Implementing Complete Streets:

"The Road Diet"

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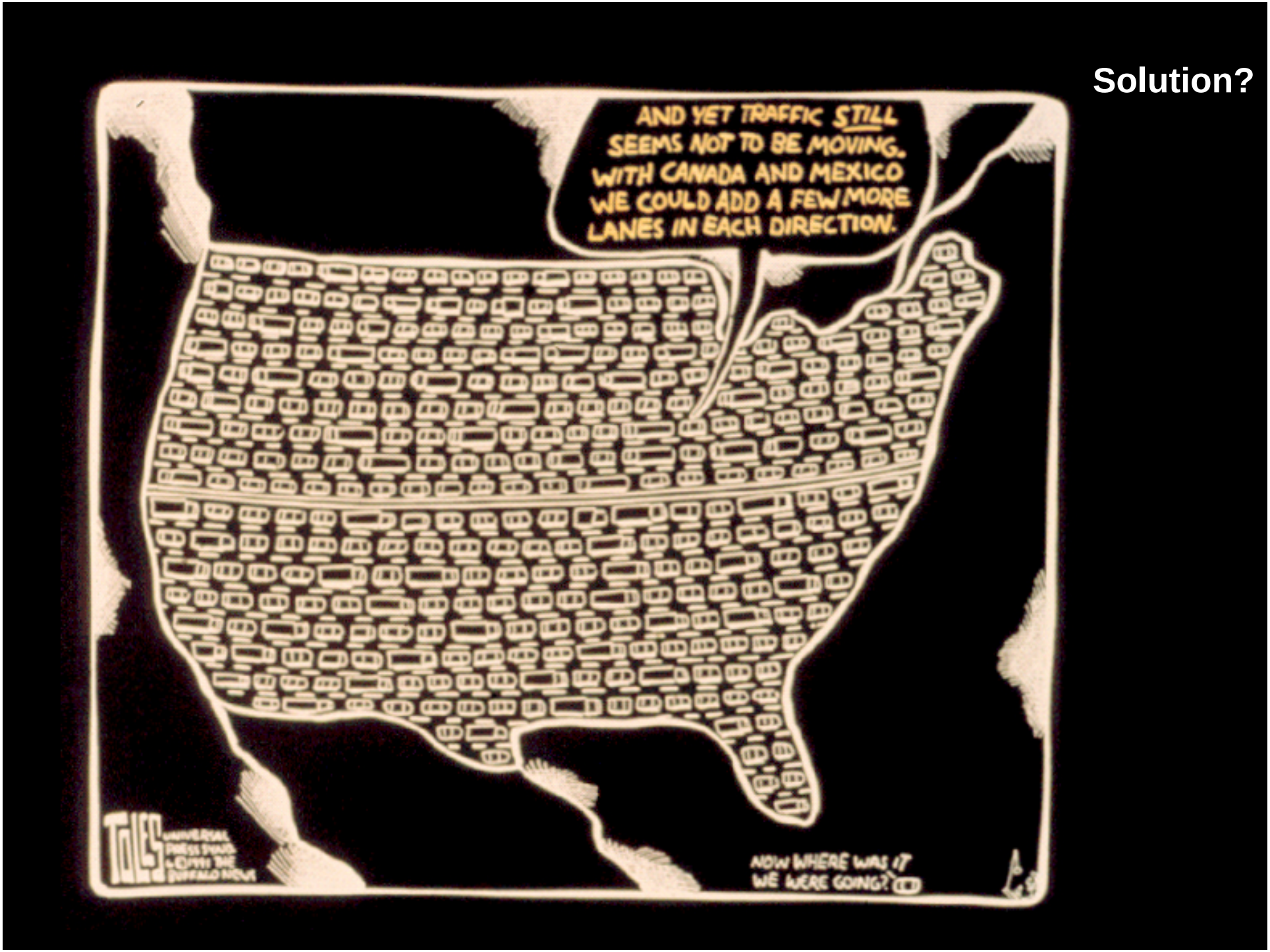
How do we implement “complete streets” on our existing roads?

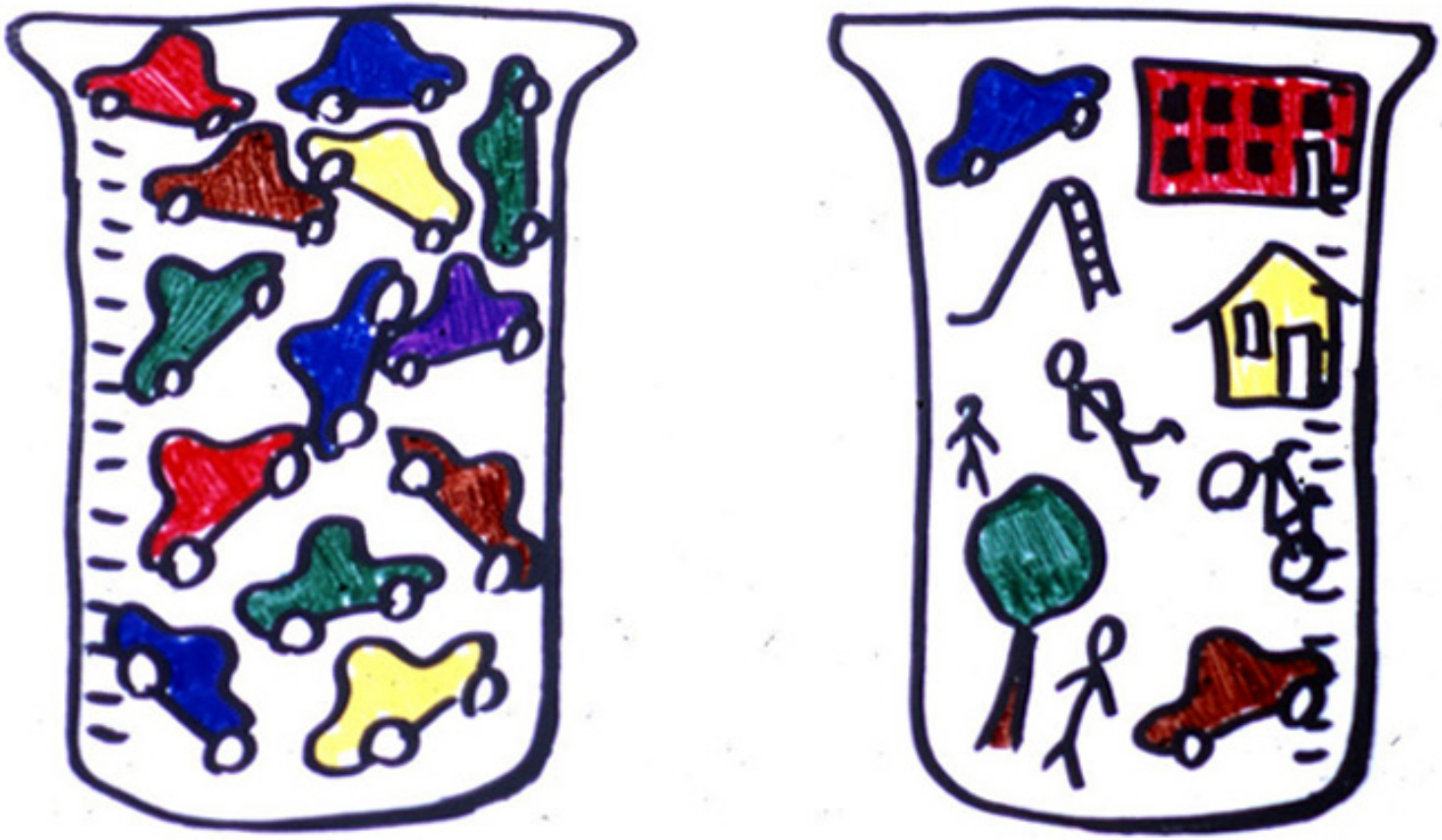
Many Roads Could Use a “road diet”

“Trying to cure traffic congestion with more capacity is like trying to cure obesity by loosening your belt”

- Glen Heimstra, Futurist

Solution?


AND YET TRAFFIC STILL SEEMS NOT TO BE MOVING. WITH CANADA AND MEXICO WE COULD ADD A FEW MORE LANES IN EACH DIRECTION.
NOW WHERE WAS IT WE WERE GOING?



CAPACITY OF STREETS

What's a road diet?

Classic road diet shrinks 4 lanes to 3 + bike lanes

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What's a road diet?

- Reduces speed
- Reduces accidents (left turns)
- Center lane provides a clear & safe left turn lane (which can be landscaped)
- Works on moderate volume streets (10-20,000 ADT)
- Allows for other modes (bike lanes, wider sidewalks, etc.)
- Numerous successful examples around the country

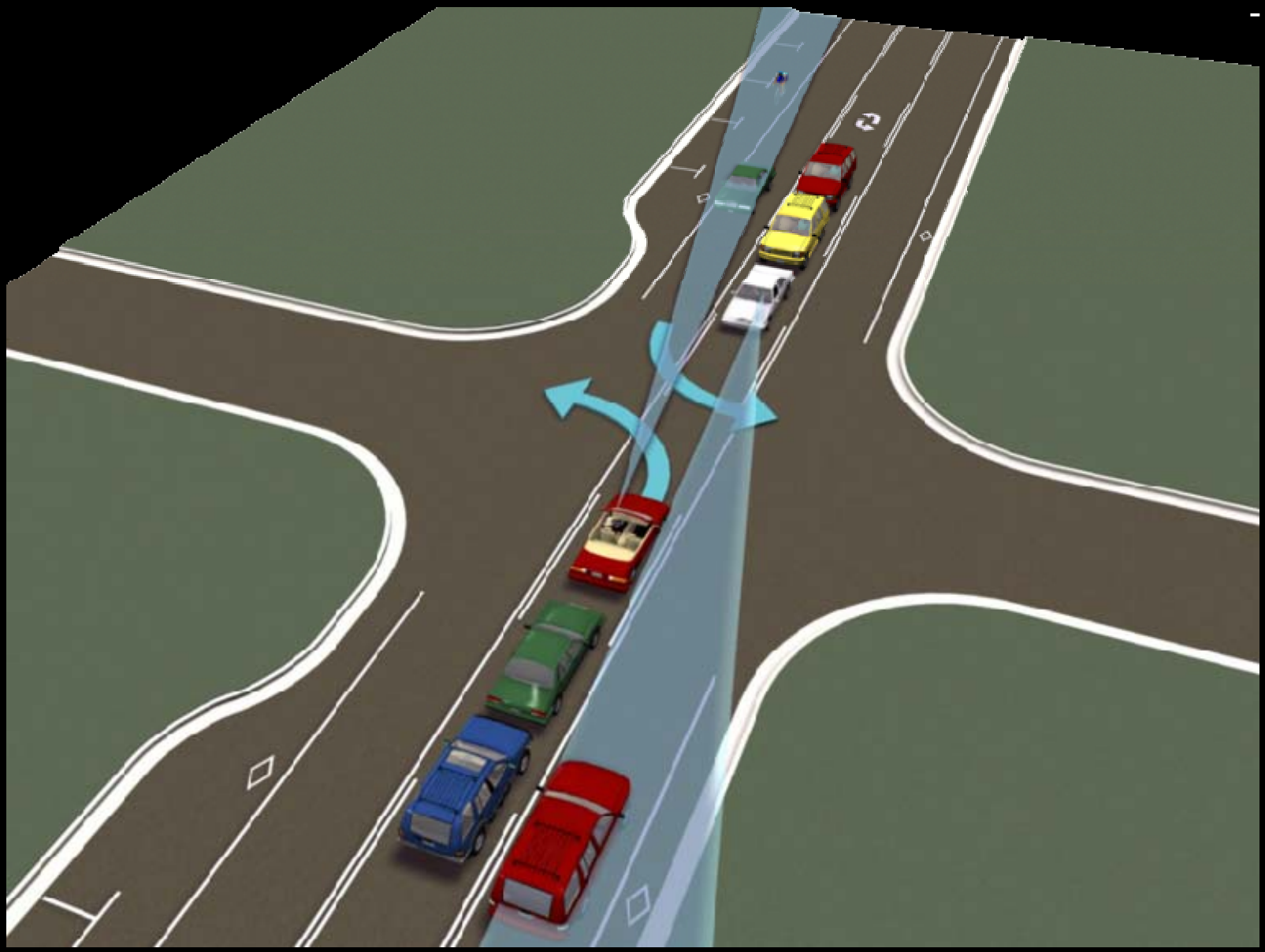
Inexpensive way to retrofit existing street

Four Lane Roads – Obsolete

- High Turning Volumes
- Safety

Three Lane Roads – Current Practice

- High Turning Volumes
- Safety



Cascade Avenue

Road Diet

Cascade Avenue: Existing 4-Lane Street

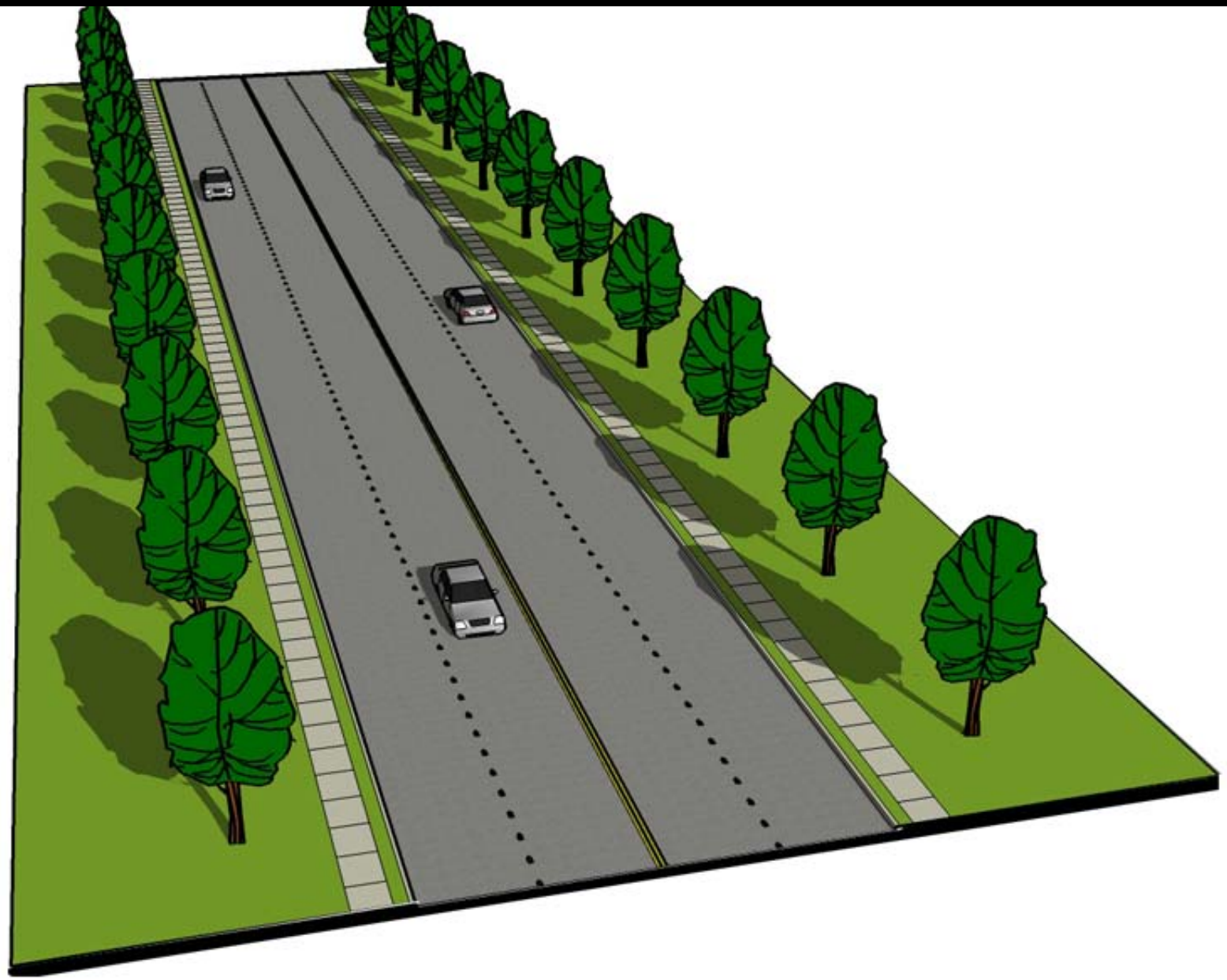
Cascade Avenue: Existing 4-Lane Street

Cascade Avenue: 13,500 – 17,900 AADT

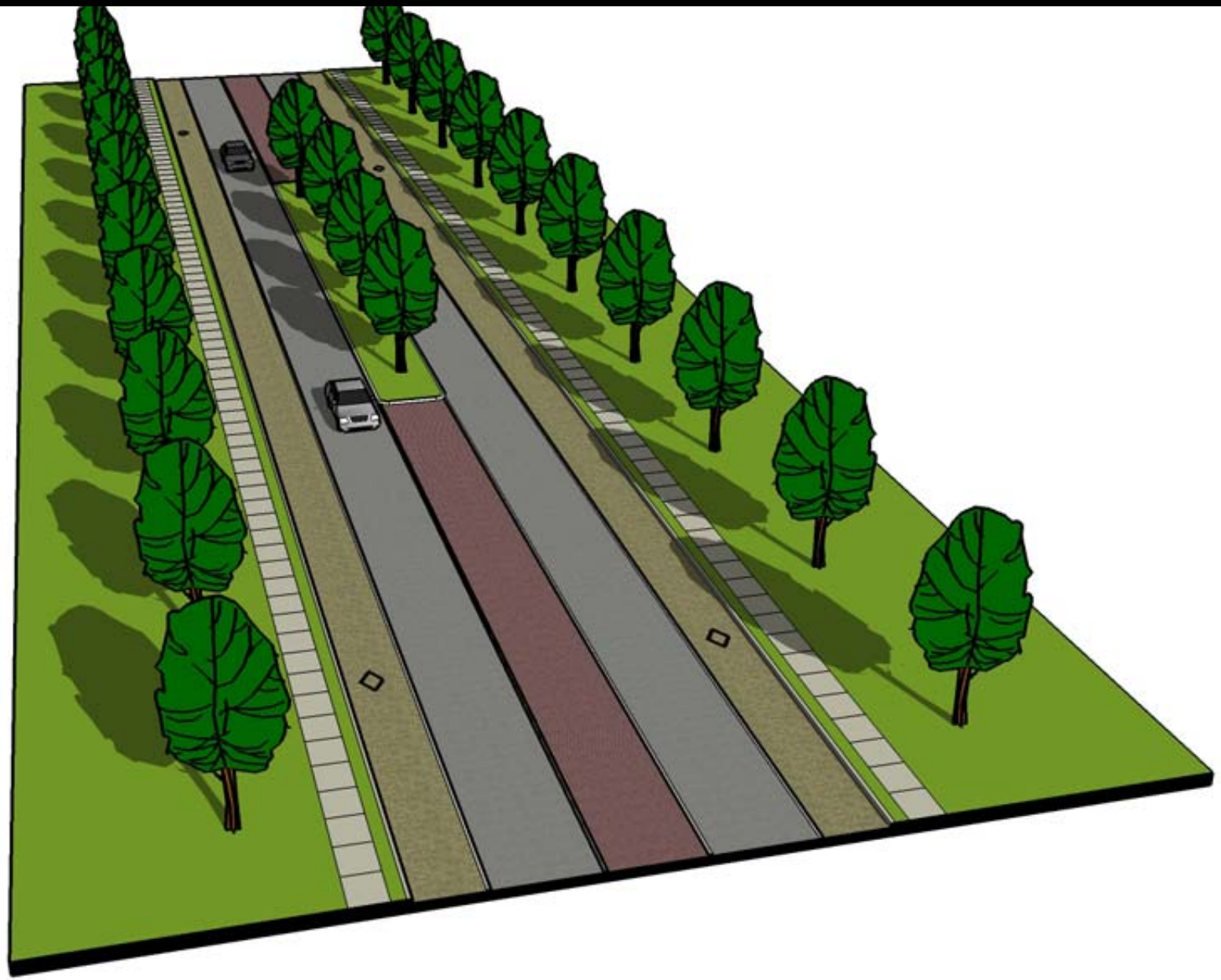
Cascade Avenue: Neighborhood Serving Corridor

Cascade Avenue: Community Planning Process

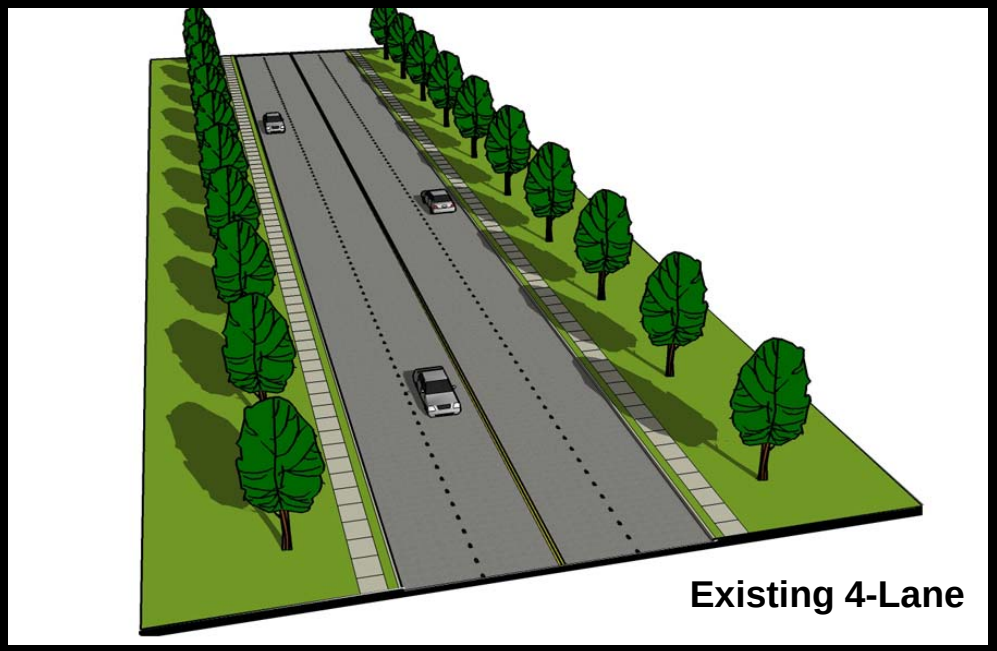
Cascade Avenue: Existing 4-Lane Street



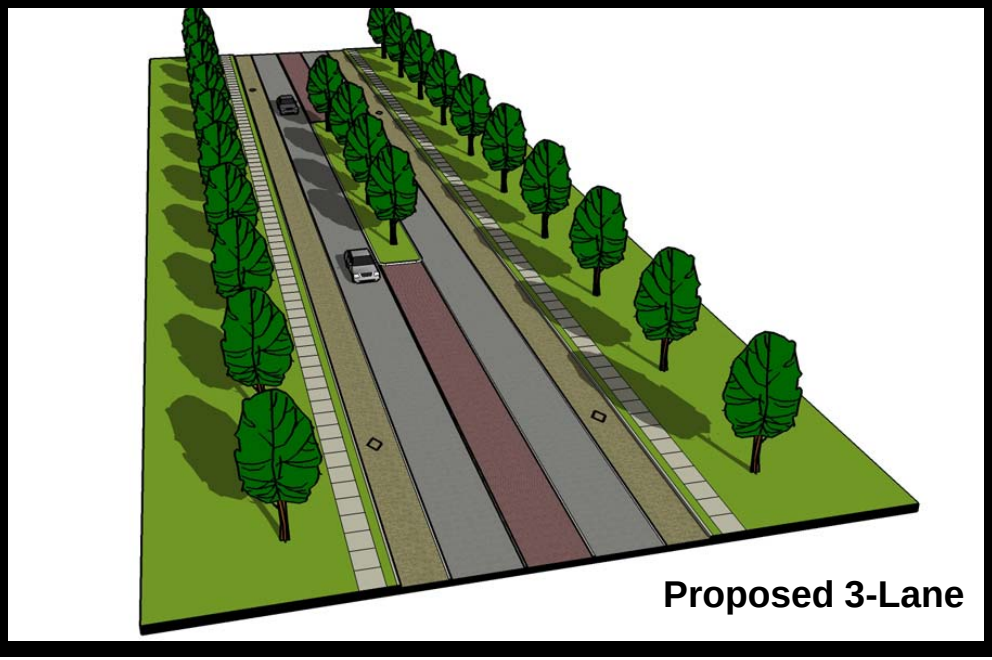
Cascade Avenue: Road Diet Concept



Cascade Avenue: Road Diet Concept



Existing 4-Lane



Proposed 3-Lane

- Reduces speed
- Reduces accidents (left turns)
- Center lane provides a clear & safe left turn lane (which can be landscaped)
- Works on moderate volume streets (10-20,000 ADT)
- Allows for other modes (bike lanes, wider sidewalks, etc.)
- Numerous successful examples around the country

Comparable: Virginia Highlands – North Highland Avenue

North Highland: 17,000 AADT (2003 actual count)

Cascade: 3-Lane Concept & Redevelopment

Cascade Avenue: 13,500 – 17,900 AADT

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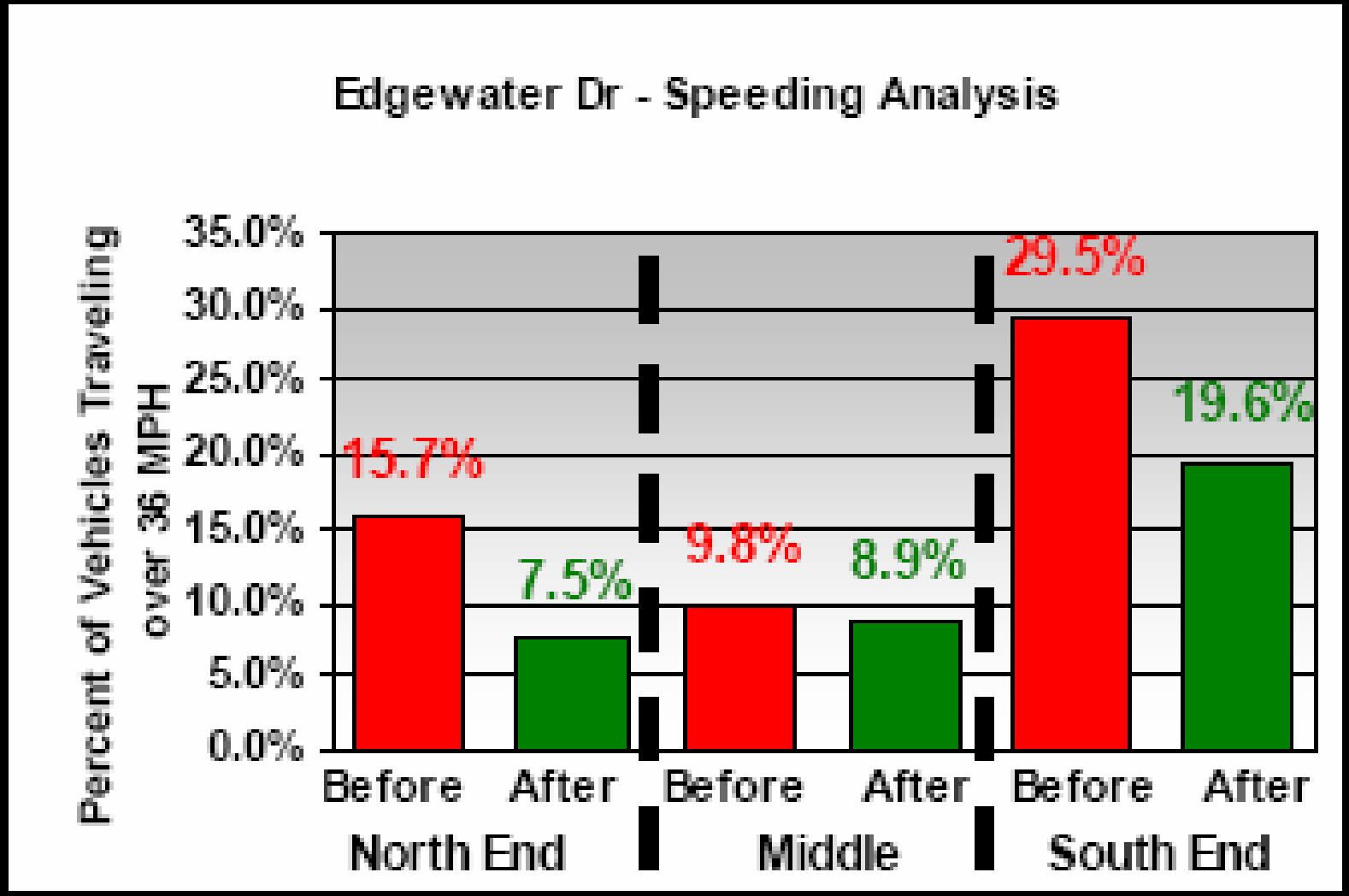
Road Diet Case Study

Before/After

Case Study:
Edgewater Drive, Orlando FL

- Existing 4-Lane Road w/on-street parking
- Neighborhood Commercial Street
- Average Daily Traffic: +/- 20,000
- Neighborhood Planning Process identified need to make street more pedestrian and bike friendly
- Converted to 3-Lane w/bike lanes & on-street parking (2002)

Case Study: Edgewater Drive - Speed



Source: City of Orlando Transportation Planning Bureau

Case Study: Edgewater Drive - Safety

Crash & Injury Rate Comparison

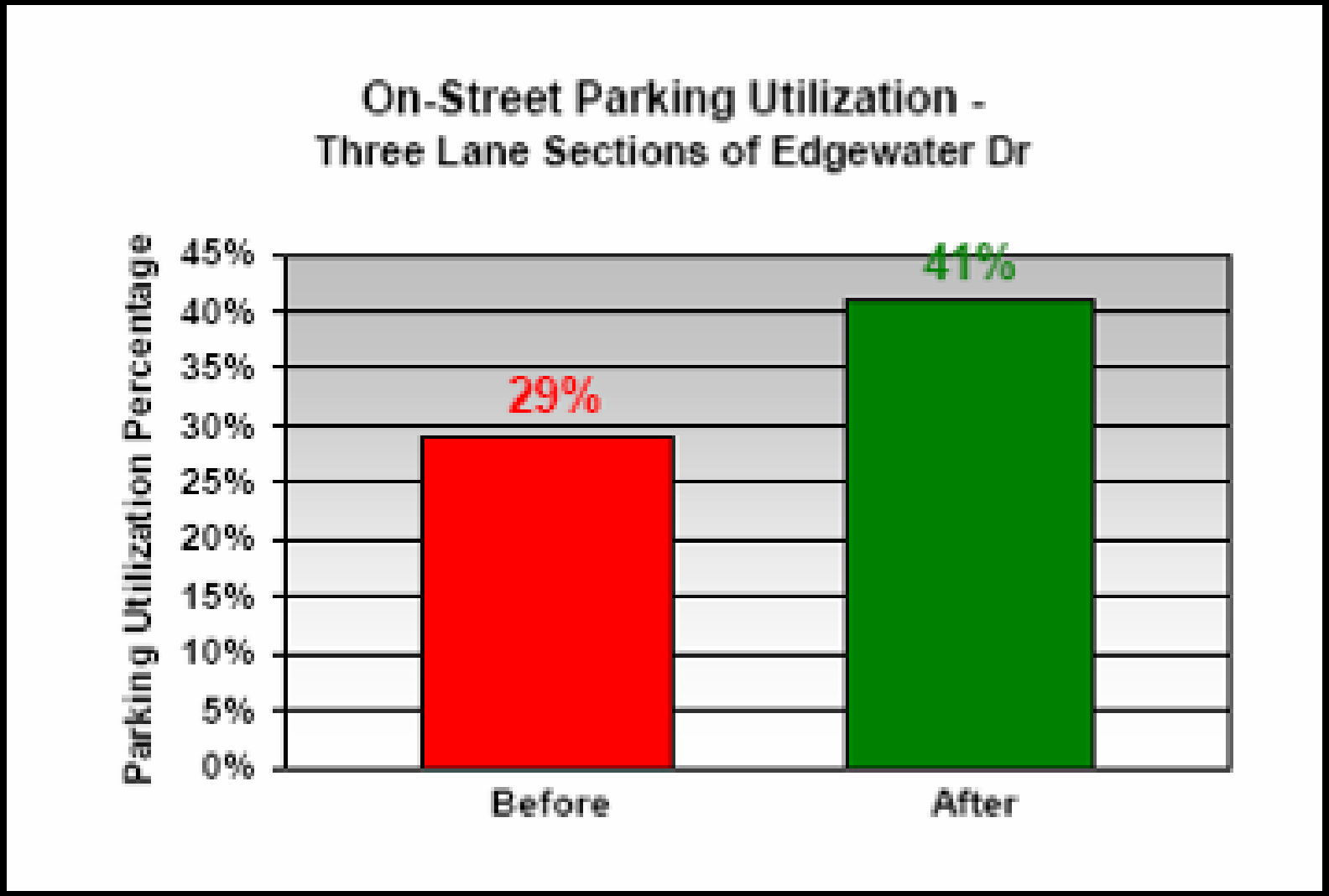
Statistic	Before[1]	After[2]	% Change
Crash Rate (per MVM)[3]	12.6	8.4	-34%
Injury Rate (per MVM)	3.6	1.2	-68%

Notes:

1. *Before represents an average of Years 1999, 2000 & 2001*
2. *After represents four months (annualized)*
3. *MVM = Million Vehicle Miles*

Source: City of Orlando Transportation Planning Bureau

Case Study: Edgewater Drive – On-Street Parking Utilization



Source: City of Orlando Transportation Planning Bureau

Case Study: Edgewater Drive – Pedestrian & Bike Use

Pedestrian Count Summary

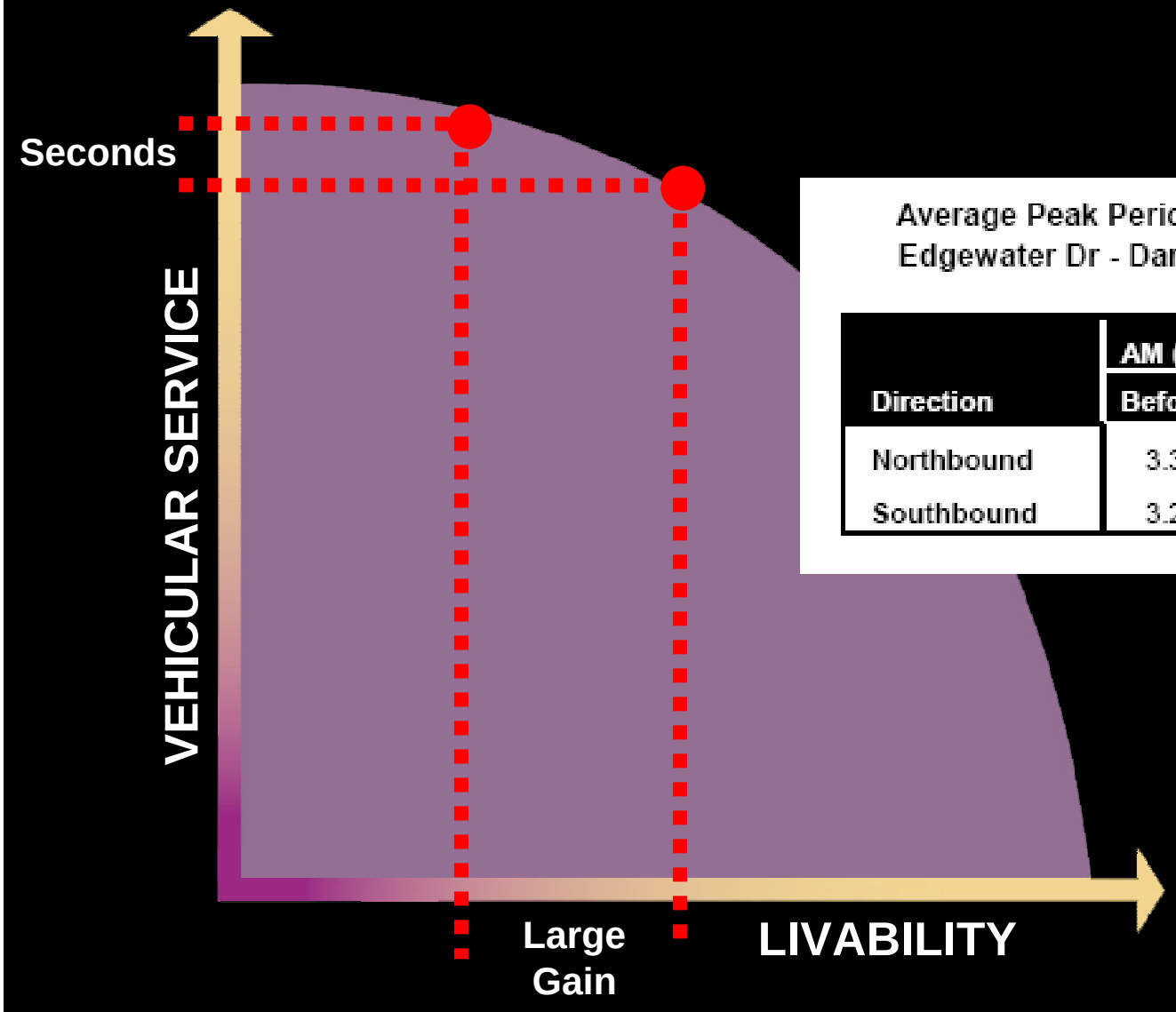
Direction	Before	After	Change	% Change
Northbound & Southbound	1,398	1,481	83	6%
Eastbound & Westbound	738	1,151	413	56%
Total	**2,136**	**2,632**	**496**	**23%**

Bicycle Count Summary

Direction	Before	After	Change	% Change
Northbound & Southbound	295	368	73	25%
Eastbound & Westbound	80	118	38	48%
Total	**375**	**486**	**111**	**30%**

Source: City of Orlando Transportation Planning Bureau

Case Study: Edgewater Drive – Vehicular Travel Time



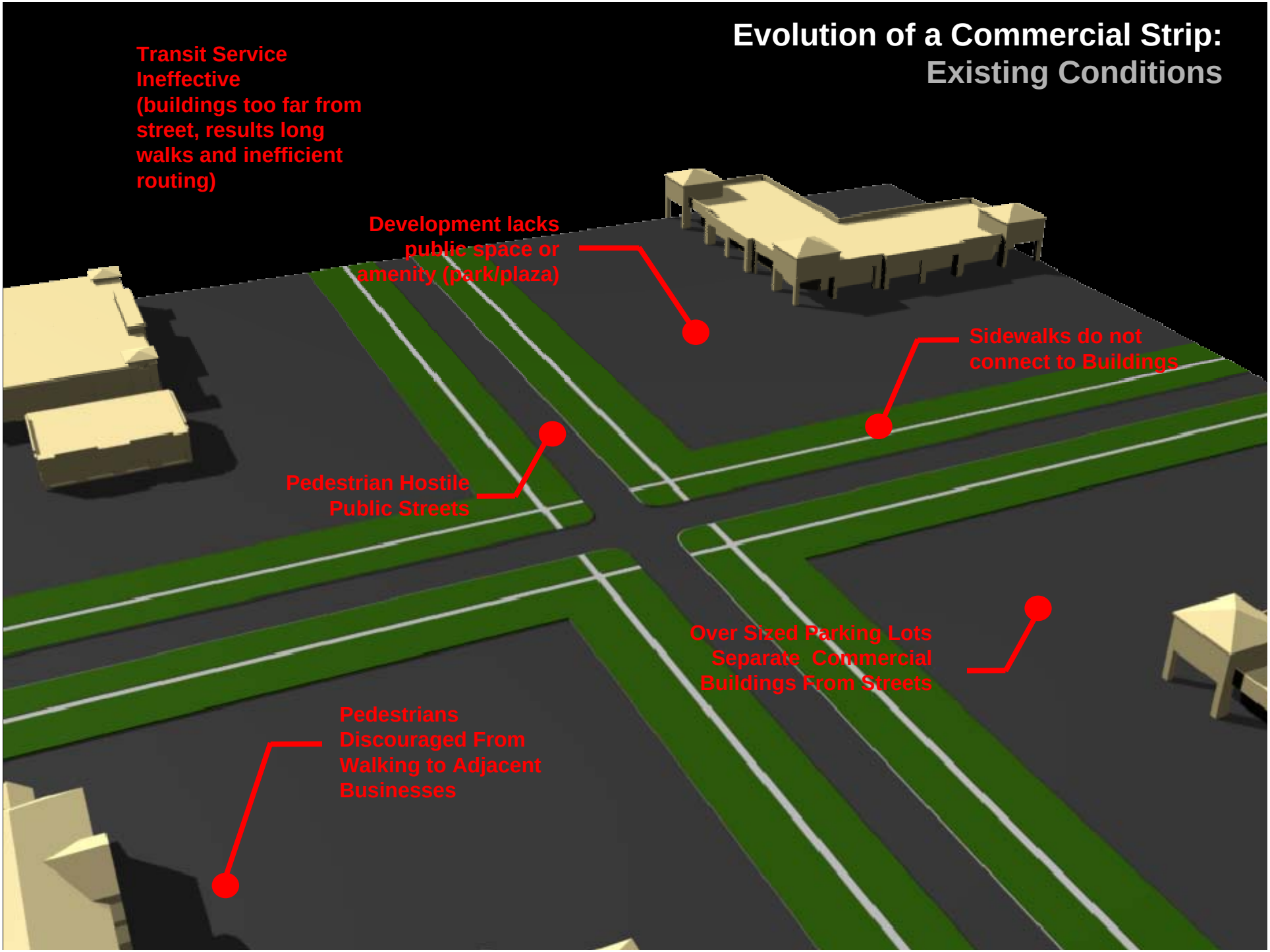
Average Peak Period Travel Time (Minutes)
Edgewater Dr - Dartmouth St. to Maury Rd.

Direction	AM (7:00 - 9:00)		PM (4:00 - 6:00)	
	Before	After	Before	After
Northbound	3.3	4.2	3.5	3.8
Southbound	3.2	4.1	3.7	3.5

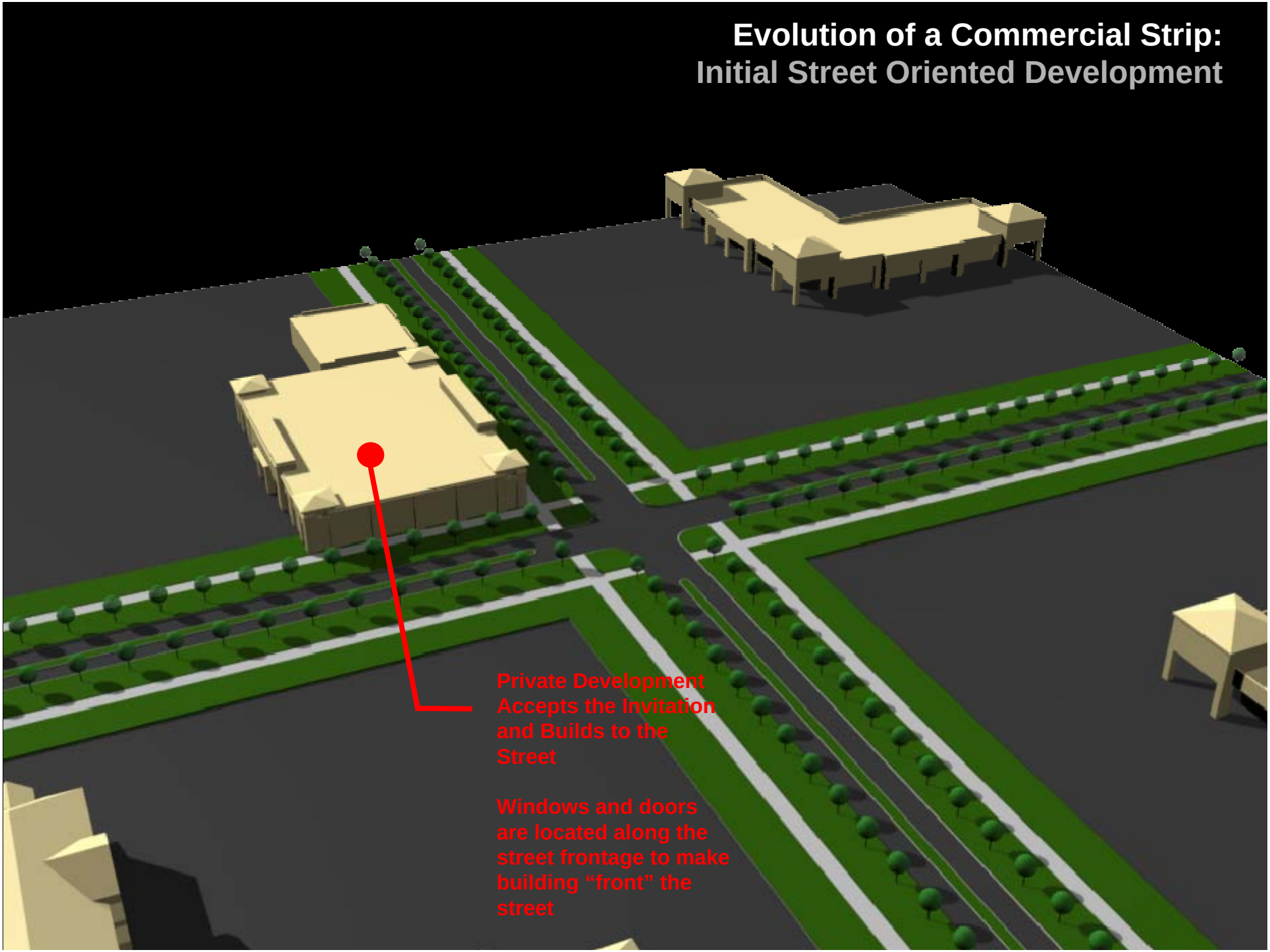
Complete Streets &

Land Development

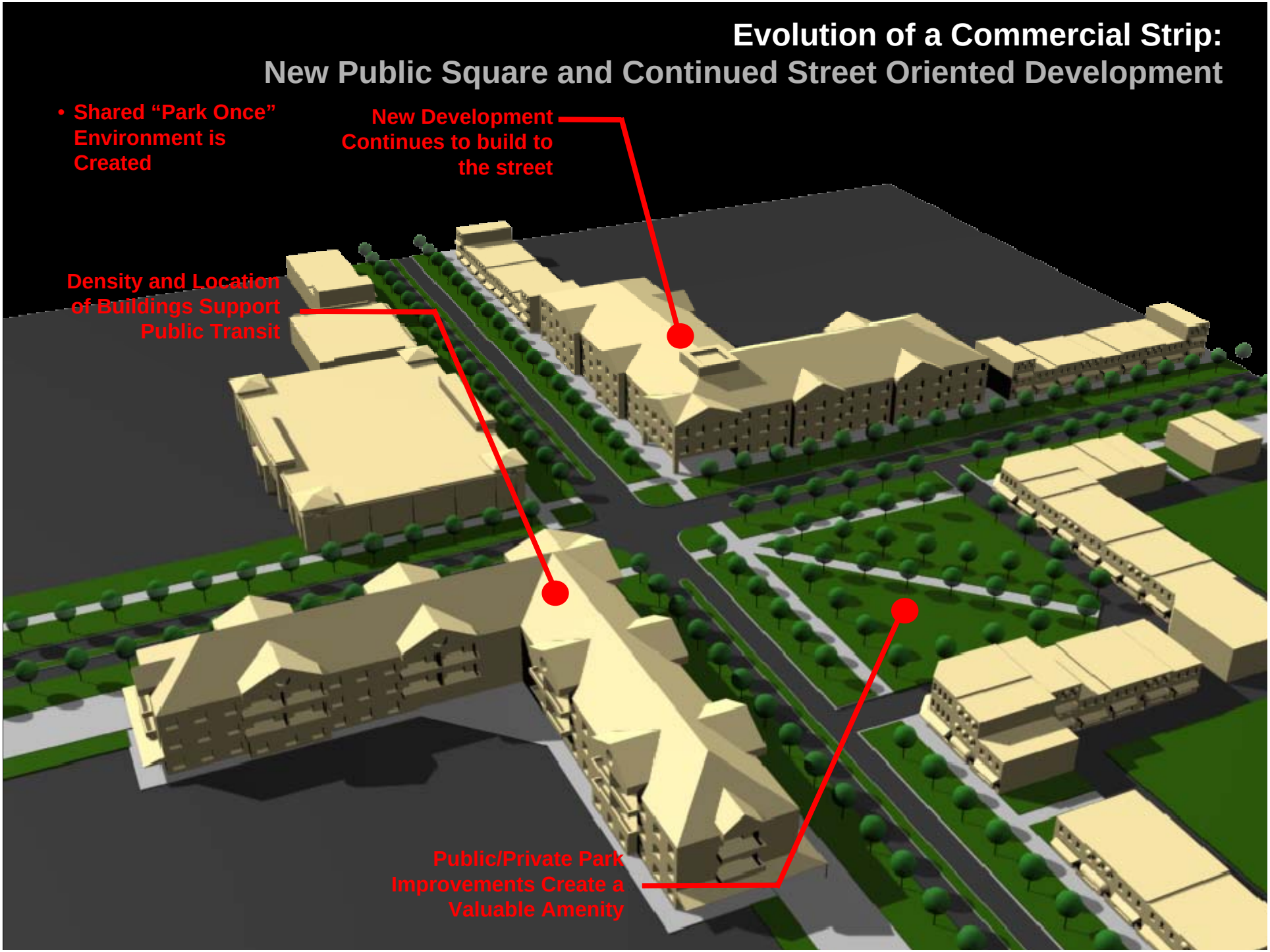
Evolution of a Commercial Strip:
Existing Conditions



Evolution of a Commercial Strip:
Initial Street Oriented Development



Evolution of a Commercial Strip:
New Public Square and Continued Street Oriented Development



Building & Street Relationship

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Bringing It All Together

Start with a stark, plain street

Bringing It All Together

Narrow travel lanes, add a bike lane

Bringing It All Together

Add a median, trees and some texture

Bringing It All Together

Bring the buildings in closer

Bringing It All Together

Make sure the buildings face the street

Bringing It All Together

Bring in more buildings (infill)

Bringing It All Together

The street now has a life!


SW
STOP