

Raised Median Islands and Pedestrian Safety

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City of University Place

May 30, 2012



Today's presentation

- ⇒ Introduction and housekeeping
- ⇒ Audio issues? Dial into the phone line instead of using “mic & speakers”
- ⇒ PBIC Trainings
<http://www.walkinginfo.org/training>
- ⇒ Registration and Archives at
<http://www.walkinginfo.org/webinars>
- ⇒ Questions at the end
- ⇒ Follow-up E-mail with certificate of attendance for 1.5 hours of instruction and link to download slides

Medians and Median Islands

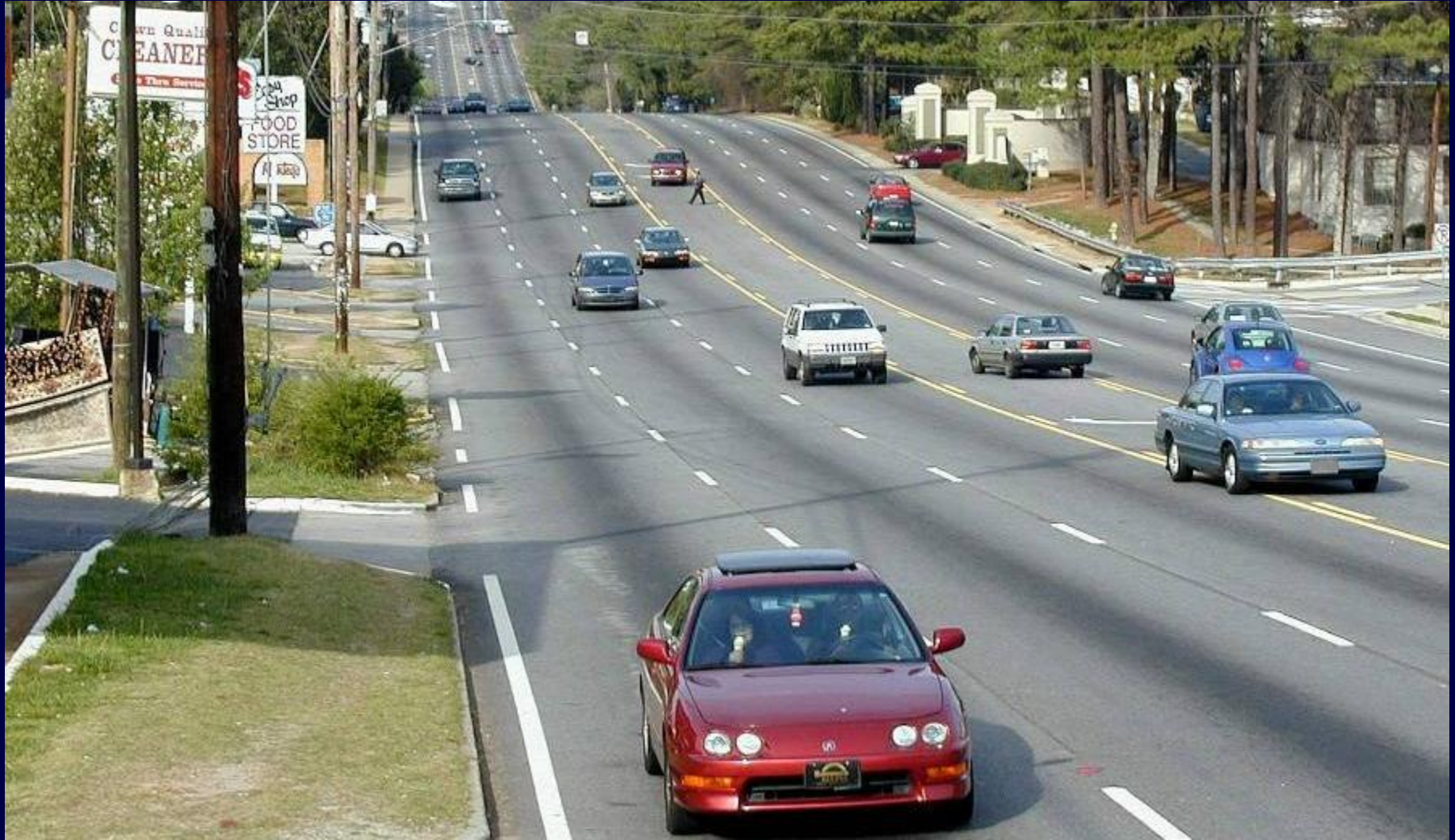
Overview and Effectiveness

Basic Street Crossing Techniques

- **Crosswalks**
- **Illumination**
- **Signs**
- **Striping**
- **Medians/pedestrian islands**
- **Signals**
- **Over/undercrossings**

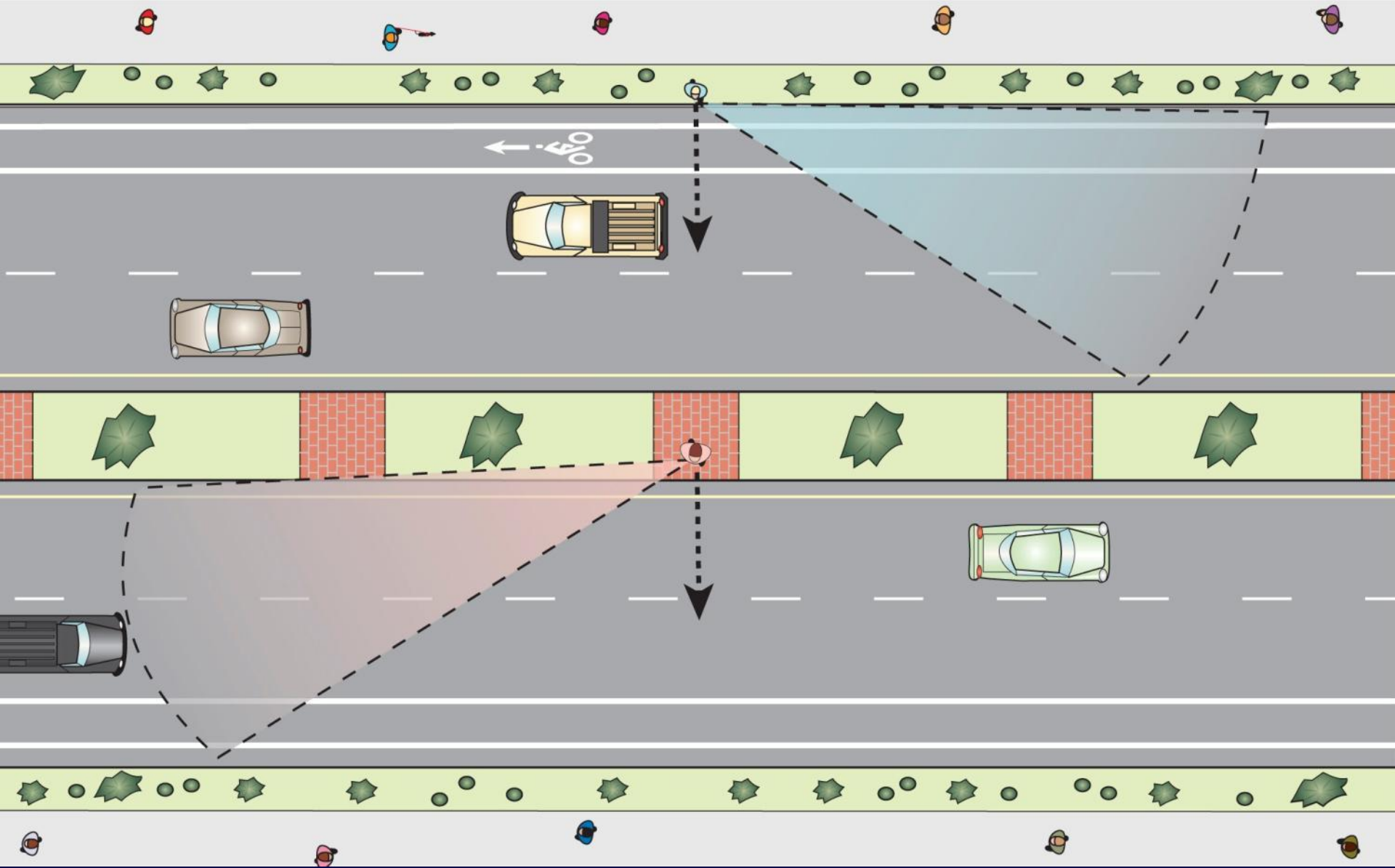
Need for Medians & Islands

Pedestrian crashes are correlated with ADT & number of travel lanes.



Definitions of Medians & Islands

- **A median is an area between opposing lanes of traffic, excluding turn lanes that can be open (pavement markings only) or channelized (raised medians or islands) to separate road users**
- **Pedestrian refuge islands (center islands, refuge islands, pedestrian islands, median slow points) are raised islands that are placed on a street to separate crossing pedestrians from motor vehicles**



**Continuous raised median – basic principle:
Breaks long complex crossing into two simpler crossings**



Step 1: look at traffic on left



Step 2: cross first half



Step 3: look at traffic on right



Step 4: cross second half



People figure out on their own how to use a median to cross in two steps

FHWA Guidance: Medians & Islands

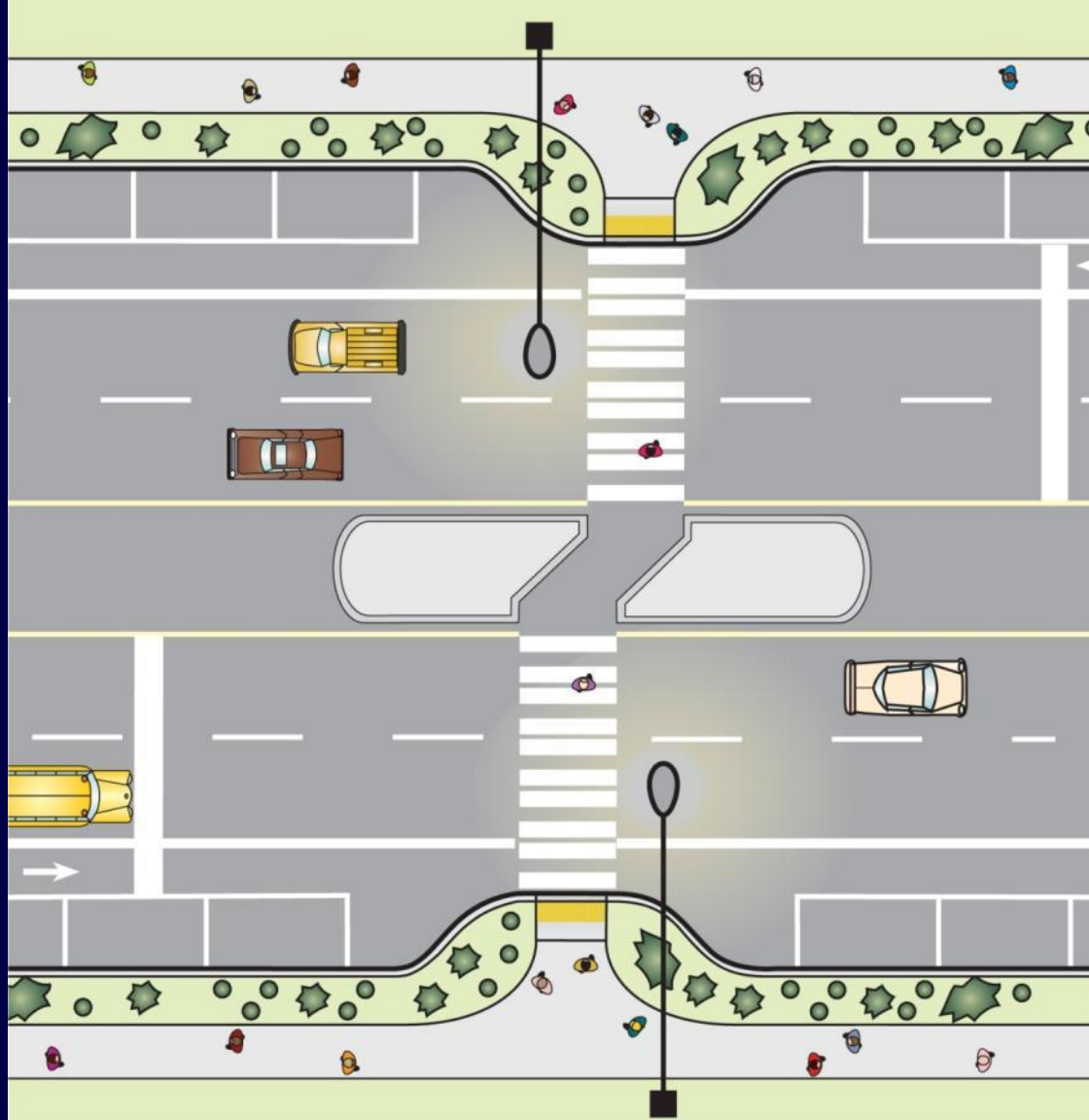
- **Should be considered on curbed sections of multi-lane roads in urban and suburban areas**
- **Most beneficial for ADT's of 12,000 or above and/or high vehicle speeds**
- **Should be at least 4 feet wide, but although 8 feet preferred to allow for pedestrians to wait for gaps in traffic**
- **Should conform to ADA requirements**



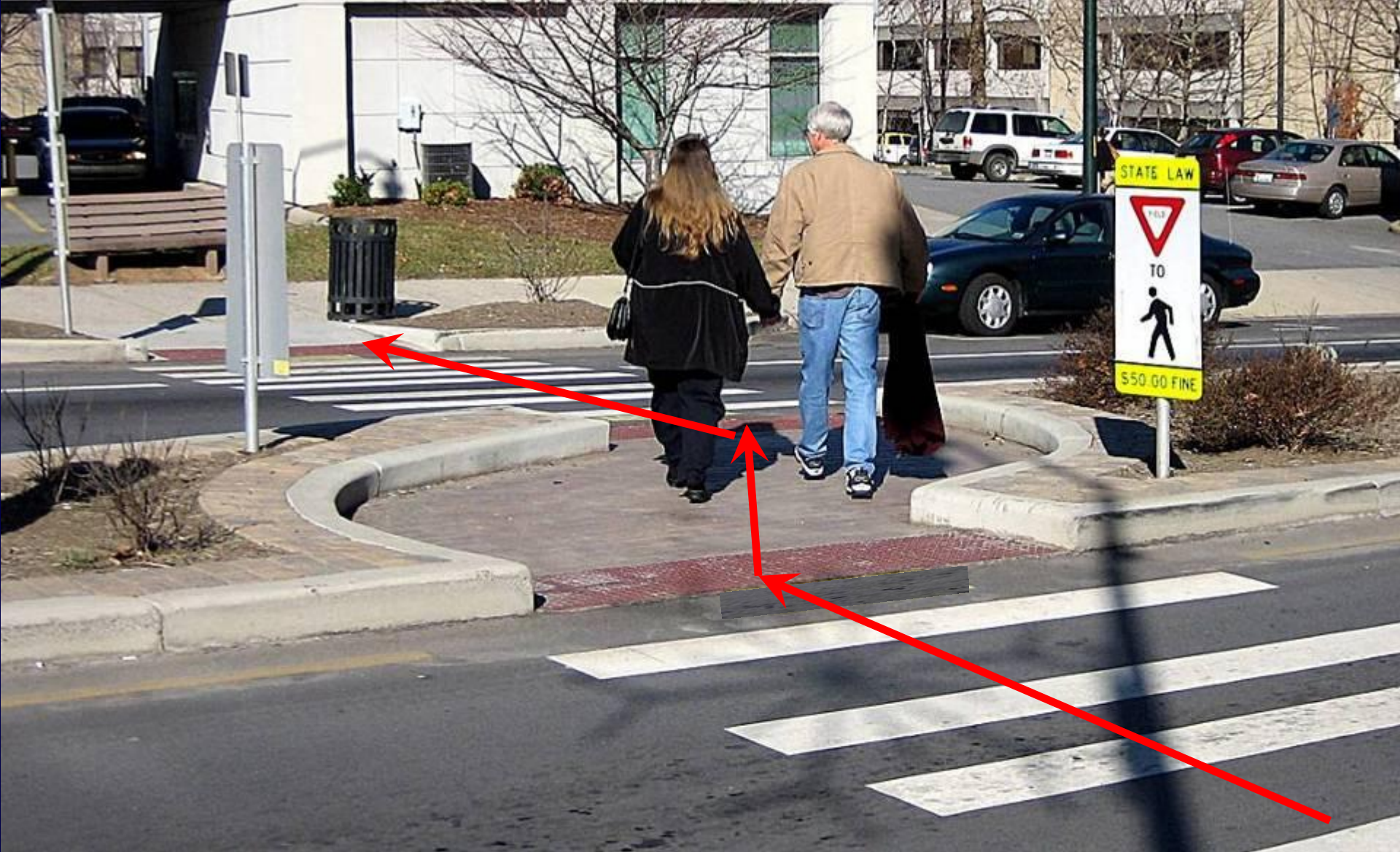
A flush median is not a refuge



Add a raised island



**Crossing island at marked crosswalk - same principle:
*Breaks long complex crossing into two simpler crossings***



Option: stagger or angle cut-through so pedestrians face oncoming traffic before 2nd crossing



Medians:

Why do medians reduce pedestrian crashes?

They reduce crossing distance and break up an otherwise complex task into 2 simpler crossings

What is the crash reduction factor?

At marked crosswalks $CMF = 0.54$ (CRF = 46%)

At unmarked crosswalks $CMF = 0.61$ (CRF = 39%)



Stage 1: Ped stops traffic in one direction



Stage 1: Ped crosses to median island



Stage 1 over: Traffic in one direction resumes



Stage 2: Ped stops traffic in other direction



Stage 2 over: Traffic resumes



Detail 1: Requires ped push button on island



Detail 2: Fences force peds to walk against on-coming traffic



**Community
Center**

W Van Buren St

Phoenix, AZ – W. Van Buren Street. Before: 1/2-mile signal spacing; high-volume, high-speed; marked crosswalks at unsignalized intersections



Before: No frills marked crosswalk at intersection



Before: Challenging 6-lane crossing at Community Center



After: Raised median with stagger, Advance stop lines (not visible), Location near destination

Medians and Crossing Islands can:

- Reduce pedestrian crashes by 39 to 46 percent**
- Decrease motorist delay by 30%**
- Provide a safe place for peds.**
- Enhance visibility of pedestrians**
- Reduce vehicle speeds**
- Provide access management**
- Provide space for signs**

Oregon DOT – Pedestrian Islands

Three Types

- Continuous Medians
- Pedestrian Crossing Islands
- Pork Chop Islands

Oregon DOT – Pedestrian Islands

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FHWA Publication

HRT-04-100

September 2005

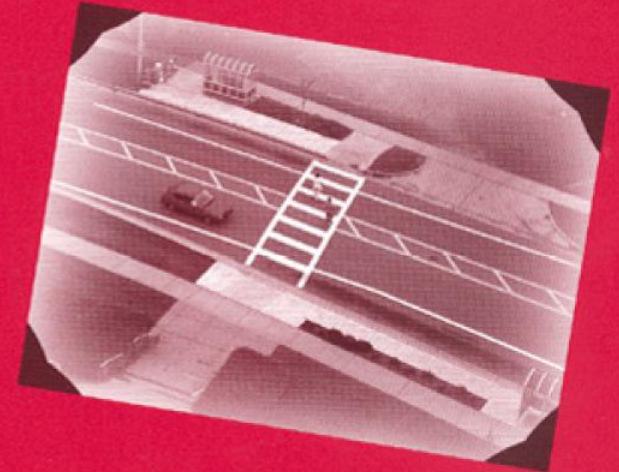
Charles Zeeger

Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations

Final Report and Recommended Guidelines

FHWA PUBLICATION NUMBER: HRT-04-100

SEPTEMBER 2005



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296





Significant findings

Most important correlate between crashes and other factors: **ADT & number of travel lanes.**

- ❖ This confirms observations made on urban state highways in Oregon & other studies

Marked Crosswalks should not be used:

Speed Limit > 40 MPH

Without a **median** on a multi-lane roadway with ADT > 12,000

On multi-lane roadways with ADT >15,000 (with or without a median)

In close proximity to a signalized intersection

The following treatments are recommended:

- Raised **Medians/Islands** on multi-lane roads
- Traffic and ped signals where warranted
- Crossing exposure reduction
 - **Medians/Islands**
 - Curb Extensions
 - Lane Reduction (width, number)
- Locate bus stops on far side of uncontrolled intersections
- Traffic Calming
 - Raised Crosswalks
 - Street Narrowing
 - Diverters/traffic circles
- Illumination

Conclusions/recommendations

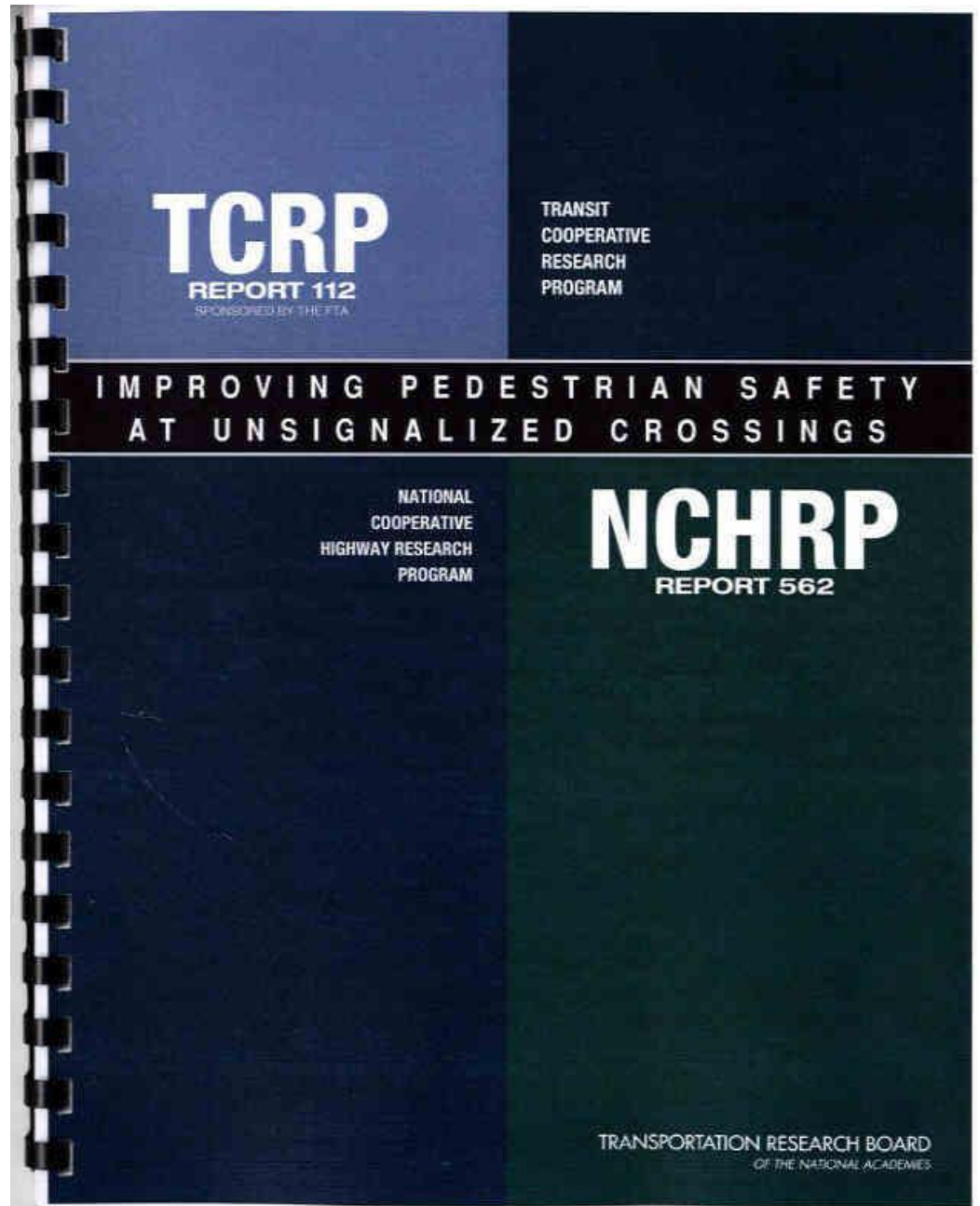
- ❖ OK to mark crosswalks at ADT <10,000 **w/o median***
- ❖ OK to mark crosswalks at ADT <15,000 **w/ median***
- ❖ **Medians reduce crash risk significantly**
- ❖ **High ADT roadways require added mitigation**
- ❖ Signalization or other treatments should be considered where large portion of pedestrians are young and/or elderly

* **Raised Median**

Provides methodology for determining what type of crossing treatment to use to improve safety of crossings on high speed high volume roadways

Recommends modifications to the MUTCD pedestrian signal warrant (Now in the 2009 MUTCD)

Includes research review and Field Studies





Oregon DOT Policies



Oregon DOT Traffic Manual

http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/pdf/Traffic_Manual_09.pdf

Marking Crosswalks at Uncontrolled Intersections

(Oregon DOT Traffic Manual Section 6.6.1.2)

Engineering study required. Location must meet the following criteria:

1. Good Sight Distance (Stopping SD as Min.)
2. No alternative crossing location
3. There is established pedestrian traffic
4. Posted Speeds are 40 MPH or less
5. ADT < 10,000 ADT
6. **If ADT \geq 10,000 median Island is required**
7. On multi-lane highways additional features (medians, curb extensions, lighting) are encouraged

Marking Crosswalks at Mid-Block Locations

(Section 6.6.1.3)

Engineering study required. Location must meet the following criteria:

1. Good Sight Distance (Stopping SD as Min.)
2. No alternative crossing location
3. There is established pedestrian traffic
4. Posted Speeds are 40 MPH or less
5. ADT < 10,000 ADT
6. **If ADT \geq 10,000 median Island is require**
7. Location is >300' from a traffic signal
8. Curb extensions should be considered
9. There are adjacent bus stops

Other Considerations

- Opportunity to concentrate ped x-ings

Free turning movements or other traffic characteristics inhibit x-ing opportunities at nearest intersection



Circle Blvd Corvallis, OR



Hwy 42 Winston, OR



Hwy 101 Depoe Bay, OR



Bailey Hill Rd Eugene, OR - Before



Bailey Hill Rd Eugene, OR - After



53rd St, Benton County, OR



Hwy 126B, Springfield, OR

10.25.2010 08:17



A Tale of Six Islands

Hwy 99W

Corvallis

Oregon



Hwy 99W Corvallis, OR





Seven Pedestrian Islands were installed on 99W in Corvallis in 2005, along a 2 mile segment.

- All mid-block
- Paired with transit stops
- All have **median islands**
- Four with pole mounted pedestrian activated amber flashers



Sheila's Observations (personal & tape analysis)

Traffic has slowed 3 – 5 MPH

Pedestrian crossings are concentrated at islands
(85 observed 5-7-07)(over 200 peds walked past
camera)

Stopping compliance improved

Crash data shows increase in rear-enders – as
expected

Very young children have been observed using

Overall improvement to pedestrian environment

Oregon DOT – Pedestrian Islands

Three Types

- Continuous Medians
- Pedestrian Crossing Islands
- Pork Chop Islands

Oregon DOT Highway Design Manual

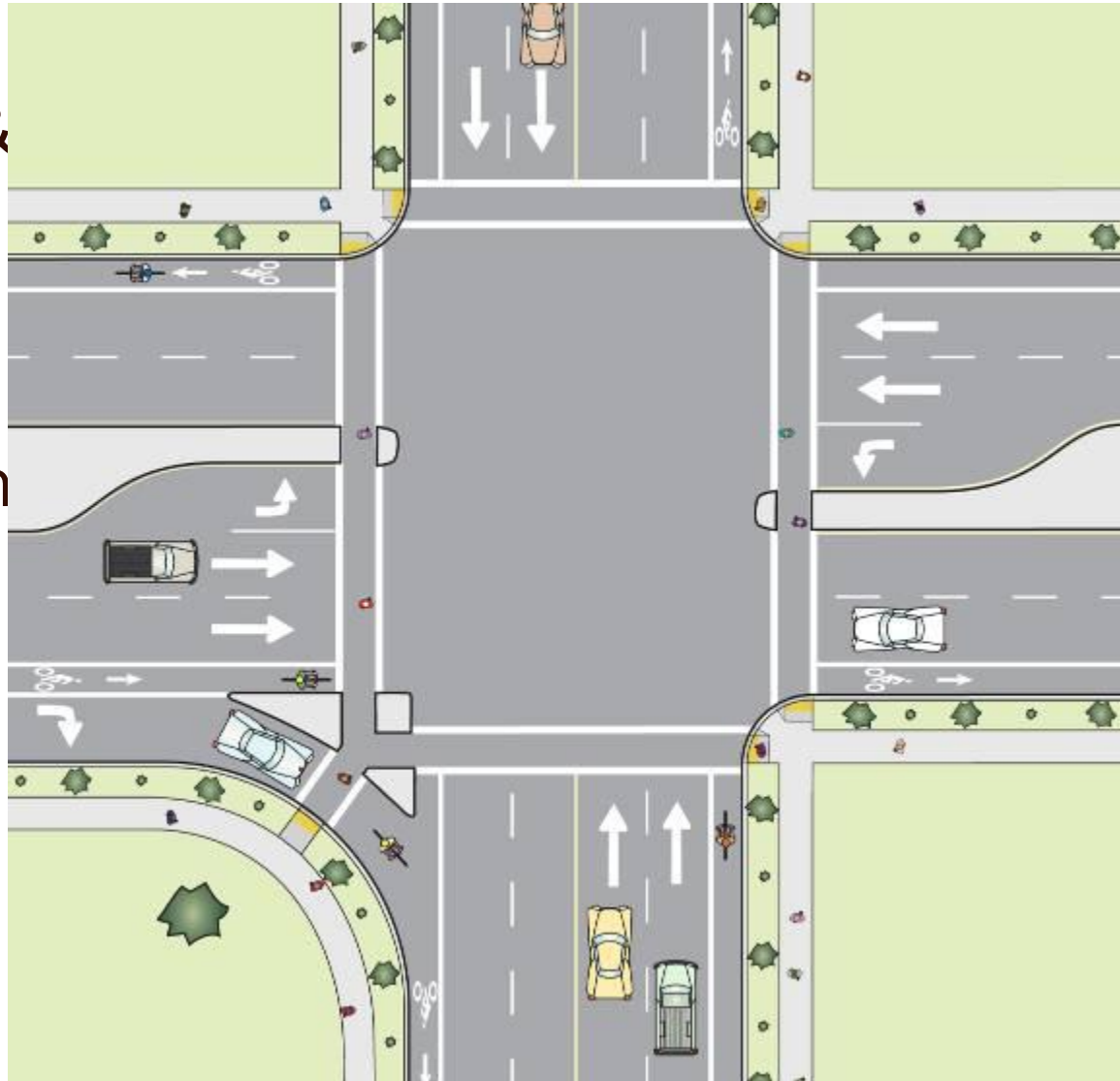
- Used when a right turn pocket is present
- Used whenever there is real estate available
- Current policy is to use cut-thrus for wheelchairs
- Provides a place to locate signal poles

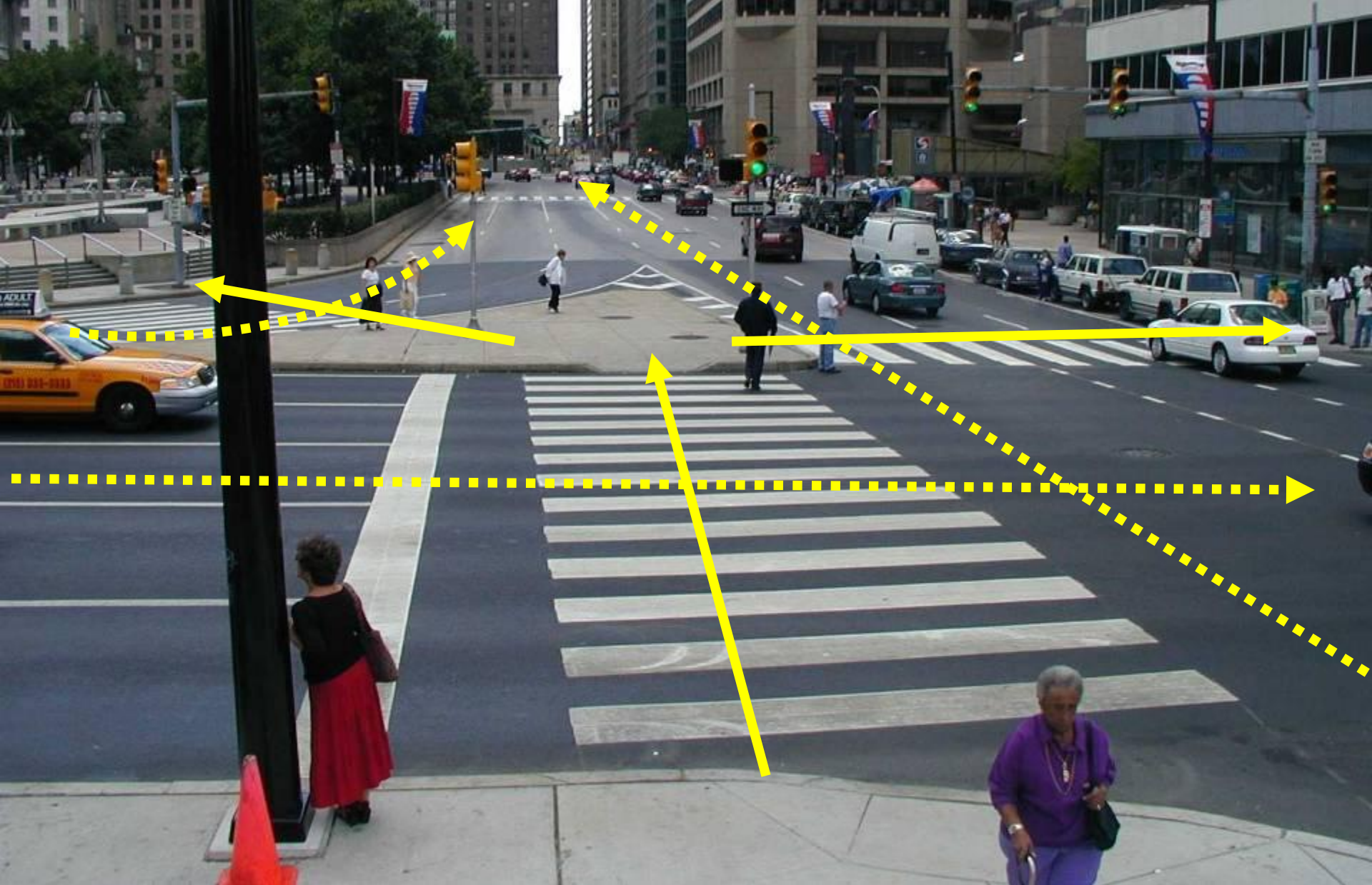
http://egov.oregon.gov/ODOT/HWY/ENGSERVICES/hwy_manuals.shtml

Pedestrian Islands

Benefits:

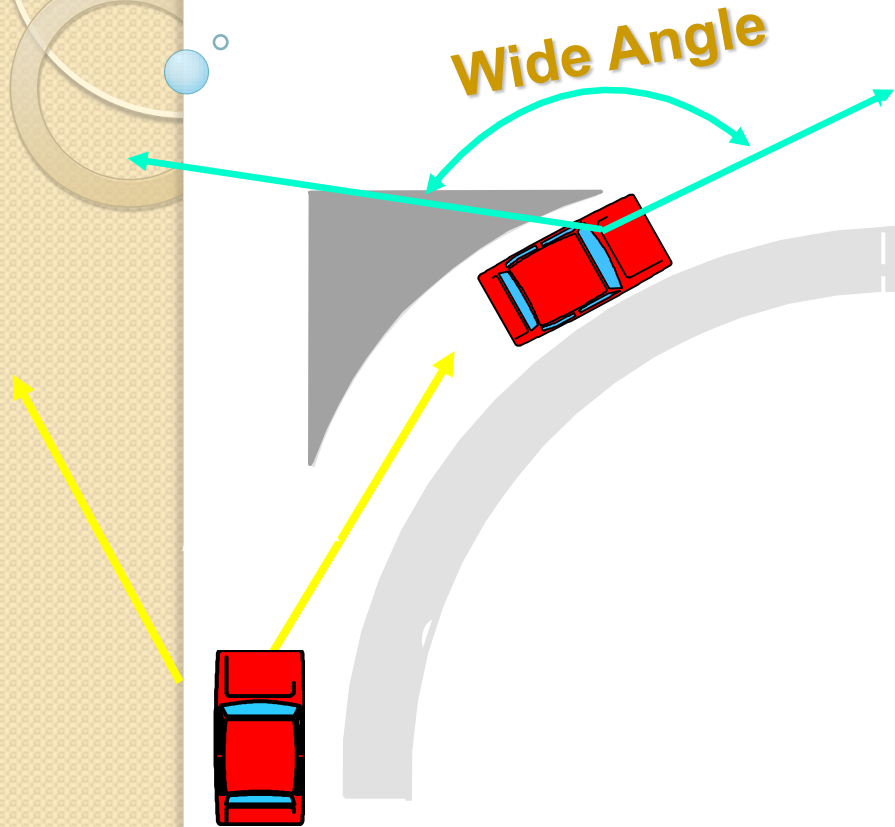
- Separate conflicts & decision points
- Reduce crossing distance
- Improve signal timing
- Reduce crashes





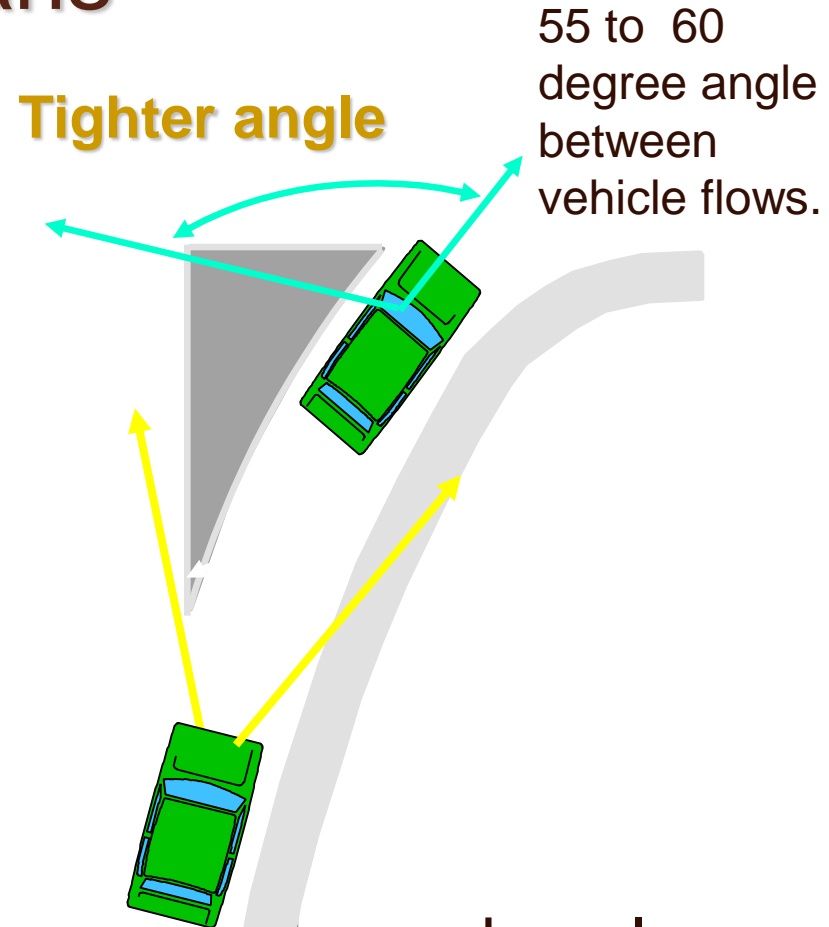
Imagine the signal timing without island

Right-Turn Slip Lane: Design for Pedestrians



Wide Angle

High speed, head turner = low visibility of pedestrians

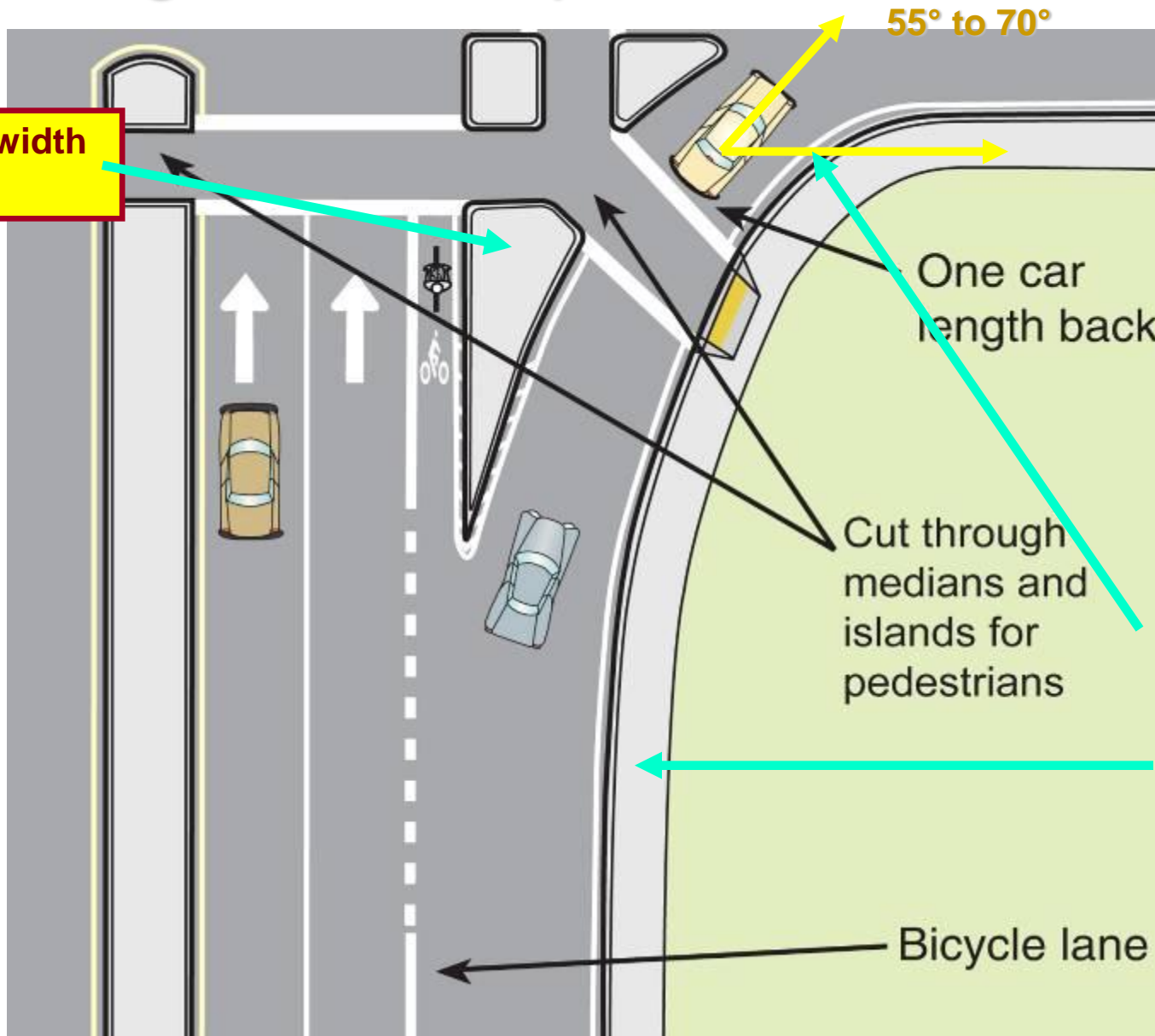


Tighter angle

55 to 60 degree angle between vehicle flows.

Slow speed, good angle = good visibility of pedestrians

Right-Turn Slip Lane - Details



2:1 length/width ratio

55° to 70°

One car length back

Cut through medians and islands for pedestrians

Long radius followed by short

Bicycle lane



Drivers naturally trace perfect island...



Should we mark this crosswalk?

What does the MUTCD say?

- “Crosswalks should be marked at all intersections where there is substantial conflict between vehicular and pedestrian movements.”
- “Marked crosswalks also should be provided at other appropriate points of pedestrian concentration, such as loading islands, midblock pedestrian crossings, or where pedestrians could not otherwise recognize the proper place to cross.”



Should we mark this crosswalk?

Oregon DOT Traffic Manual

- Policy is to mark the crosswalk
- Signalization is optional



Wall St. Bend, OR







Worlds Tallest Man on a Bicycle



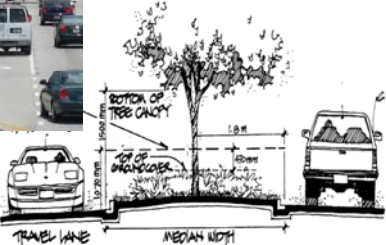







Photo Credit: Michael Frederick, City of St. Petersburg, FL

Improving Safety with Medians

Florida DOT's Restrictive Median Policy



Multilane Median Policy (1993)

Directs all Department multi-lane projects over 40 mph in design speed to have a restrictive median

It also directs our designers to find ways to use restrictive medians in **all** multi-lane projects, even those below the 40 mph design speed.

<http://www.dot.state.fl.us/rddesign/PPMManual/2011/Volume1/Chap02.pdf>

Now in the Plans Preparation Manual 2.2.2

2



Even Small Islands Help



http://alabamasc.com/forums/United States

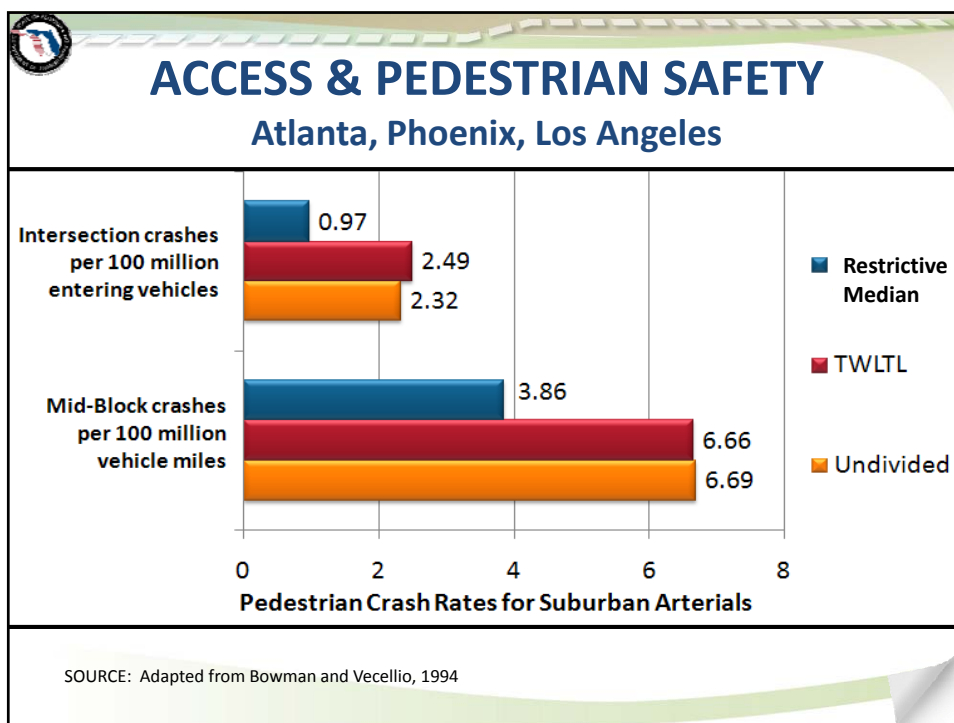
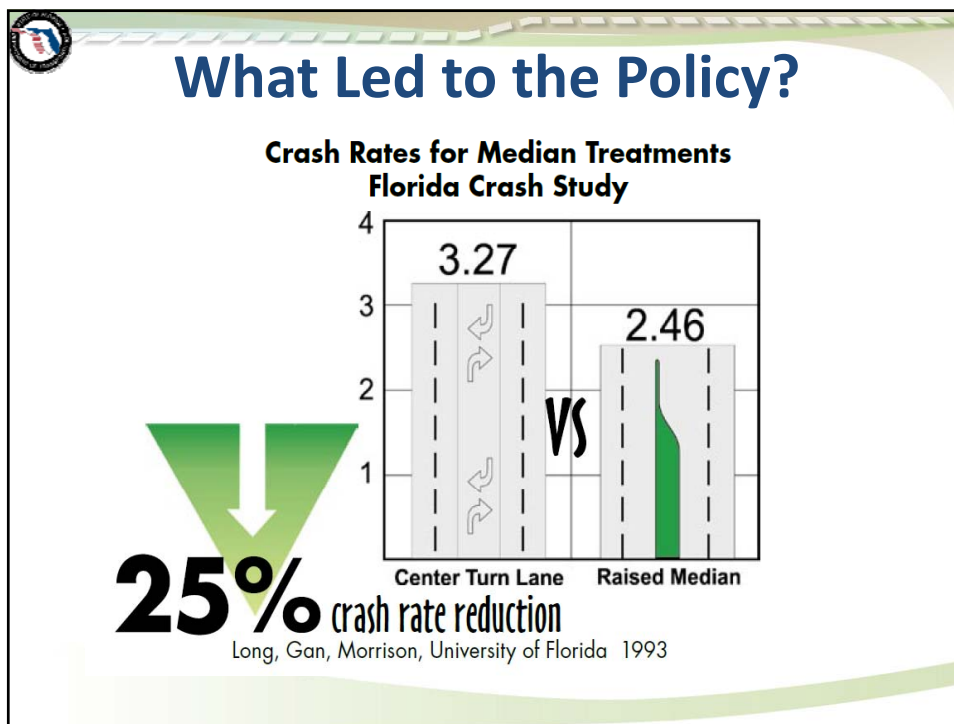
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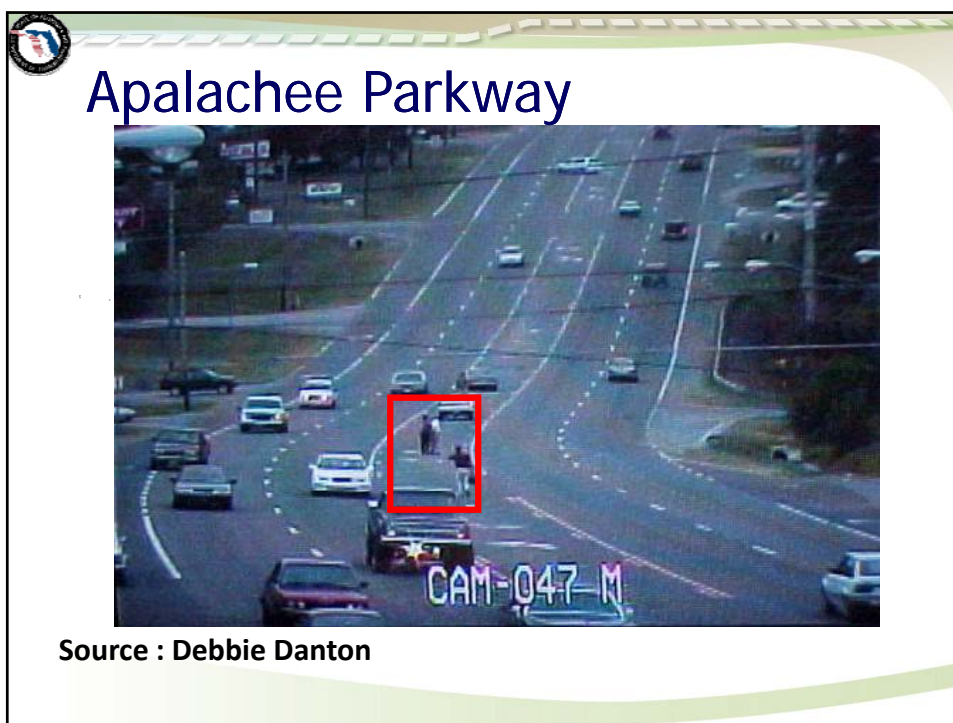
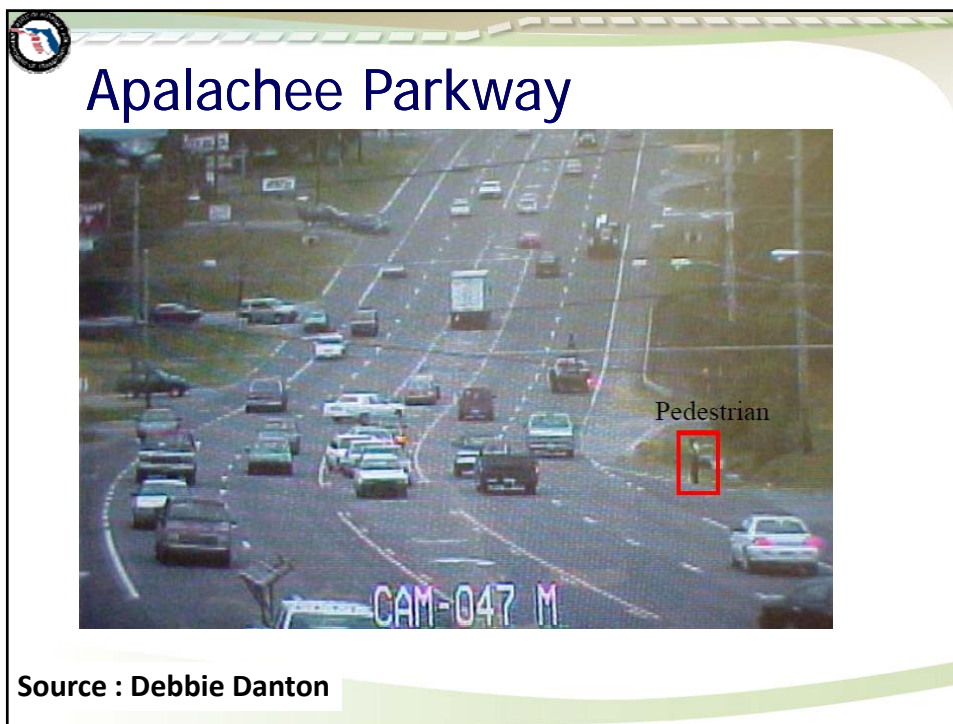


Even Small Islands Help



4





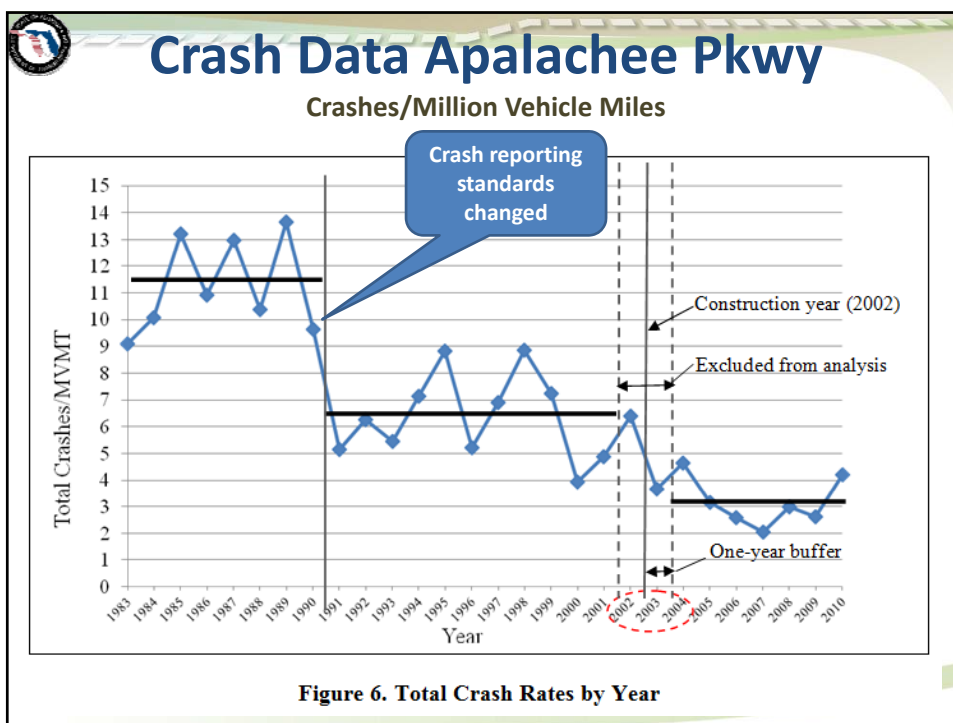


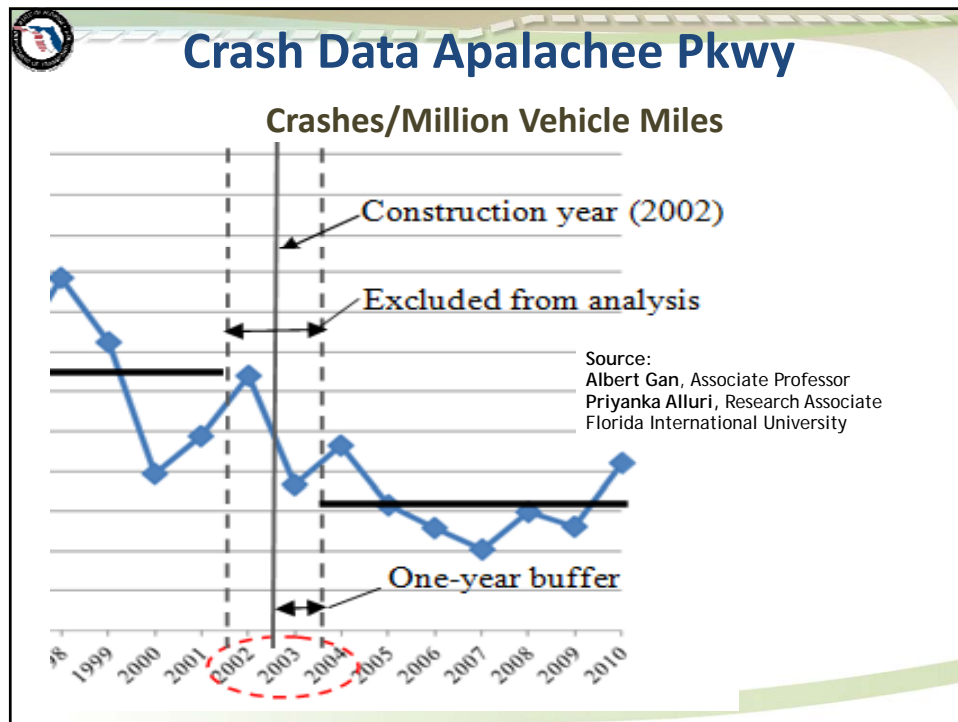
Apalachee Parkway Before 2002 and Today




Question: *How has the median conversion affected safety?*

14





Problems in Implementation

- Controversy with existing businesses
- Resistance to U-turns

Businesses want median erased from road plan
Opponents say a median on State Road 44 would cause too many access problems for area stores.

Green Cove 'road wars' heating up
By Bill Broome Staff Writer
GREEN COVE SPRINGS - The battle lines have been drawn in the "Road War" between the Green Cove Springs City Council and a number of local business people whose establishments are located along the city's main road, Orange Avenue (U.S. 17).

Up against the 6-inch wall
Median saves lives, costs customers

Group claims victory in median battle
Transportation planners recommend project redesign

By Dennis Thompson Jr. FLORIDA TODAY
Business owners and residents along South Patrick Drive won a way by U-turning to reach shops

We Refined our Work with Public

ACCESS MANAGEMENT
BALANCING ACCESS AND MOBILITY

Answers to your questions

Some of Our Materials

Driveway Information Guide

Multiple copies listed on www.floridadot.com

The purpose of this document is to guide the professional through the existing rules, standards and current accepted practice. The background behind the guidelines is also provided.

Unless stated otherwise or referenced, there are not a lot of supporting standards, but is a comprehensive guide to assist the professional in making better decisions for driveway placement and design.



ACCESS MANAGEMENT BALANCING ACCESS AND MOBILITY



Median Handbook Interim Version

The purpose of this document is to provide the professional through the existing rules, standards and current accepted practice. The background behind the guidelines is also provided.

Unless stated otherwise or referenced, there are not a lot of supporting standards, but is a comprehensive guide to assist the professional in making better decisions for driveway placement and design.



Florida Department of Transportation
State of Florida
Systems Planning Office
605 Government St.
Tallahassee, Florida 32369
www.dot.state.fl.us/planning




CONFLICTS

Does FDOT just think this stuff up?

Many business and property owners have asked us this question. The answer is no. The standards developed by FDOT are based on research done around the world for the last 40 years. Much of this research involved studying actual locations, many in Florida, where different access management strategies have been used. The studies evaluated the impacts of different access management treatments on crashes, congestion, and even business performance. The standards used by FDOT are thought to provide the optimal balance between access and mobility, and consider the characteristics of different types of roadways.

NO, the standards are based on over 40 years of experience and research

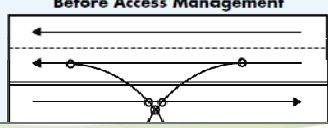


How does Access Management improve safety?

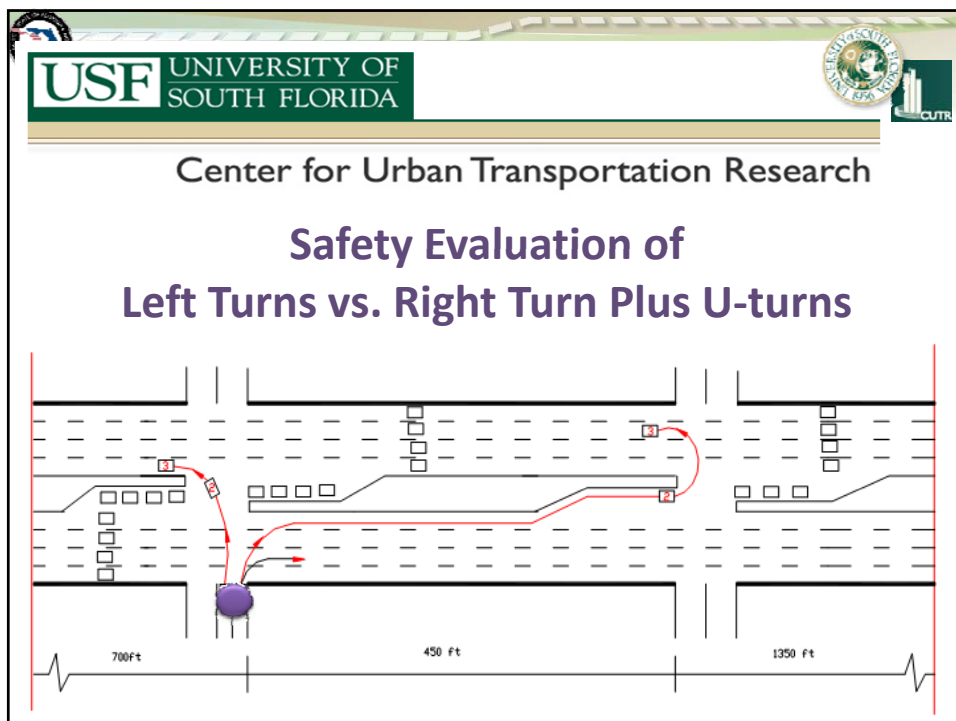
By reducing conflicts.


Conflict points are locations along a roadway where two vehicles' paths can legally cross. At a four way intersection there are as many as 36 conflict points. Each conflict point is a location where a crash can occur. A basic principal of access management is to limit

Before Access Management








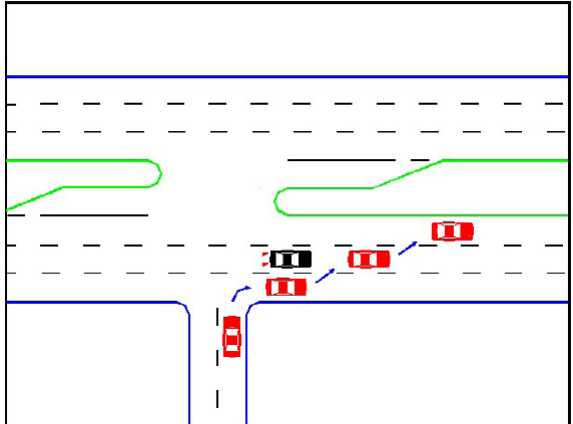


Operational Study

- Eight corridors in Tampa Bay area
- Over 300 hours of video
- Actual analysis of evasive maneuvers (Conflicts)



Some of the Studied Conflicts



The diagram illustrates a lane change conflict (C3) on a multi-lane highway. A vehicle, represented by a red rectangle, is shown in the process of changing lanes from the left lane to the right lane. The vehicle's path is indicated by a blue arrow. The right lane contains several other vehicles, represented by red rectangles, which are positioned such that they could potentially be affected by the lane change. The diagram also shows dashed lines representing lane boundaries and solid lines representing the road edges.

Figure 3.3 Lane Change Conflict (C3)

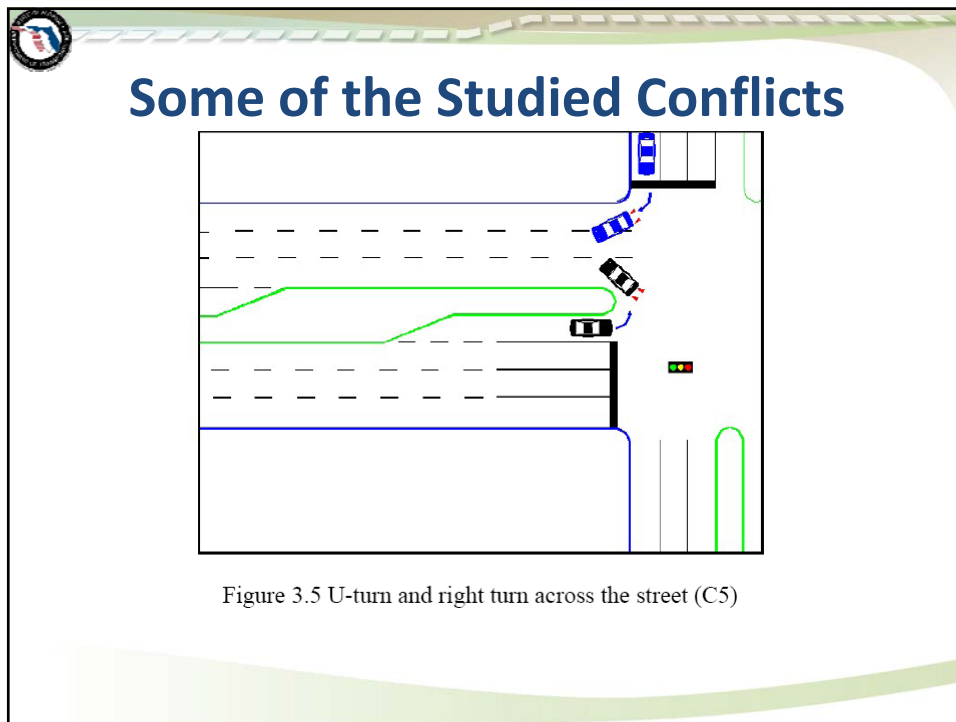
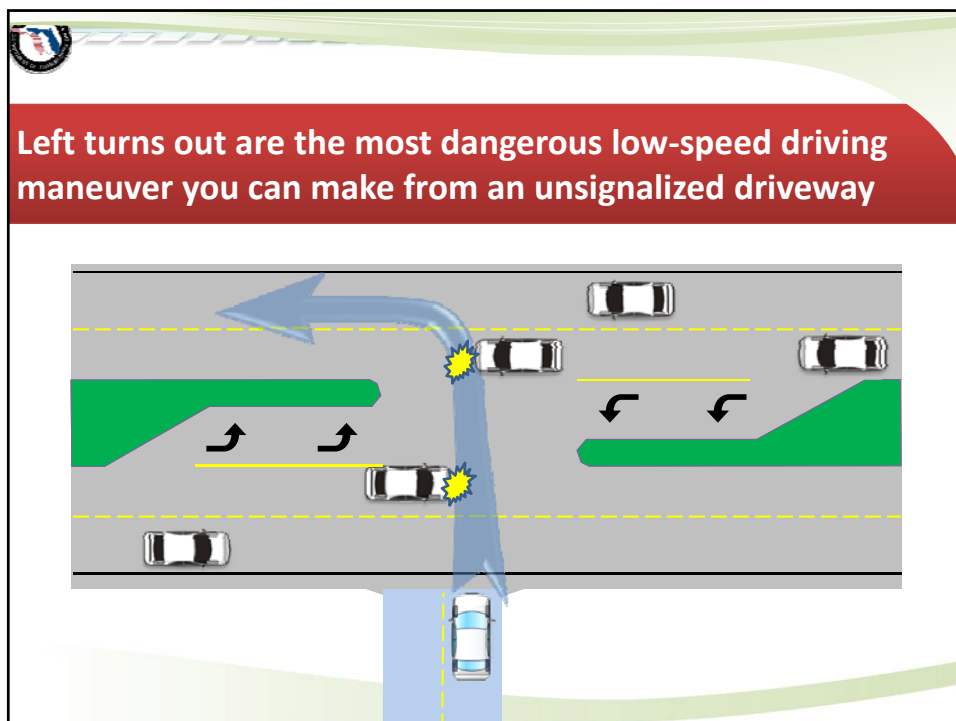


Figure 3.5 U-turn and right turn across the street (C5)






The photograph shows a silver sedan that has been struck from the side by a dark-colored vehicle. The silver car is heavily damaged, with its front end crumpled and debris flying. Three callout boxes are overlaid on the image: a red box pointing to the driver's side of the silver car, a yellow box pointing to the front of the silver car, and a blue box pointing to the rear of the silver car.

Left Turn Driver

Through Vehicle

What if this were a pedestrian?

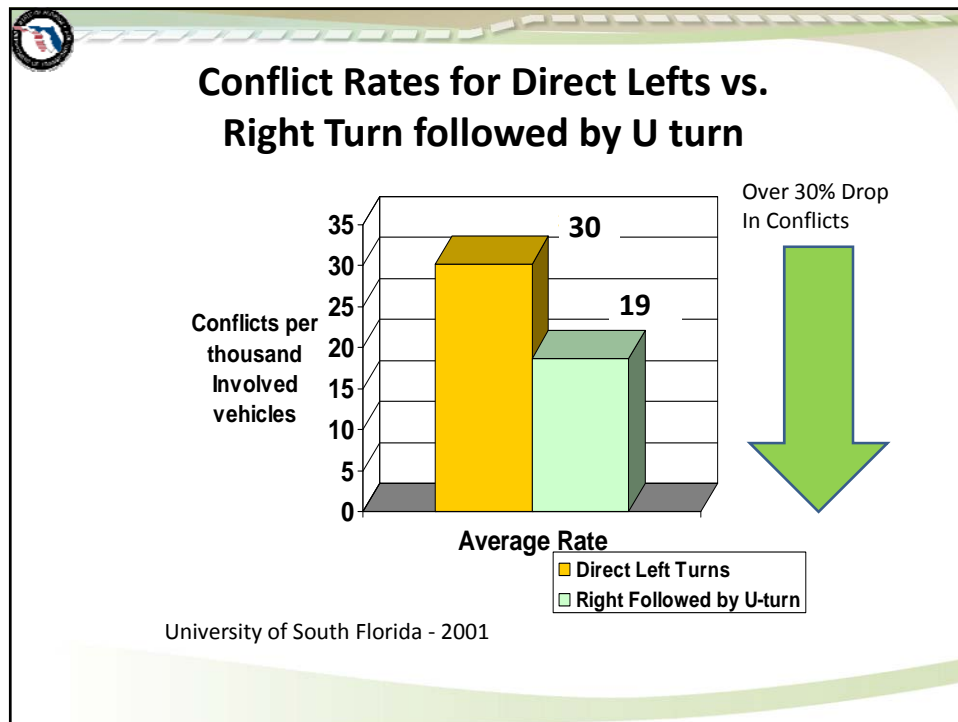
Left Turn Driver is in Most Danger



The photograph shows a woman and a young child walking across a street at night. They are in the middle of the road, and their shadows are cast on the pavement. In the background, several cars are visible with their headlights on, creating a blurred effect due to motion. The scene is dimly lit, with the primary light sources being the car headlights and streetlights.

Actually it's the Pedestrian that is Most Vulnerable

Source: Orlando Sentinel



-
- Handbooks
 - Access Management Committees in every District
- The slide features a background of a road with a dashed white line and a green grassy area, similar to the slide above. A small circular logo is in the top left corner.

Create Clear Guidance for Staff, Developers, and Consultants

- The Median Handbook

www.dot.state.fl.us/planning/systems/sm/accom/

Median Handbook


1 Introduction

1.1 Medians and their Importance for safety

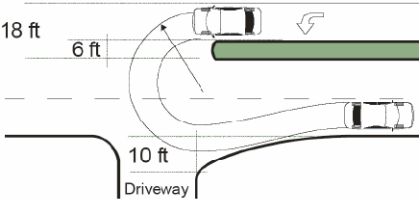
Why do we use medians?

- Vehicular Safety** — to prevent crashes caused by head-on and crossover traffic, headlight glare and traffic turning left.
- Pedestrian Safety** — to provide a refuge for pedestrians crossing the highway.
- Vehicular Efficiency** — to remove turning traffic

Median Handbook

MEDIAN HANDBOOK 

Special U-Turn Considerations **5**



SPECIAL U-TURN CONSIDERATIONS

5.1

The diagram illustrates a U-turn maneuver on a road with a median. A vehicle is shown turning from the left lane into the right lane. Dimensions are provided: 18 ft for the total width of the turning path, 6 ft for the width of the turning lane, and 10 ft for the width of the driveway. A 'Driveway' label is also present.





Some Advice

- Concentrate on medians as a **safety** and basic traffic operational benefit
- You have the authority to medians anywhere – ***but don't act like it***
 - Carefully work with **business managers** and **lessees** (not just the land owners)
 - Don't depend on **legalistic** public hearings
- **Look in your own organization** for people already doing good work

Orlando Sentinel Article 2004

Deadliest stretches of Colonial Drive

Orange County's S.R. 50, or Colonial Drive, is one of the nation's deadliest roads, claiming 80 lives since the start of 2001. The most deaths have occurred along a 2.5-mile section between the Orlando city limits and S.R. 417.

Section 5

WHAT IS THE DEATH RATE?
Highway-safety experts compare the number of deaths on a road with the road's length and the volume of traffic it carries. That gives them a death rate—a calculation of traffic deaths per 100 million miles driven by all vehicles.

Death rate: 1.5 **1.2** **3.0** **2.1** **8.0** **4.4** **3.4** **2.4**

Average death rate for Florida highways: 1.8

SOURCES: Sentinel research, Florida Department of Transportation, National Highway Traffic Safety Administration, Florida Highway Patrol, Winter Garden police, Ocoee police.

DANA FASANO (ORLANDO SENTINEL)

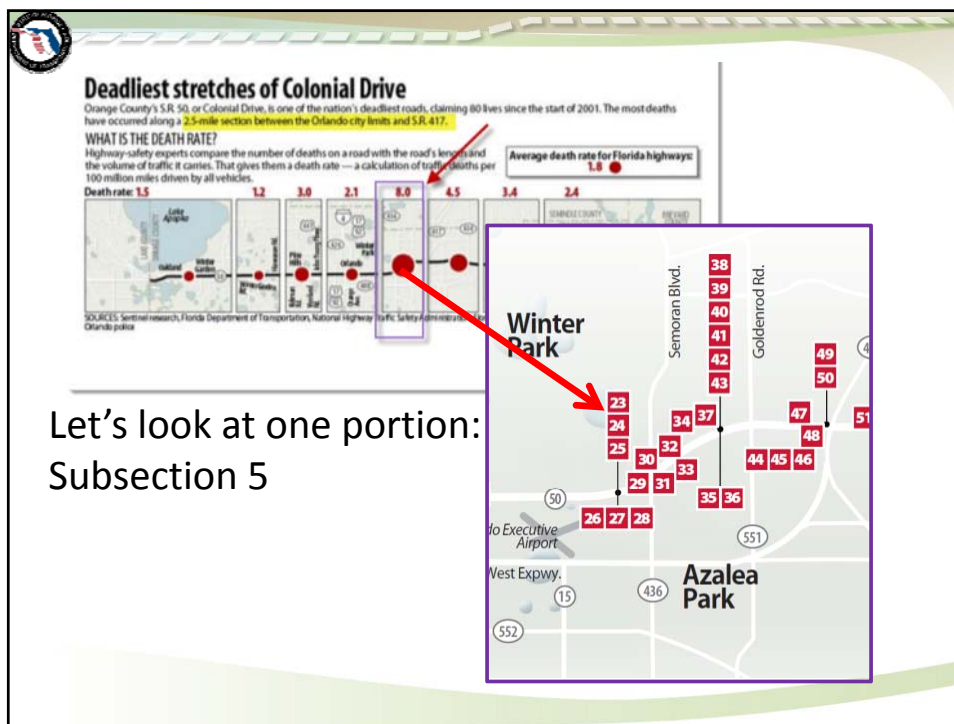
Deaths Reported for Entire Section Studied (2000-2004)

STATE ROAD 50's HUMAN TOLL: 80 DEATHS SINCE JAN. 1, 2001

Eighty people have died in traffic accidents along S.R. 50 through Orange County since the start of 2001, the period for which police and Florida Highway Patrol records are available. The Sentinel used those records to identify who died, and where and how they were killed. The results map a tragic legacy for the road.

Name	Age	Sex	Accident description
1. Brent Bailey	38	Male	Struck by an off-highway vehicle on road side.
2. David Lane	41	Male	Struck by an off-highway vehicle on road side.
3. Jeffrey	37	Male	Struck by an off-highway vehicle on road side.
4. David Robinson	46	Male	Struck by an off-highway vehicle on road side.
5. John Thomas	36	Male	Struck by an off-highway vehicle on road side.
6. John Thomas	36	Male	Struck by an off-highway vehicle on road side.
7. David	37	Male	Struck by an off-highway vehicle on road side.
8. David	37	Male	Struck by an off-highway vehicle on road side.
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52. David	37	Male	Struck by an off-highway vehicle on road side.
53. David	37	Male	Struck by an off-highway vehicle on road side.
54. David	37	Male	Struck by an off-highway vehicle on road side.
55. David	37	Male	Struck by an off-highway vehicle on road side.
56. David	37	Male	Struck by an off-highway vehicle on road side.
57. David	37	Male	Struck by an off-highway vehicle on road side.
58. David	37	Male	Struck by an off-highway vehicle on road side.
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61. David	37	Male	Struck by an off-highway vehicle on road side.
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63. David	37	Male	Struck by an off-highway vehicle on road side.
64. David	37	Male	Struck by an off-highway vehicle on road side.
65. David	37	Male	Struck by an off-highway vehicle on road side.
66. David	37	Male	Struck by an off-highway vehicle on road side.
67. David	37	Male	Struck by an off-highway vehicle on road side.
68. David	37	Male	Struck by an off-highway vehicle on road side.
69. David	37	Male	Struck by an off-highway vehicle on road side.
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72. David	37	Male	Struck by an off-highway vehicle on road side.
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76. David	37	Male	Struck by an off-highway vehicle on road side.
77. David	37	Male	Struck by an off-highway vehicle on road side.
78. David	37	Male	Struck by an off-highway vehicle on road side.
79. David	37	Male	Struck by an off-highway vehicle on road side.
80. David	37	Male	Struck by an off-highway vehicle on road side.

Each red spot is a death



Medians Might Have helped Prevent Some of These Deaths by Protecting left turns and Pedestrians.

Subsection 5 Activity Leading to Death			
Name	Age	Crash date	Accident description
23. Mireya Maria Velez	60	10/16/01	Driving east, tried to turn left , struck by westbound car.
24. Tracee Lanay Badgett	21	1/20/03	Driving west, struck eastbound car that tried to turn left .
25. Victor Resendes	3	1/20/03	Passenger in eastbound car that tried to turn left , struck by westbound car.
26. Madeline Rivera	30	1/20/03	Passenger in westbound car that struck eastbound car that tried to turn left .
27. Griselda Rodriguez	15	1/20/03	Passenger in eastbound car that tried to turn left , struck by westbound car.
28. Felix A. Aguilar Trevino	22	1/20/03	Passenger in eastbound car that tried to turn left , struck by westbound car.
29. Alvin Serrano	37	7/24/02	Driving east, tried to turn right, left roadway, struck a tree.
30. Charles Alexander	15	10/1/02	Struck by car while walking across to south side.
31. Byron J. Williams	24	10/19/03	Driving west, struck by eastbound truck that tried to turn left .
32. Charles F. Woods	59	8/11/01	Struck by car while walking across to south side.
33. Mary G. Cudd	73	5/2/03	Driving east, struck by westbound car forced across median by truck turning left .
34. Arthur Zamorano	31	10/26/02	Driving motorcycle west, struck by southbound truck.
35. Jayson Lee Echevarria	23	6/30/04	Driving motorcycle west, struck car that tried to turn left .
36. Yull Alejandro Toro	28	6/30/04	Driving motorcycle west, struck car that tried to turn left .
37. Ronald Lee Alford	36	12/16/02	Struck by car while walking across to north side.
38. William Ehart	35	3/11/03	Struck by car while walking across to south side.
39. Richard L. Williams	27	12/1/02	Struck by car while walking across to south side.
40. Michael Duane Larson	37	10/9/01	Struck by car while walking across to south side.
41. Bemice Falk	90	11/7/03	Struck by car while walking across to south side.
42. Unidentified	na	4/18/01	Struck by car while walking across to south side.
43. Paul Frank Wadman	55	8/17/01	Struck by unknown vehicle while walking across to north side.
44. Dany Toribio	23	12/2/02	Stopped eastbound for red light, struck from behind by eastbound car.
45. Marissa Irene Herzer	21	1/25/03	Waiting for southbound red light, struck by eastbound car that left roadway.
46. Robert John Vale	21	1/25/03	Passenger at southbound red light, struck by eastbound car that left roadway.
47. Christopher D. Brown	21	6/16/02	Passenger on eastbound motorcycle, struck by westbound truck making U-turn.
48. Cathy A. Seije	45	10/23/02	Struck by car while walking across to north side.
49. Cathy Elaine Sproule	21	4/28/01	Driving east, struck by westbound car that crossed median.
50. Roxane Whitmore	15	11/3/04	Passenger in eastbound car that turned left , struck by westbound car.



Contact Information

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- 850-414 4912
gary.sokolow@dot.state.fl.us

<http://www.dot.state.fl.us/planning/systems/sm/accman/default.shtm>

Give death a holiday - drive safe, sober and buckled up.

University Place Bridgeport Way Case Study

Washington State

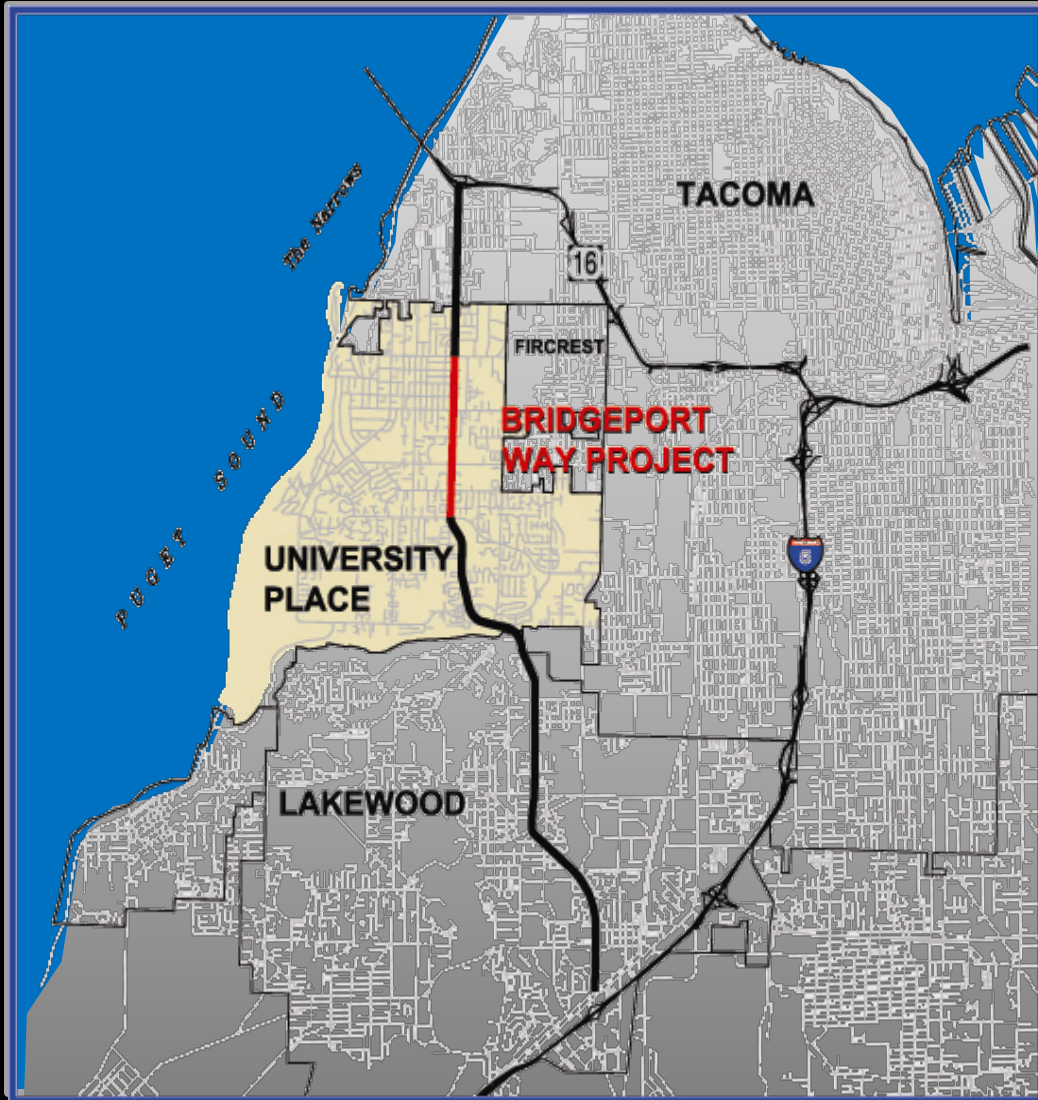


University
Place





University Place



University Place, WA

- Located SW of Tacoma
- On Puget Sound
- Incorporated: August 31, 1995
- Population: 31,140
- Median Age: 36.5
- Elevation: Sea Level to 500 Ft
- 5 % Undeveloped



University Place





University Place





University Place







University Place





City Vision

Make University Place a safe attractive city that provides a supportive environment for all citizens to work, play, get an education and raise families.

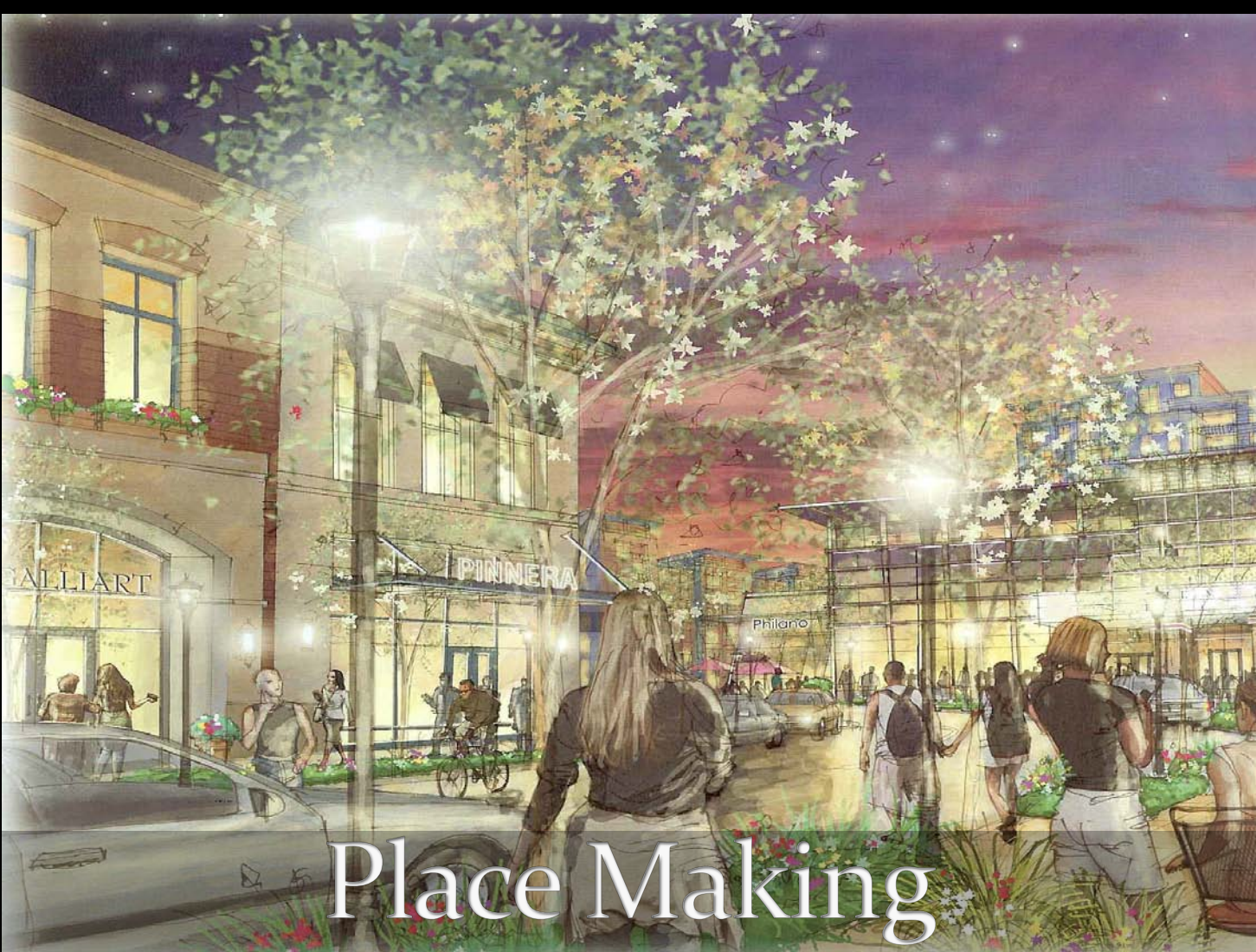




City Vision

- Create a Sense of Place
- Establish City Identity that Embodied the Community Values





Place Making

It Starts with the Street



Bridgeport Way



Timeline

Create a Main Street and Town Center that Provides Residents and Visitors a Comfortable, Convenient, Efficient, Safe, Secure and Welcoming Place to Shop, Play, Work and Live.

- Aug 1995-City Incorporation
- Aug 1996-City Vision Statement Adopted
- Nov 1996-Bridgeport Way Charrette
- Feb 1999-Bridgeport 1A (35th-40th) Complete
- Feb 2000-Bridgeport 1B (27th-35th) Complete
- Jun 2002-Bridgeport 2 (40th-Cirque) Complete
- August 2010-Bridgeport 3 (Cirque-54th) Complete





Objectives

- Improve Safety For Motorists, Pedestrians and Bicyclists.
- Improve Mobility Of Children, Adults, Disabled and Seniors.
- Create Welcoming Public Spaces.
- Provide Choice in Transportation.
- Provide for Economic Growth.
- Provide a Walkable, Transit, Bicycle and Pedestrian Friendly Community.



Bridgeport Way

Design Elements

- Continuous Landscaped Median
- Sidewalks
- Bike Lanes
- Planter strips
- Streetlights
- U-Turn Pockets at intersections
- Mid-Block Pedestrian Crossings





Bridgeport Way

Critics

- Will Kill Business
- Waste of Money – No One Walks or Bikes
- Merely “Making it Pretty”
- Would “Clog-up” Traffic
- Unsafe

Is council moving too fast on Bridgeport?

By LINDA TARR
Editor

A discussion on where to

after Public Works Director Ben Yazici informed the council that it would be near impos-

should rely on research and the videos to answer questions, he said.

or a three-lane thoroughfare with roundabouts. The council is scheduled to make that deci-

Council decides which fix for Bridgeport it wants to pursue.

“It would be nice to have a



Bridgeport (Before)





Bridgeport (Now)





Bridgeport (Now)

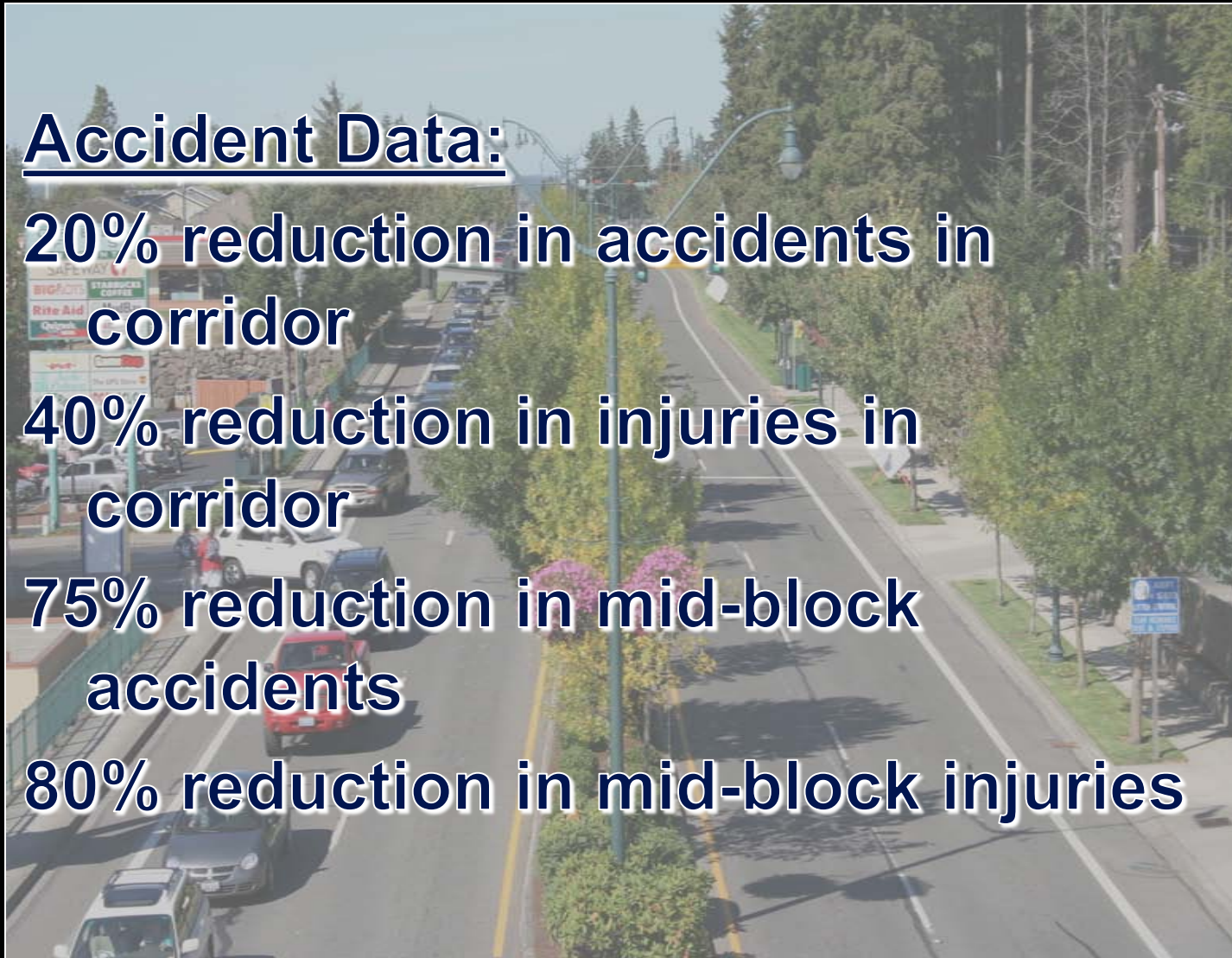
Accident Data:

20% reduction in accidents in
corridor

40% reduction in injuries in
corridor

75% reduction in mid-block
accidents

80% reduction in mid-block injuries





Bridgeport (Now)

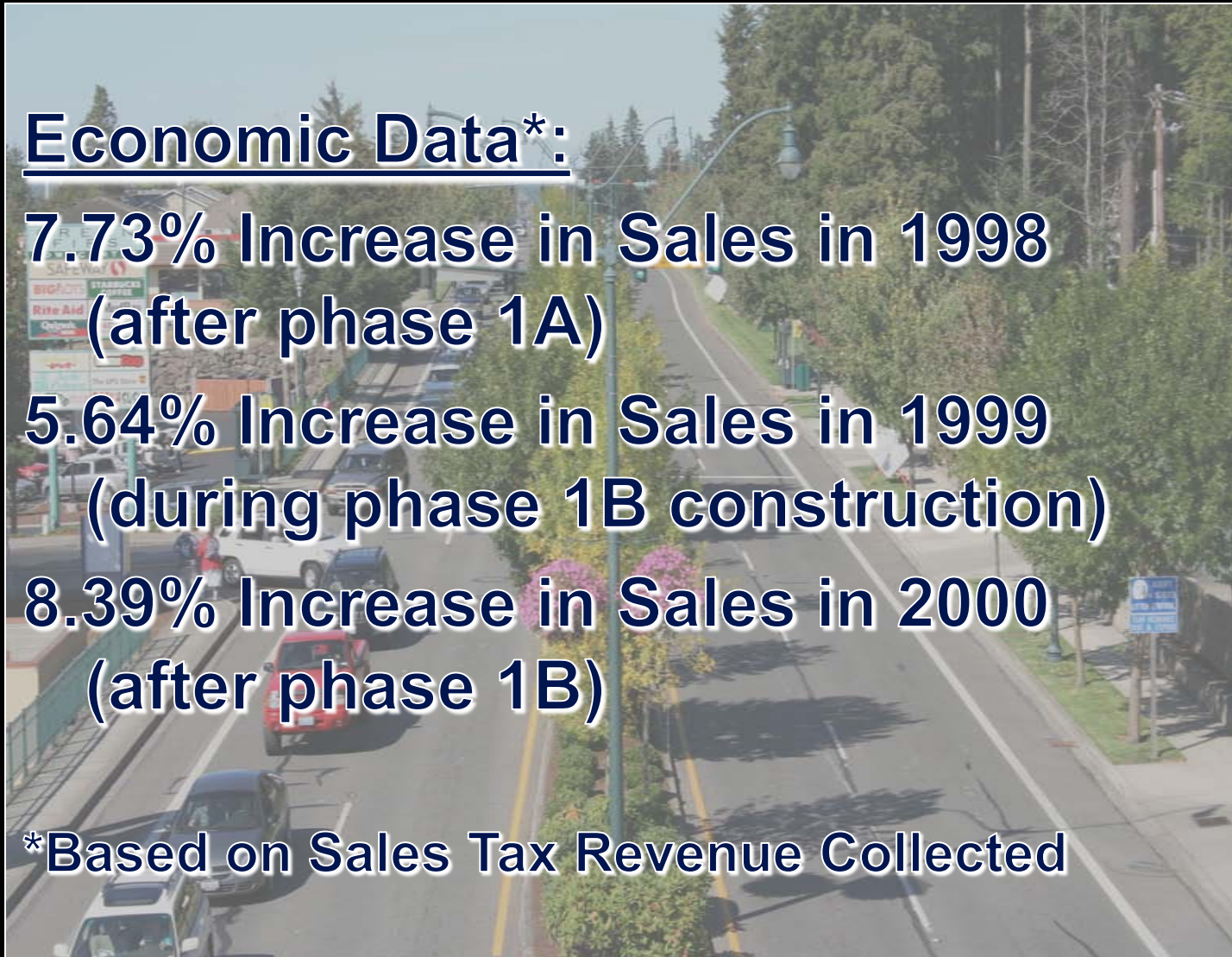
Economic Data*:

7.73% Increase in Sales in 1998
(after phase 1A)

5.64% Increase in Sales in 1999
(during phase 1B construction)

8.39% Increase in Sales in 2000
(after phase 1B)

*Based on Sales Tax Revenue Collected



Pedestrian Safety – Mid Block Crossings



Emergency Vehicle Accommodations





Transportation Success

Transportation Success

■ **Safety**

- Mid-Block Crashes Reduced by 75 %
- Separated Pedestrians from Vehicular Traffic
- Streetlights Added

■ **Business Access**

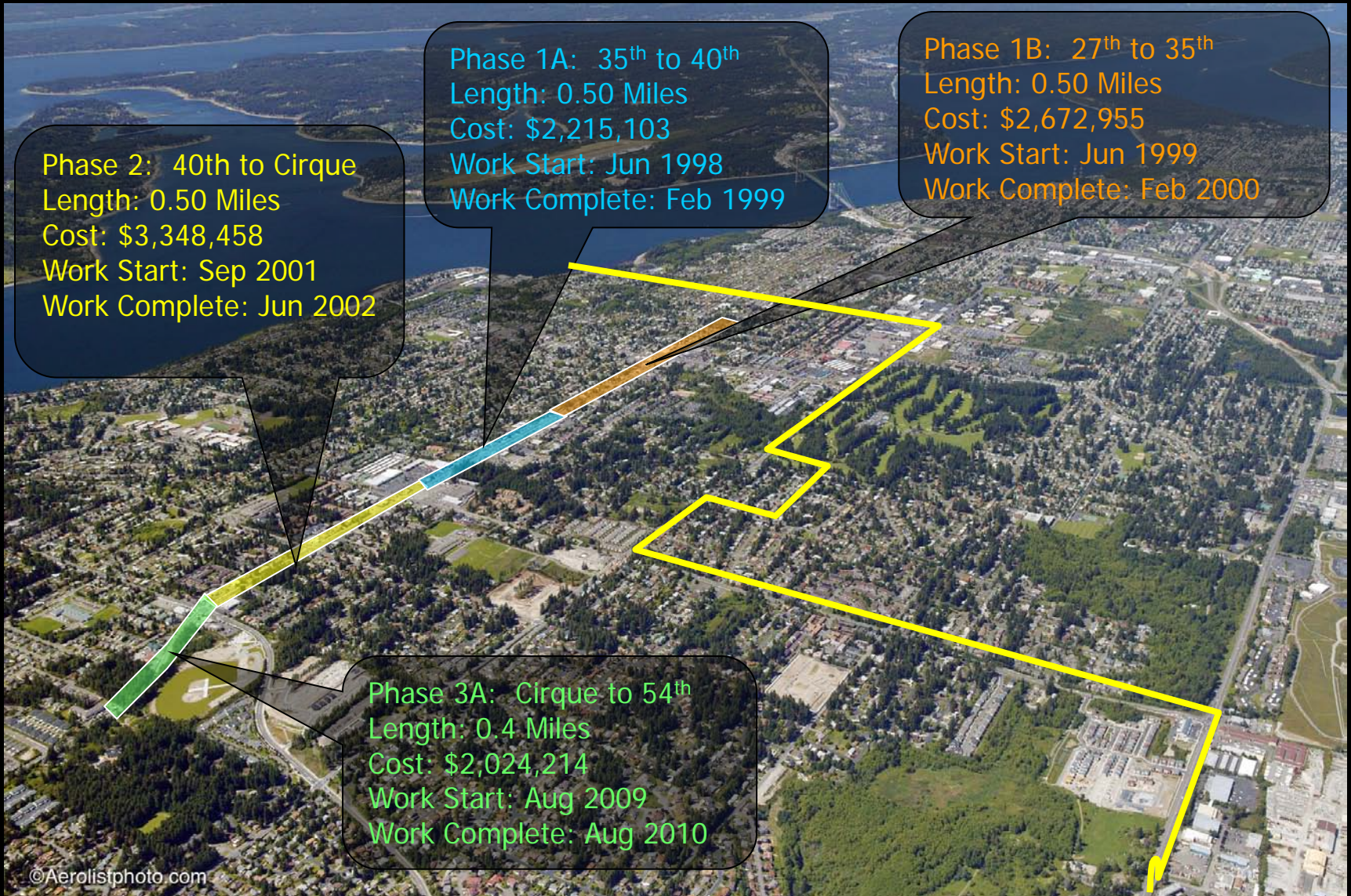
- Sales Volume Increased

■ **Mobility**

- Reduced Side Friction from Cross Traffic
- Added Bike Lanes which Increased Width
- U-Turns at Signalized Intersections
- Improved Bus Stop Locations



Bridgeport Way Project





Keys to Success

- Stay Dedicated to Vision
- Have the Courage to Implement Change
- Pay Attention to Details
- Build it



Thank you!

⇒ Archive at

- walkinginfo.org/training/pbic/pedfocus_webinars.cfm
- Downloadable and streaming recording and presentation slides

⇒ Questions?

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