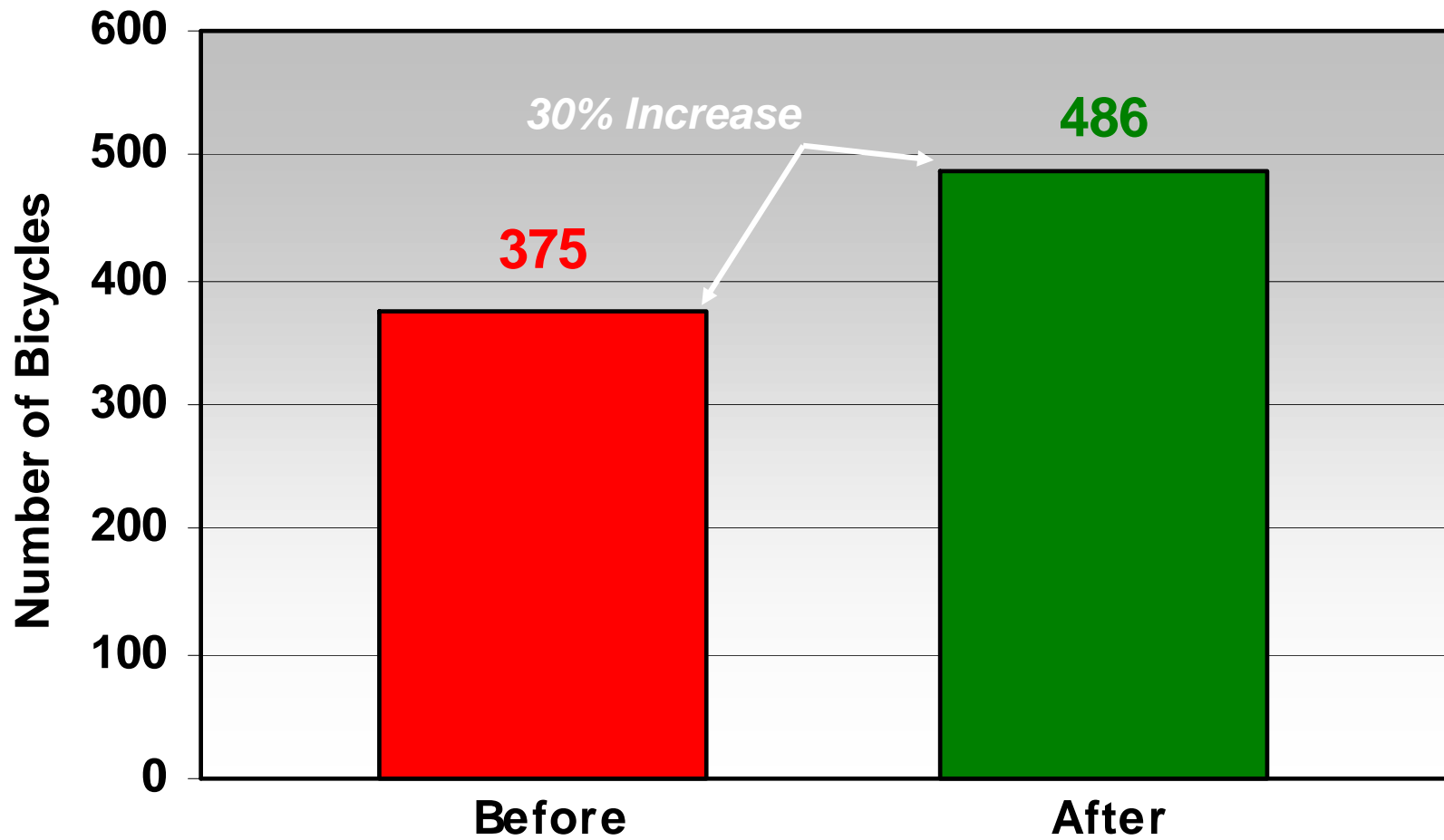
Before/after studies: 5. On-street parking utilization



Before/after studies: 6. Pedestrian volumes

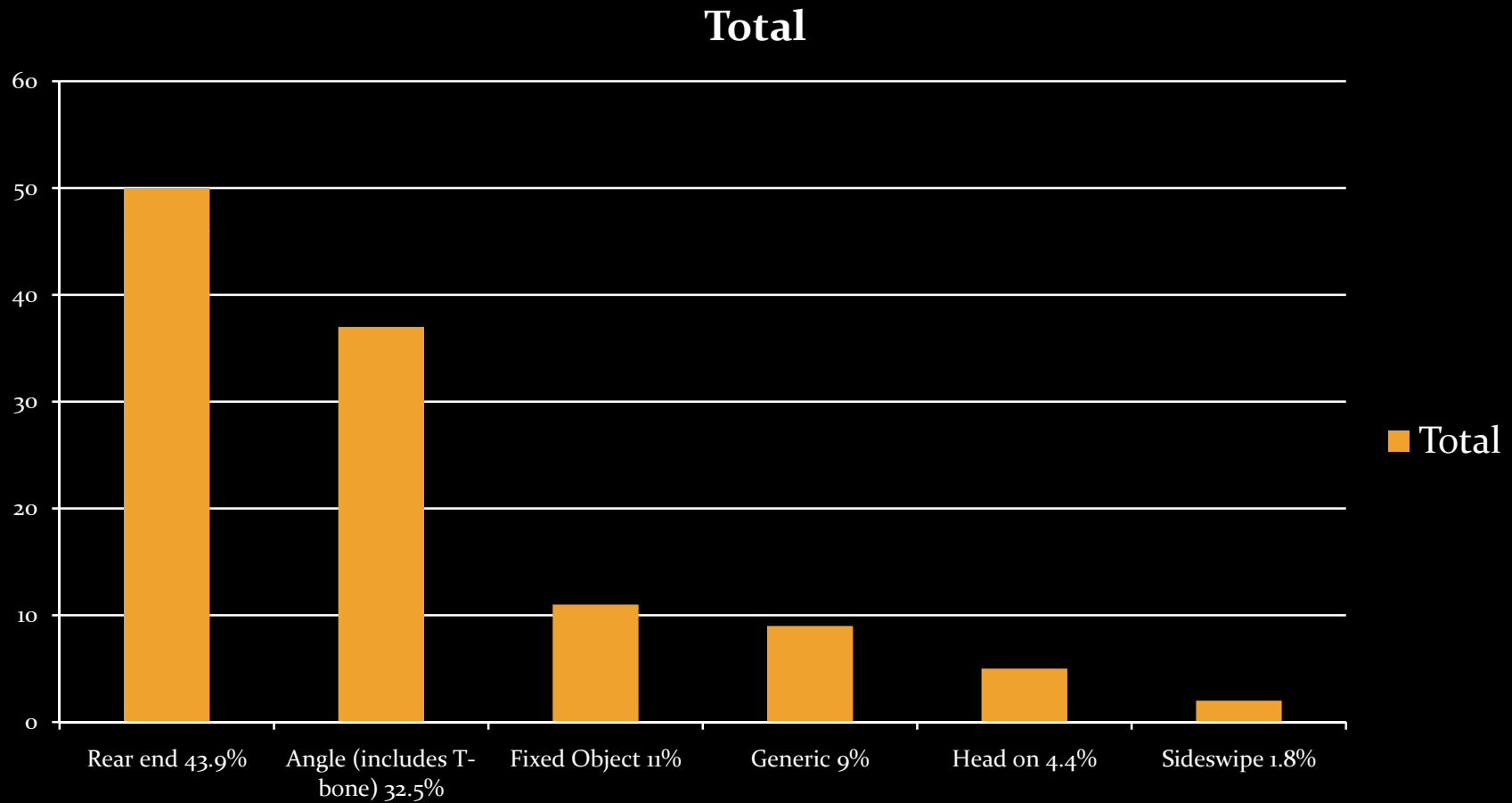


Before/after studies: 7. Bicyclist volumes



North Main 10 Year Crash History

(114 Crashes)

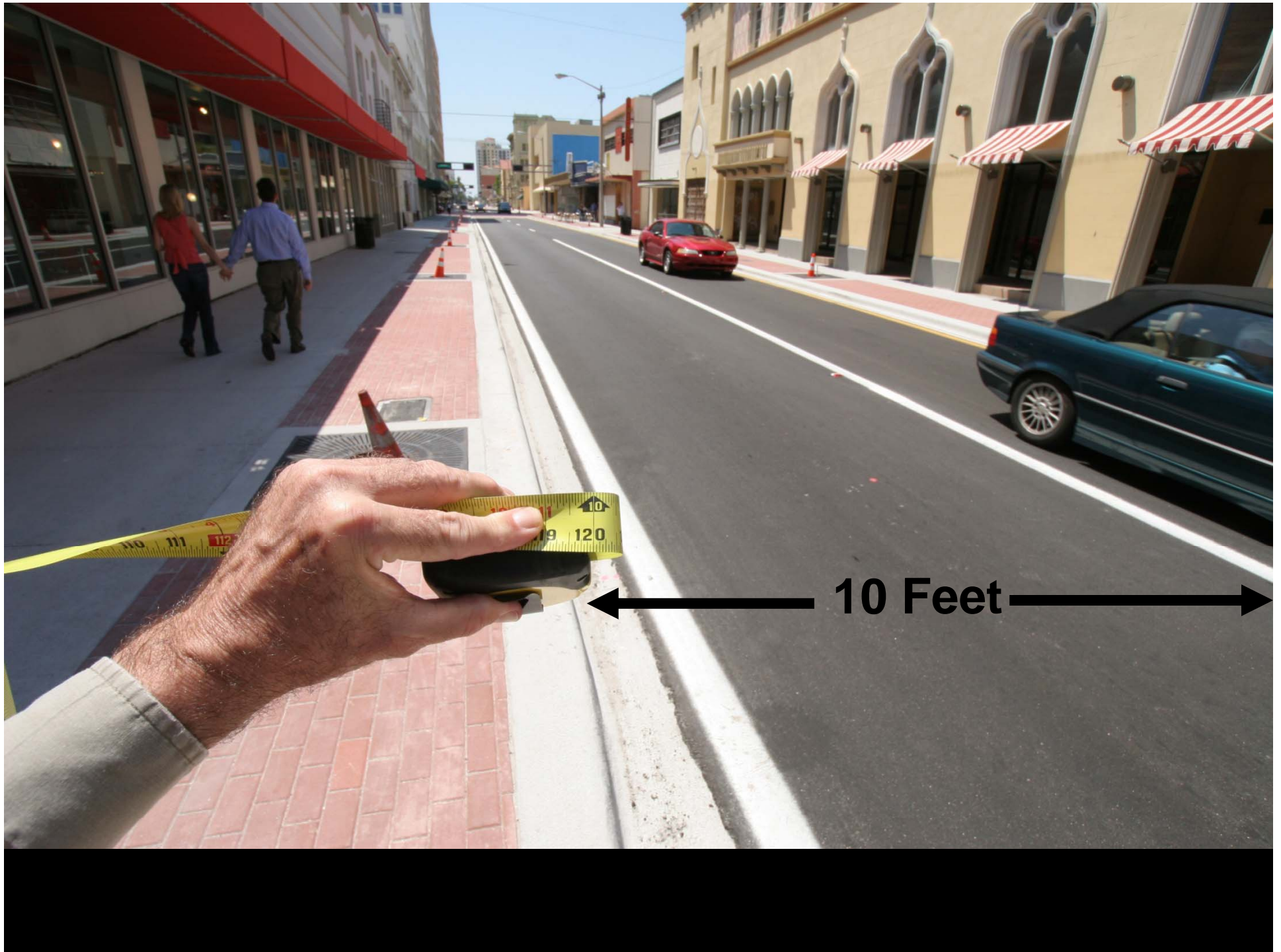




**This area was recaptured from a 4th travel lane;
the street took on a whole new life**











Avenue Quality Performance Levels

Average Daily Traffic (ADT)



Well designed neighborhoods allow quality distribution of traffic. Good planning allows traffic volumes to stabilize in the "high performance" range. When land use patterns or other auto-dependency become extreme full capacity Avenues are uncomfortable but can maintain quality. Communities should avoid "Biggee Sizing" roads. With higher volumes quality is retained with extra measures.

Quality Level

Comfortable

High Performance

Approaching Full Capacity

Volume

3,000

6,000

9,000

12,000

15,000

18,000

21,000

Gaps: Cars per minute each direction

3

5

7.5

10

12.5

15

18

Example Locations



Mill Creek
Washington



Chico
California



Santa Monica
California



Greenville
South Carolina



Mercer Island
Washington



Seattle
Washington



Orlando
Florida

Note: Photos depict likely features or conditions, not actual peak ADT's.

Observations and Likely Treatments

Gaps: Frequent
Controls: Rare
Crossings: Informal
Delays: Very Rare
Parking: Preserve Sight Lines
Bike Lanes: YES

Gaps: Frequent
Controls: Rare
Crossings: Informal or markings
Delays: Rare
Parking: Preserve Sight Lines
Bike Lanes: YES

Gaps: Convenient
Controls: Roundabouts or Four Way
Crossings: Markings
Delays: Occasional
Parking: Preserve Sight Lines
Bike Lanes: YES

Gaps: Common
Controls: Roundabouts or Four Way
Crossings: Medians and Bulbouts
Delays: Moderate
Parking: Inset
Bike Lanes: YES

Gaps: Most hours
Controls: Roundabouts or Signals
Crossings: Medians and Bulbouts
Delays: Common
Parking: Inset
Bike Lanes: YES

Gaps: Infrequent
Controls: Roundabouts or Signals
Crossings: Medians and Bulbouts
Delays: Many hours
Parking: Inset
Bike Lanes: YES

Gaps: Steady Traffic
Controls: Roundabouts or Signals
Crossings: Medians and Bulbouts
Delays: Expected
Parking: Inset
Bike Lanes: YES













