# The Economic and Fiscal Benefits of Walkable and Bike-able City and Town Centers

October 30, 2015





## 1. Webinar Outline



- 1. Introduction
- 2. Profiles of 7 cities
- 3. Acknowledgements and resources
- 4. Q & A



# 1. Introduction



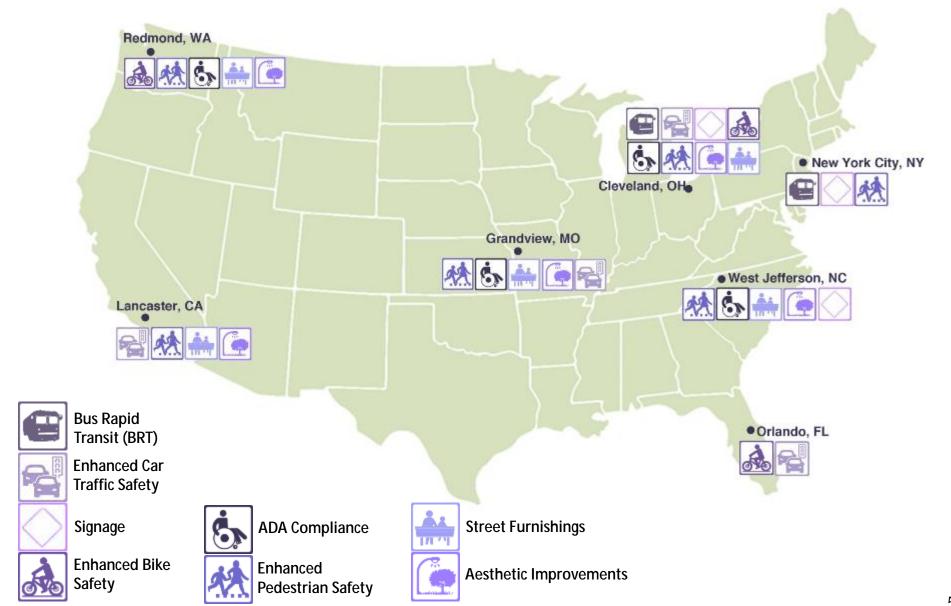




## 5. Maps \_\_\_ Case Studies with Multi Modal Features









# 6. Profiles of 7 cities

# 6. The Health Line \_\_\_ Cleveland, OH

















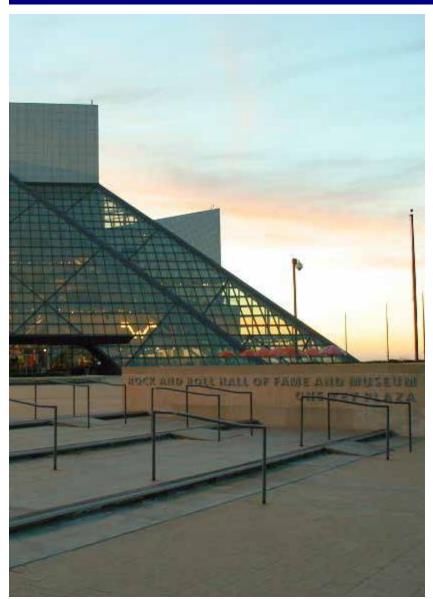




## 6. What Cleveland, OH is Known For











# 6. Case Study Boundary \_\_\_ Cleveland, OH





## 6. Project History \_\_\_ Cleveland, OH



- **n** Early 1950s: Exploration to build a subway
- n 1998: Former City mayor George Voinovich sees Curitiba's (Brazil) celebrated Bus Rapid Transportation (BRT) system
- n City leaders secured funding for a BRT system from federal and state sources, and University Hospital
- n Cleveland Clinic and University Hospitals purchased the naming rights to the new line for \$6.25 million: BRT = "HealthLine"
- n 2008: HealthLine opens
- n 2012: System's average weekday ridership was 15,800, or 67% higher ridership than the bus line it replaced







The Health Line was much more than a BRT system:

- n \$50 million spent on vehicles, stations, and platforms; \$150 million for infrastructure and street-level enhancements:
  - n Over 71% of curb parking lanes are replaced by Cleveland's 1st dedicated bike lanes and pedestrian improvements
  - Undergrounding of power lines
  - Installation of fiber-optic telecommunications cables
  - Reconstruction of water and sewer lines





The HealthLine is user-friendly

- Easy, ADA friendly bus boarding; platforms have real-time arrival information
- High service frequencies during rush hours
- **n** Off-board fare payment













For pedestrians and bicyclists . . .

- New streetlights, well lit intersections
- New sidewalks with pattern designs
- Artwork and plantings along sidewalks (\$1.2 million public art along the HealthLine)



























Artwork on the Health Line











Artwork on the Health Line

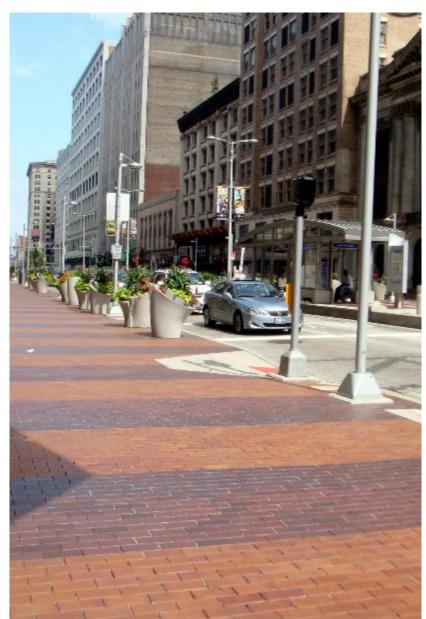




### For pedestrians and bicyclists (cont.)

- Corridor divided into 8 different districts, each having distinct designs and featuring 3 7 tree species
- Critical mass of people walking
- Cars travel at lower speeds, in fewer traffic lane
- Safe crosswalks with fewer lanes to cross



























Distinctive signage coloring in different districts along Euclid Ave.



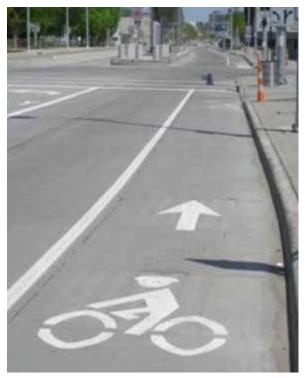
## 6. Project Features: Enhanced Bikeability \_\_\_ Cleveland, OH





New bike lanes from CSU to University Circle

- Avenue intersection in the University Circle area increased by 92 percent between 2006 to 2010
- n Bike counts tripled at Euclid Avenue and East 40th Street in MidTown during the same period









## 6. Before & After \_\_\_ Euclid Avenue in Cleveland, OH







## 6. Economic & Fiscal Benefits \_ Cleveland, OH



- Nov. 2013 ITDP study found Healthline leveraging \$114 for every transit dollar invested
- **n** Investments included:
  - n \$180 million by Cleveland State University
  - n \$500 million by University Hospital
  - n \$350 million by the Cleveland Museum of Art
  - n \$506 million by the Cleveland Clinic Heart Center
  - n \$27.2 million by the Museum of Contemporary Art





## 6. Economic & Fiscal Benefits \_\_ Cleveland, OH





#### The HealthLine is also credited with

- n Stimulating the creation of over 4,400 new residential units, and 7.9 million square feet in commercial development (GCRTA)
- Leading to the creation of 13,000 new jobs (GCRTA)
- Generating \$62 million in local taxes (GCRTA)
- Increasing property values along the HealthLine corridor by 325 percent (2006 – 2012)



## 6. Safety Benefits \_\_\_ Cleveland, OH



- Malk Score: Downtown and University Circle are now two of the three most walkable neighborhoods in Cleveland
- n HealthLine buses powered by diesel engine with an electronic transmission: Results in 97% lower particulate emissions and 75% better fuel economy (GCRTA)
- n Low polluting HealthLine buses help make for a healthier walking and biking experience along the corridor





# 6. Conclusion \_\_\_ Cleveland, OH



Lessons learned

Future projects





## 6. Project Experts \_\_\_ Cleveland, OH



#### n Thomas Bier

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# 6. Bx12 SBS FORDHAM ROAD \_\_\_ Bronx, NYC









## 6. What the Bronx, NYC is Known For









## 6. Bx12 SBS FORDHAM ROAD \_\_\_ Bronx, NYC



## 6. Project History Bronx, NYC







- Replaced limited service Bx12 in 2008
- Service Extension: Transfer opportunities to all subway lines and Metro-North lines in the Bronx
- Fordham Road corridor selected due to high demand for missing east/west connection in the borough

#### Project goals:

- Increase ridership and improve transit experience
- More efficient operation
- Improve east/west travel and transit connections



## 6. Project Features \_\_\_ Bronx, NYC



#### **Enhanced Bus Service:**

- n Transit Signal Priority (\$2M)
- n Off-board fare payment (\$4M)
- New, more efficient, ADA compliant busses
- New bus shelters





## 6. Project Features \_\_\_ Bronx, NYC

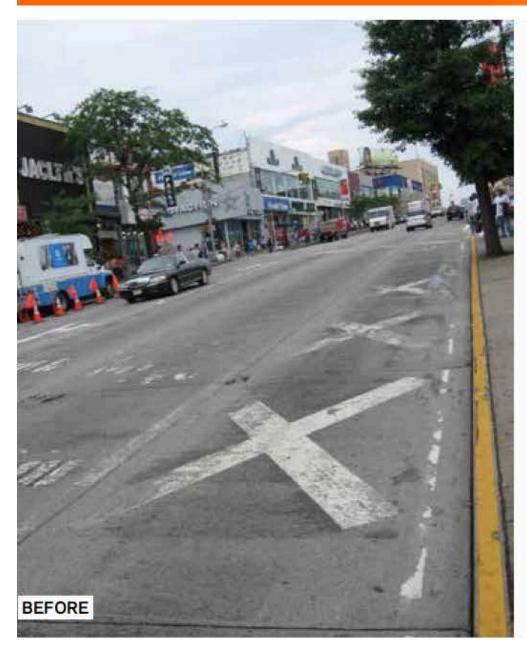


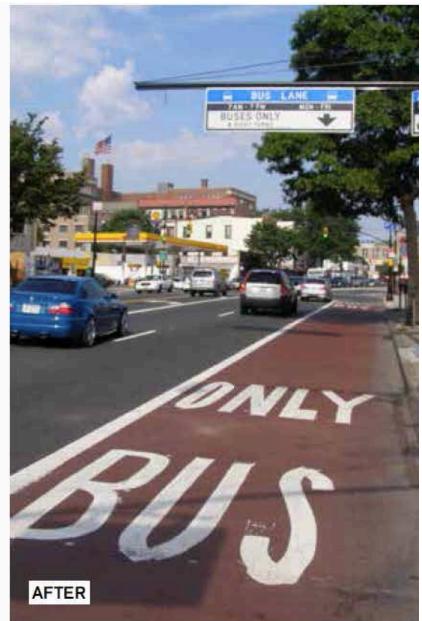
- n Curbside management: Dedicated curbside bus lanes (\$4M), parking regulations
- Intersection improvements: Cross walk markings, turning lanes



## 6. Before & After \_\_\_ Bronx, NYC







## 6. Project Costs & Funding \_\_\_ Bronx, NYC





- n \$ 10 Million (average cost for SBS project implementations in NYC)
- Nery low implementation costs for the 9-mile corridor

CITY	COST(\$M) Excluding buses	TRAVEL TIME CHANGE
New York, NY	\$18M	18%
New York, NY	\$10M	20%
New York, NY	\$5M	22%
New York, NY	\$6M	16%
New York, NY	\$10M	19%
Boston, MA	\$14M	17%
Cleveland, OH	\$164M	7%
Eugene, OR	\$19M	4%
Las Vegas	\$8M	35%
Los Angeles, CA	\$324M	6%
Los Angeles, CA	\$5M	29%
Los Angeles, CA	\$3M	23%
Miami, FL	\$43M	0%
Orlando, FL	\$21M	0%
	\$67M	13%

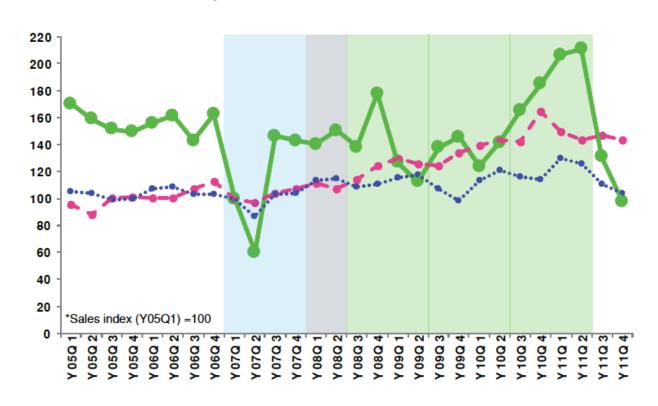
Major Bus Rapid Transit projects in the US

## 6. Economic & Fiscal Benefits \_\_\_ Bronx, NYC



#### Combined Sales: Improvement Sites vs. Comparisons Sites - Bx12 Select Bus/Fordham Road





## 6. Economic & Fiscal Benefits \_\_\_ Bronx, NYC



Area	Baseline Quarterly	Δ Sales Post-Improvement			
Improvement Site	Sales	1st Year	2nd Year	3rd Year	
Bx12	\$ 7,439,735	24%	22%	71%	
Borough					
Bronx	\$ 362,097,700	15%	12%	23%	
Neighborhood Comparisons					
Average	\$1,328,357	16%	25%	38%	
Kingsbridge	\$ 2,735,121	-24%	-36%	-34%	
Grand Concourse	\$ 661,370	22%	43%	51%	
Jerome	\$ 504,943	46%	71%	96%	
Webster	\$1,411,994	21%	24%	39%	

## 6. Economic & Fiscal Benefits \_\_Bronx, NYC



Increased revenue for bus line:

From 2007-2008:

n 30% increase in daily ridership



# 6. Other Benefits \_\_\_ Bronx, NYC



- n Saved time: Travel time has decreased by 20%
- n Higher customer satisfaction
- 98% of riders: very satisfied
- 98% dependability of fare collection machine



# 6. Conclusion \_\_\_ Bronx, NYC





Future expansions

n Based on Bx12 SBS success:

Phase II Plan: 16 corridors for future BRT development

Already implemented:

- Webster Avenue in the Bronx, and service to LaGuardia Airport from Woodside and Jackson Heights
- SBS service on 125th Street in Manhattan, also serving LaGuardia Airport



# 6. Project Experts \_\_\_ Bronx, NYC



### Matt Kroneberger

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### Carolyn Hope

City of Redmond Department of Parks and Recreation Park planning, arts, and culture manager Redmond Central Connector \_\_\_ Redmond, WA

# 6. Project Name \_\_\_ Redmond, WA









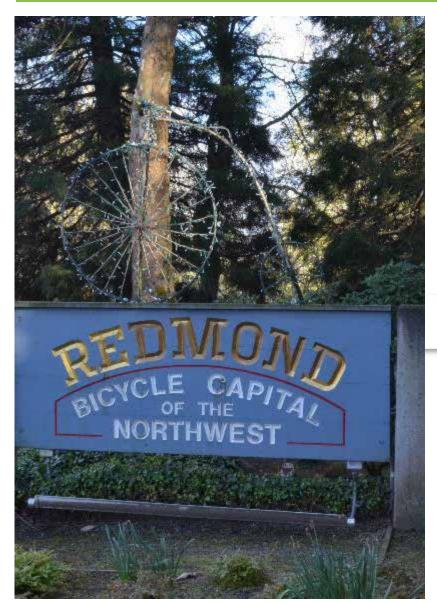




# 6. What Redmond, WA is known











# 6. Case study boundary \_\_\_ Redmond, WA





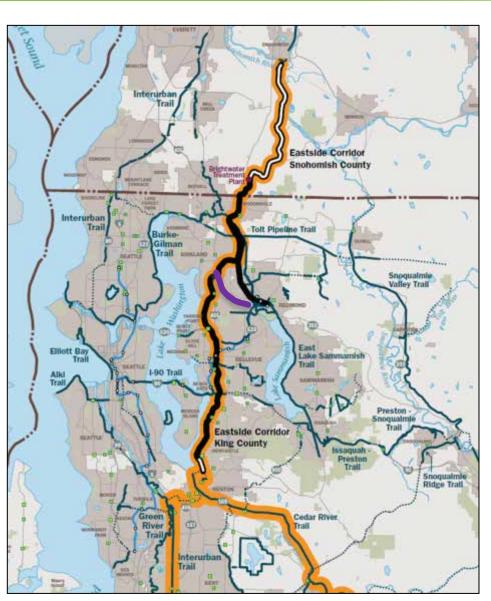












- Trail
- + Park
- + Art
- + Transit
- + Utilities
- + Roads

Redmond Central Connector

# 6. Case study boundary \_\_\_ Redmond, WA







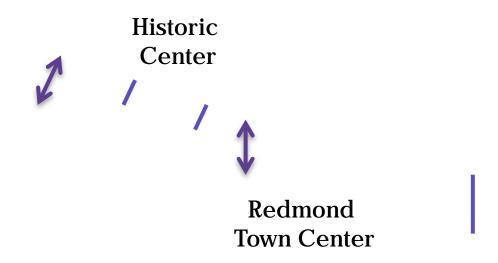












### 6. Before & After \_\_ Redmond, CA



2008 RR **Abandoned** 

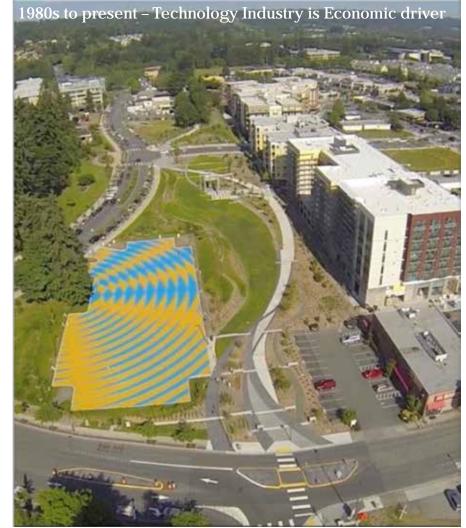
2010 Acquisition & Master Plan

2011 Stormwater Truckline & **Road Built** 

2011-2013 Design & Construct Trail

2013 Phase I of Trail Open!





# 6. Project features \_\_\_ Redmond, WA



- Improve pedestrian and bicycle culture
- Integrated art and park design
- n Leader in design quality for redevelopment







# 6. Project features \_\_\_ Redmond, WA







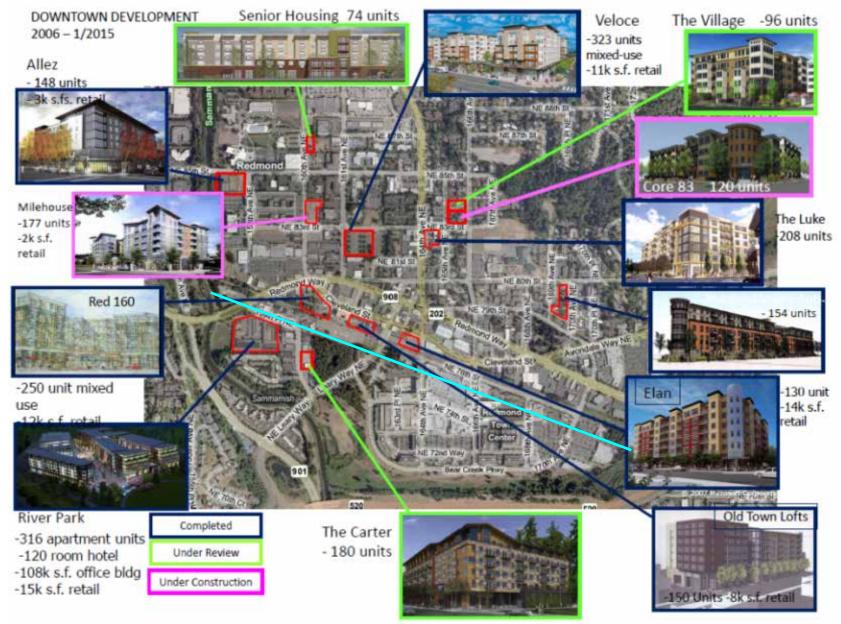




Integrated artwork in plazas for everyday respite or community events

# 6. Economic & Fiscal Benefits \_\_\_ Redmond, WA





# 6. Economic & Fiscal Benefits Redmond, WA





"The mixed-use, pedestrian corridor here has made a very dynamic retail environment that helped justify our investment."

Ben Friedman, Co-Founder and CEO of Homegrown sandwich shop

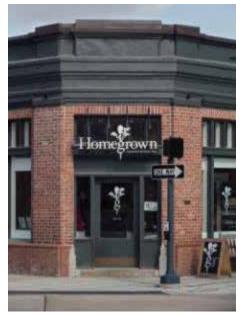
"We selected to come into Redmond mainly for the redevelopment that the city of Redmond did. Being close to Microsoft, just a couple miles away, all the new apartments and condominiums that are coming in here, and just the walkability of the city...has been great for us and we would do it all over again."

Keith Mourer, Co-Owner of Tipsy Cow Burger Bar

n "We came to Redmond because we were looking for a park setting. It had a great community, it had a good business plan, and we looked around, we had a lot of west side companies already here... and when we saw that, we thought, it's a good match. We're from Green Lake, and we had this real community feeling with a park next to us, and this is the first time we came to some place that really had that."

Chet James, owner of Super Jock and Jill





# 6. Other Benefits \_\_\_ Redmond, WA



n Culturen Communityn Tourism









### 6. Conclusion \_\_\_ Redmond, WA



### **Next Steps**

- n Phase 2 1.3 miles of trail to begin construction in 2015-
- **n** Phase 3 1.6 miles of trail (completion of Redmond Segment) not currently funded
- Prepare for East Link Light Rail (~2025)

Synch Programming with new adjacent projects:

- n Cleveland Street Redevelopment
- New Downtown Park





# 6. Project Experts \_\_\_ Redmond, WA



### n Carolyn Hope

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Park planning, arts, and culture manager

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Gustavo Castro, Project Manager
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City of Orlando
Edgewater Drive \_\_\_ Orlando, FL

# 6. Edgewater Drive \_\_\_ Orlando, FL



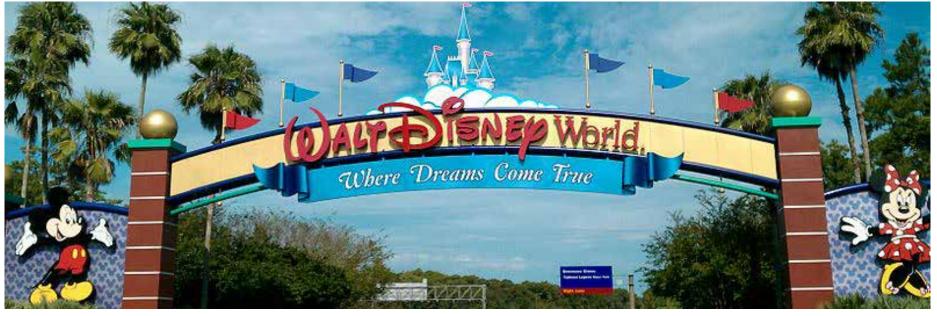




# 6. What Orlando, FL is Known For











# 6. Case Study Boundary \_\_\_ Orlando, FL



# 6. Project History \_\_\_ Orlando, FL



- **n** Edgewater Dr. is located 4 miles north of downtown Orlando
- n Response to 2000 College Park Neighborhood Horizon Plan's call for increased auto, pedestrian, and bicycle safety
- **n** Focused on 1.6 miles of Edgewater Dr. between Par and Lakeview Street





# 6. Project Features \_\_\_ Orlando, FL



- Street section converted from two travel lanes in each direction to one lane for each direction
- n Included a two-way left turn lane
- Bike lanes added on both sides of street





# 6. Before \_\_\_ Orlando, FL





# 6. After \_\_ Orlando, FL



















# 6. Before & After \_\_\_ Orlando, FL







# 6. Economic & Fiscal Benefits \_\_\_ Orlando, FL



- n 77 new businesses have opened on study area
- n During the same time, 506 new jobs have been created
- From 2000-2012, property values on Edgewater Dr. have increased by 80%



# 6. Safety Benefits \_\_\_ Orlando, FL



- n Total collisions dropped 40 %
- n Crash rate was reduced from 1 crash every 2.5 days to 1 crash every 4.2 days
- n Injuries dropped by 71 %
- Percentage of vehicles speeding was reduced at north end, middle, and south end of converted part of street



# 6. Other Benefits \_\_\_ Orlando, FL



### Change in Travel Mode

- Bicycle counts increased by 30 %
- Pedestrian counts increased by 23 %
- n On-street parking utilization increased from 29% to 41%
- Auto traffic reduced by 12% within a year following street redesign (but has since returned to pre-project level)



# 6. Other Benefits \_\_\_ Orlando, FL



Resident and Business Owner Satisfaction with Results . . .

Post-implementation satisfaction measures were assessed via resident and merchant feedback forms

Results are shown at right

(Merchants didn't think pedestrians liked the changes)

Measure of Effectiveness	Did the Re-Striping Accomplish the Objective?
Avoid Increasing Traffic On Neighborhood Streets	YES
Reduce Speeding on Edgewater Dr	YES
Increase Bicyclist Volumes	YES
Increase Pedestrian Volumes	YES
Reduce Crashes	YES
Increase On-Street Parking Use Rates	YES
Increase Pedestrian Satisfaction (Residents)	YES
Increase Pedestrian Satisfaction (Merchants)	NO
Increase Parking Satisfaction (Residents)	YES

# 6. Conclusions \_\_\_ Orlando, FL



Possible future expansions

similar planned projects

Lessons learned



# 6. Project Experts \_\_\_ Orlando, FL



### n Gustavo Castro, Project Manager

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# Brian Ludicke City of Lancaster Economic Development Planning Director The Boulevard \_\_ Lancaster, CA

# 6. The Boulevard \_\_\_ Lancaster, CA











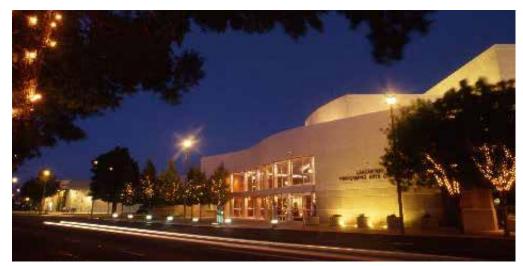


# 6. What Lancaster, CA is Known For





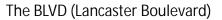




Lancaster Museum of Art and History, aerial view of city, Lancaster Performing Arts Center

# 6. Case Study Boundary \_\_\_ Lancaster, CA

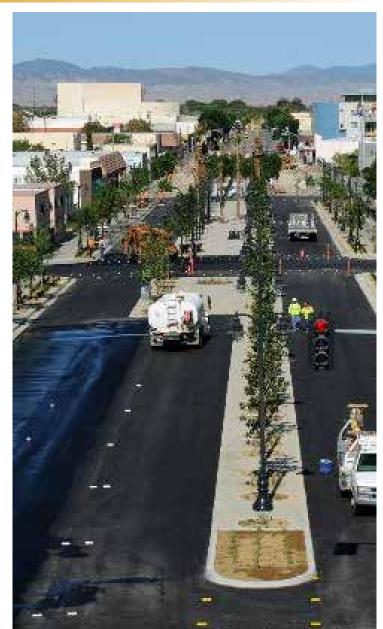




# 6. Project History \_\_\_ Lancaster, CA



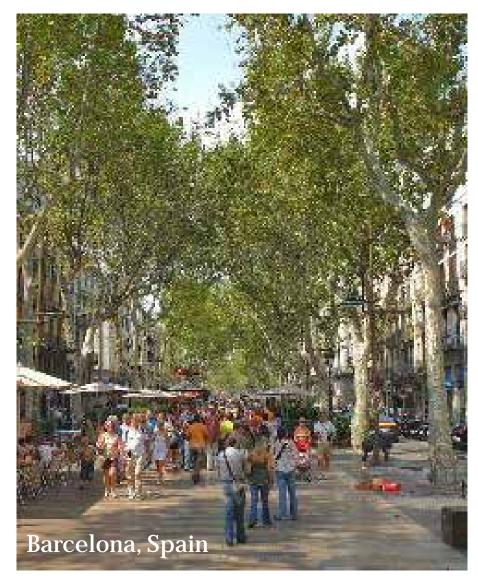
- Completion of downtown specific plan in 2008
- Nine block revitalization completed in late 2009
- n Lancaster Boulevard rebranded as "The BLVD"



# 6. Project Features \_\_\_ Lancaster, CA



#### n "La Rambla"





# 6. Project Features \_\_\_ Lancaster, CA

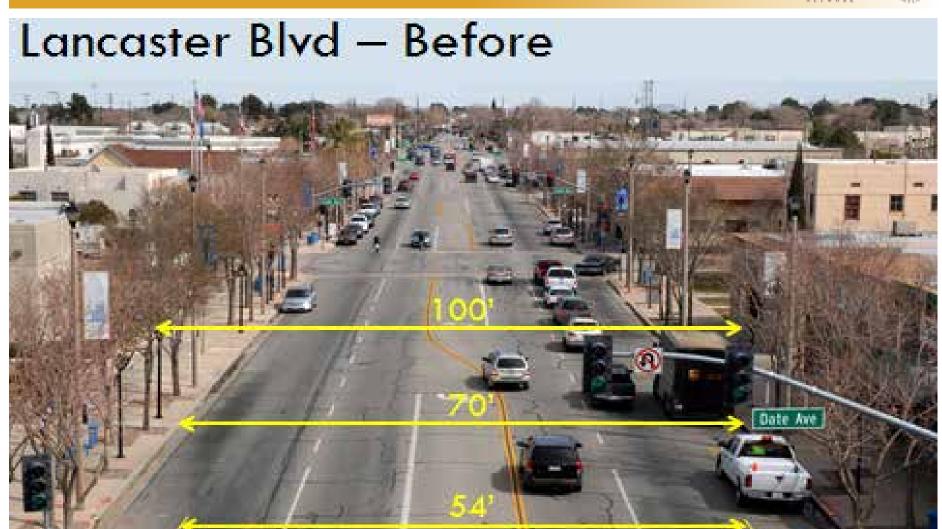


- n Traffic reduced to two lanes
- Pedestrian plaza
- n Enhanced crosswalks
- Angled parking
- n Landscaping, lighting, outdoor seating









March 2009

# 6. After \_\_\_ Lancaster, CA







# Traffic Signals

Before: 8 Signals



After: 2 Signals



#### 6. Economic & Fiscal Benefits \_\_\_ Lancaster, CA



- n \$130 million in new private development
- Nearly 50 new businesses
- Over 800 new or rehabilitated housing units
- **n** Over 145,000 s.f. of new or rehabilitated commercial space





## 6. Economic & Fiscal Benefits \_\_\_ Lancaster, CA



- n Over 800 new permanent jobs
- n 119% increase in revenue for downtown area (2007-2012)
- n 9.5% increase in property values
- n Estimated \$280 million in economic output





# 6. Other Benefits \_\_\_ Lancaster, CA



- Safety
  - n Overall traffic collisions down 50%
  - n Injury-related collisions down 85%
- n Culture
- n Community





# 6. Conclusion \_\_\_ Lancaster, CA



Possible Future expansions

n Lancaster PBID

Similar planned projects

n "Medical Main Street"



## 6. Project Experts \_\_\_ Lancaster, CA



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# Dennis A. Randolph, P.E. Director of Public Works, City of Grandview Main Street Revitalization \_\_\_ Grandview, MO

# 6. Main Street Revitalization \_\_\_ Grandview, MO















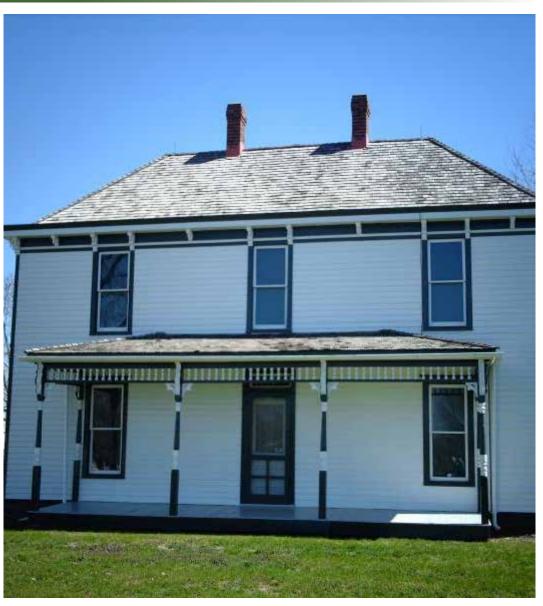
# 6. What Grandview, MO is known for





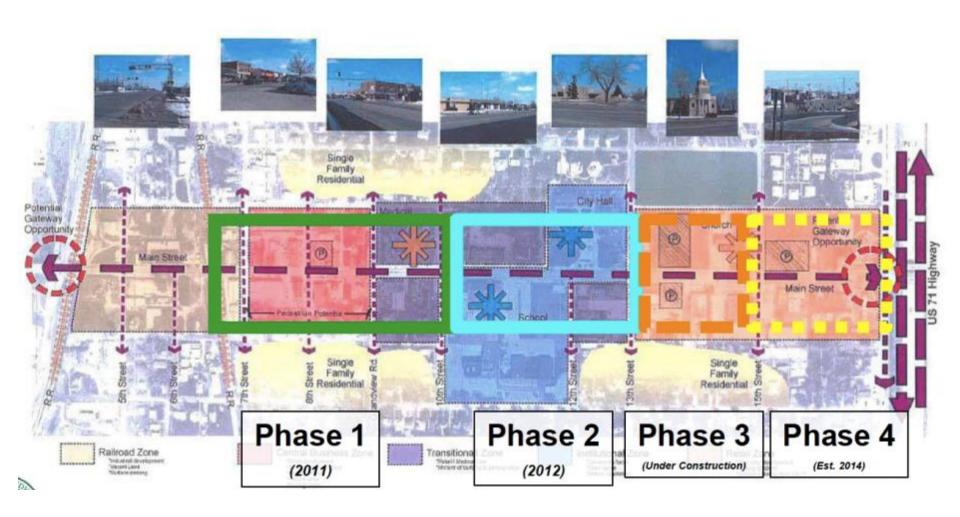






#### 6. Project introduction \_\_\_ Grandview, MO





# 6. Case study boundary \_\_\_ Grandview, MO





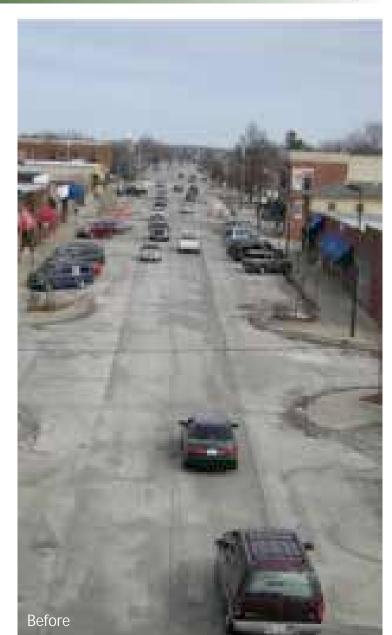
# 6. Project history \_\_ Grandview, MO





1979: I-49/71 Highway Conversion splits city into two, with limited, and dangerous crossings:

- Businesses left the city: customers cannot get there directly
- n Due to difficult access, Grandview became very unattractive for new business owners
- n Result: 2006: Main Street Revitalization Plan in 4 phases
- n Funding: 2010: Transportation sales tax. Number 1 project to be funded with tax revenues: Main Street improvements
- n 2012: Federal highway funds allow for early project start & project expansion.



## 6. Project features \_\_\_ Grandview, MO





- n Road Diet: Lane reduction from 4 to 3, Inclusion of center-left-turn lanes, Reduction of lane widths to 10 -11-feet
- n Construction of Bump-outs
- n Enhanced Sidewalks: Widening of sidewalks with aesthetic and functional improvements





## 6. Project features \_\_\_ Grandview, MO





- Aesthetic Improvements: Extensive plantings, colored concrete, two pocket parks
- Signature marking piece at street entrance
- Street Furnishings: New, decorative LED street lighting, banners, street furniture





# 6. Before & After \_\_\_ Grandview, MO



#### **Before**



#### After



# 6. Before & After \_\_\_ Grandview, MO



#### **Before**



## After



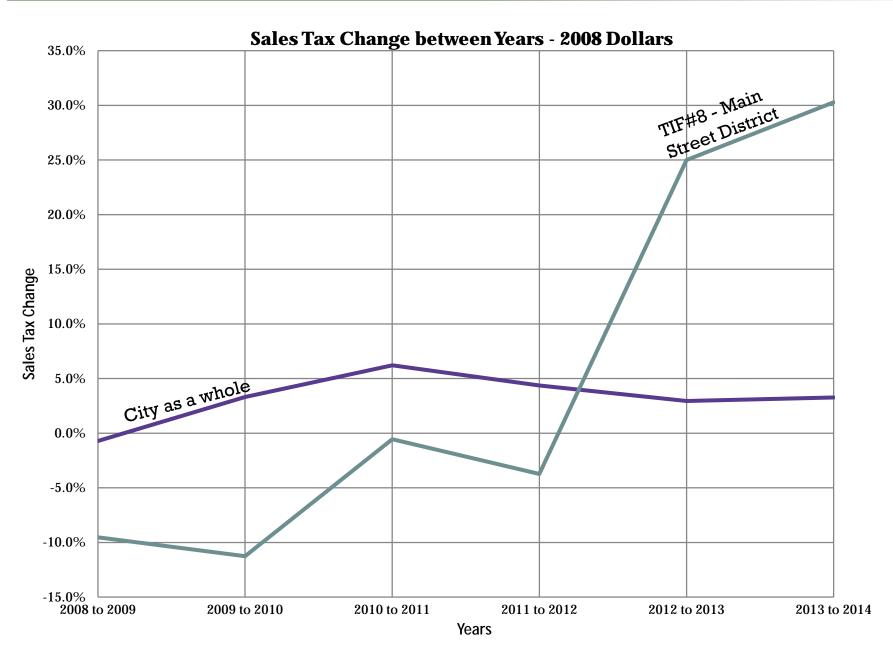
# 6. Project costs & funding \_\_ Grandview, MO



Project	Engineer's Estimate	Low Bid	Company	City Share	Federal-Aid	Miles
Main Street - Phase I	\$1,588,616	\$1,118,546	Amino Brothers	\$1,118,546	\$ -	0.17
Main Street Phase II	\$ 1,394,438	\$1,215,865	Orr Wyatt Streetscape	\$1,215,865	\$ -	0.25
City Hall Clock		\$ 27,500	City Forces	\$ 27,500		
Main Street Phase III	\$386,745	\$395,340	Amino Brothers	\$ 79,068	\$ 316,272.12	0.10
Civic Plaza	\$375,000	\$440,383	Fleshman Construction, Inc	\$ 236,212	\$ 204,170.25	
Main Street Phase IV	\$ 1,413,750	\$ 1,868,748	JM Fahey	\$ 766,023.00	\$ 1,102,725.00	0.12
Main Street Phase VII	\$1.200.000	\$1.094.355	JM Fahev	\$ 244.355	\$ 850.000.00	1.17
TOTAL	\$6,358,548	\$ 6,160,737		\$ 3,687,569	\$ 2,473,167	1.81

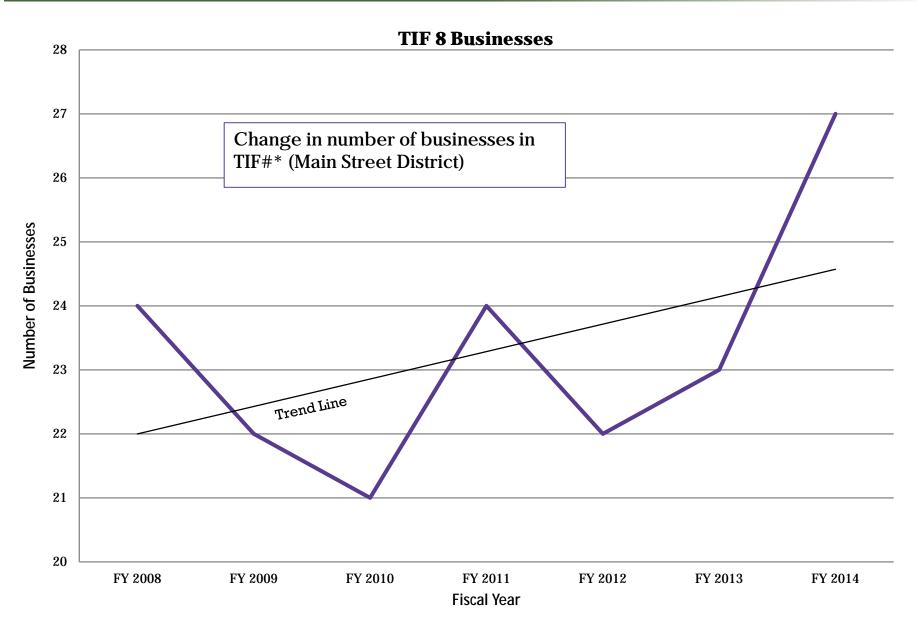
#### 6. Economic & Fiscal Benefits \_\_ Grandview, MO





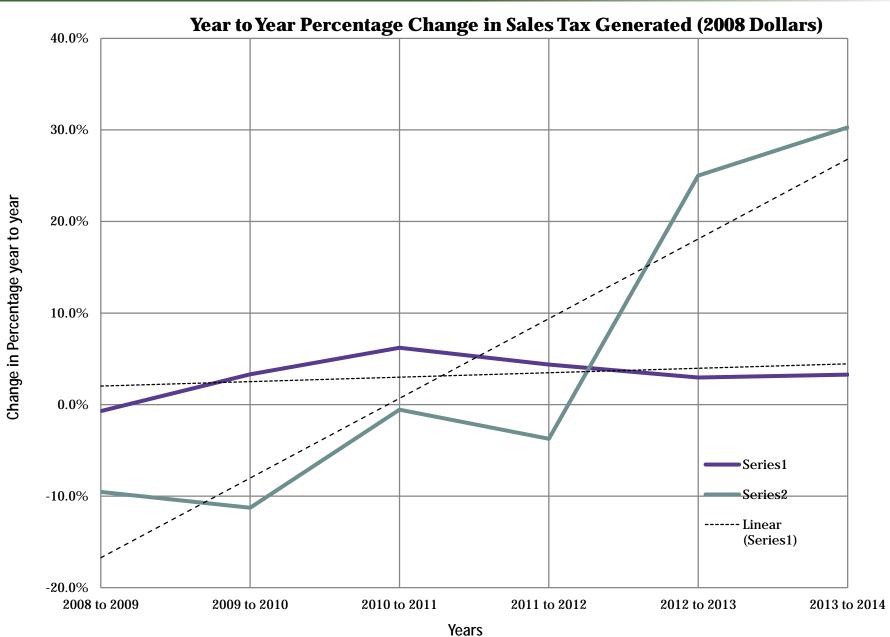
#### 6. Economic & Fiscal Benefits \_\_ Grandview, MO





#### 6. Economic & Fiscal Benefits \_\_ Grandview, MO

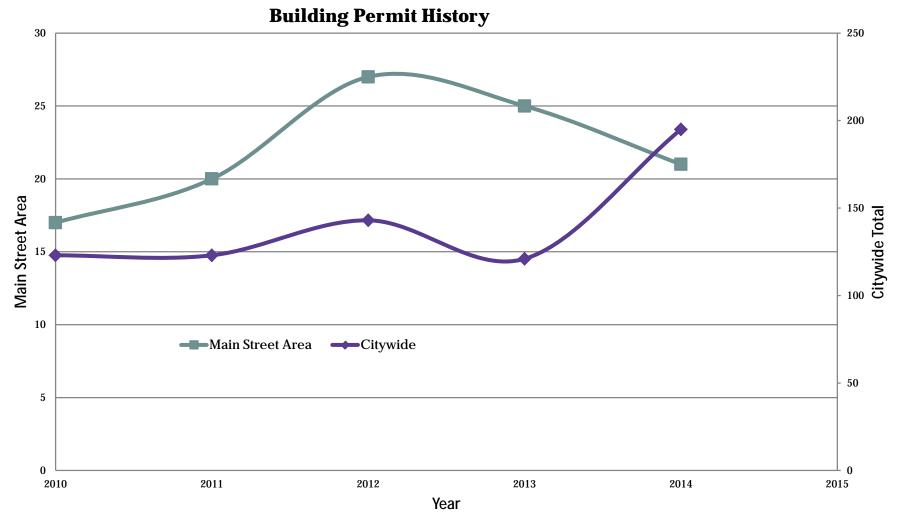




# 6. Economic & Fiscal Benefits \_\_\_ Grandview, MO







# 6. Economic & Fiscal Benefits \_\_\_ Grandview, MO





TIF # 8 Sales Tax Revenue														
FY2008 thru FY2014														
		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012	FY 2013		FY 2014	
Total Sales Tax	\$	7,428,214	\$	6,419,518	\$	5,996,293	\$	6,218,200	\$	6,318,746	\$	6,095,099	\$	5,856,360
Growth				-14%		-7%		4%		2%		-4%		-4%
TIF 8 Area Tax Generated	\$	66,364	\$	60,255	\$	52,608	\$	50,808	\$	47,834	\$	58,932	\$	75,550
Growth				-9%		-13%		-3%		-6%		23%		28%
TIF 8 # of Businesses		24		22		21		24		22		23		27
Growth				-8%		-5%		14%		-8%		5%	17%	

Annual Values Adjusted to 2008 Dollars		FY 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014	
TTL Sales Tax	\$	7,428,214	\$	7,375,452	\$	7,619,392	\$	8,093,121	\$	8,447,055	\$	8,696,325	\$	8,980,755	
TIF *	\$	66,364	\$	60,041	\$	53,281	\$	52,984	\$	51,009	\$	63,765	\$	83,071	
				08 to 09		09 to 10		10 to 11		11 to 12		12 to 13		13 to 14	
			-0.7%		3.3%		6.2%		4.4%		3.0%		3.3%		
				-9.5%		-11.3%		-0.6%		-3.7%		25.0%		30.3%	
per Business	\$	2,765	\$	2,729	\$	2,537	\$	2,208	\$	2,319	\$	2,772	\$	3,077	

#### 6. Other Benefits \_\_\_ Grandview, MO



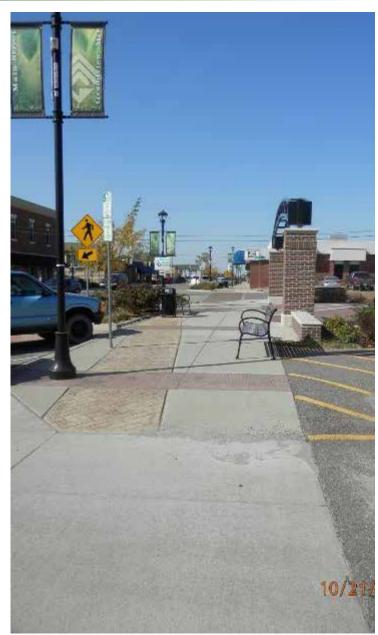
- **n** Redevelopment: Led way to redevelopment of 2 of 3 retail centers.
- Main Street Program: Associated with the Missouri Main Street program, and the National Main Street Program.



# 6. Conclusion \_\_\_ Grandview, MO



Project take-aways/ lessons learned



#### 6. Conclusion \_\_\_ Grandview, MO



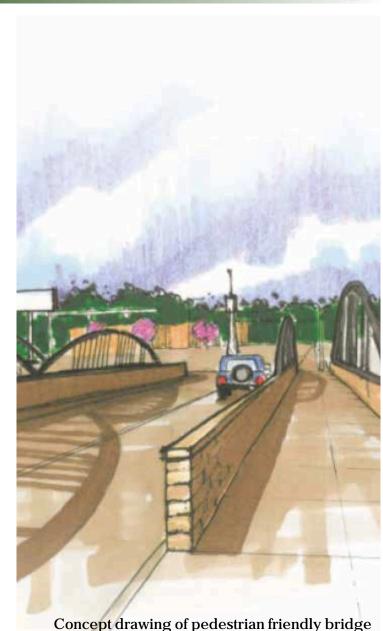


#### Future expansions

- n Phases 5-7:
- Phase 5 (Late 2016): New pedestrian friendly bridge across I-49 to reconnect the city.
- n Phase 6 (2018-2019): Complete the work across the City from city limit to city limit

Other planned future complete street developments in the city/neighborhood

- n Conversion of frontage roads (along I-49) to 2way operation as complete streets
- n Conversion of 15<sup>th</sup> Street to complete street through the Truman Marketplace redevelopment



## 6. Project experts \_\_\_ Grandview, MO





n Dennis A. Randolph, P.E.

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# Dean Ledbetter, Senior Planning Engineer North Carolina Dept. of Transportation Division 11 West Jefferson Streetscape Project \_\_\_ West Jefferson, NC

# 6. West Jefferson Streetscape Project \_\_\_ West Jefferson, NC small















# 6. What West Jefferson, NC is Known For











Art District West Jefferson, Mount Jefferson, Downtown West Jefferson

# 6. Case Study Boundary \_\_\_ West Jefferson, NC





## 6. Project History \_\_\_ West Jefferson, NC



- n 2011: NCDOT's plans for a routine resurfacing and drainage improvement project along Jefferson Avenue
- n Town negotiated with NCDOT to implement streetscape improvements to main intersection: improve safety, walkability, and aesthetics
- NCDOT funded a \$208,000 small construction project for roadway improvements in exchange for the removal of the traffic signals
- n Town contributed \$140,000 for sidewalk and streetscape improvements



## 6. Project Features \_\_\_ West Jefferson, NC





- Street Improvements: Replaced two traffic lights with four-way stop signs, diagonal on-street parking, utilities underground
- Safety Improvements: Created paved crosswalks with bulb-outs (curb extensions)
- Aesthetic Improvements: landscaping, pedestrian-scale street lighting, street furniture





# 6. Before \_\_\_West Jefferson, NC











# 6. After \_\_\_ West Jefferson, NC











## 6. Before & After \_\_\_ West Jefferson, NC





Before: Traffic light at main intersection induced many drivers to speed up as they approached the green light



After: There's no legal way to beat a stop sign. Picture taken right after 4 way stop signs replaced the traffic light and before creation of bulb-outs.

#### 6. Economic & Fiscal Benefits \_\_\_ West Jefferson, NC



- **n** 10 new businesses since improvements: 55 new jobs
- Decreased vacancy: Vacant storefronts and apartments in the downtown area dropped from 33 to 5
- Number of annual visitors increased an average of 14%
- Local leaders credit the slower traffic and improved pedestrian environment with attracting \$500,000 worth of investment to Jefferson Avenue



## 6. Safety Impacts \_\_\_ West Jefferson, NC



**%** 

- No traffic accidents at the town's main intersections in this area
- n District-wide 24 % reduction in crashes and 53 % reduction in injuries
- n \$\$ savings from fewer accidents: more than \$2.7 million in the first year after the improvements, more than 9 times the total cost of the town's expenditure on improvements



#### 6. Safety Impacts \_\_\_West Jefferson, NC





"The Town is very proud of this project. This project not only gave the Town a face lift but has substantially increased our daily foot traffic and given us an economic boost."

Brantley Price
 Town Manager, West Jefferson

"Dean,

I wanted you to know that the impacts of the bump-outs in West Jefferson are having.

I knew that they would increase pedestrian safety, but this business (Good Ole Days) is opening another business in Town because of the bump-outs.

So West Jefferson appreciates your help!

Matthew"





## 6. Conclusion \_\_\_ West Jefferson, NC



Lessons learned

Recommendations



## 6. Project Experts \_\_\_ West Jefferson, NC



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## 7. Acknowledgements and Further Resources

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Acknowledgements: Thank you to the city specialists!

The full list of our citations and photo credits can be found in the attachment of this presentation at <a href="http://smartgrowth.org/">http://smartgrowth.org/</a>

n General Questions:

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# 7. Closing Statements









# 8. Q & A









# THANK YOU!