

Road Diets



Every blizzard proves motorists prefer two lane roads

Indeed they place medians and edge buffers on 4-lane roads when they get to design them (before snow plows arrive). So why not convert to 2-3 lanes.



**Toronto, Ontario,
Canada Former 4-**

**Multiple
Benefits:**
Lower speeds

Lower noise

Lower pollution

**More green
Reduced crashes
Safer crossings
More parking**

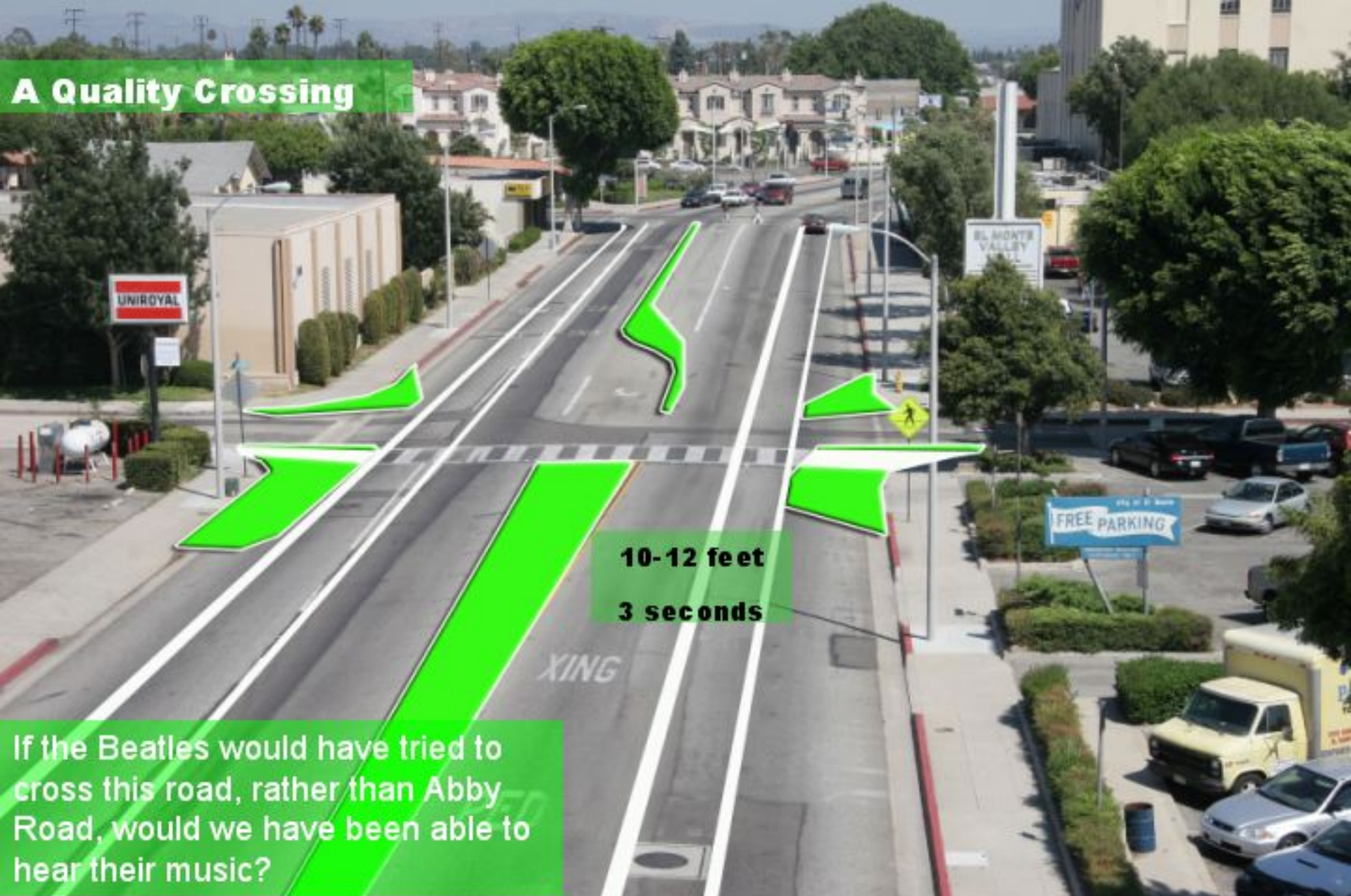
**Higher property values
More bike lanes
Increased beauty
More friendly**



Pensacola, Florida

Lane

A Quality Crossing



10-12 feet
3 seconds

If the Beatles would have tried to cross this road, rather than Abby Road, would we have been able to hear their music?

Valley Boulevard at
Monterey El Monte,

In 3 seconds at 30 mph a motorist
travels 267 feet (2 football fields)

Seattle Conversions (4 to 3 Lane)

Roadway Location	Date Change	ADT Before	ADT After	Collision Reduction
Greenwood Ave N N 80th St to N 50th	Apr-95	11872	12427	24 to 10 58%
N 45th Street Wallingford Area	Dec-72	19421	20274	45 to 23 49%
8th Ave NW Ballard Area	Jan-94	10549	11858	18 to 7 61%
Martin Luther King Jr W North of I 90	Jan-94	12336	13161	15 to 6 60%
Dexter Ave N Queen Ann Area	Jun-91	13606	14949	19 to 16 59%
24th Ave NW NW 85th to NW 65th	Oct-95	9727	9754	14 to 10 28%



ADT 21,000 (Peaked at 29,000)

**Lake Washington Boulevard
Kirkland, Washington**

Kirkland Downtown: Public Actions, Private Opportunities

The goal of transforming downtown Kirkland into a high quality pedestrian village is broadly supported — it is the bedrock of common ground in the community.

Central Way
4-3 (Proposed)
18-20,000 ADT



...it is realistic to manage current and anticipated traffic volumes on Central Way and Lake Street in a way that better meets pedestrian needs while retaining cars needed to support a healthy retail environment.



Downtown Kirkland belongs to the entire city. Citizens view it as their "living room" regardless of whether they live downtown, near downtown or elsewhere in the city.

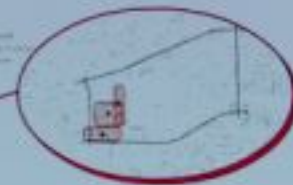
Market
2-lane
19,000 ADT

Marina Park is a wonderful part of downtown. However, its huge potential public benefits and central role . . . are not fully realized. . . A commitment to a major increase in visual and pedestrian access to the lake is the kind of big picture idea that can transform the downtown: "Bring downtown to the Lake — bring the lake to downtown."



Park Place is an important part of downtown retail. Its existing retail tenants provide needed local-serving businesses. It is important to preserve these uses that serve as key "anchors" in downtown.

Mass transit, transit riders, and a transit center are important parts of downtown Kirkland, both today and in the future.



Some properties need to be redeveloped at higher densities to make it economical to provide better retail space. The income from the redeveloped properties is not only feasible.

Lake Washington
4-3 Completed
21,000 ADT







Edgewater Drive, Orlando, Florida 23,000



**Speed reductions of
3-7 mph are common**

Hartford, Connecticut

Road Diets





Santa Cruz, California (River Avenue – 18,000 ADT)



**10 Foot
Wide Lane**

Santa Cruz, California (River Avenue – 18,000 ADT)



Castro Street, Mountain View, California



California Street, Mountain View, California



Olympia, Washington (School Crossing) – Former 4-lane

Riverfront Parkway, Chattanooga, TN



Riverfront Parkway, Chattanooga, TN



CLM/SP/10

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.



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
Crossings: Four Way
Delays: Markings
Parking: Occasional
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



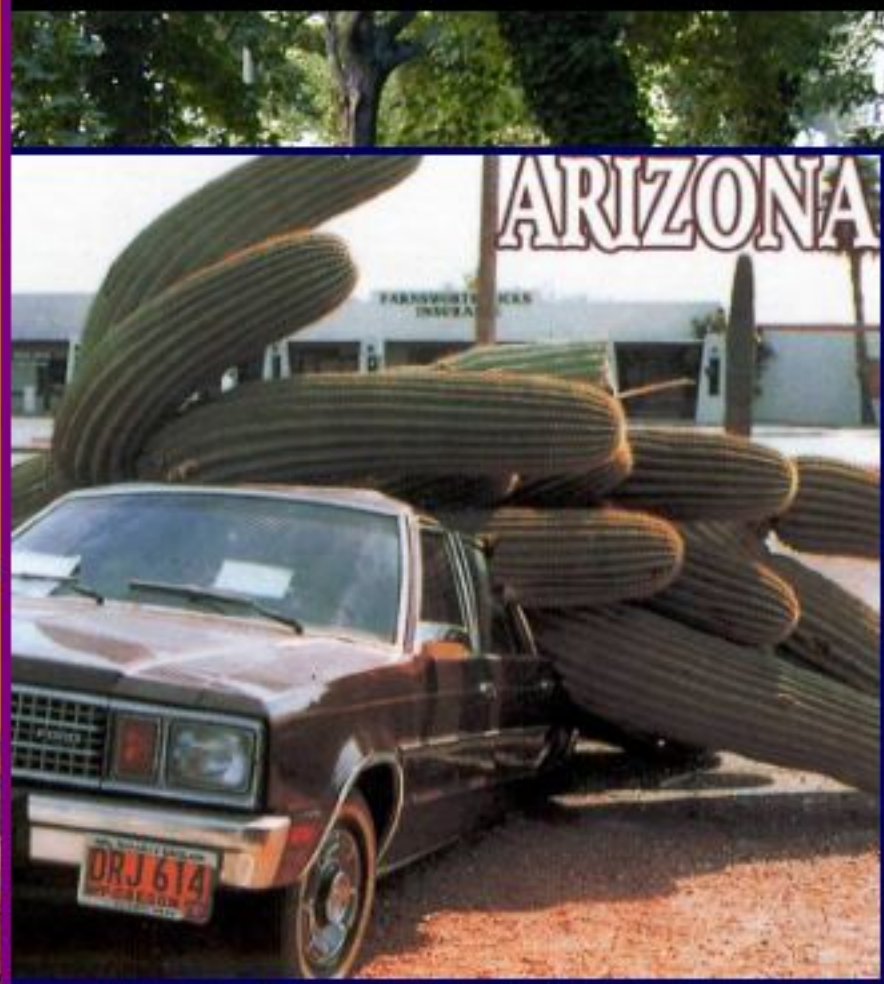
Olive Avenue, West Palm Beach, Florida

Five to Two lane conversion



Olive Avenue, West Palm Beach, Florida

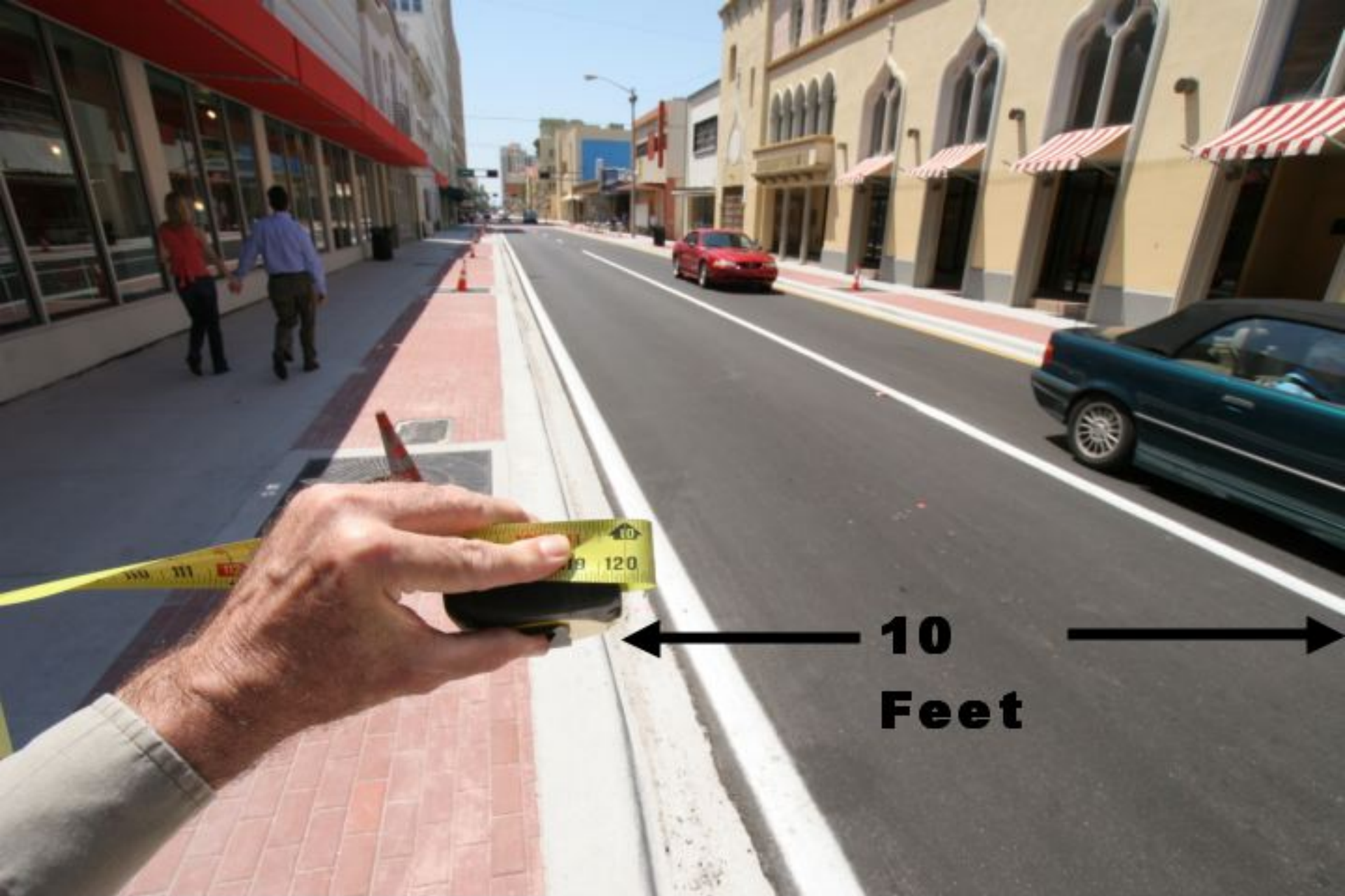
ATTACK OF THE 50 FT. WOMAN





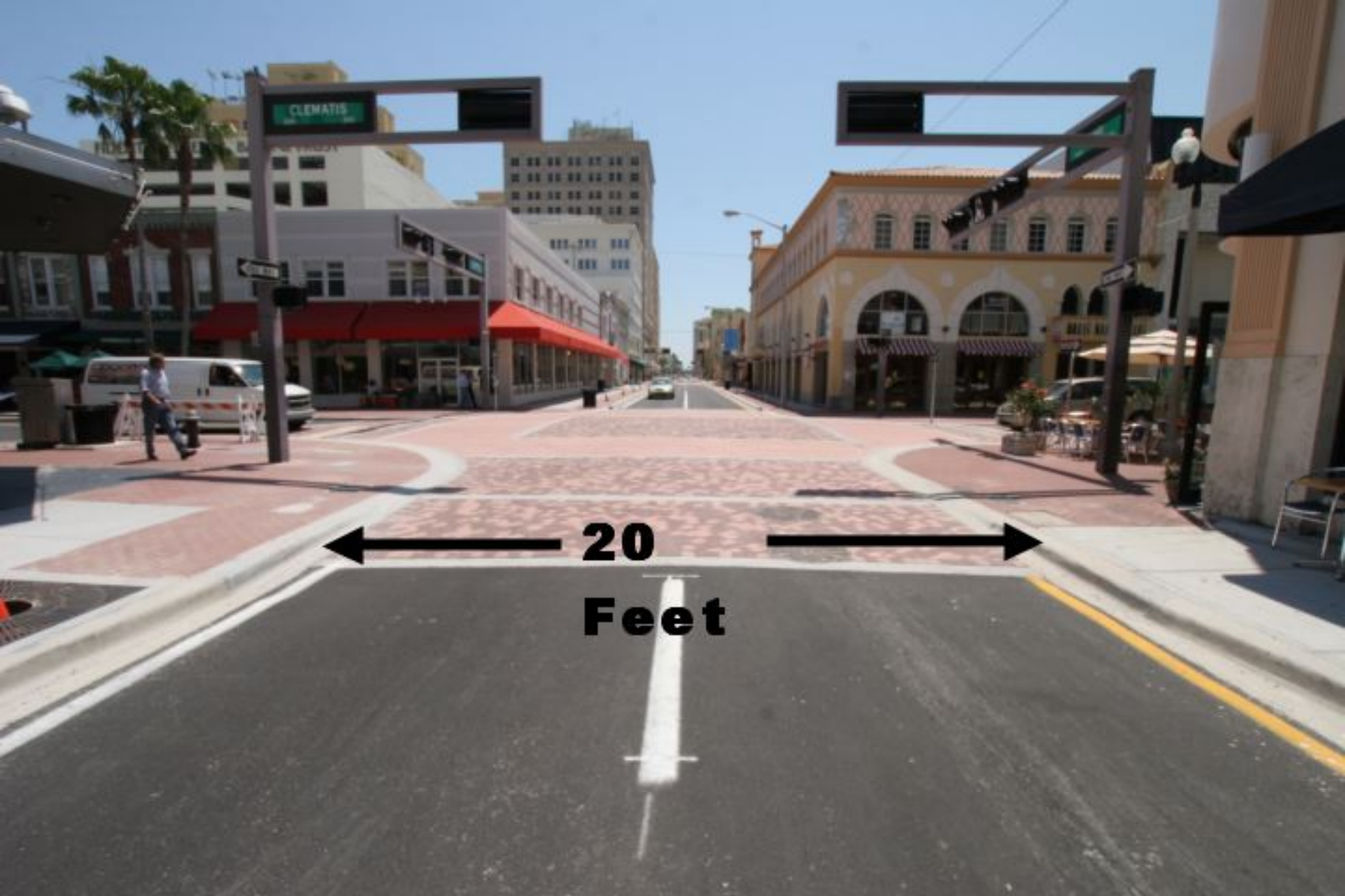
Feet

Olive Avenue, West Palm Beach, Florida



Olive Avenue, West Palm Beach, Florida – Former 3-

Ten foot travel lanes



Olive Avenue, West Palm Beach, Florida – Former 3-

Ten foot travel lanes



La Jolla Boulevard, Bird Rock, San Diego, California (Five to two lane conversion, before). Four signals and one four-way stop being removed. Back-in Angled parking to be added. (23,000 ADT)

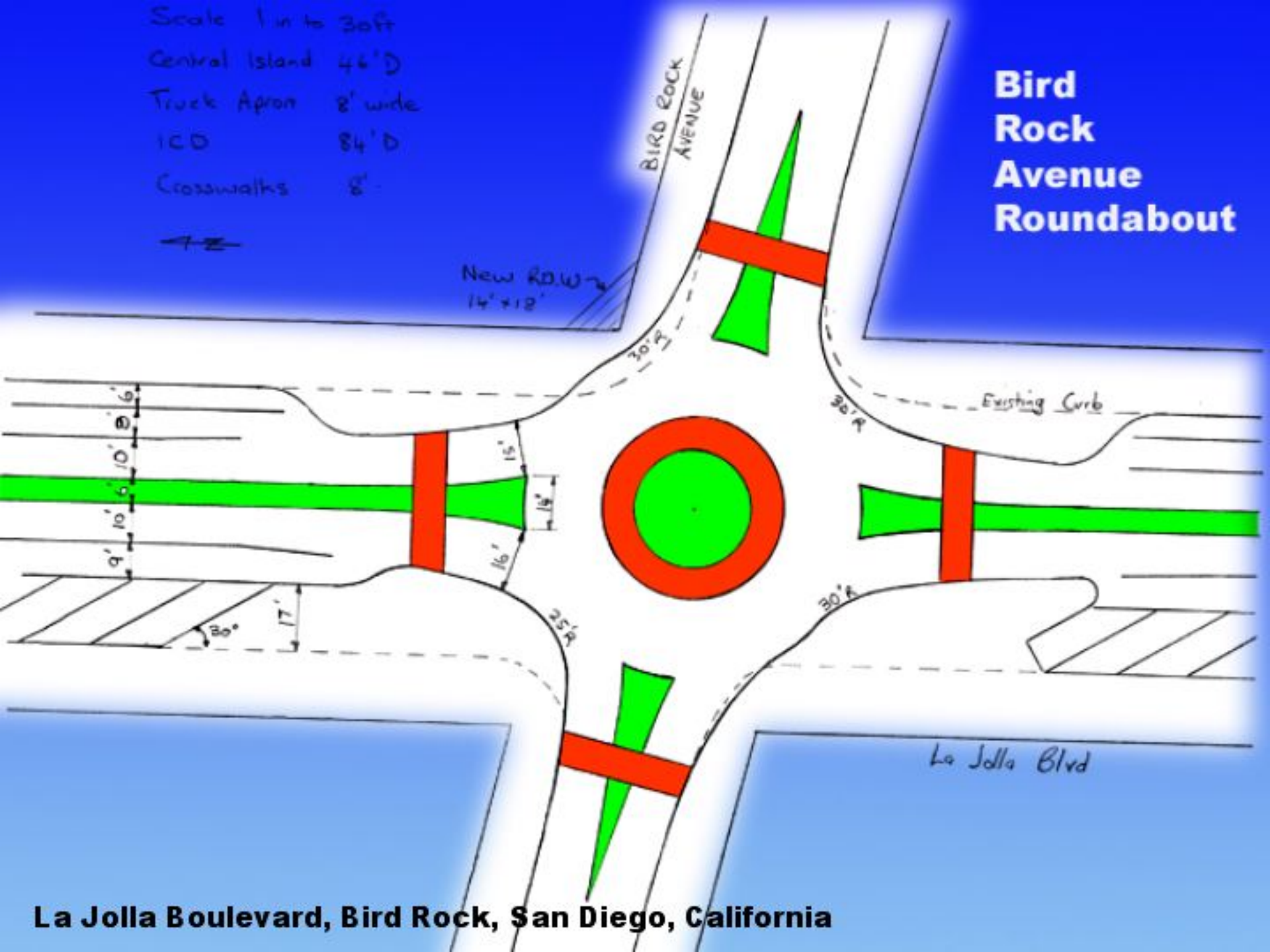
Scale 1 in to 30ft
Central Island 46'Ø
Truck Apron 8' wide
ICD 84'Ø
Crosswalks 8'



New R.O.W. 14' + 12'

BIRD ROCK AVENUE

Bird Rock Avenue Roundabout



La Jolla Boulevard, Bird Rock, San Diego, California



La Jolla Boulevard, Bird Rock, San Diego, California (Five to two lane conversion, after). Four signals and one four-way stop being removed. Back-in Angled parking to be added. (23,000 ADT)



Old lane line

**Alternate:
Take advantage of uneven a.m./p.m. peaks**



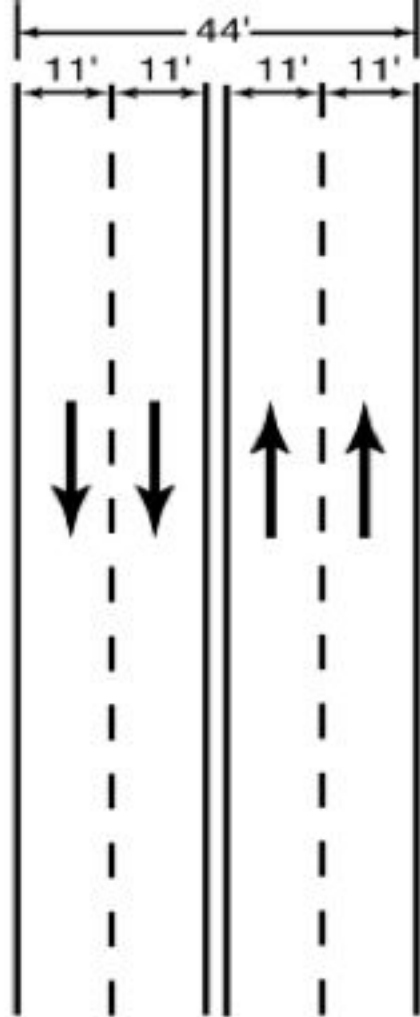
Old lane line

Alternate:

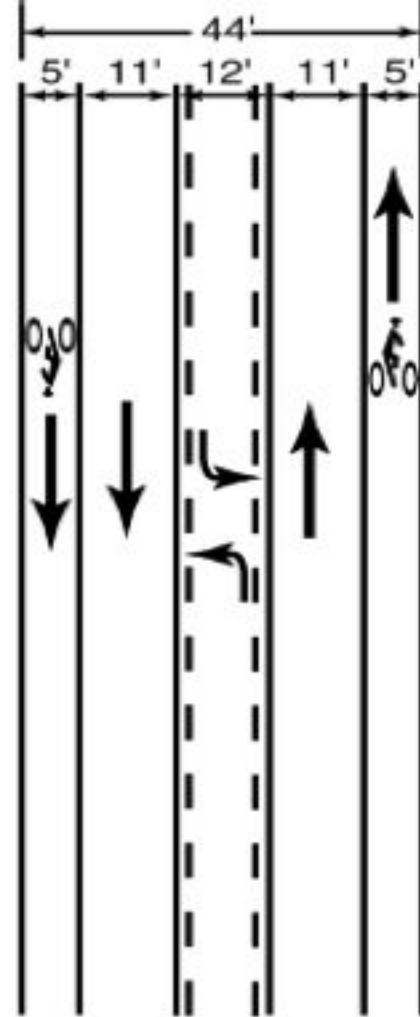
Take advantage of uneven a.m./p.m. peaks



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



Before Conversion
to Road Diet

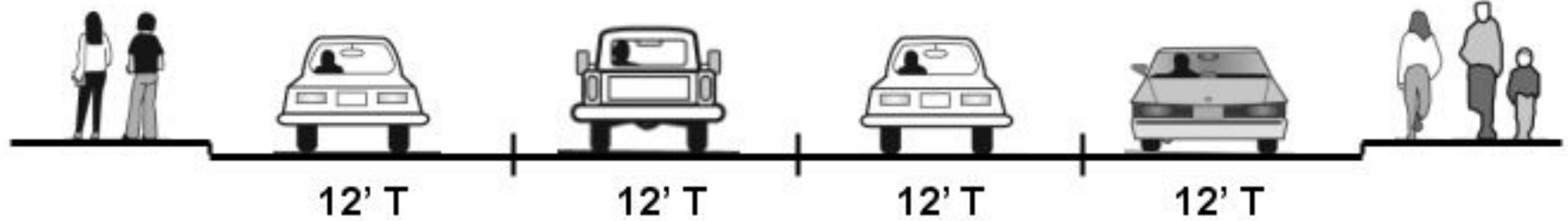


After Conversion
to Road Diet

Classic Road Diet

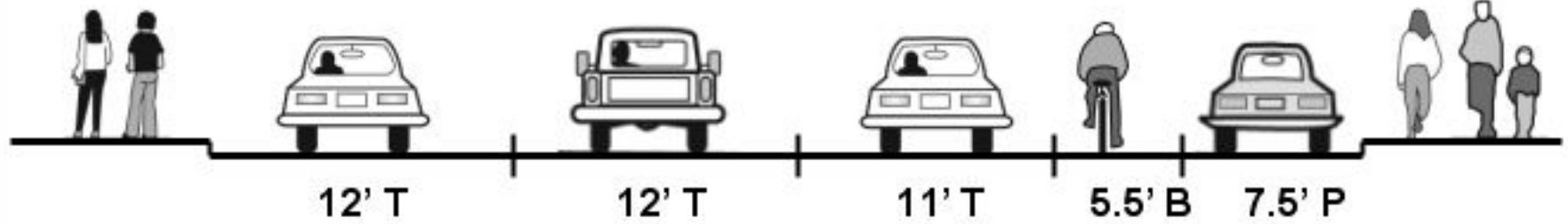


**Biggest untapped potential: one-way streets!
Is this street operating at capacity?**



Typical one-way cross-section: Four 12' travel lanes

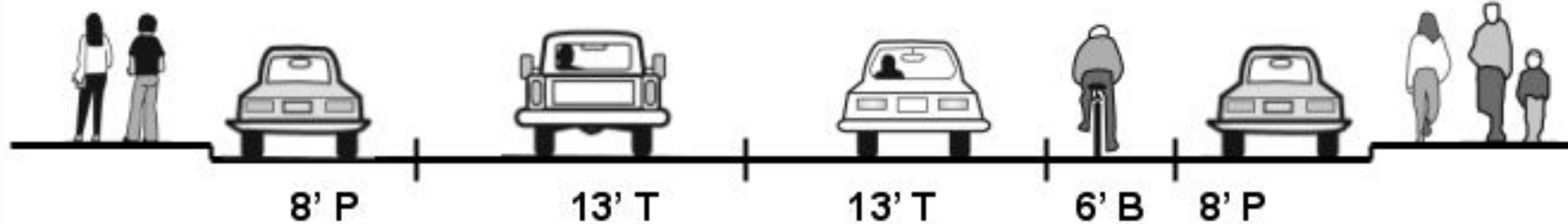
Why? Because the space was there



**Possible scenario #1: Three travel lanes and...
Bike lane and parking on one side**



Possible scenario #2: Three travel lanes and...
Parking on both sides



Possible scenario #3: Two travel lanes and...
Bike lane and parking on both sides



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



On-street parking

Median

Bike lanes

Center turn-lane

Reclaimed road space creates room for many uses

What are some benefits of road diets for pedestrians?

- **Reduce crossing distance**
- **Eliminate or reduce “multiple threat” crash types**
- **Install medians or crossing island to break crossing into 2 simpler crossings**
- **Reduce top end travel speeds**
- **Add sidewalk buffer from travel lanes (parking or bike lane)**
- **Reclaim street space for “higher and better use” than moving peak hour traffic**

Bridgeport Way, University Place, Washington



9/29/1999 2:06pm

Road Diets



- **Which road carries the most traffic?**
- **Which road produces the highest speed?**
 - ✓ **With a 4-lane road a fast driver can pass others**
 - ✓ **With a 2-lane road the slower driver sets the speed**
- **Which road produces the highest crash rate?**
- **Which is better for bicyclists, pedestrians, businesses?**



University Place, Washington



University Place, Washington

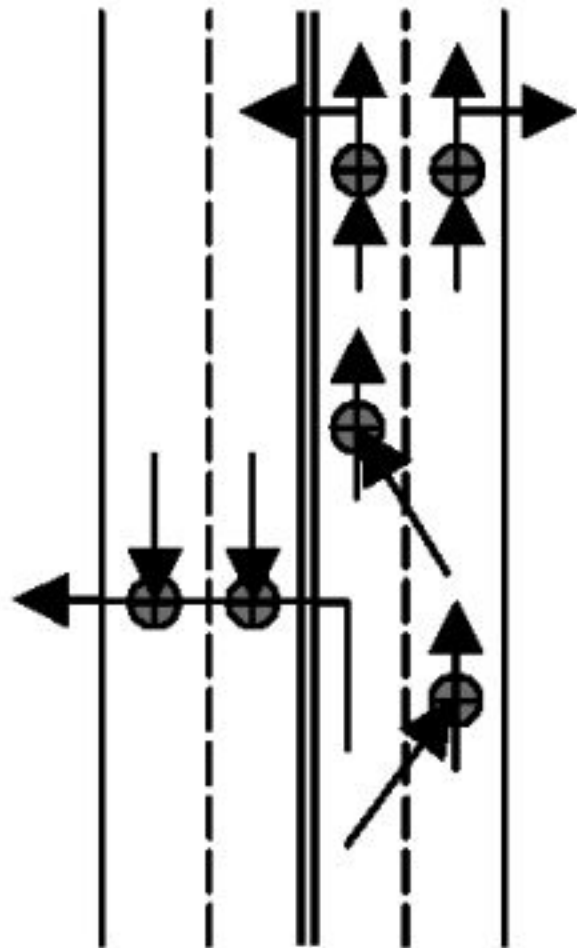


**University Place,
Washington**
Four road diets in place

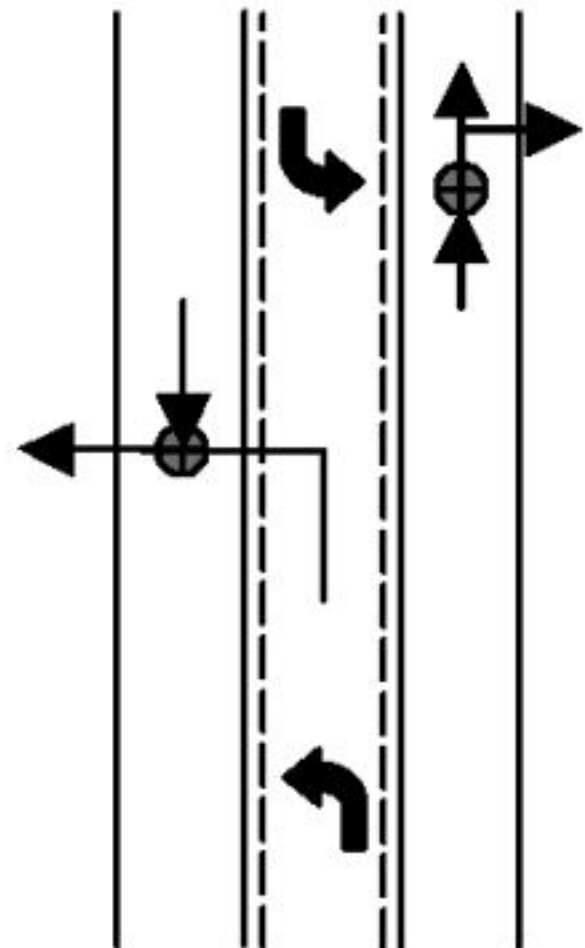




Questions?

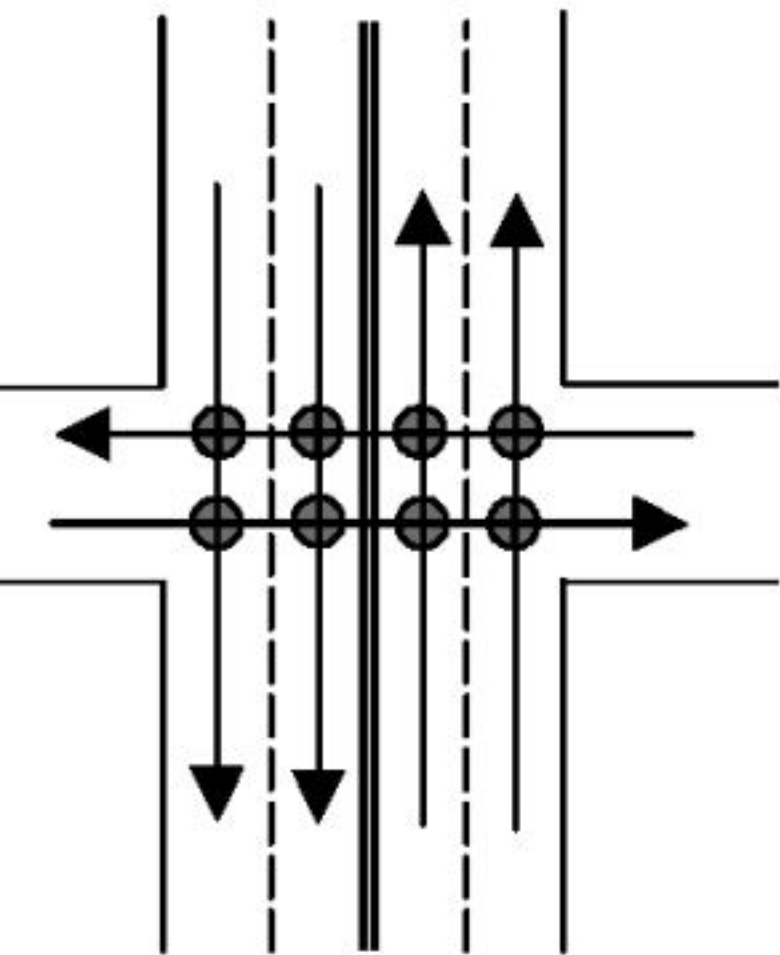


⊕
Conflict
Point

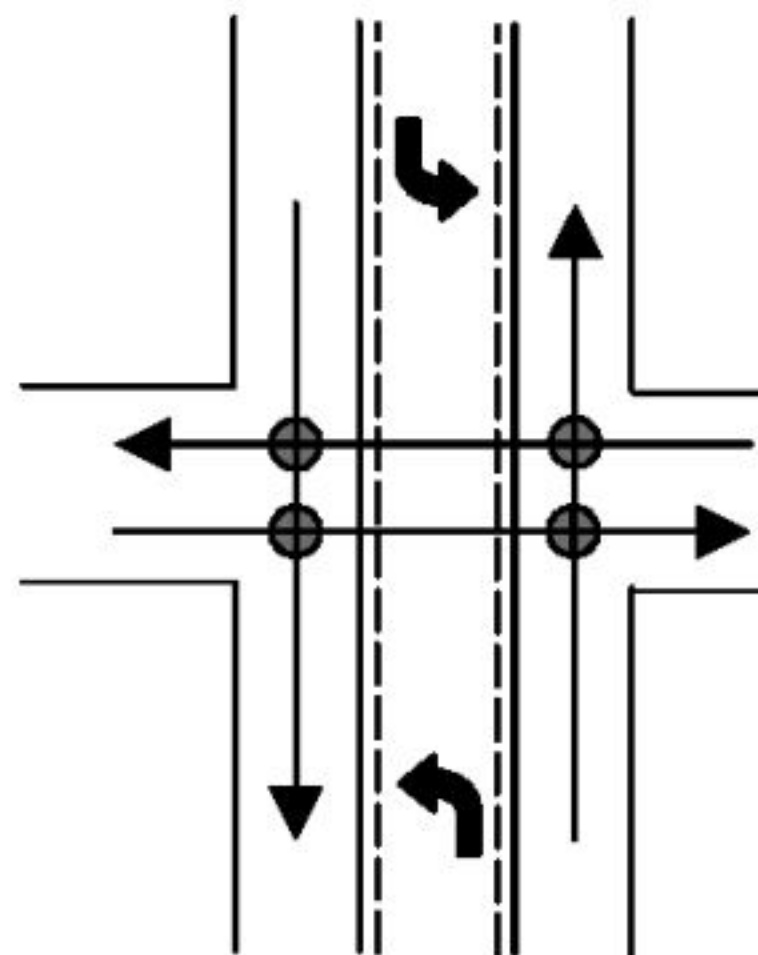


Four-Lane Undivided

Three-Lane

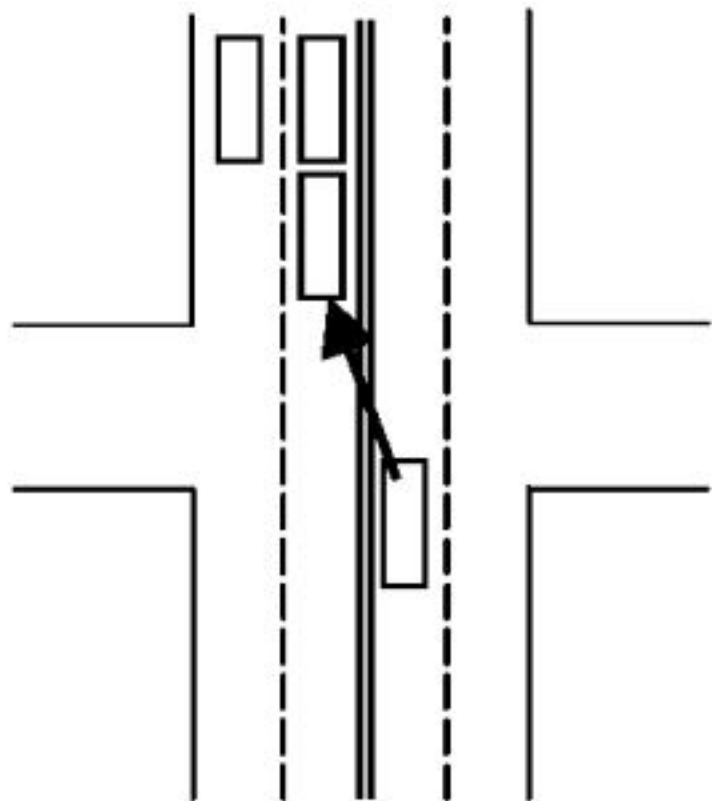


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Conflict
Point

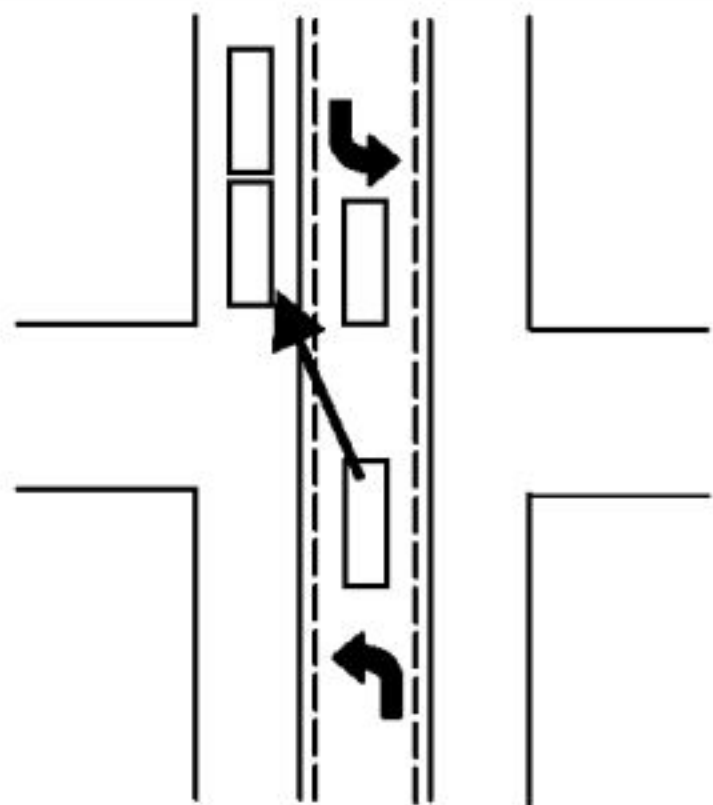


Four-Lane Undivided

Three-Lane



Four-Lane Undivided
(Outside Lane Traffic Hidden)



Three-Lane
(No Outside Lane Traffic to Hide)

