

Design Manual

Dallas Complete Streets Design Manual

Council Transportation and Trinity River
Project Committee

24 September, 2013



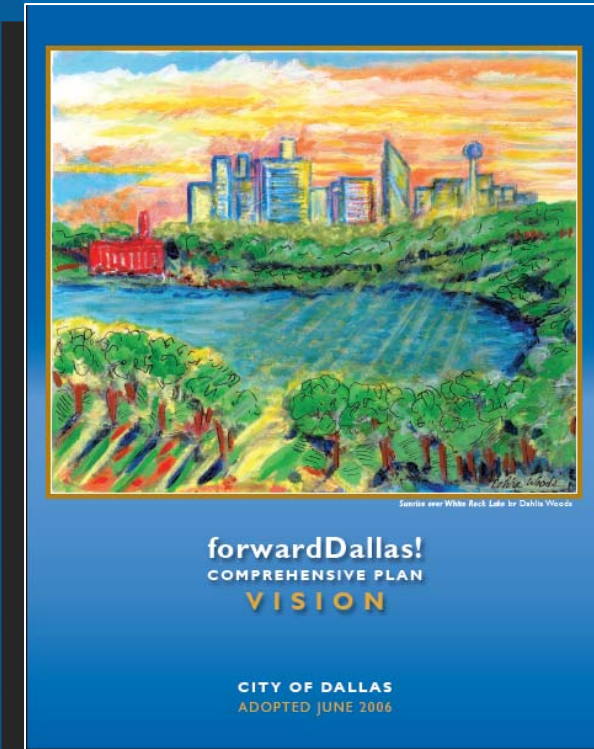
What are Complete Streets?



Streets that are comfortable for everyone: young and old, motorists or bicyclists, pedestrians, wheel chair users, or transit riders alike.

Background

- ▶ 2006 - ForwardDallas! recommendation: Develop a “context sensitive street design manual”
- ▶ 2011-2012 - Council Strategic Action Plan objective: “Bring a citywide complete street vision to reality”
- ▶ 2011 - Transportation and Community and System Preservation (TCSP) grant awarded to Dallas
- ▶ 2011 -2013 – Community engagement, pilot and demonstration projects, and drafting of design manual



Community Workshops

- ▶ *Eight interactive workshops held July through December, 2011*
- ▶ *Over 600 participants citywide*



Visual Essay Conte

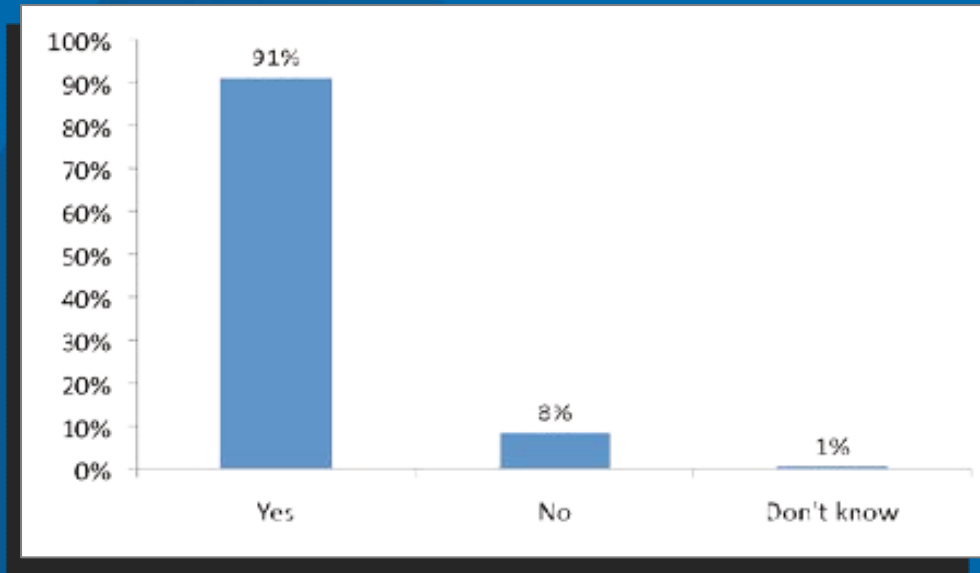


- ▶ *Students, amateurs and professionals were engaged in proposing creative ideas for better streets*

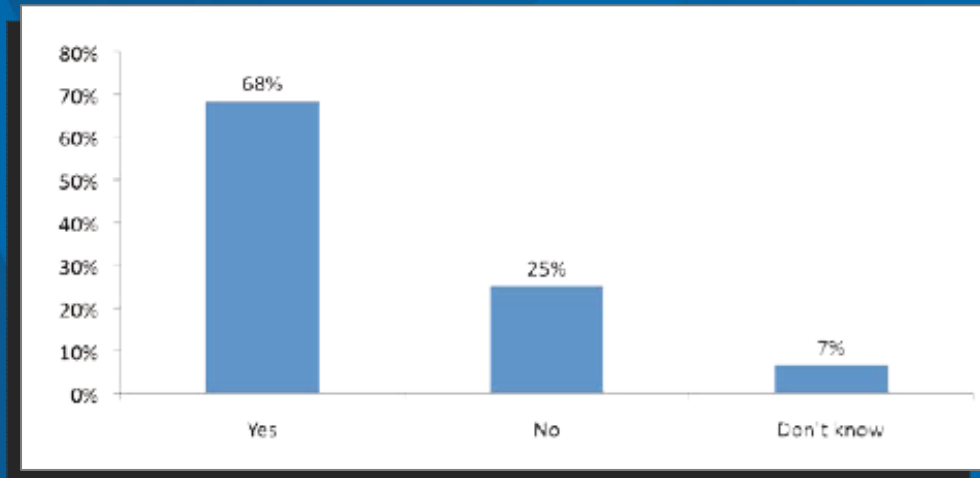


Public Opinion Sample Survey

Do you want your elected officials to work towards more sustainable communities?



Do you feel that kids walking or biking to school, and adults walking or biking to shop and eat would be better for the Dallas economy?



Knox Street Demonstration



Four-day installation from Katy Trail to McKinney Ave

New design concept tested in real conditions with community feedback and technical evaluation

Pilot Projects

The City has been gaining experience from implementing pilot complete street projects



Bishop
Avenue



Greenville Avenue



City of
Dallas
COMPLETE STREETS DESIGN MANUAL

Design Manual

**COMPLETE STREETS
ARE NOT ALL THE SAME**

Mixed-Use Street Example



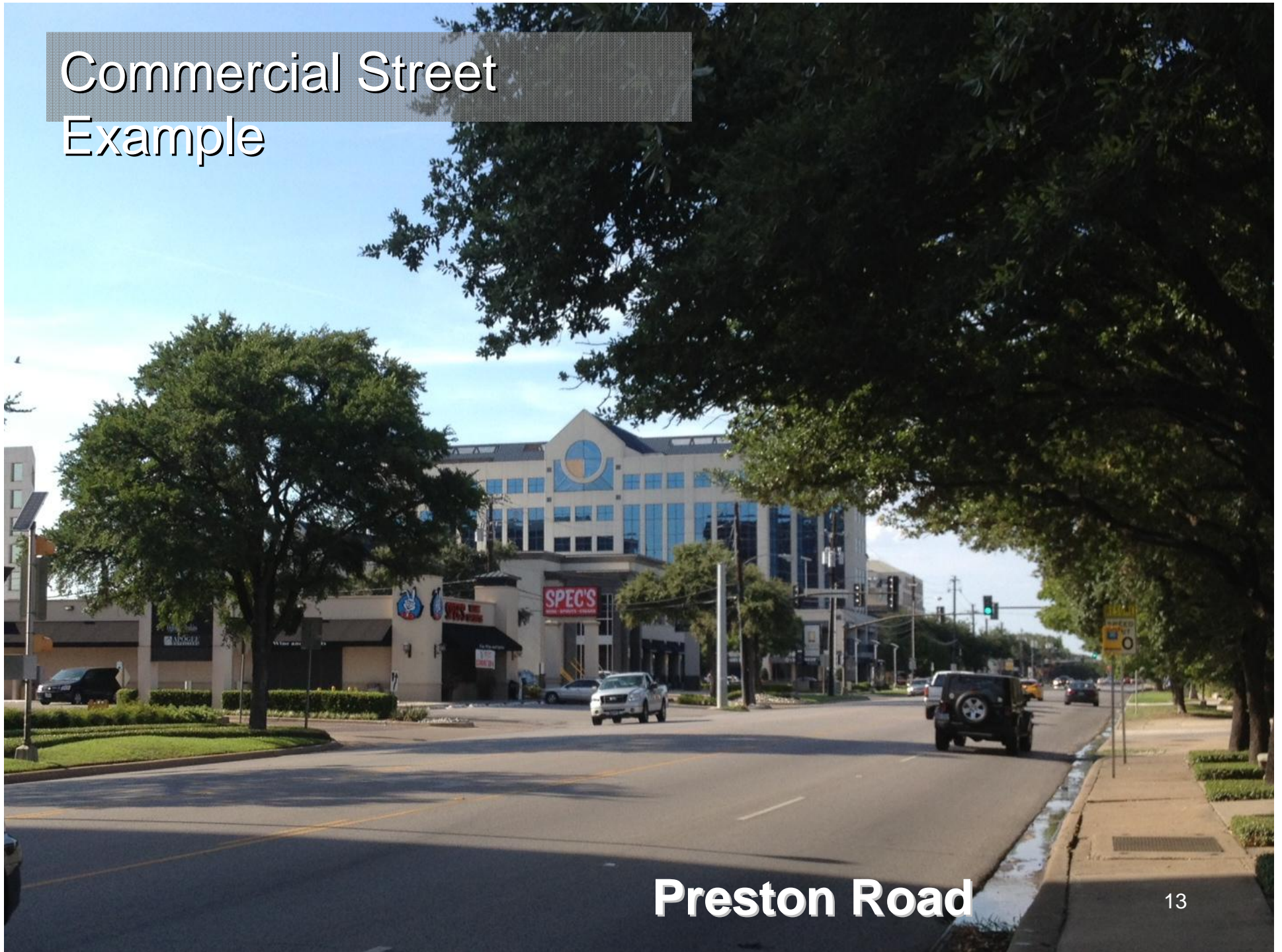
Bishop Avenue

Residential Street Example



Bishop Avenue

Commercial Street Example



Preston Road

Residential Street Example



Montfort Drive

Design Manual

**MAKING COMPLETE
STREETS A REALITY**

A New Way of Designing Streets

- Start with a vision
 - Planning Vision
 - Organizational Vision
- Policies to guide change
 - Implementation procedures: working with established processes
 - Design guidance
 - Process and guidelines for addressing trade-offs

Manual Chapters

1. How To Use The Manual
2. The Dallas Complete Streets Vision
3. Complete Streets Policy Framework
4. Pedestrian Zone Design Elements
5. Street Zone Design Elements
6. Intersection Design Elements
7. Green Streets




TABLE OF CONTENTS

Adoption Resolution	vi	Engineering Design Documents and Standards	34
Introduction	3	Federal and State Design Manuals	37
Dallas Complete Streets Goals and Objectives	4	Chapter 2 - The Dallas Complete Streets Vision	43
Benefits of Complete Streets	4	Complete Streets Context and Development Policy	44
Community Aspirations	5	Classifying Complete Streets	46
Survey Results	5	Mixed-Use Streets	46
Foundation	8	Commercial Streets	50
ForwardDallas	8	Residential Streets	54
National Trends	9	Industrial Streets	58
County, NCTCOG, and State Initiatives	10	Parkways	62
Chapter 1 - How To Use This Manual	15	Dallas Complete Streets Vision Maps	66
Complete Streets Tools Summarized	16	How the Vision Map was Developed	69
Complete Streets Vision Maps	16	Chapter 3- Complete Streets Policy Framework	73
Getting Started	17	General Complete Streets Policy Guidance	74
Thoroughfare Plan Functional Classification	18	Intersection Zone Policy Guidance	75
Complete Streets Initiative Improvement Process	20	The Pedestrian Zone Defined	76
Project Types	21	Pedestrian Zone Policy Guidance	77
Street Improvement Projects	21	The Street Zone Defined	78
Complete Streets Improvement Process	23	Street Zone Policy Guidance	79
Development-Related Projects	24	Trade-offs in Limited Right-of-Way	80
Implementing Complete Streets through Private Development	24	Street Elements Widths	82
City Department Roles and Responsibilities	25	Complete Streets Design Elements	84
Detailed Complete Streets Design Review Process	27	Design Element Priorities Chart	85
Corridor Planning	28	Incorporating Bicycle and Transit Facility Network Within Streets	86
Conceptual Design	29	Street Cross Sections For Various Street Types and Rights-Of-Way Examples	88
Engineering Design	29	Mixed Use Street Examples	88
Construction Management	30	Commercial Street Examples	91
Developing a Maintenance Plan	30	Residential Street Examples	93
Existing Manuals and Standards	31	Industrial Street Examples	95
Relevant Manuals And Standards by Project Phase	31	Parkway Examples	97
Corridor Planning Documents and Standards	32	Design Controls	99
Conceptual Design Documents and Standards	33	Target Speed Defined	100

AUGUST 2013 DALLAS COMPLETE STREETS DESIGN MANUAL | ■

Design Guidance



Pedestrian zone and street zone design elements



Intersection design elements



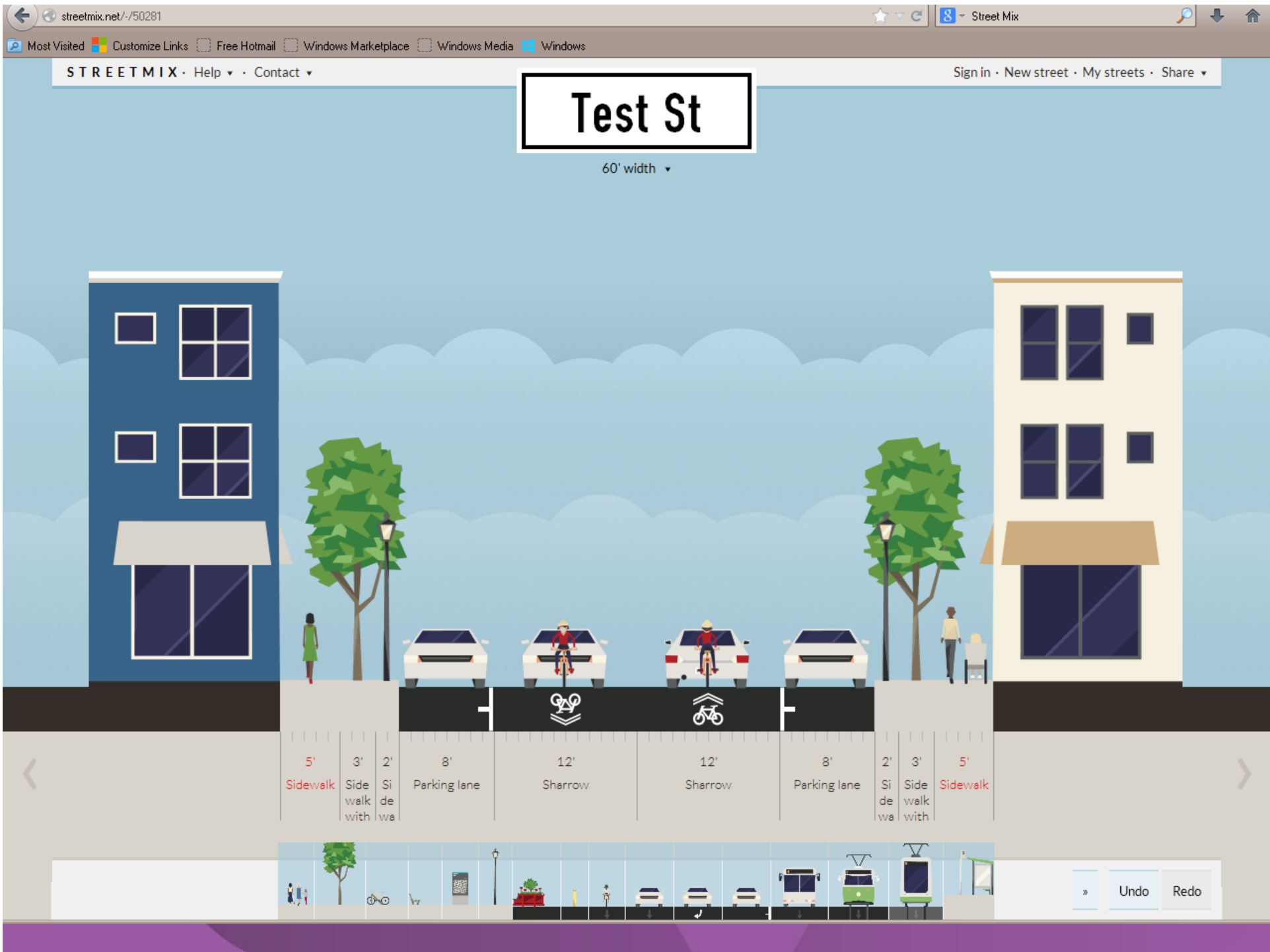
Green street design elements

Assessing Trade-Offs

DESIGN ELEMENT PRIORITIES CHART

Pedestrian Zone															Street Zone										Intersection Zone																		
Primary Consideration	Secondary Consideration	Optional Consideration	Not Desirable	NR	Not Relevant	Wide Sidewalks	Shared Use Paths	Trees and Greenscape (Buffer Zone)	Seating	Bicycle Parking Facilities	Ballards	Newspaper Racks	Recycling/Garbage Cans	Transit Stops	Limited Curb Cuts and Driveways	Plazas/Pocket Parks/Parklets	Sidewalk Cafes	Pedestrian Lighting	Information Kiosks	Pedestrian Signage	Bicycle Signage	Slip Streets	Couplets	Shared Streets (Woonerfs) ⁴	Trees and Greenscape (Median)	On-street Parking	Road/Lane Diet ⁵	Chicanes	Midblock Pedestrian Crossings	Special Pavement Treatment/Speed Tables ⁴	Street Lighting	Multimodal Intersection Design	Curb Extensions/Bulbouts	Modern Roundabouts	Traffic Circles	Crossing Islands ²	Special Pavement Treatment/Speed Tables	Special Pedestrian Signals	Special Bicycle Treatments ³	Special Transit Treatments			
Contextual Street Type Overlays																																											
Mixed-Use Streets																																											
Commercial Streets																																											
Residential Streets																																											
Industrial Streets																																											
Parkways																																											
Bike and Transit Network Overlays																																											
Bike Network Overlay																																											
Transit Network Overlay ¹																																											

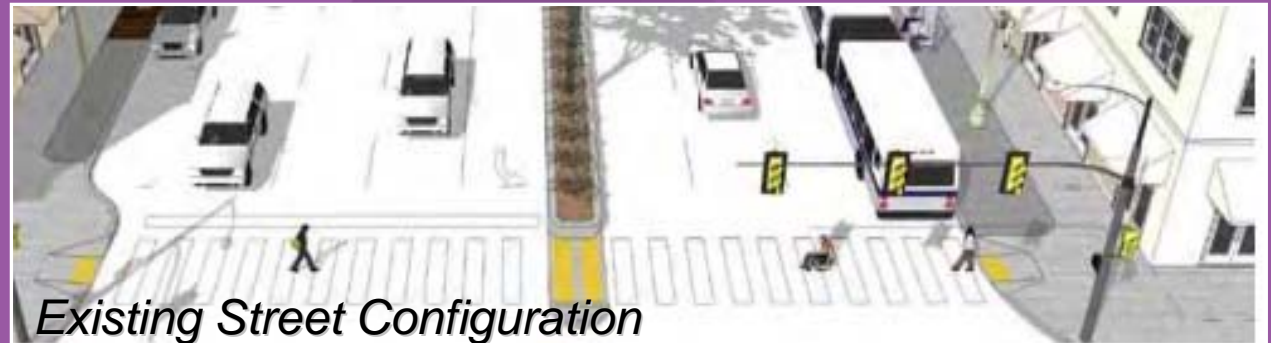
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The Grand Boulevard

Case Study in Assessing Trade-offs

- Six (6) travel lanes
- Bus Rapid Transit [BRT] in mixed flow lanes
- On-street parking



- BRT in dedicated lanes
- Four (4) travel lanes
- On-street parking
- Shared bicycle lanes



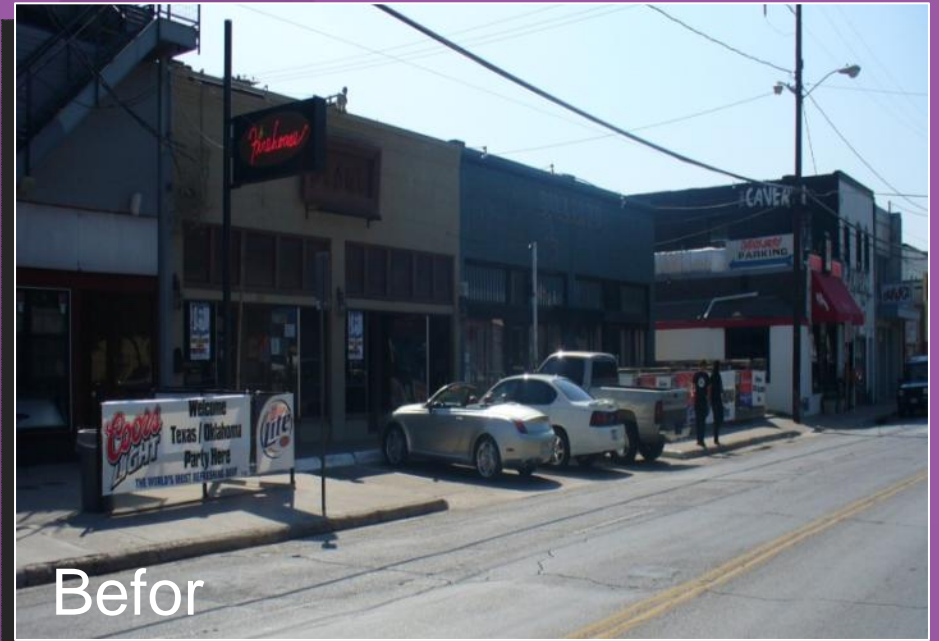
- BRT in dedicated lanes
- Four (4) travel lanes
- No on-street



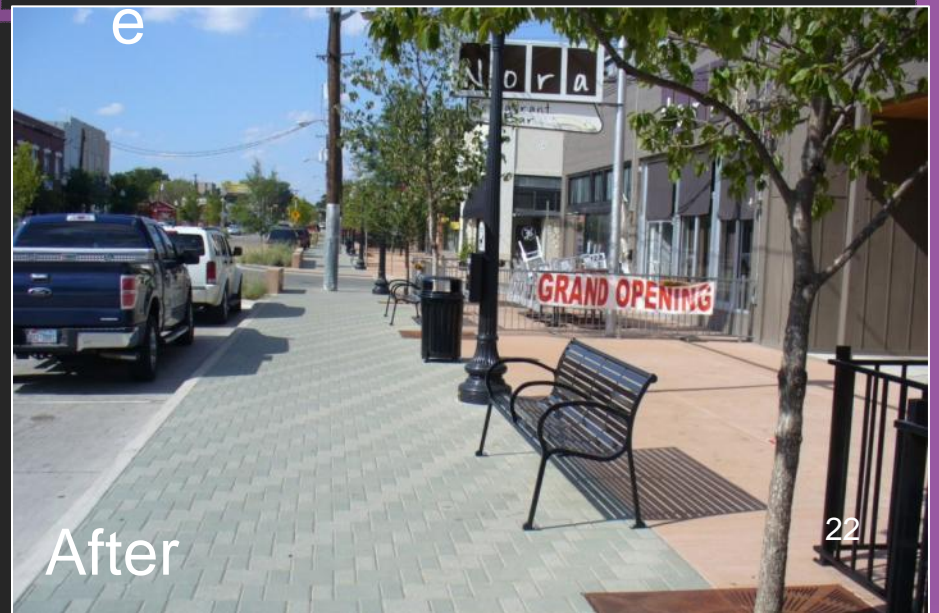
Greenville Avenue

Example

- Indented parallel parking replaced angled parking to allow more space for outdoor patios
- Reduced traffic lanes enabled wider sidewalks and street furniture

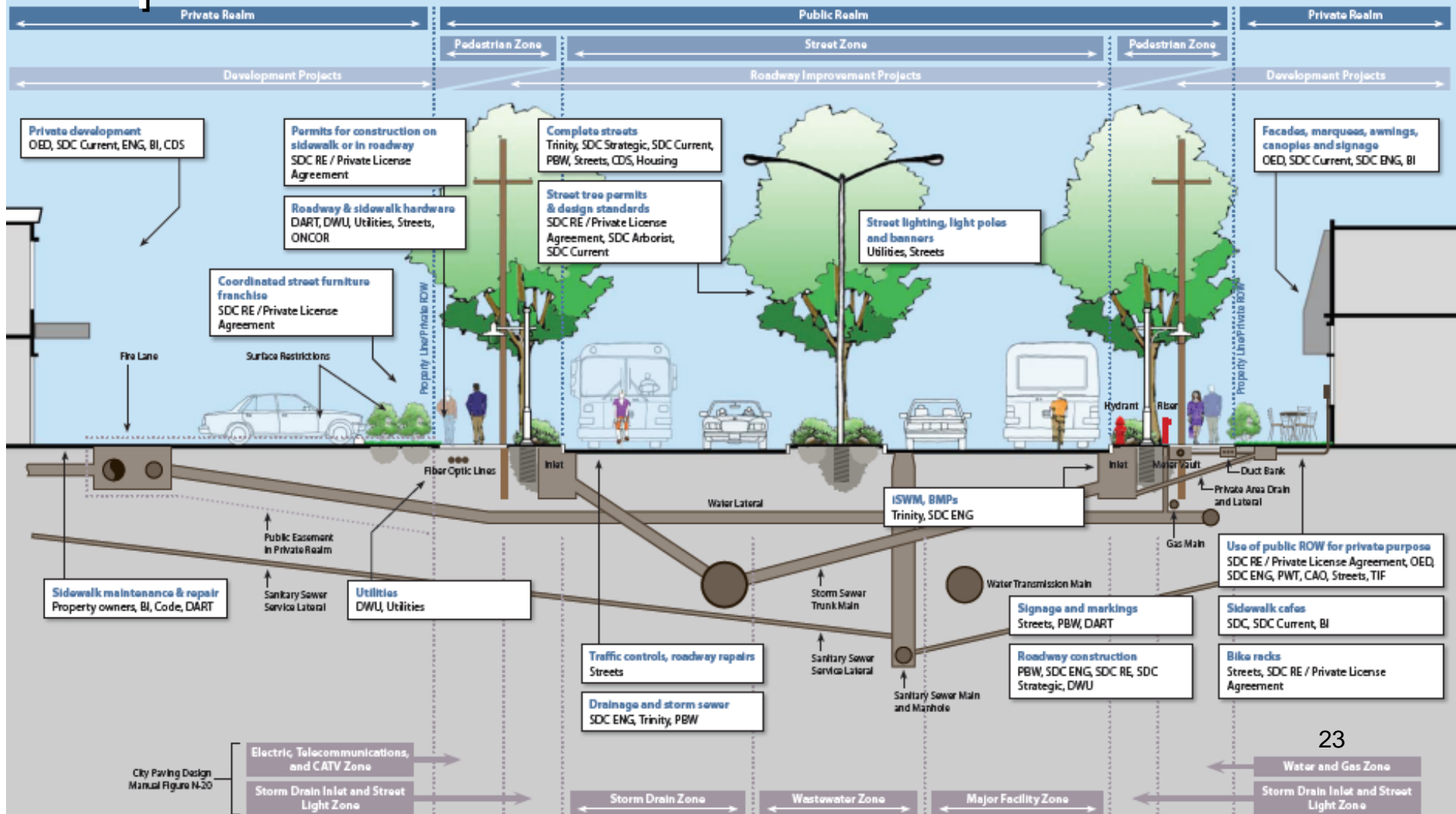


Before



After

Complete Street Implementation



Implementation Opportunities

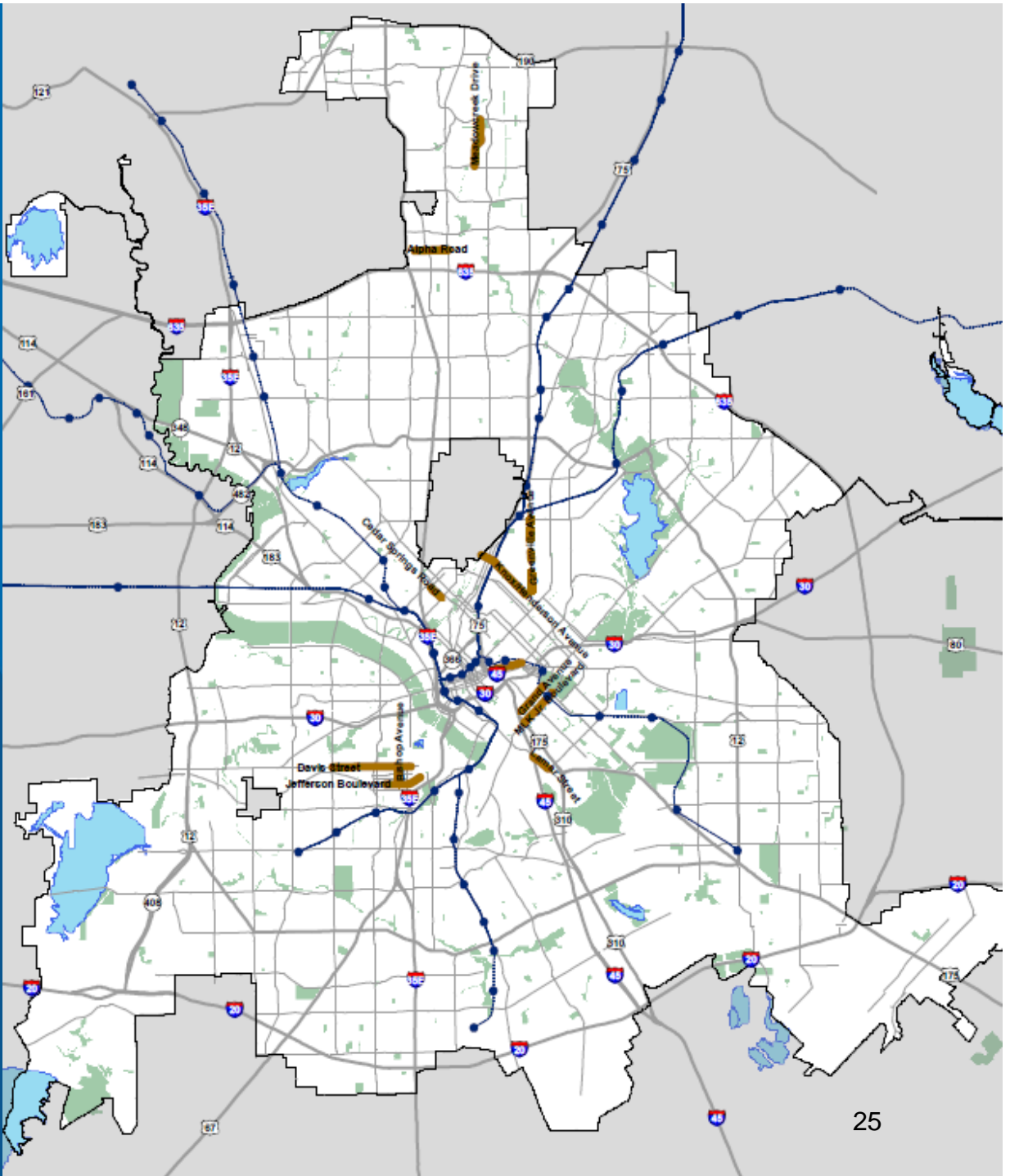
Public Projects

- *Different types of public projects present different opportunities and challenges :*
 - *Street Reconstruction or New Construction Projects*
 - *Street Resurfacing or Restriping Projects*

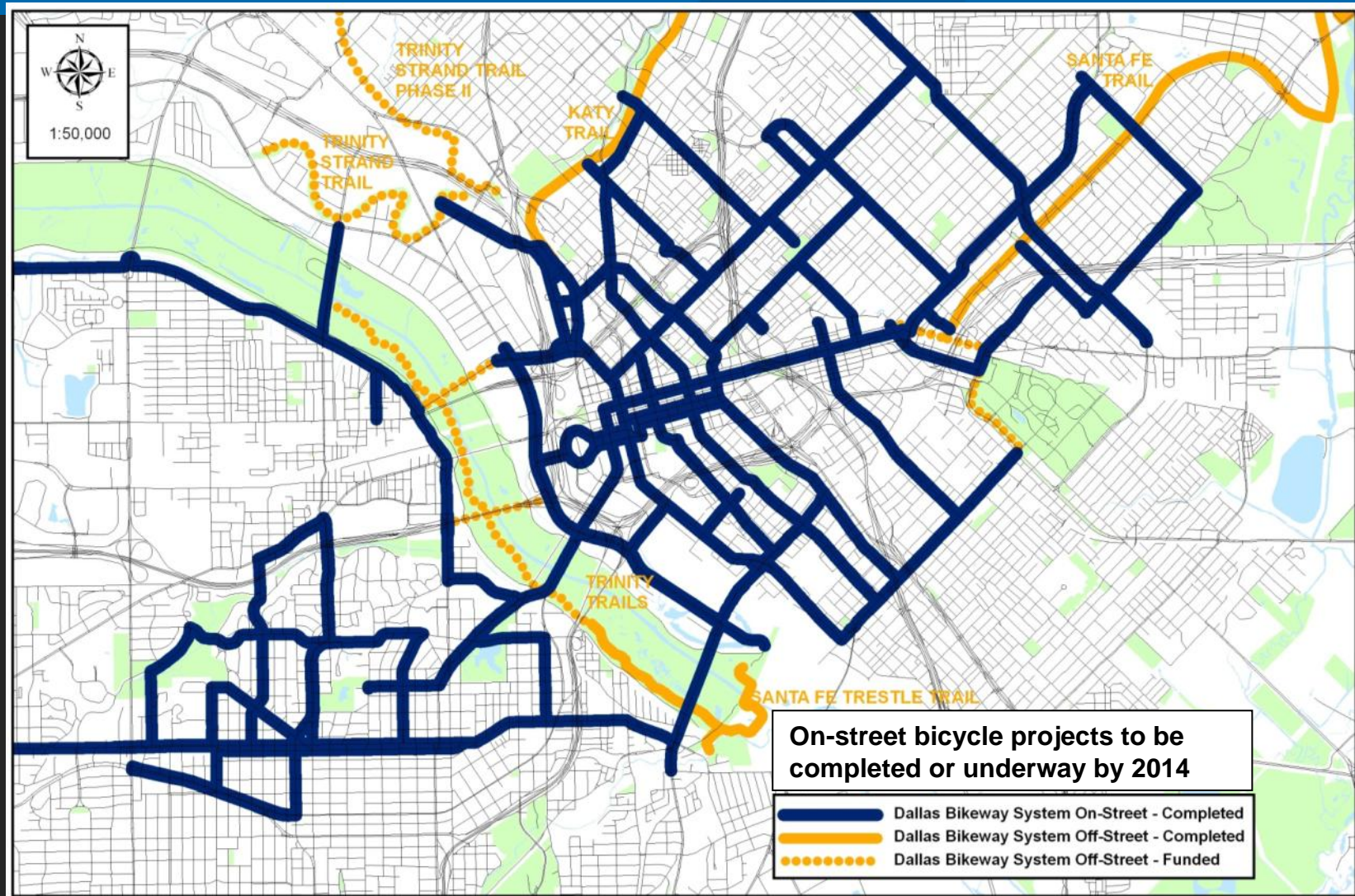
Bond Program Complete Street Projects

Project District

<input type="checkbox"/>	Bishop Avenue	1
<input type="checkbox"/>	Cedar Springs	14
<input type="checkbox"/>	Davis Street	1
<input type="checkbox"/>	Grand Avenue	7
<input type="checkbox"/>	Greenville	14
<input type="checkbox"/>	Henderson Avenue	2
<input type="checkbox"/>	Jefferson	1
<input type="checkbox"/>	Knox Street	14
<input type="checkbox"/>	Lamar Street	7
<input type="checkbox"/>	Main Street	2
<input type="checkbox"/>	Meadowcreek Drive	12
<input type="checkbox"/>	MLK Boulevard	7
<input type="checkbox"/>	Alpha Road	11



On-Street Bikeway Implementation



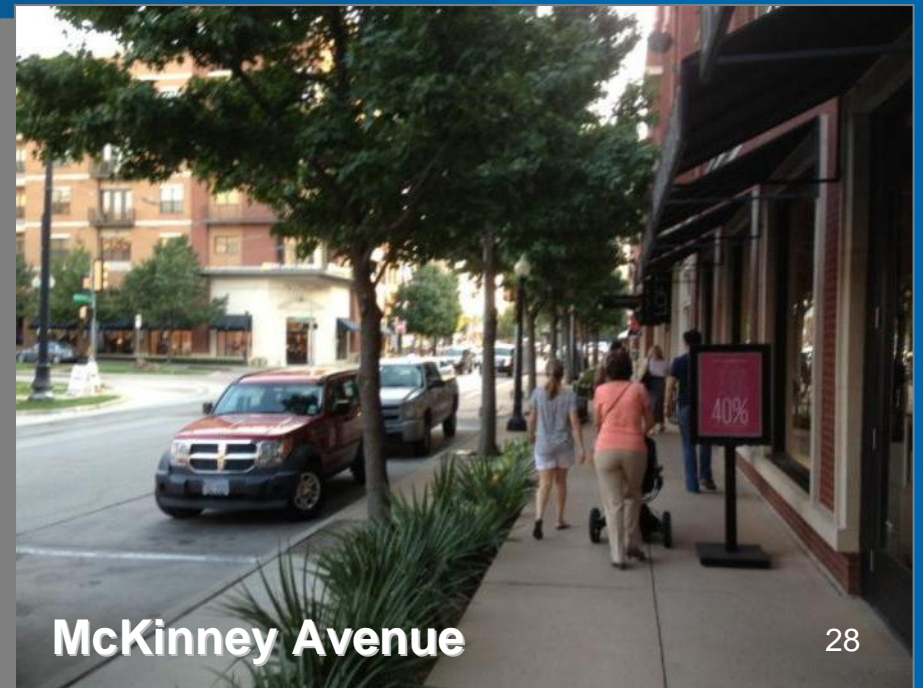
Operation And Maintenance

- *Complete Streets will introduce new operation and maintenance considerations:*
 - *Need for maintenance of enhanced pedestrian, bicycle facilities and landscaping*
 - *Need for creative solutions through public-private partnerships*
 - *Need for testing, monitoring and evaluation through ongoing pilot projects*

Implementation Opportunities

Private Development Projects

- ❑ *Opportunity for incremental improvements along street frontages*
- ❑ *Code amendments will be necessary to facilitate more widespread implementation through private development*
- *Zoning and subdivision regulations*
- *Regulations for use of City right-of-way*



Implementation Strategies

- ***Adopt the Complete Streets Design Manual by Council resolution***
- *Task a staff team with leadership, resources and responsibility for Complete Street policy implementation across departments*
- *Enhance inter-departmental coordination on street improvement projects*
- *Implement Thoroughfare Plan amendments*
- *Amend related policies and regulations for consistency and linkage to the Complete Streets manual*
- *Explore alternative funding mechanisms for Complete Streets capital, operation and maintenance costs*
- *Expand Dallas' current offering of neighborhood-initiated street improvement programs to incorporate new design options and considerations*
- *Initiate a monitoring & evaluation program to assess effectiveness of complete street improvements*

Design Manual

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Design Manual

APPENDIX

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FIVE REASONS WHY THE CITY OF DALLAS SHOULD ADOPT A COMPLETE STREETS POLICY

Benefits the Elderly, Disabled and Child



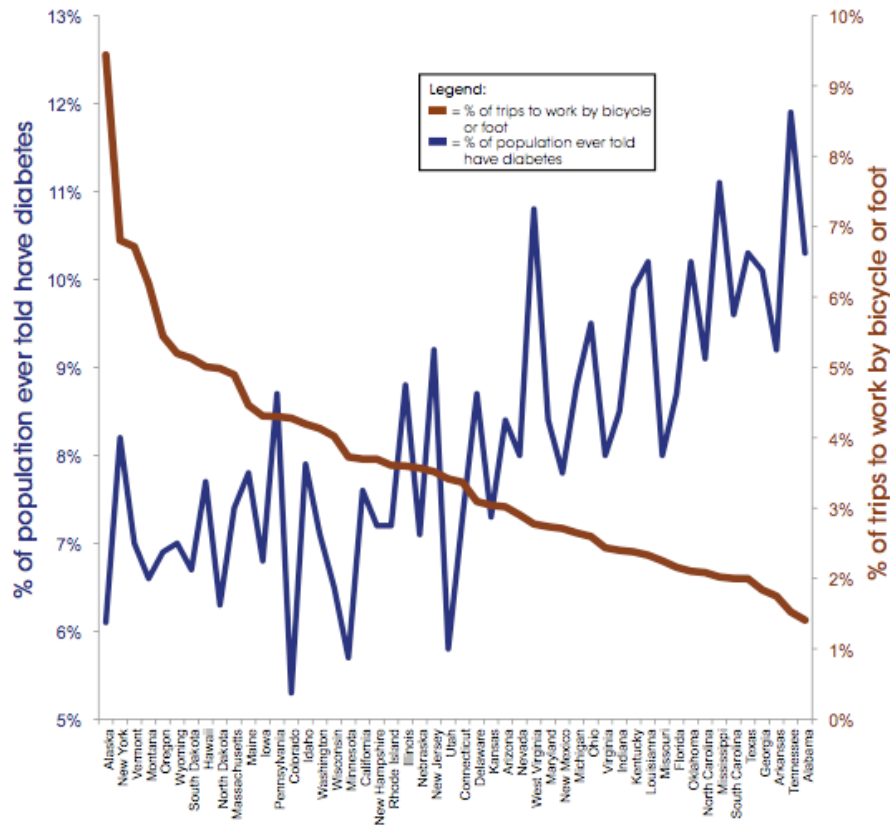
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Twenty (20) percent of Americans have a disability that limits their daily activities and more than 1/3 of our children are obese.

- Complete streets reduce isolation and dependence, and provides space to help children be physically active and gain independence.

Benefits Long Term Health

Comparing Bicycling and Walking to Diabetes Rates in 50 States



2.

States with the lowest levels of biking and walking have, on average, the highest rates of obesity and diabetes. Complete streets promote a healthy lifestyle.

Lowers Transportation Costs



3.

Complete Streets help lower expenses by replacing car travel with less expensive options like walking, riding bikes, and taking public transportation.

Reduces Stormwater Runoff



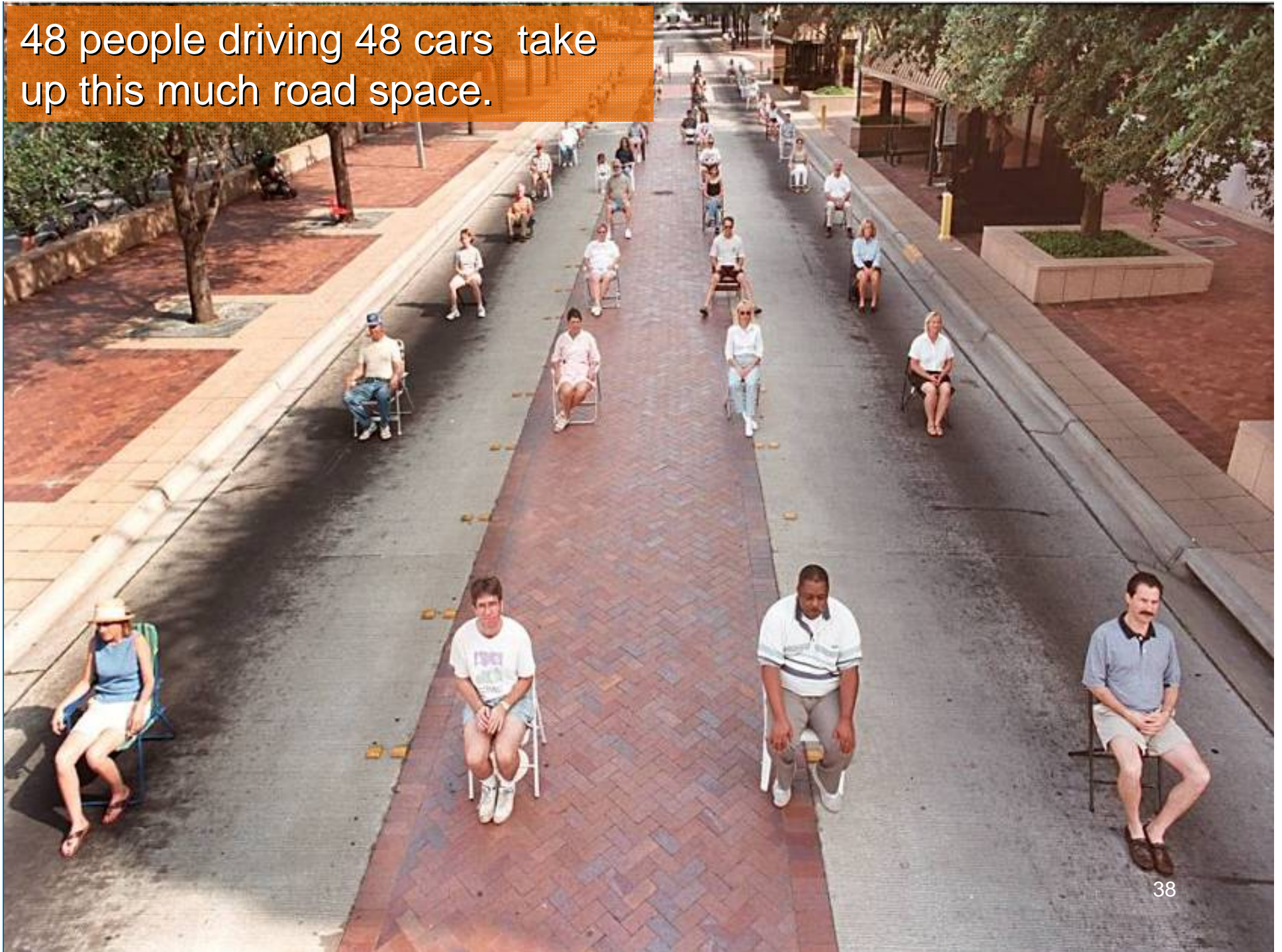
4. Stormwater may wash pollutants, sediments and trash directly into natural water resources. Complete streets help reduce and filter stormwater runoff.

Benefits Street Capacity

5.

Complete streets help move more people while using the same amount of road space.

48 people driving 48 cars take
up this much road space.





48 people in a bus or trolley take up this much road space.



Finally, 48 people walking and bicycling take up this much road

The Other Reason....

A traditional economic development tool

- Serves as a catalyst for private development
- Helps create places where people want to be
- Adds value to neighborhoods
- Promotes community support for projects

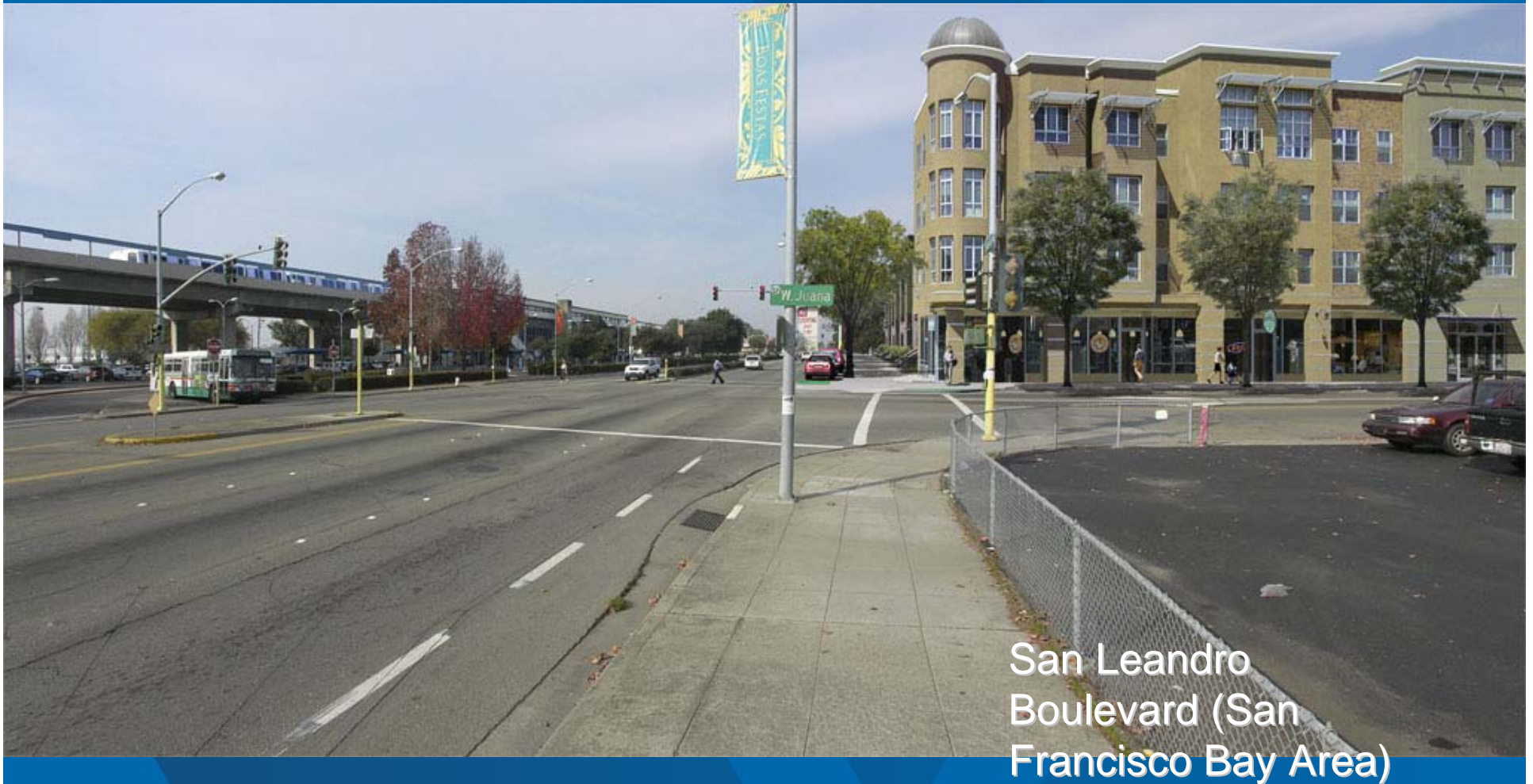
Public Investment in a Complete Street and a Catalyst Mixed Use Development



San Leandro
Boulevard (San
Francisco Bay Area)

Credit: Steve Price, Urban Advantage

Public Investment in a Complete Street and a Catalyst Mixed Use Development



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Boulevard (San
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Credit: Steve Price, Urban Advantage

Public Investment in a Complete Street and a Catalyst Mixed Use Development



Credit: Steve Price, Urban Advantage

Complete Streets as an Economic Development Catalyst

Washington, DC

Barracks Row/8th Street SE

- Public street investment: \$8 million
- Results:
 - Private investment over two (2) years: \$8 million
 - Thirty two (32) new businesses and \$80,000 in annual sales tax
 - Increased property values



Before



After

Revitalizing Corridors with Complete Streets



North Shattuck Avenue, Berkeley

Photo: Kimley-Horn and Associates, Inc.

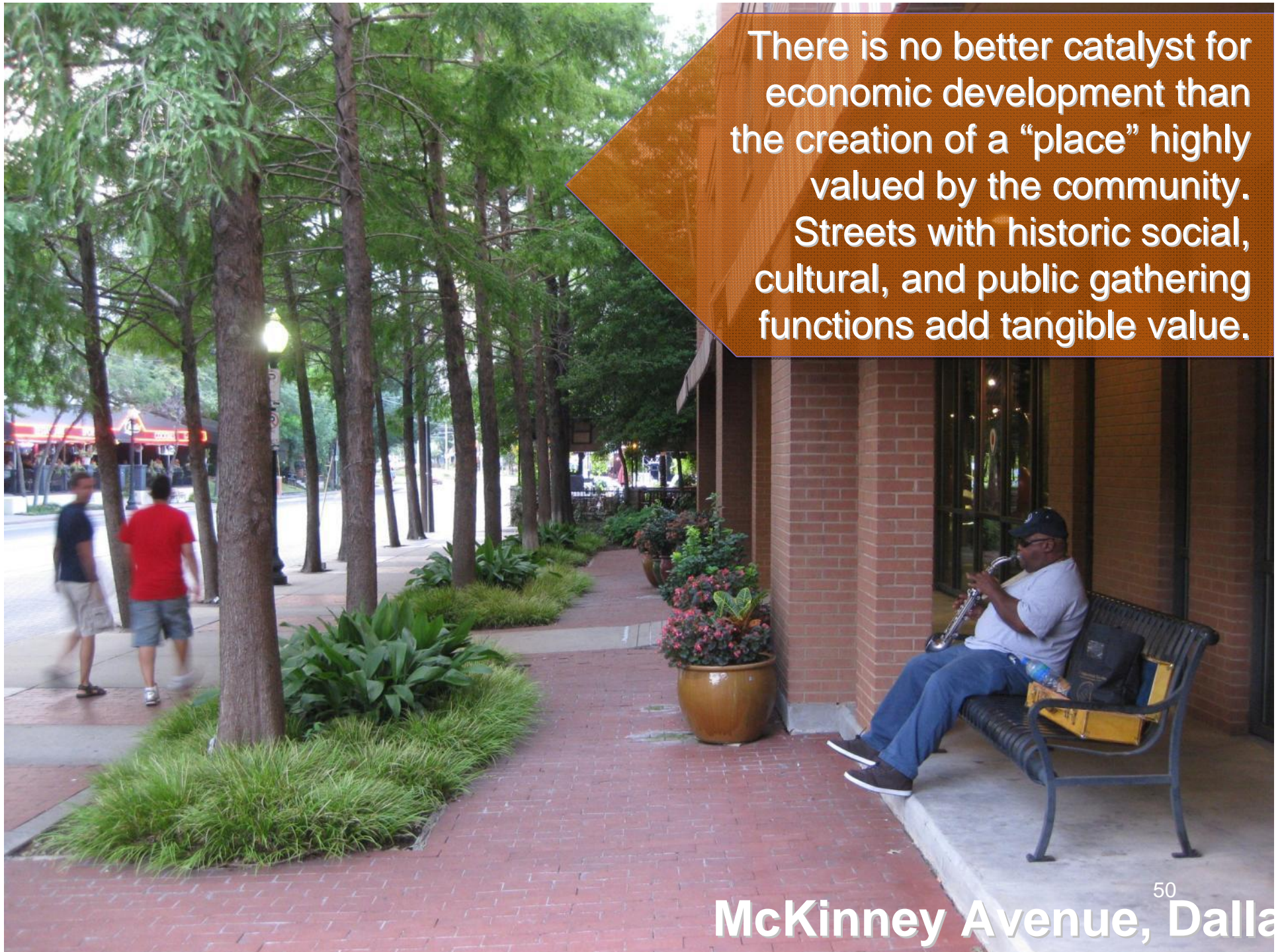
Main streets are the lifeblood of livable neighborhoods, offering a diversity of everyday needs , entertainment and opportunities for local businesses.



Attracting residents to the City Center requires “Downtown Lifestyle” streets where people can live, work, and play without using cars.



There is no better catalyst for economic development than the creation of a “place” highly valued by the community. Streets with historic social, cultural, and public gathering functions add tangible value.



McKinney Avenue, Dallas⁵⁰



In most metropolitan areas, every one-point increase in the 100-point Walk Score scale is associated with an increase in home value of \$500 - \$3,000

COMPLETE STREETS ARE NOT ALL THE SAME

Mixed-Use Street (minor)



53
Bishop Avenue

Mixed-Use Street (minor)



Bexar
Street

Mixed-Use Street (arterial)



Commercial Street (arterial)



Preston Road

Residential Street (minor)

Winnetka Avenue

57

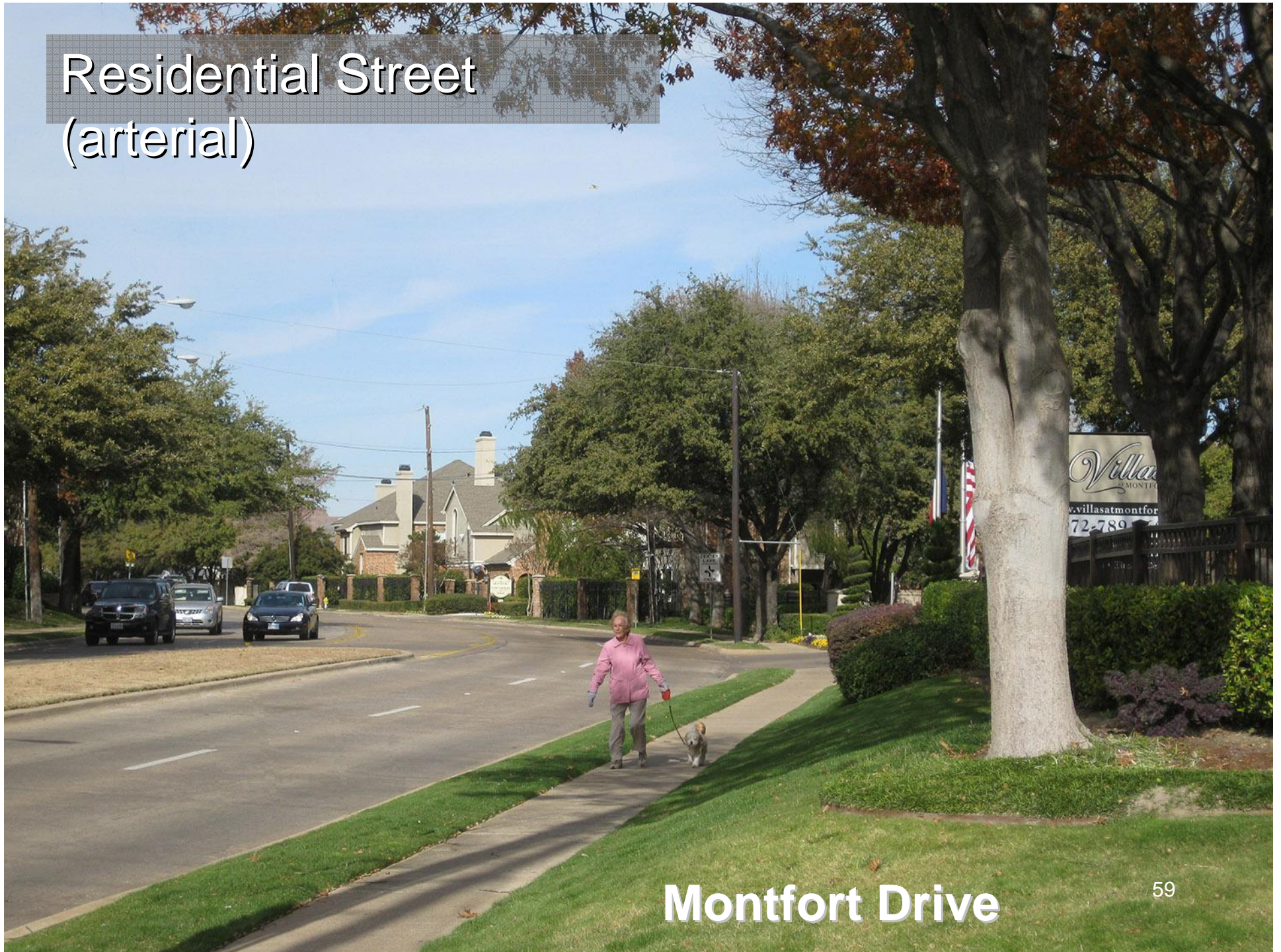


Residential Street (minor)



Clay Academy Boulevard, Capella Park

Residential Street (arterial)



Montfort Drive

Parkway (arterial)



Turtle Creek Blvd

Parkway (minor)

Blaylock Street, Oak Cliff



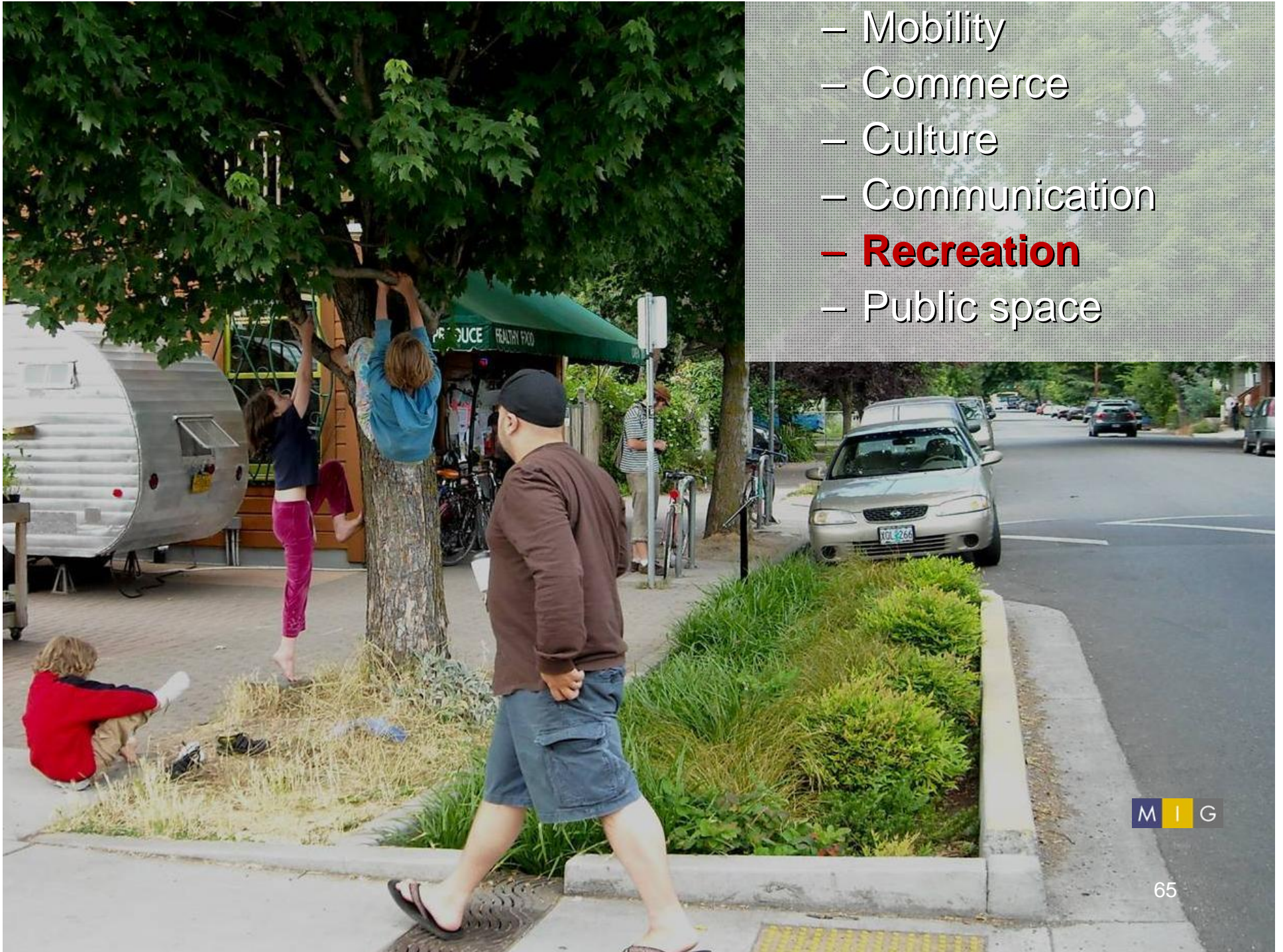
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MULTIPURPOSE STREETS: BLENDING THE HISTORIC AND THE MODERN

- 
- An aerial photograph of a public plaza. The plaza is paved with light-colored square tiles and features several trees, benches, and people. The shadows of the trees and people are cast long and dark, indicating it is either early morning or late afternoon. The plaza is bordered by a sidewalk and a road. In the top right corner, there is a semi-transparent box containing a list of terms.
- Mobility
 - Commerce
 - Culture
 - **Communication**
 - Recreation
 - **Public space**

- 
- Mobility
 - Commerce
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- Mobility
- Commerce
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- **Recreation**
- Public space





LIFE SAFETY



GOODS MOVEMENT



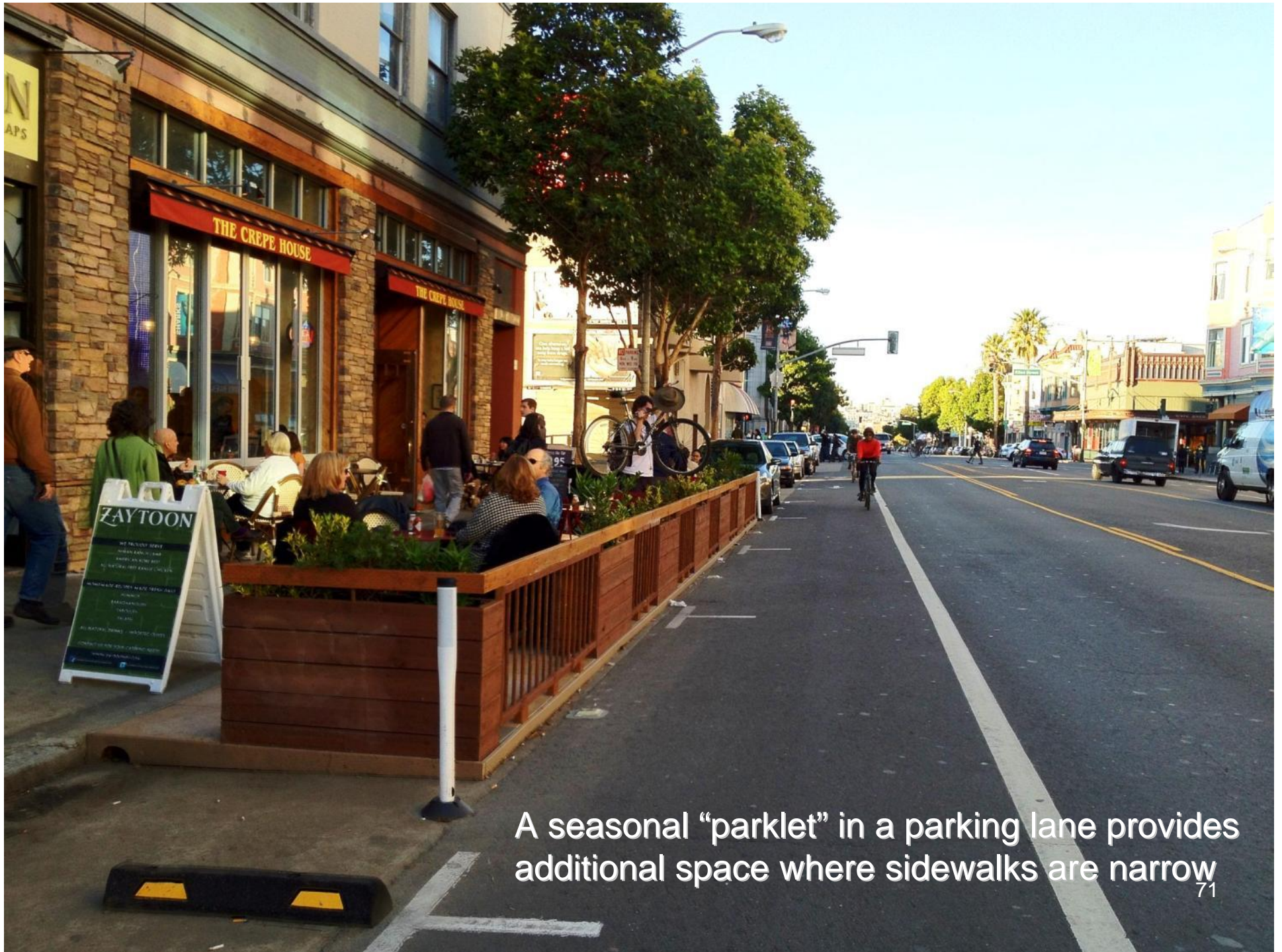
UTILITIES

WHAT ARE THE TOP THREE UNDERVALUED STREET ASSETS?

- On-street parking
- Sidewalk buffer zone
- Alleys



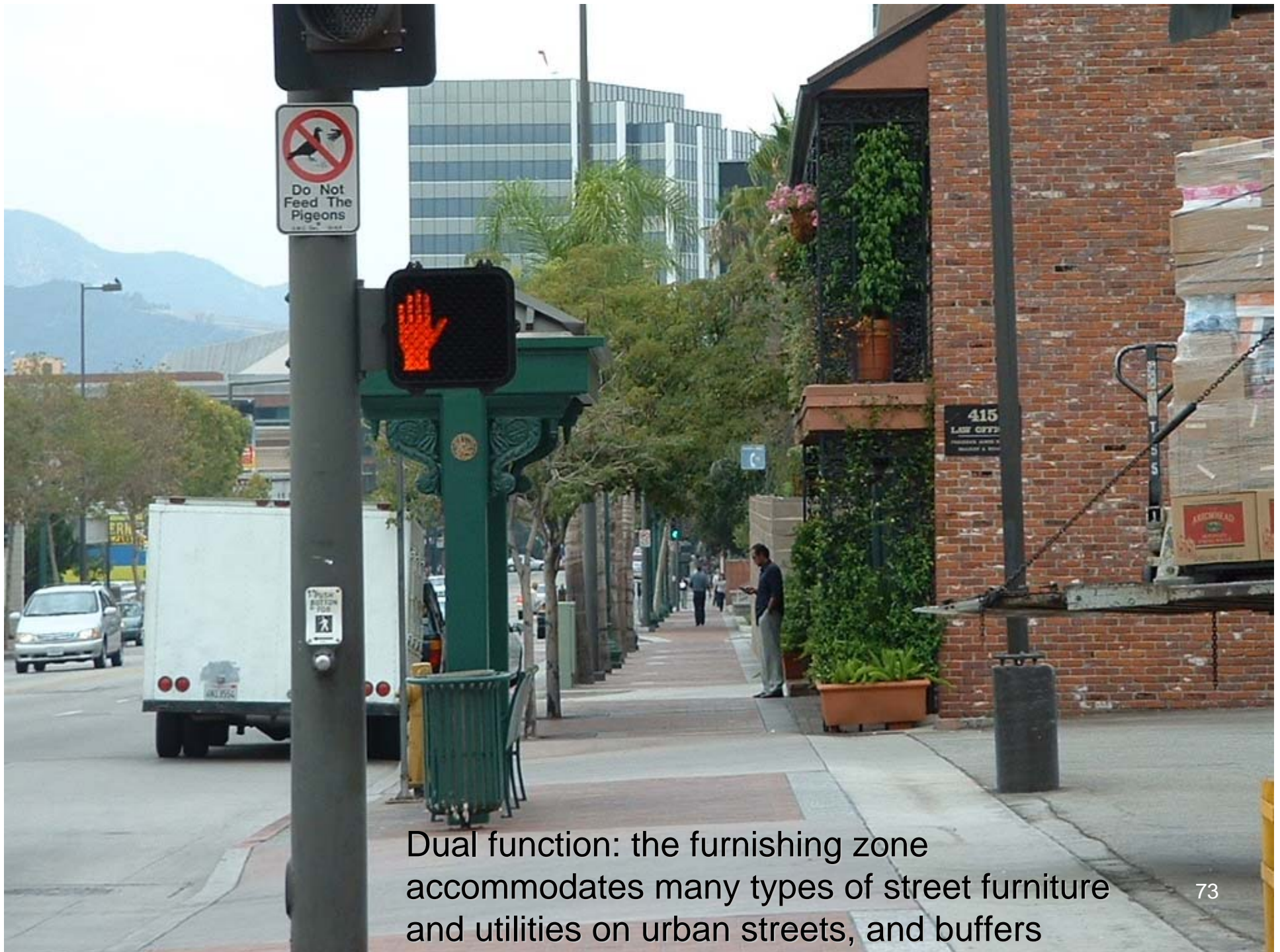
Parking lanes are valuable real estate, and essential for main streets



A seasonal “parklet” in a parking lane provides additional space where sidewalks are narrow



Tree-lined planting strip in residential neighborhood creates an effective pedestrian buffer



Dual function: the furnishing zone accommodates many types of street furniture and utilities on urban streets, and buffers



Deteriorating asphalt alley in Vancouver, Canada, converted to a “green alley”. Concrete strips can take the load of garbage trucks and fire apparatus. All other surfaces are permeable.

Photo: Ben Nelms for the National Post



Alley transformed into pedestrian walkway and urban plaza



Alley converted to restaurant seating