



# Creating Complete Streets in Charlotte, North Carolina

Triangle Bicycle and Pedestrian Workshop  
May 2, 2014

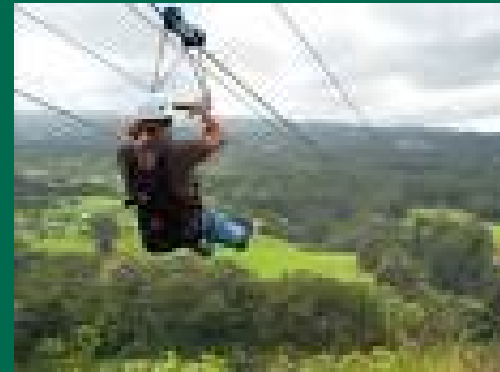
Vivian Coleman, RLA, AICP  
Center City Transportation Program Manager  
Charlotte Department of Transportation

[CHARMECK.ORG](http://CHARMECK.ORG)

There are many forms of active transportation...











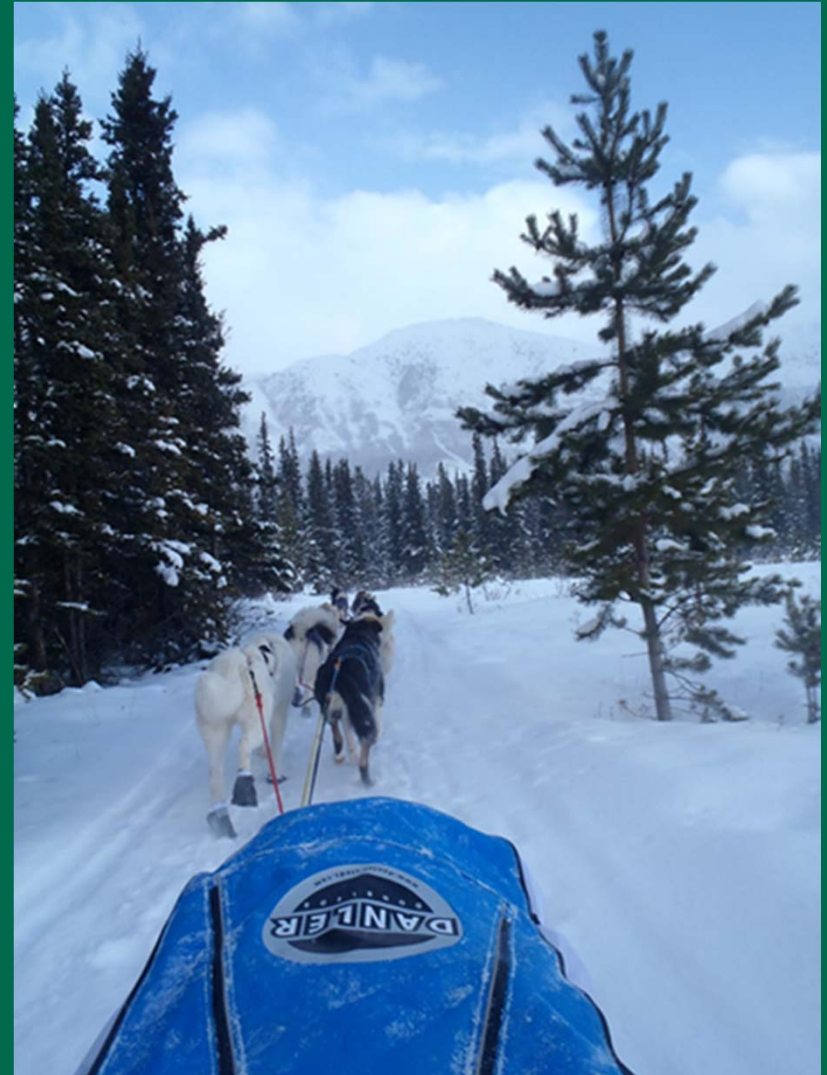
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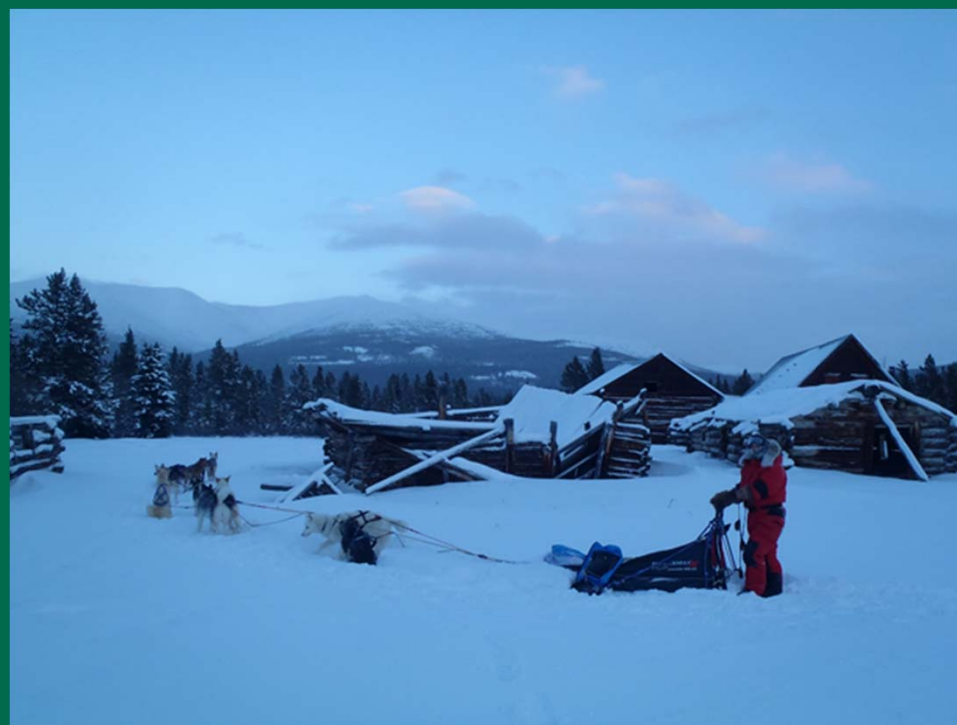




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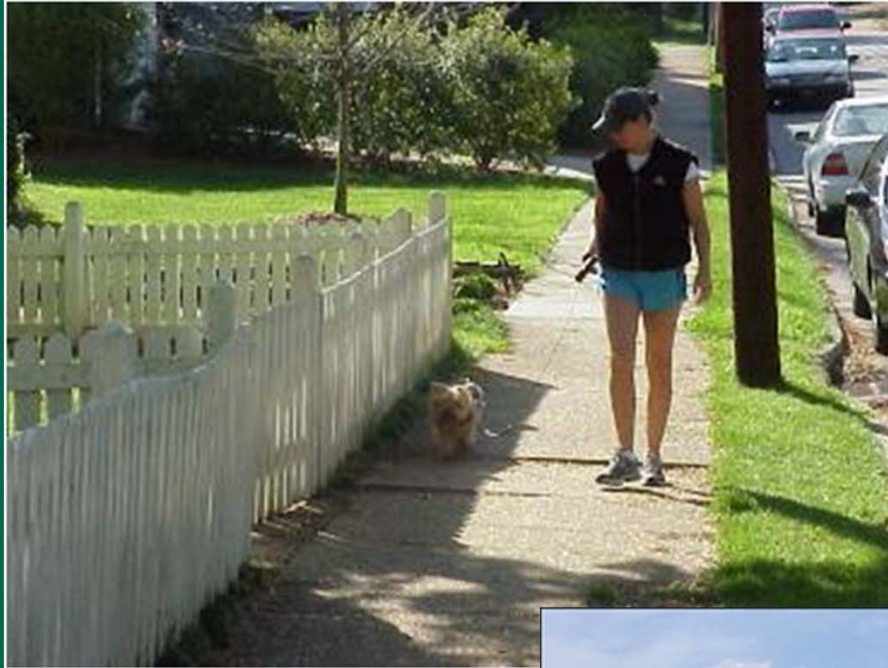


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# What about walking, biking, transit and 'motoring'?



# ...Through Complete Streets

- Safety
- Mobility
- Comfort
- Placemaking





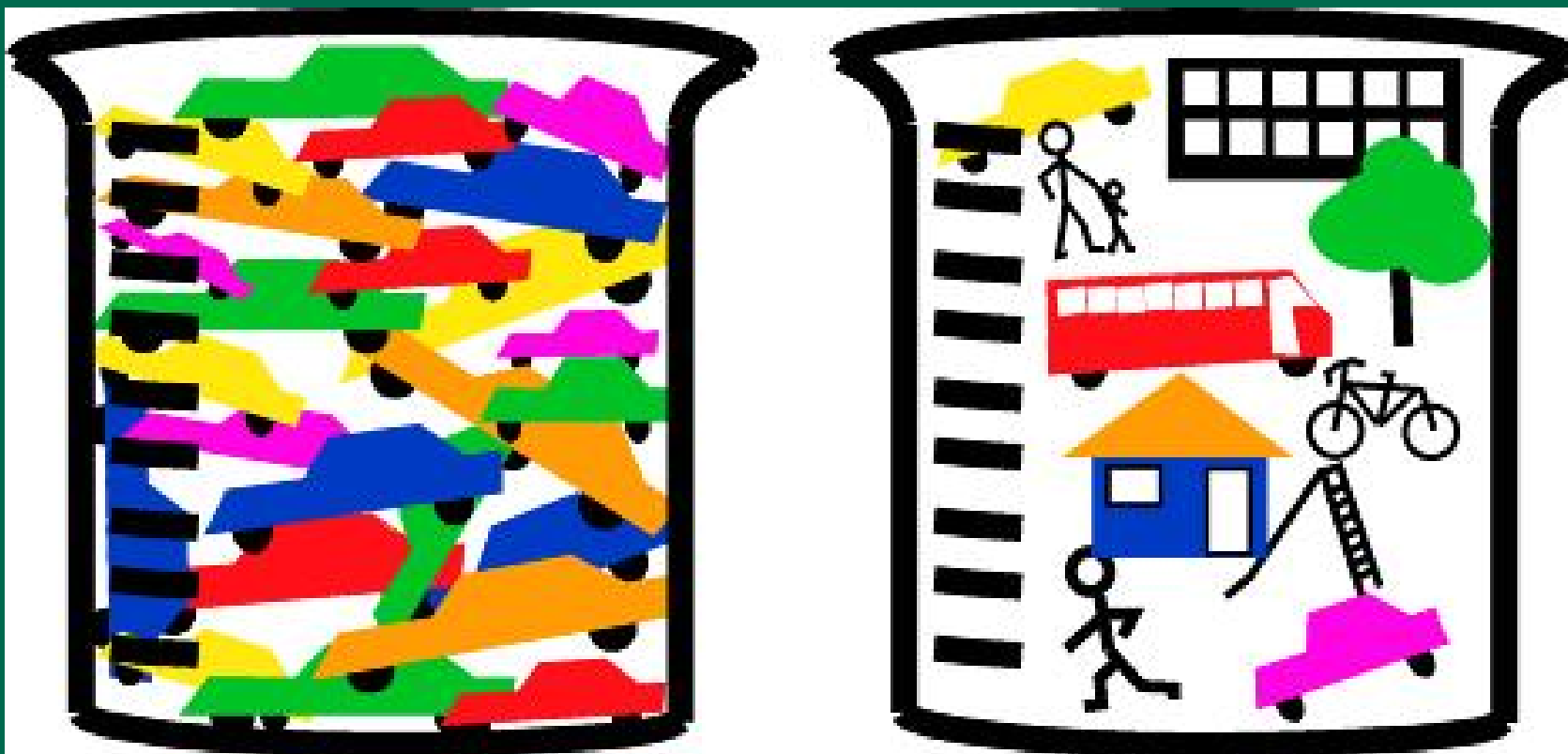


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# Why Complete Streets?



# Charlotte's Philosophy Changed...



*Transportation investments can be used to move people  
and create better places...streets can be memorable!*



# Building a Livable City – requires partnerships



*Slides by Urban Advantage*



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# Building a Livable City – requires partnerships



*Slides by Urban Advantage*

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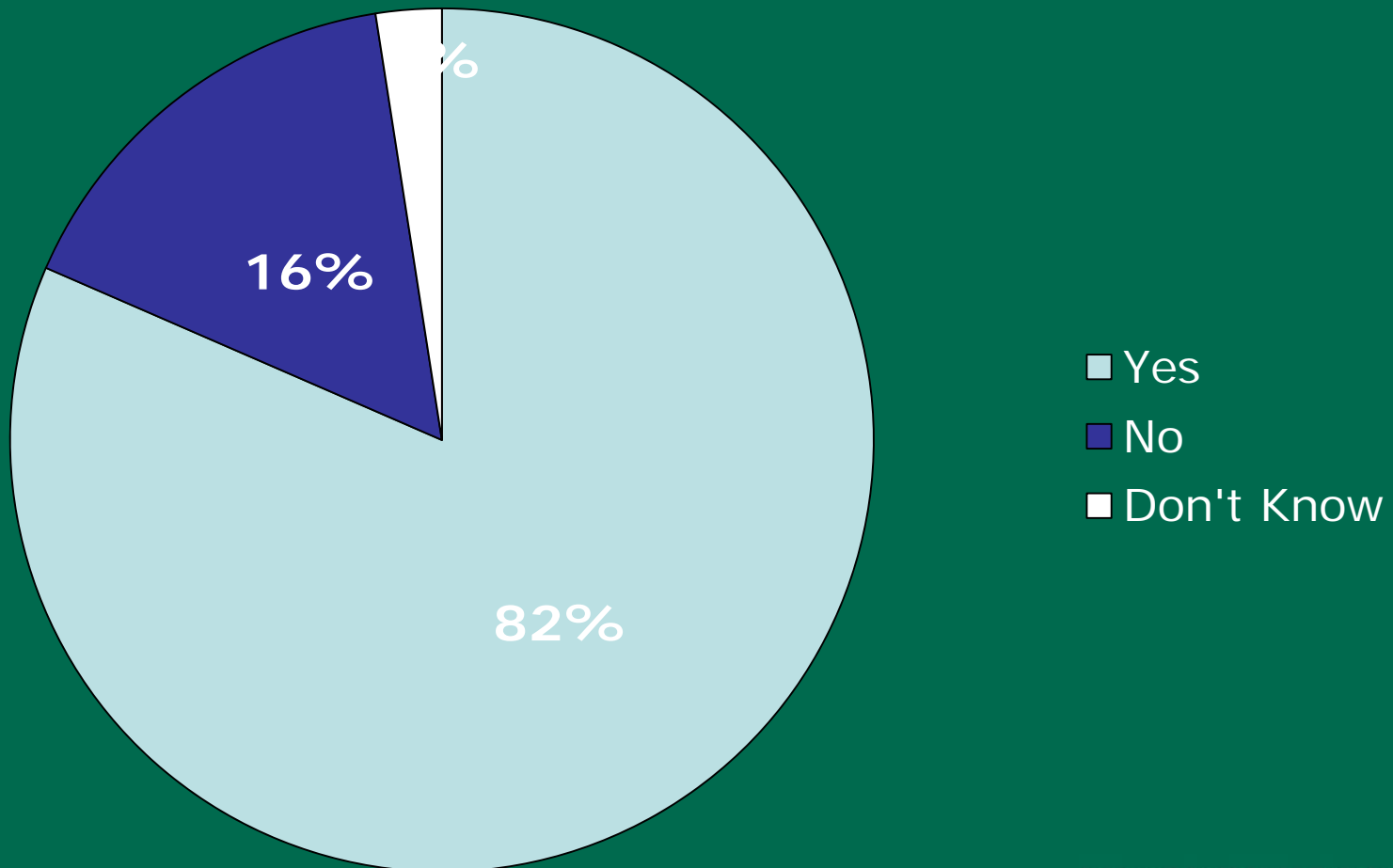
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# The "Market" Wants Livable, Walkable Communities



# Incomplete Streets: Not What People Want

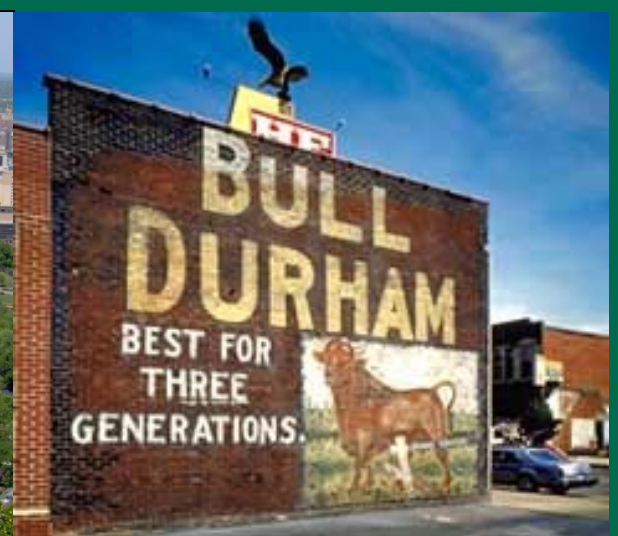
Do you believe roads should be designed to accommodate all users including motorists, pedestrians, bicyclists, and transit users?





# “They Are Coming”

- Charlotte’s projected 2010-2030 population growth equals:
  - Orlando (236,000)
  - Birmingham (230,000)
  - Durham (229,000)



*Congested Intersection  
Locations*

*(Both AM & PM)*

*Charlotte, NC*

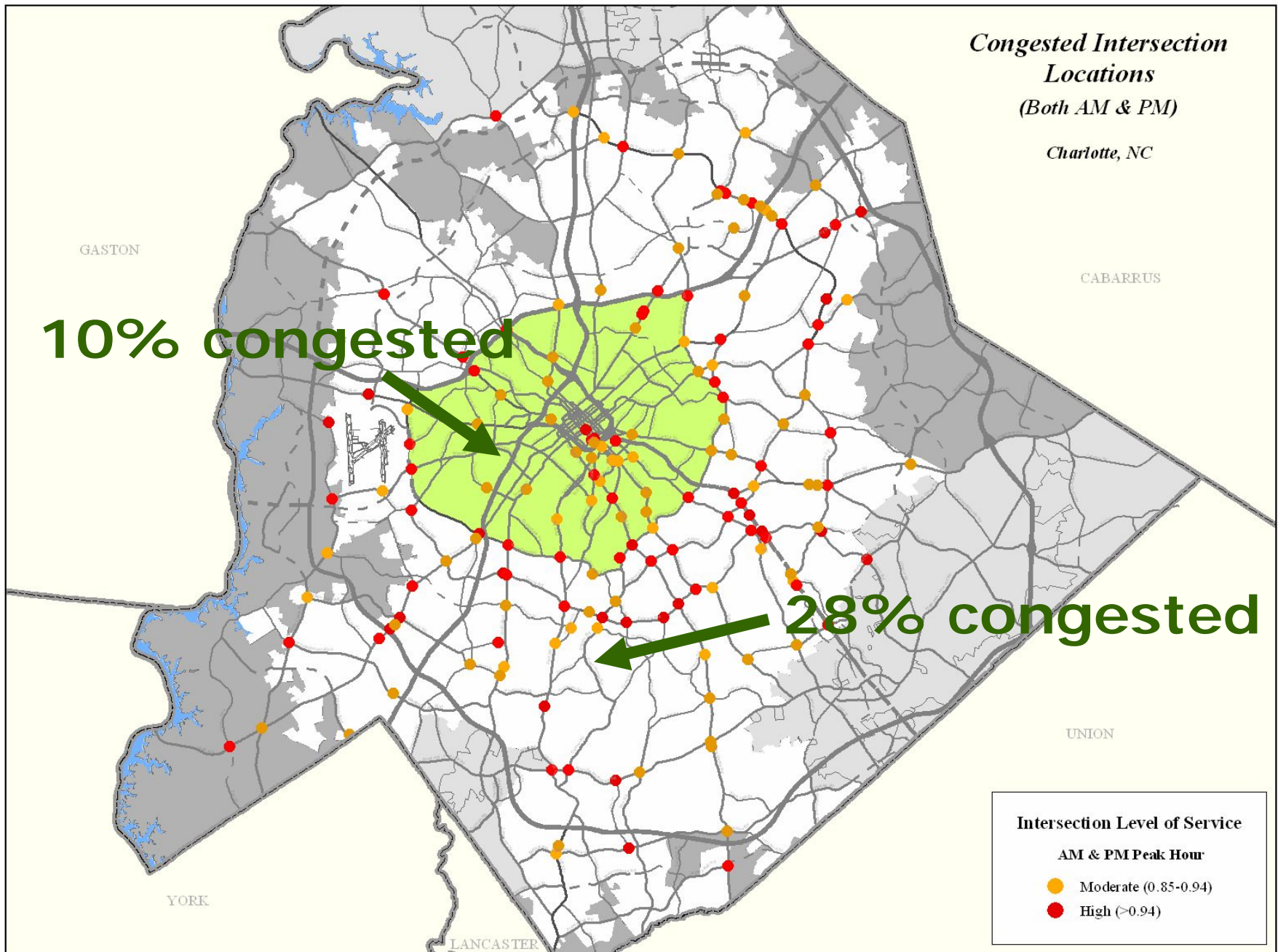
10% congested

28% congested

**Intersection Level of Service**

**AM & PM Peak Hour**

- Moderate (0.85-0.94)
- High (>0.94)







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# Streets Report Card

- ~20% thoroughfares – very congested
- ~40% thoroughfares - no sidewalks
- ~70% local streets - no sidewalks
- ~50% signalized intersections - poor pedestrian LOS
- ~95% intersections - poor bicycle LOS



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# City of Trees





# City of Walking







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# City of Bikes





# City of Great Places

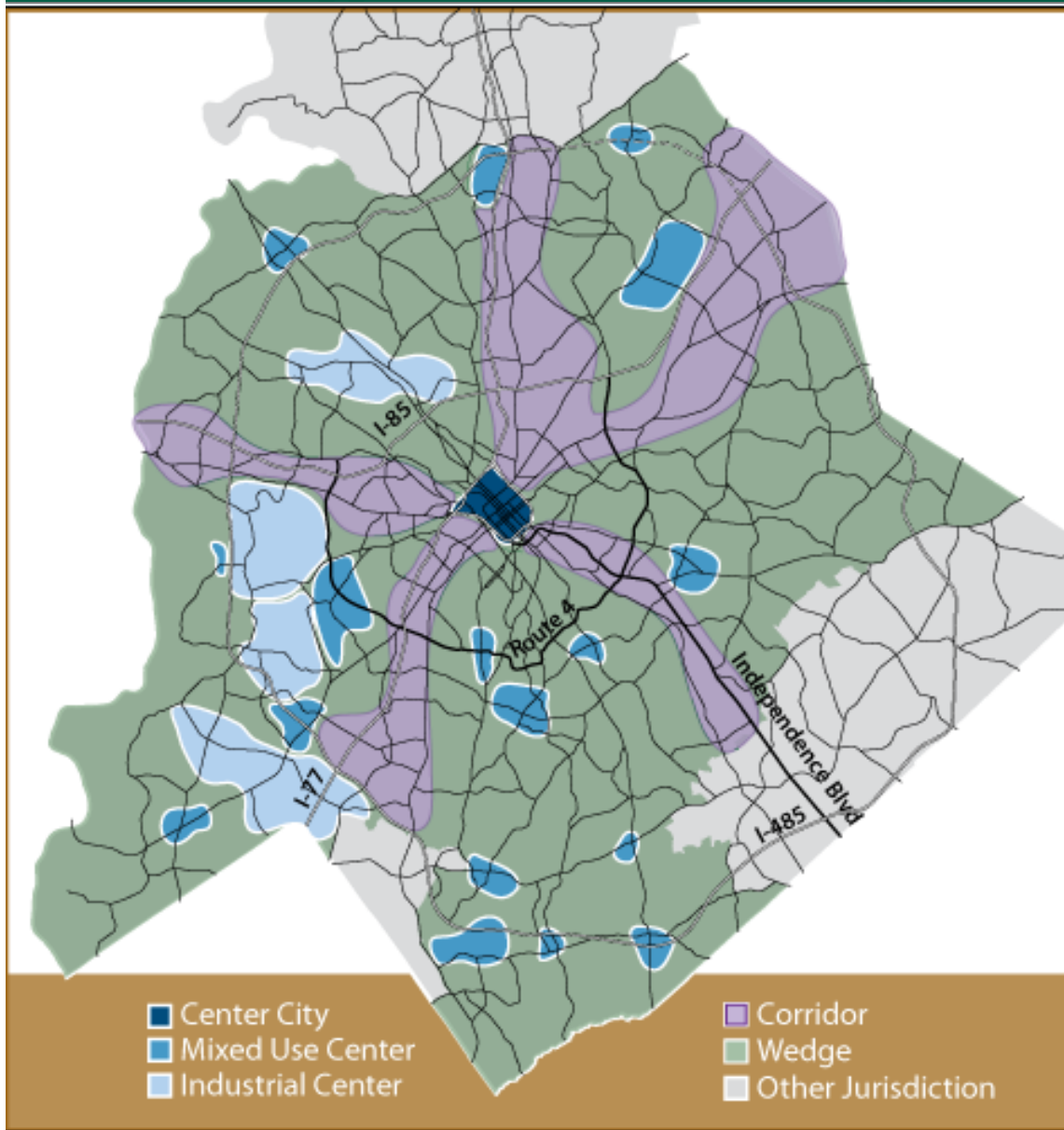






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# Goals for Charlotte and Our Streets





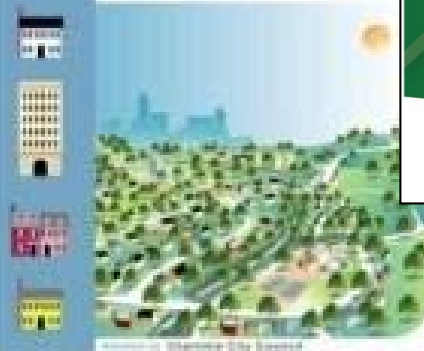
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# What Did We Do?

## URBAN STREET DESIGN GUIDELINES



## Subdivision Ordinance



Midtown

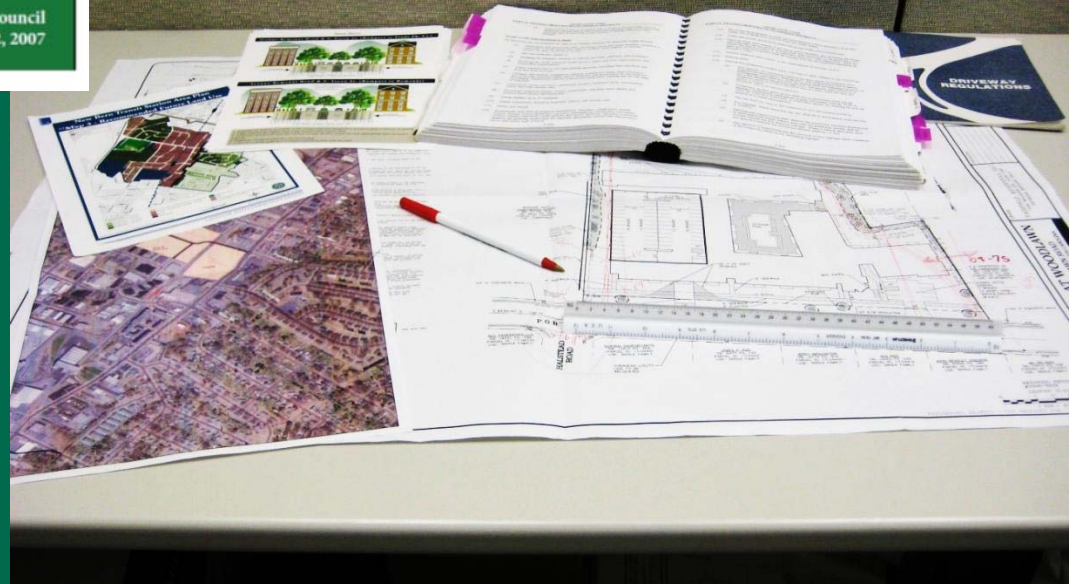
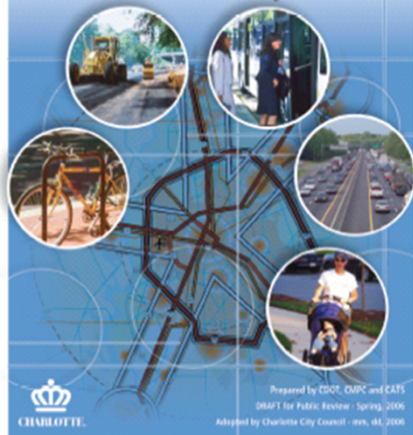
Morehead

Cherry  
area plan

Charlotte-Mecklenburg Planning Department  
Adopted by City Council  
February 27, 2012

Adopted by Charlotte City Council  
October 22, 2007

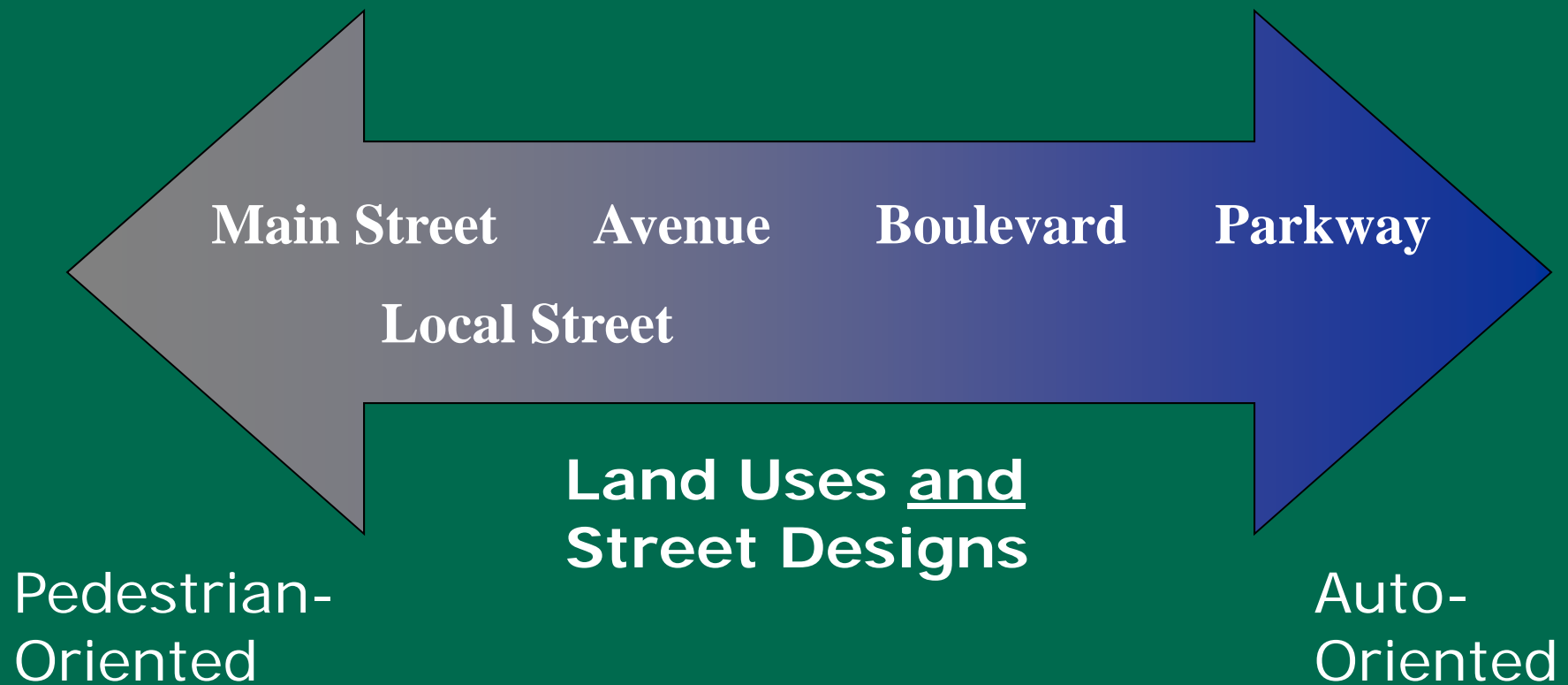
## The City of Charlotte TRANSPORTATION Action Plan Policy Document







# A Variety of Street Types

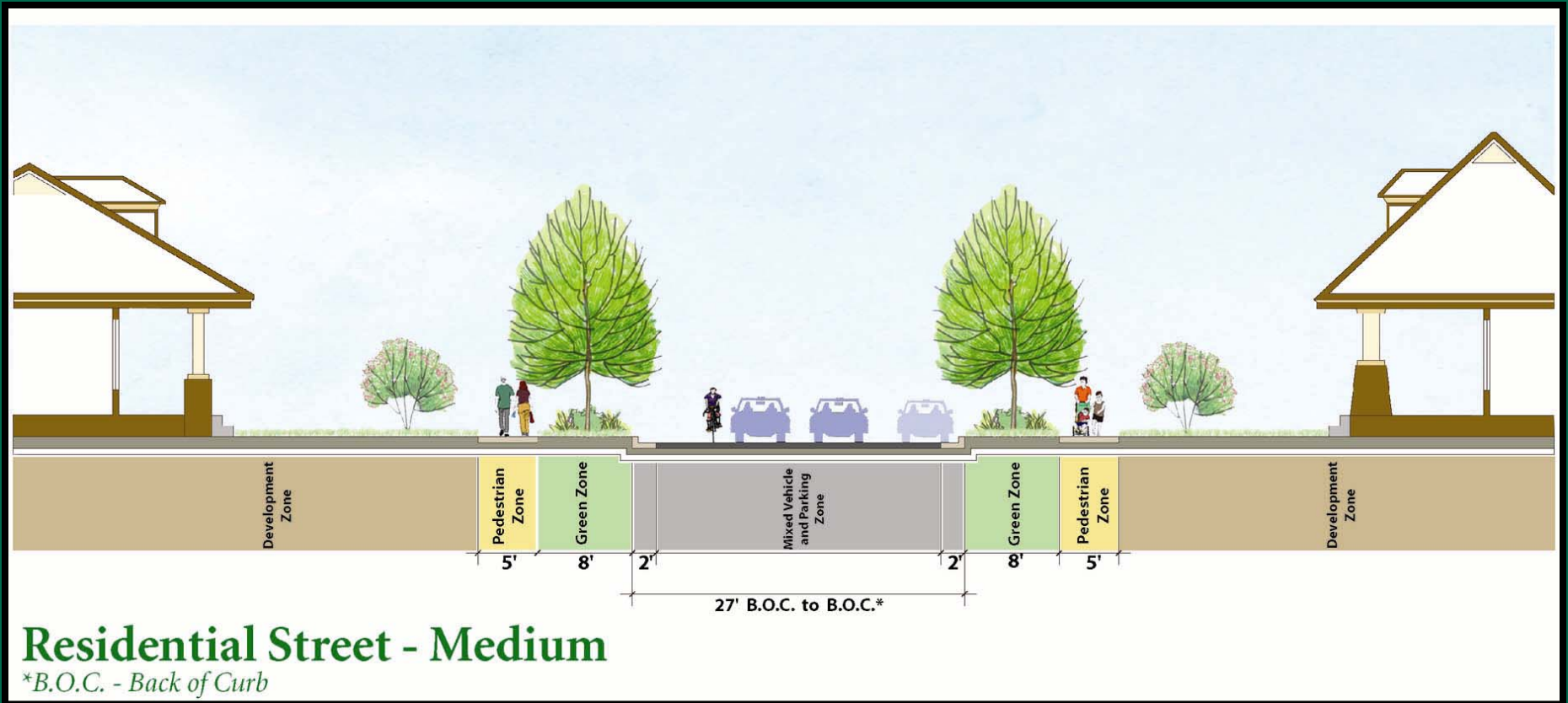






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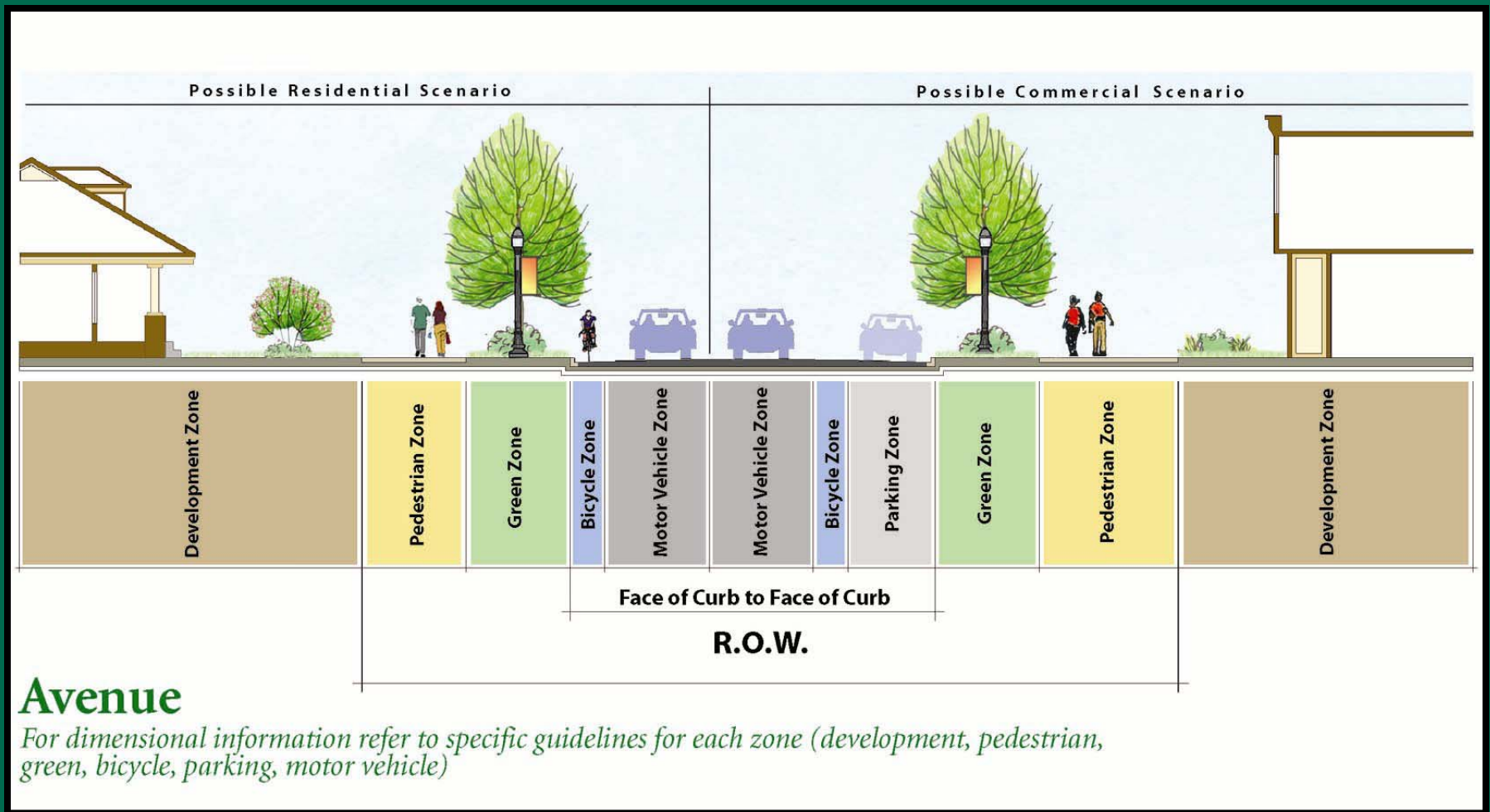
# Prescriptive Design



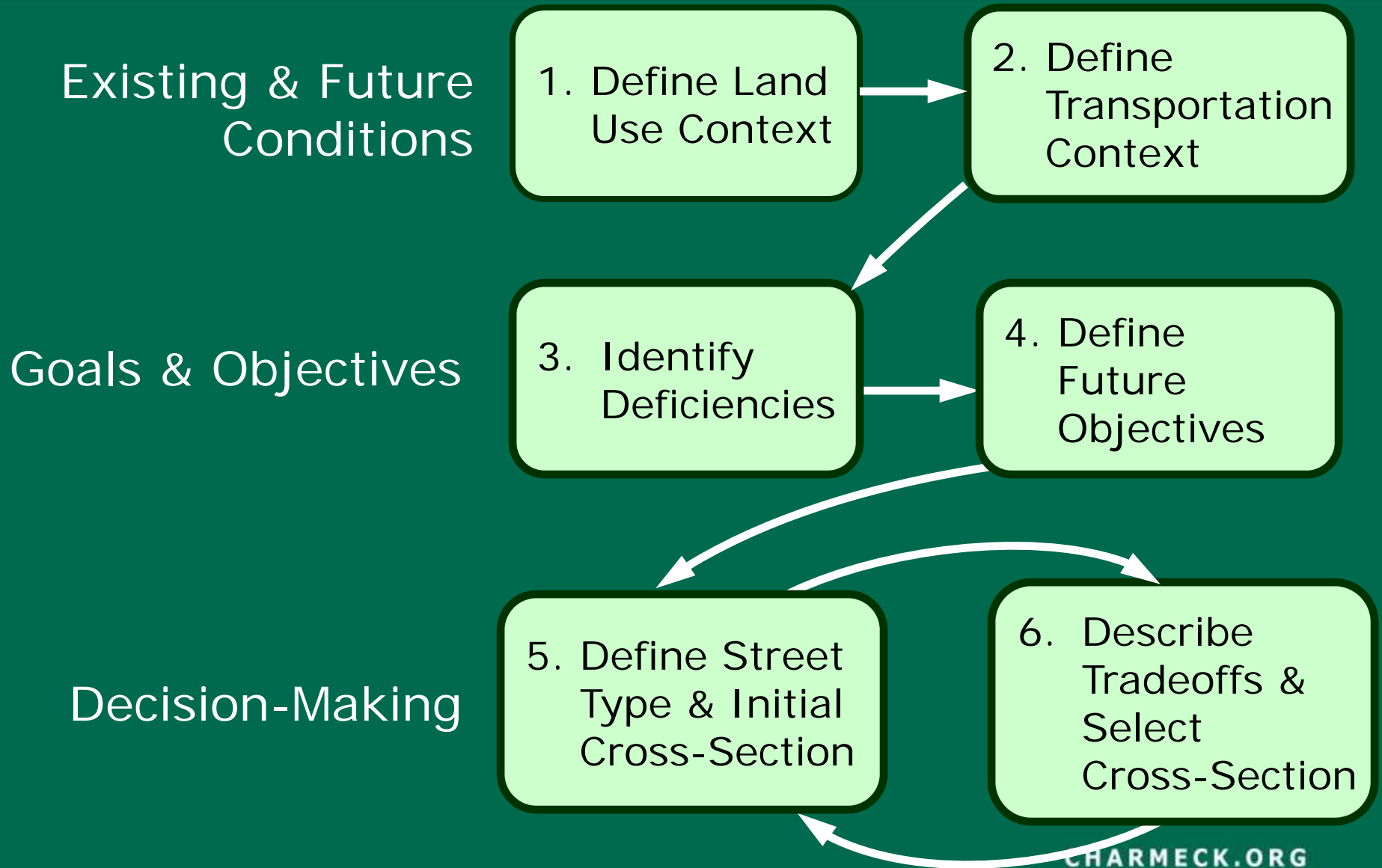


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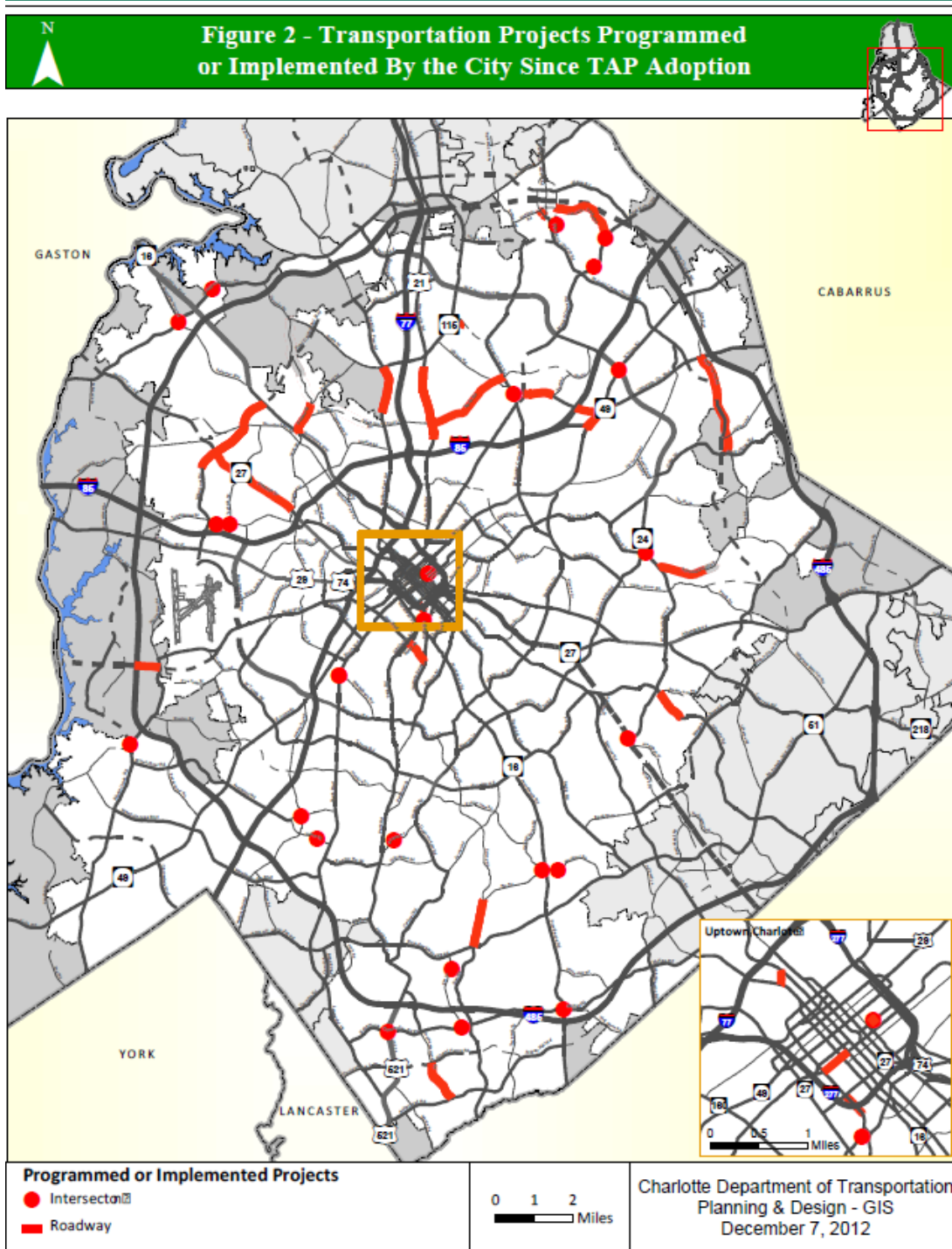
# "Non-Prescriptive" Design



# The USDG 6-Step Process







# Results

Charlotte has **constructed over \$400m** of road and intersection projects – all are “complete streets”.



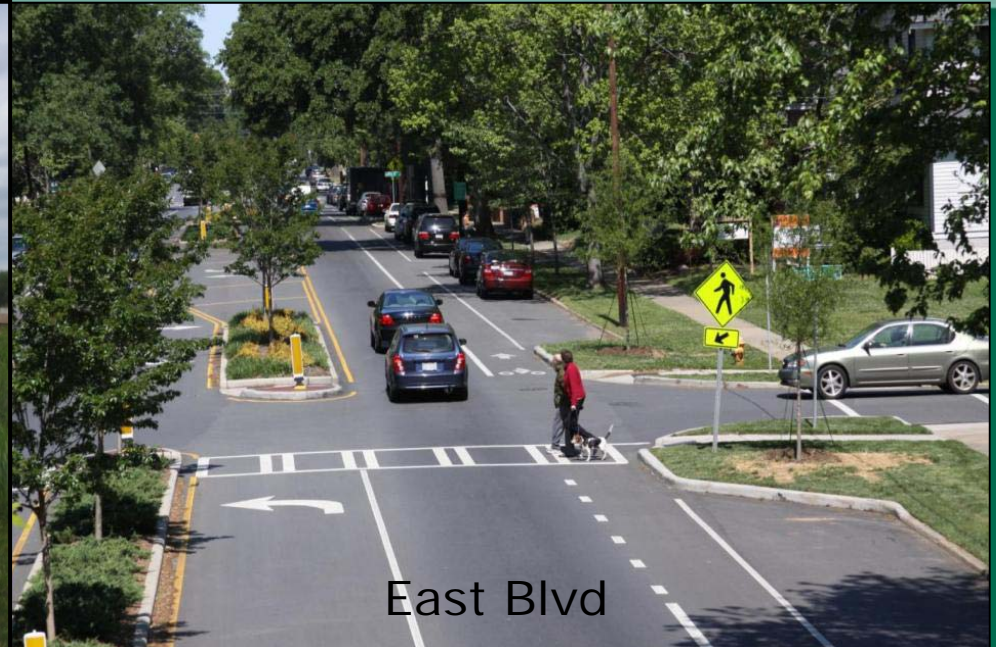


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# Results



Kenilworth Ave



East Blvd



South/Woodlawn



Raintree Ln



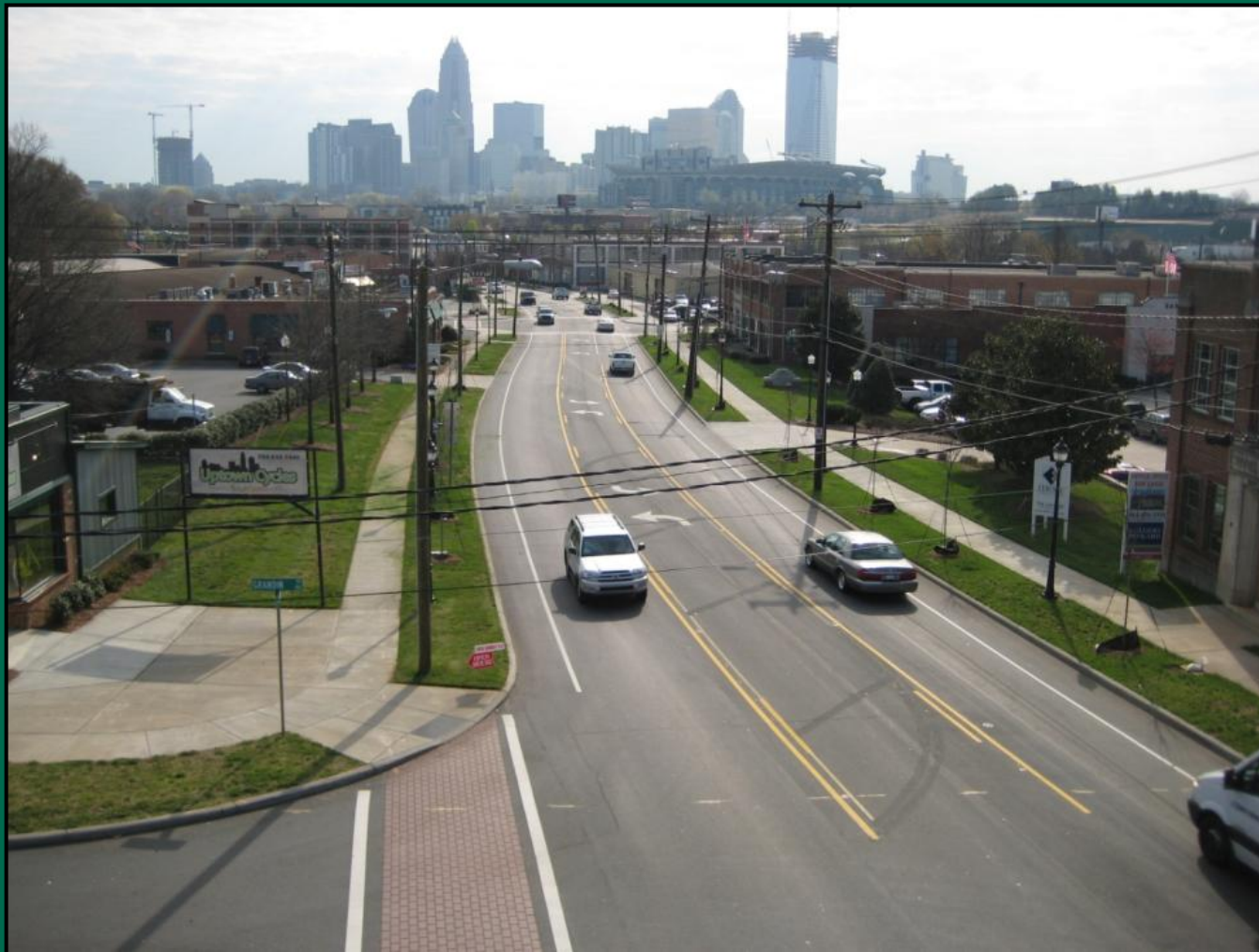
# Rozzelles Ferry Road





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# West Morehead Street



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# Stonewall Street







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# Charlottetowne Avenue



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## Case Study: John Kirk and NC 49



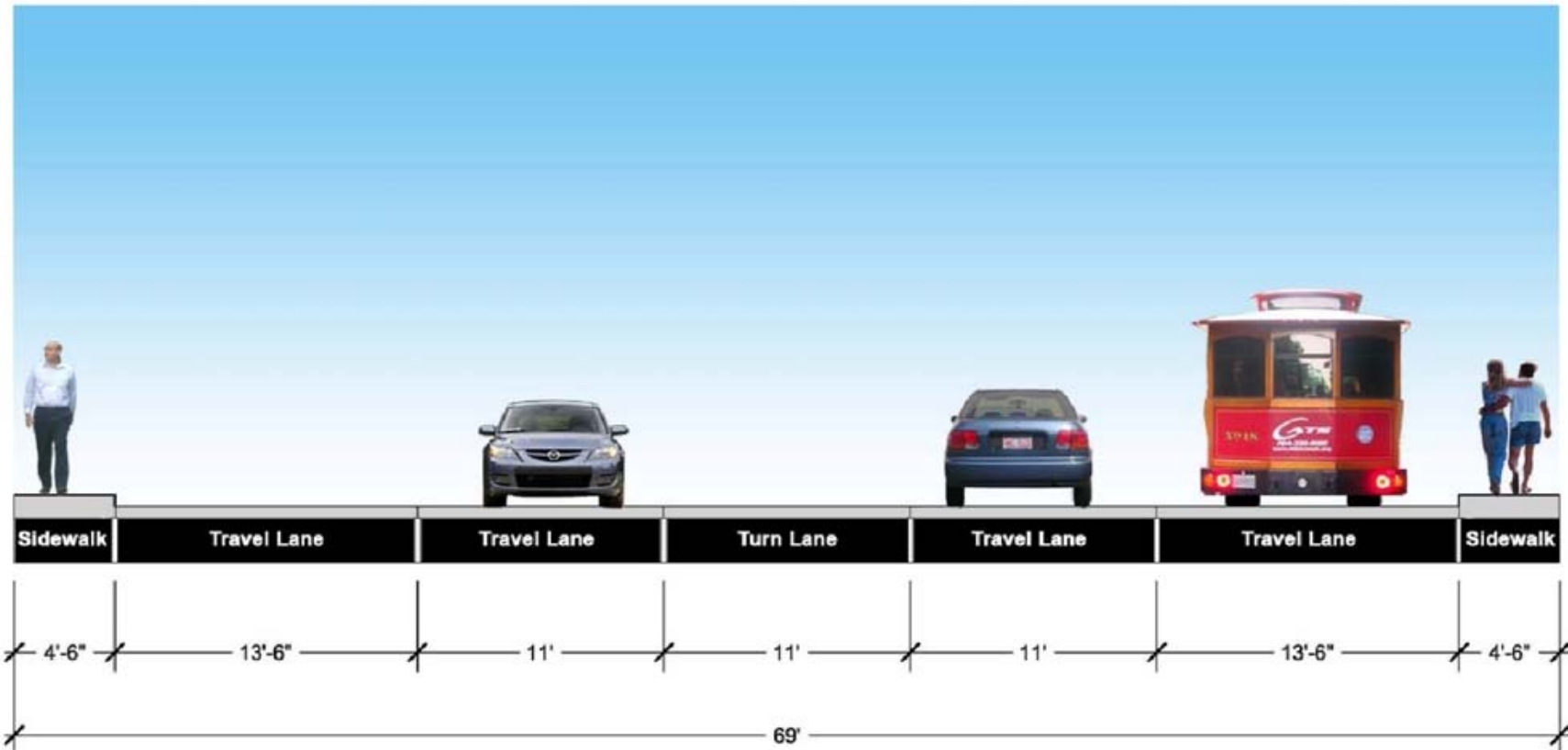
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# Case Study: Tryon Street Bridge over I-277



**Existing Conditions**



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# Tryon Street Bridge





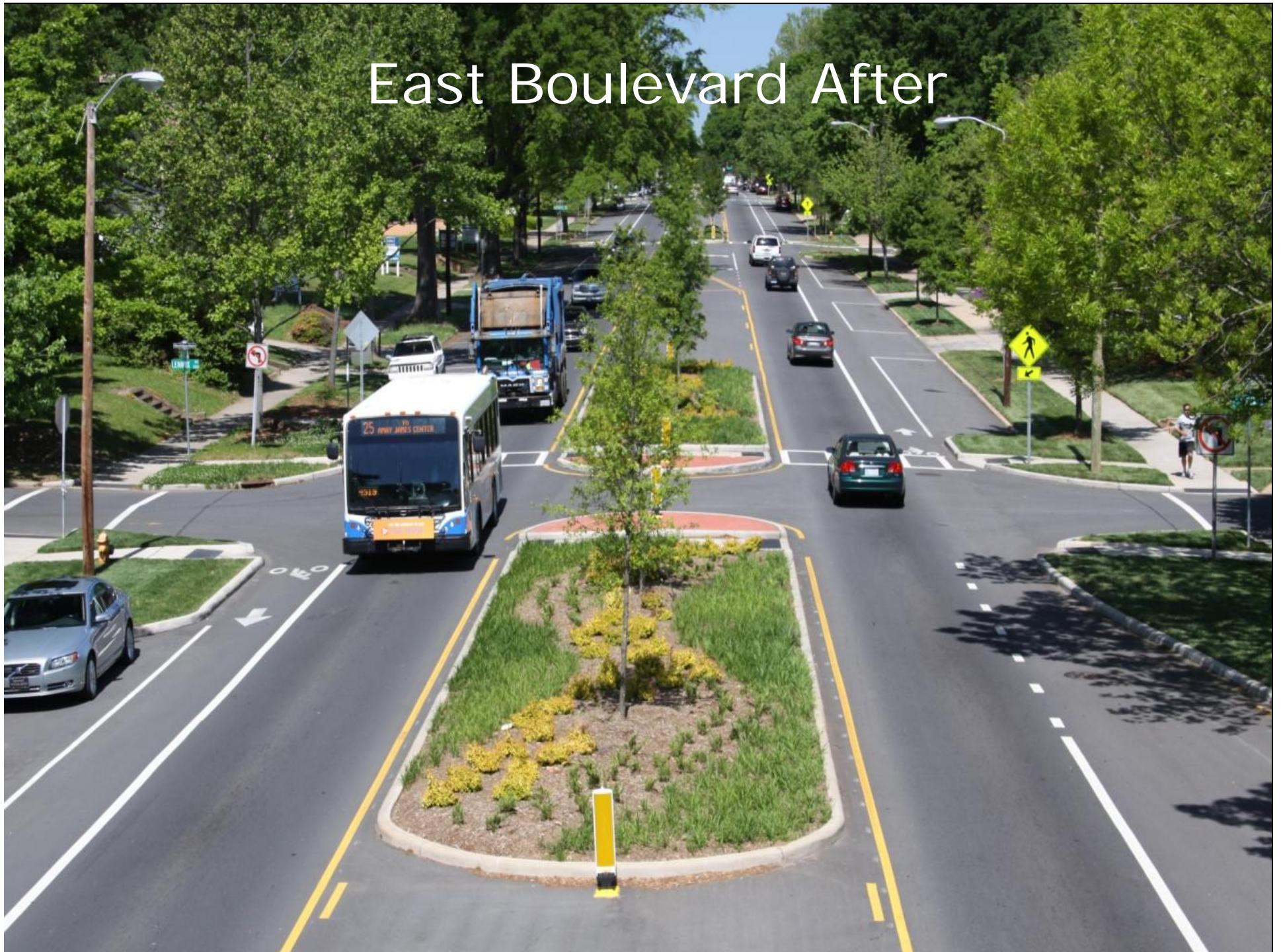
# Case Study: East Boulevard Before

Can we as Active Transportation advocates and professionals help to balance our community's bottom line, through better street design?





# East Boulevard After



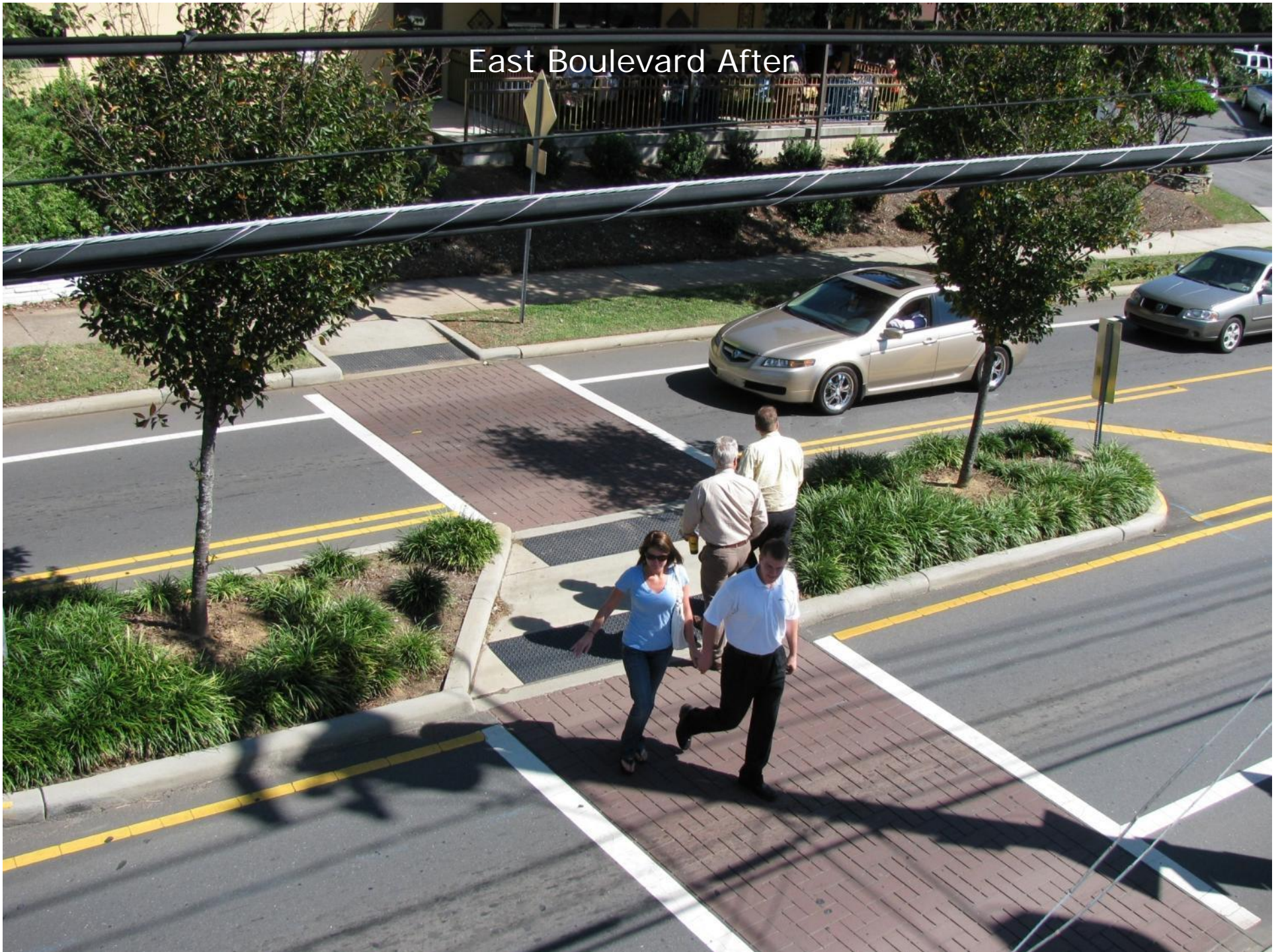


# East Boulevard After





East Boulevard After





# Case Study: Commonwealth Before





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# Commonwealth After







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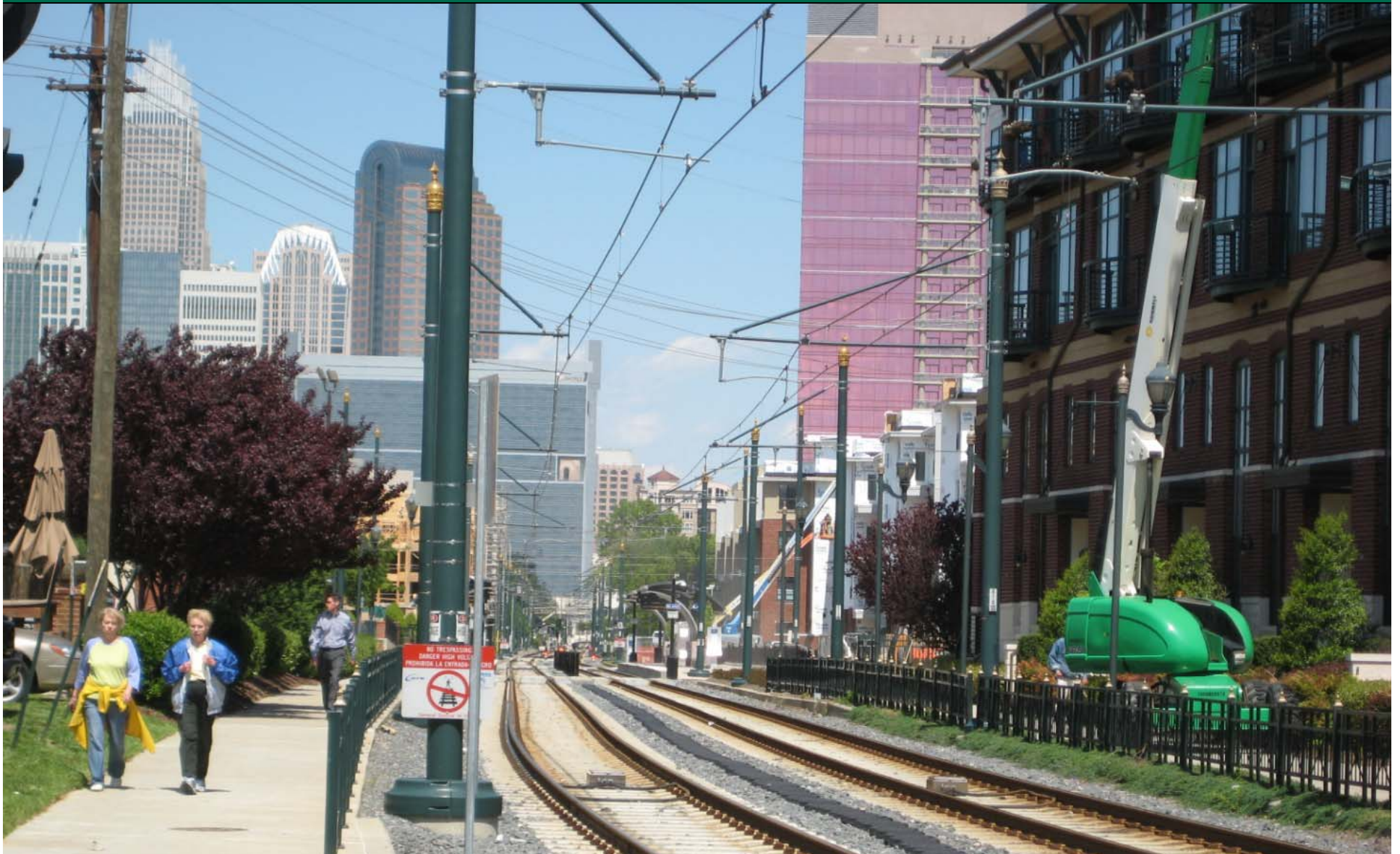
## Capitalizing on Light Rail (Bland St. & E/W Stations)







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## South End

- **\$1.45B** New Private Investment (2005-2013)

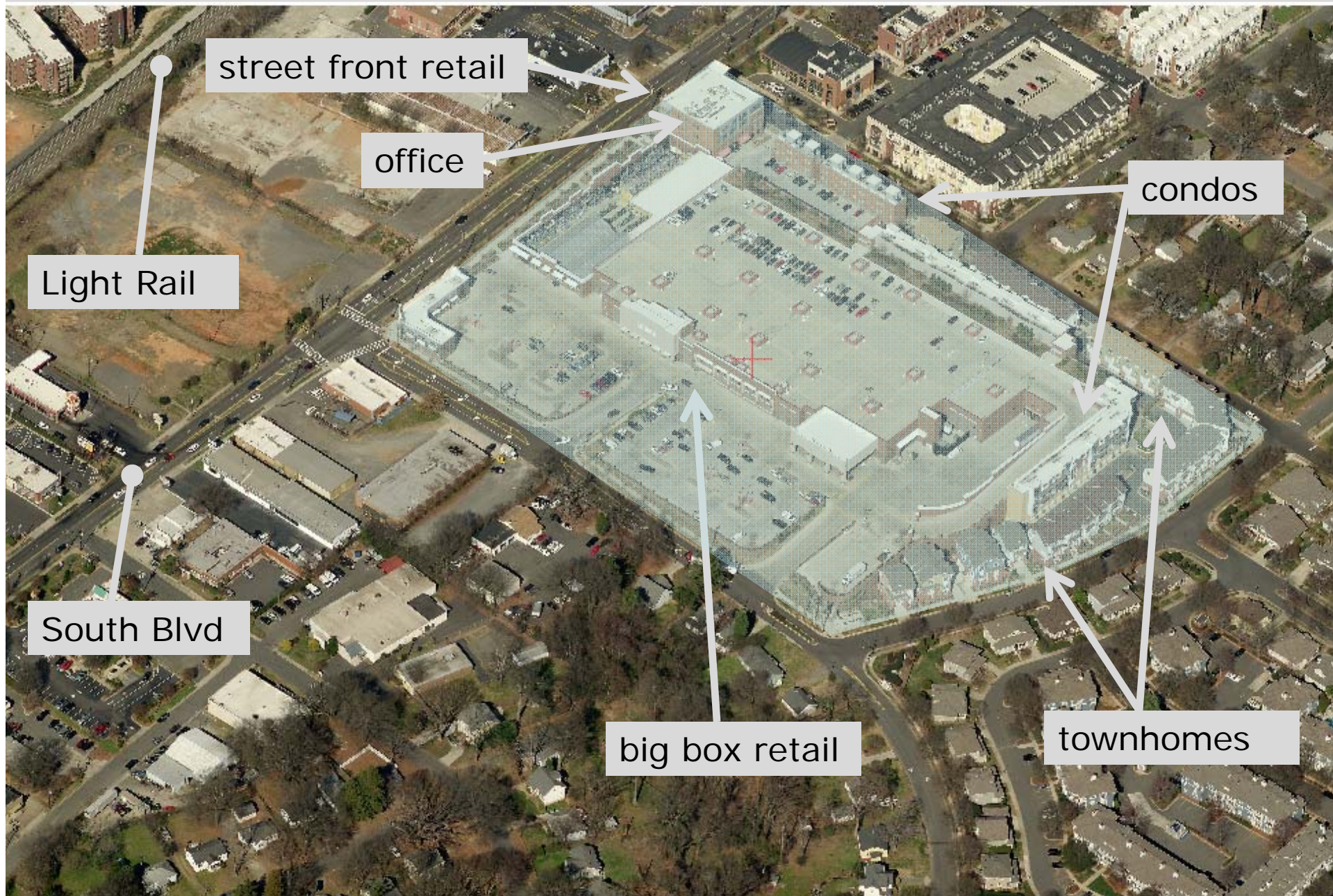


Annual Tax Revenue: **\$18.6M**

- City Tax Revenue: \$6.8M
- County Tax Revenue: \$11.8M







street front retail

office

Light Rail

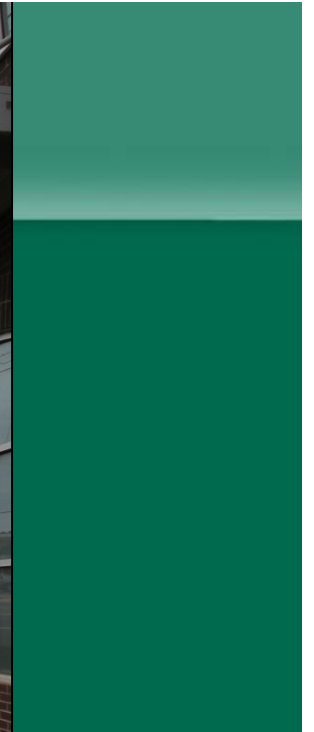
condos

South Blvd

big box retail

townhomes

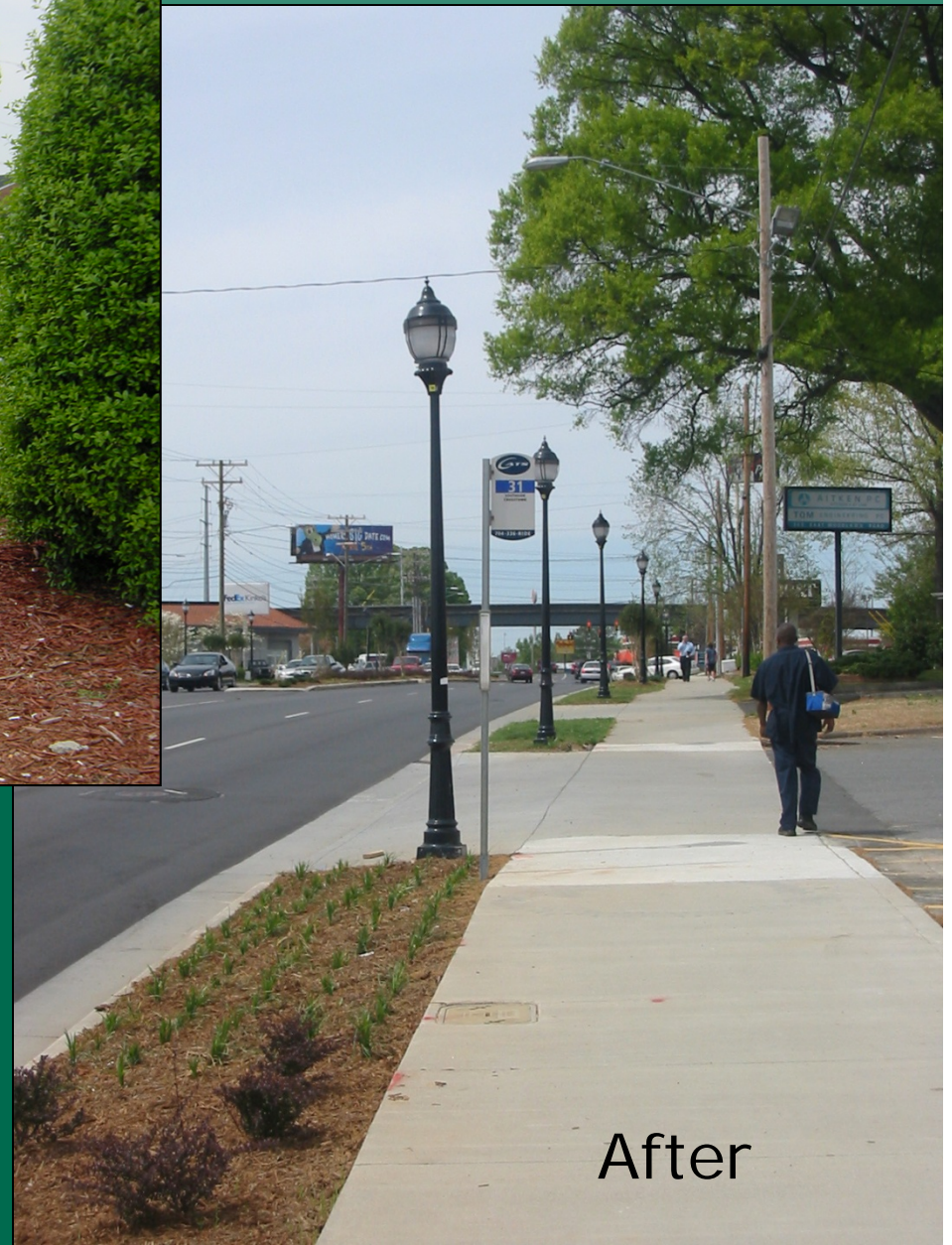








Before



After

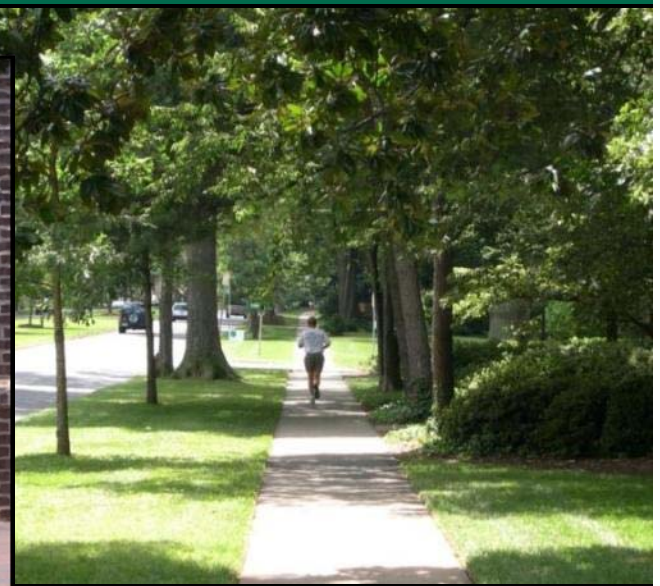




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## It's More Than "Just Streets"

- The way you organize/design land uses and streets matters – you have to get both right...public realm.
- ~13% of all land in Charlotte is **STREETS**...
  - How “memorable” are your streets and land uses?
  - Great cities have great streets and great places.



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## When Designing Complete Streets...

- Listen to concerns of public
- Do sufficient planning & design analysis to address concerns
- Collect before and after data to test expectations

In the case of two Charlotte conversions (Selwyn and East):

- Significant traffic did not divert to local streets
- Speeds are reduced after conversion
- Crashes changed as expected with lower overall crash frequencies

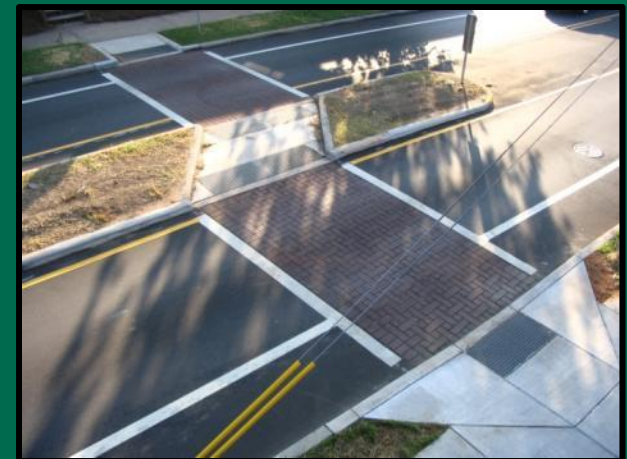


- Project should begin at neighborhood level...what do they want from their street?
- 3-laning seems counter-intuitive - need to educate – *show who else is converting roads*
- Get Council and neighborhood on board
- **Build advocates** for the project – show them how to be successful



## Lessons Learned

- A **concept drawing** is worth a 1000 words...
- Construction period will be difficult – especially with islands and stamped crosswalks
- Weather the storm during construction – be proactive with media
- *Do before/after studies*





## Recommended Before/After Studies

- Volumes
- Speeds
- Travel time
- Accident rates
- **Video of peak queues**
- Bike/ped volumes (if necessary)
- Resident/business surveys (if necessary)



Conversions can be challenging,  
but they are worth it!



Is this livable?







"Once you realize that you can use your streets to improve the quality of life, the economics and the environmental health of your city, I think that's a transformative moment."



Janette Sadik-Khan, former director NYC DOT, 2011





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## Charlotte's continued thinking...

We can't  
keep  
widening  
our roads,  
so we  
have to  
**broaden**  
our  
thinking.



**USDG** Urban Street  
Design Guidelines

Creative solutions for helping  
people move around Charlotte

[www.charmeck.org](http://www.charmeck.org)



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But we still have work to do...





# Thank You!

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Program Manager  
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## Other Complete Streets Projects

### City projects built with bike lanes:

- Rozzelles Ferry Rd.
- Central Avenue
- Charlottetowne Ave.
- Cindy Ln.
- Dewitt Ln.
- East Blvd.
- Hickory Grove Rd.
- Old Pineville Road
- Prosperity Church Rd.
- Stonewall Ave.
- W. Morehead St.
- Archdale Dr.
- Arrowood Rd.
- Clanton Rd.
- Morris Field Dr.



(60+ miles of bike lanes)