

# Kansas City Streetcar 101



May 15-17, 2012

*National Experience · David Vozzolo*  
*Streetcar 101 · Luke Olson*  
*KC Downtown Streetcar Project · Christopher Kinzel*

# National Experience

Modern Streetcar

*what it **is** and what it **isn't***

*David Vozzolo, HDR*

# Streetcar is **NOT**...

**NOT** Commuter rail or light rail or a metro-rail system

**NOT** Designed to serve longer trips from suburban area to downtown

## Typical Commuter Rail/Light Rail

- Dedicated, exclusive right-of-way
- Longer distances between station stops
- Higher speeds
- Several rail cars in a “train”
- Longer distances served





# Streetcar IS...

Designed to serve as  
urban circulator

## Typical Urban Circulator

- shorter routes serving downtown & adjoining neighborhoods
- operates in mixed traffic
- more frequent service, smaller vehicles
- quick “on” and “off” the vehicle
- riders take shorter trips





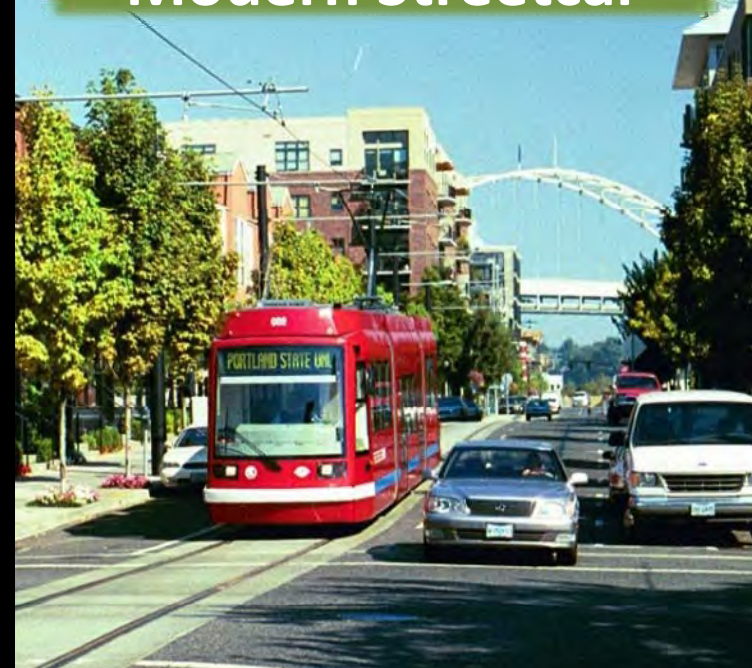
# Urban Circulators

## Circulator Bus



- Generally diesel-powered/hybrid
- Generally on-street, but can have separated, fixed guideway
- Up to 75 passengers

## Modern Streetcar



- Generally electrically powered
- Fixed guideway (rail); shares traffic lane with autos
- Up to 120 passengers

# Serving Old and New Neighborhoods





# Placed in existing streets....





# Operating in Mixed Traffic.....



# Traveling Safely and Efficiently.....



# With Minimal Impact on Parking.....





# “Walk Extender” or “Pedestrian Accelerator”



...urban circulator supporting urban livability

# Not just a transportation tool...

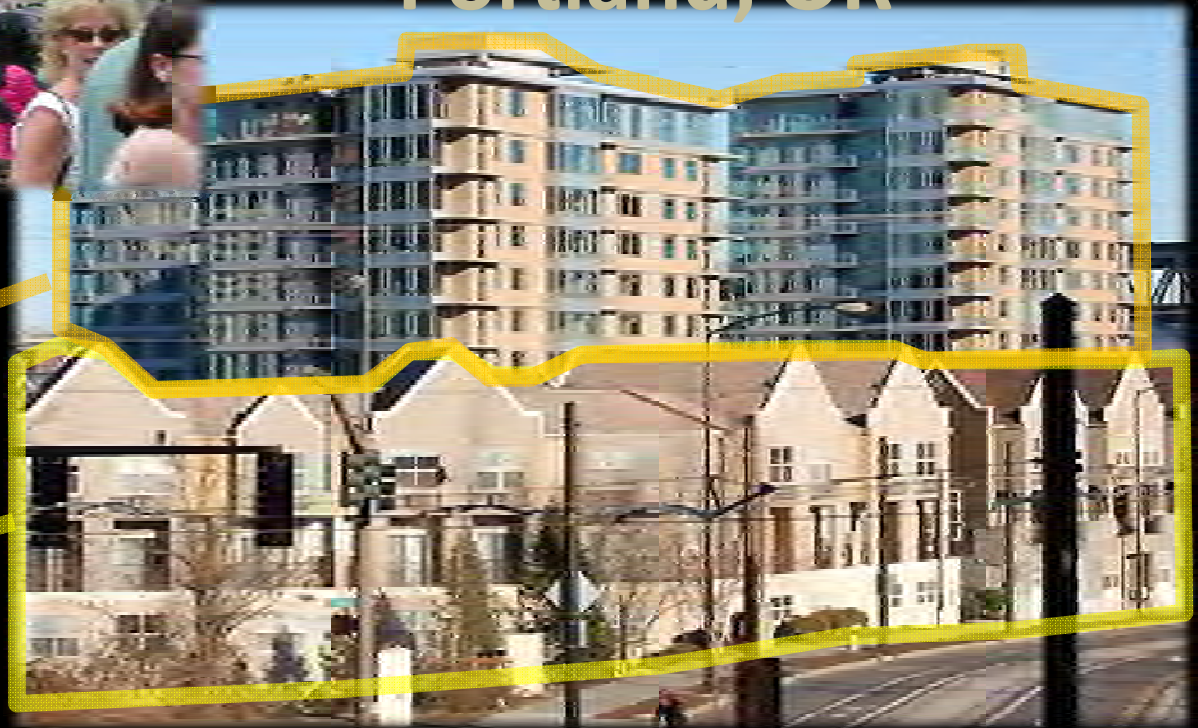
...an urban  
economic strategy

Portland, OR



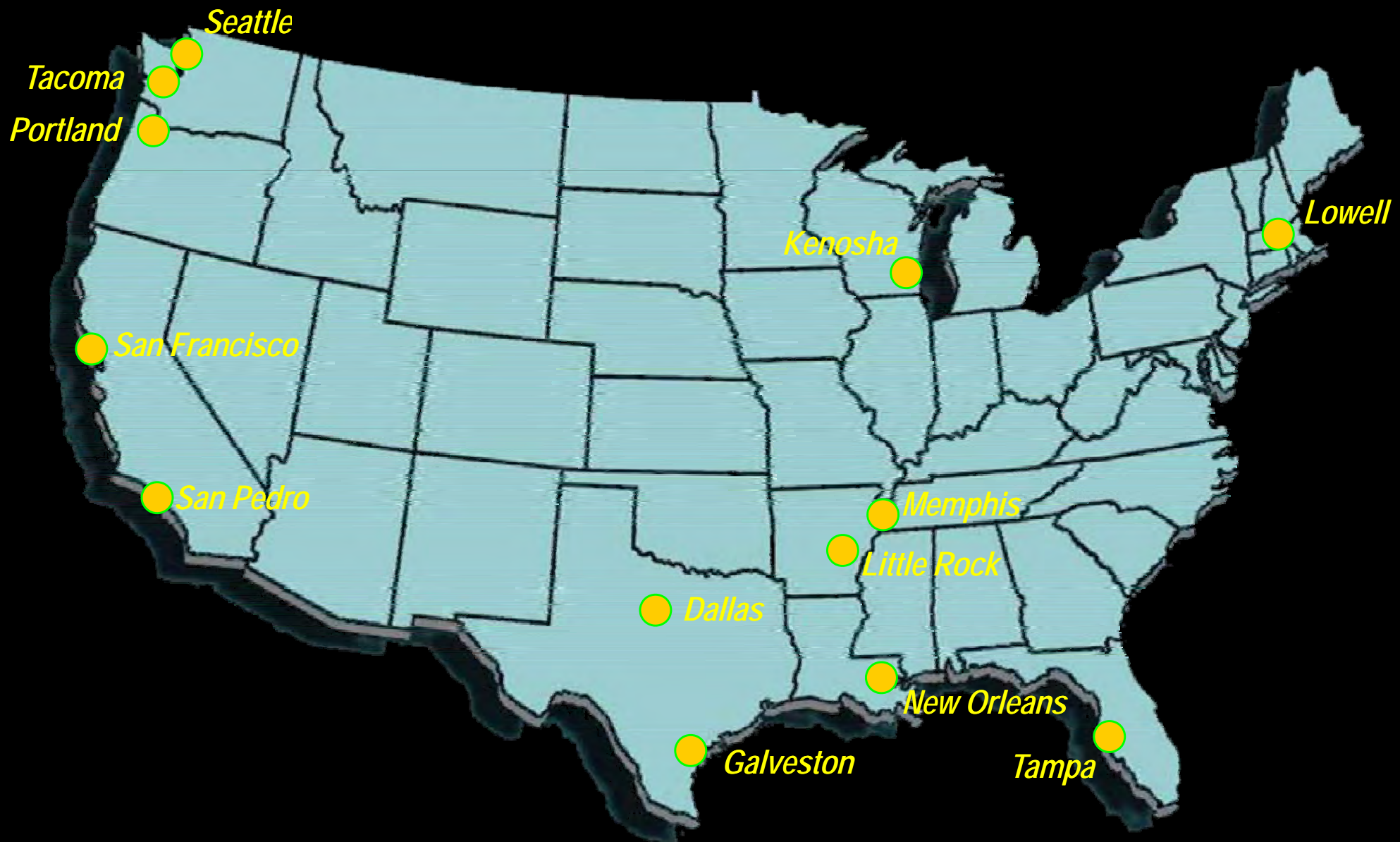
After streetcar

Before streetcar



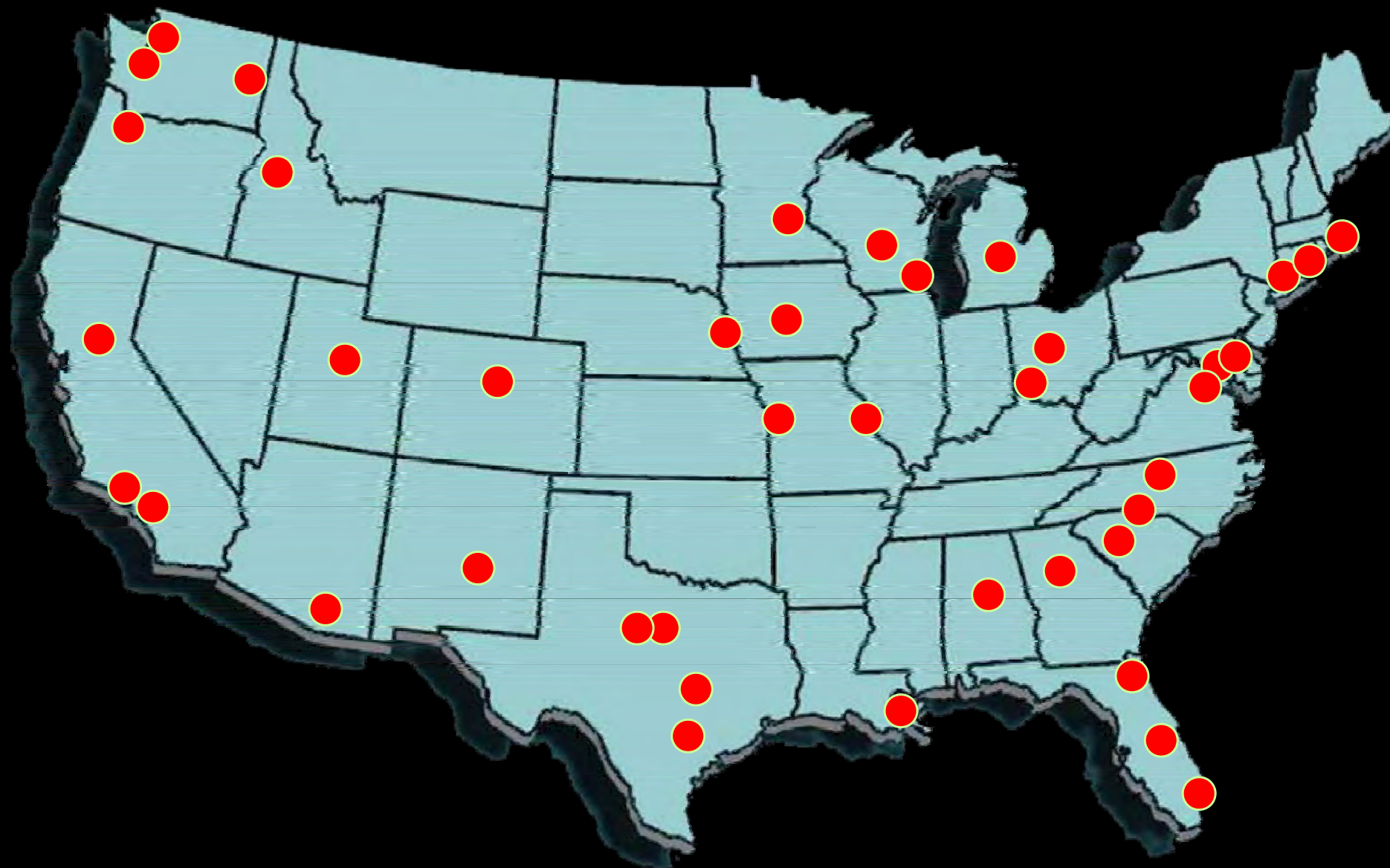


# U.S. Streetcar Systems in Operation (Modern and Vintage)

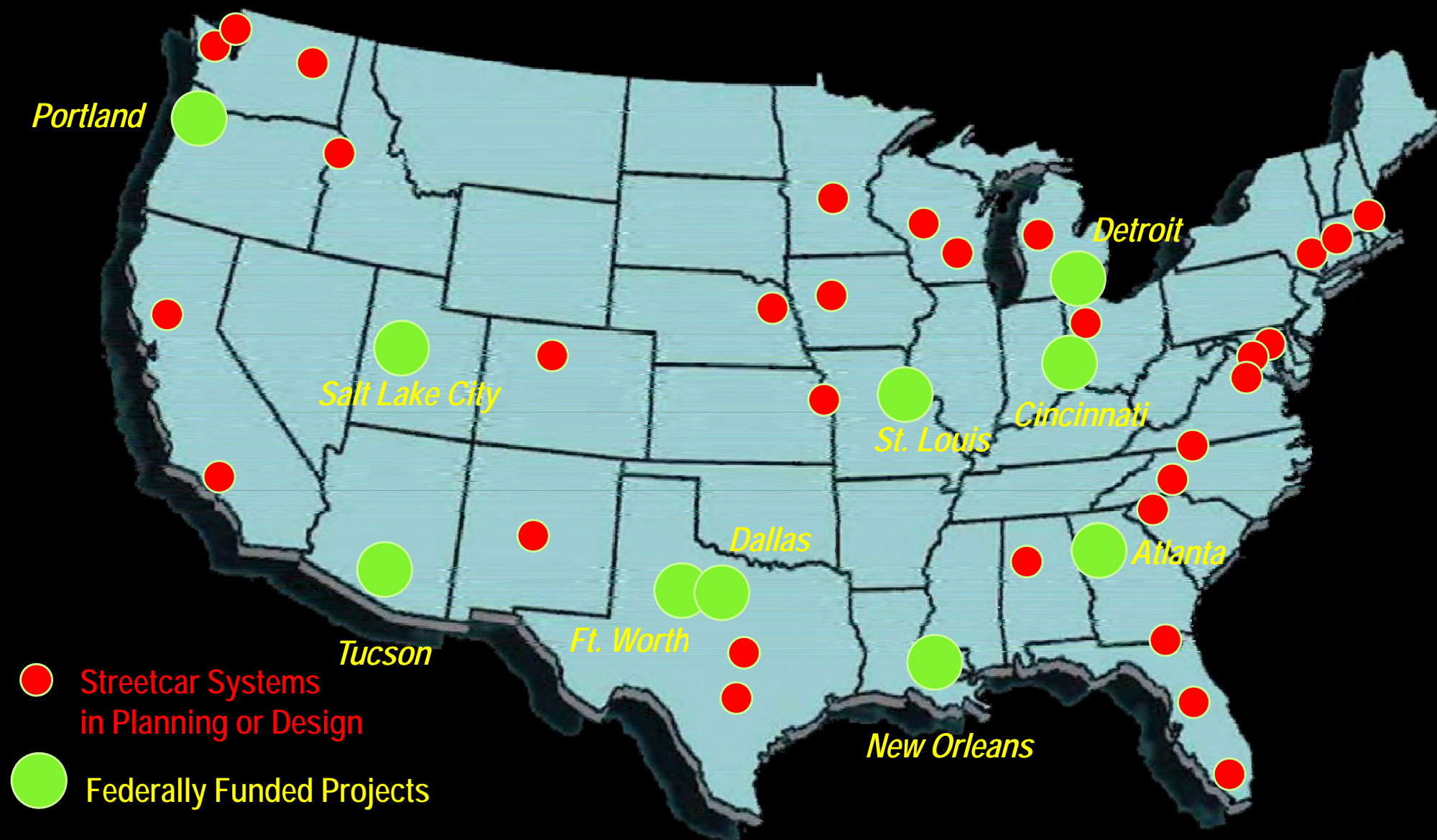




# U.S. Communities Planning Streetcar Systems



# U.S. Streetcar Systems with Federal Funding



# Common Elements of “Streetcar Cities”

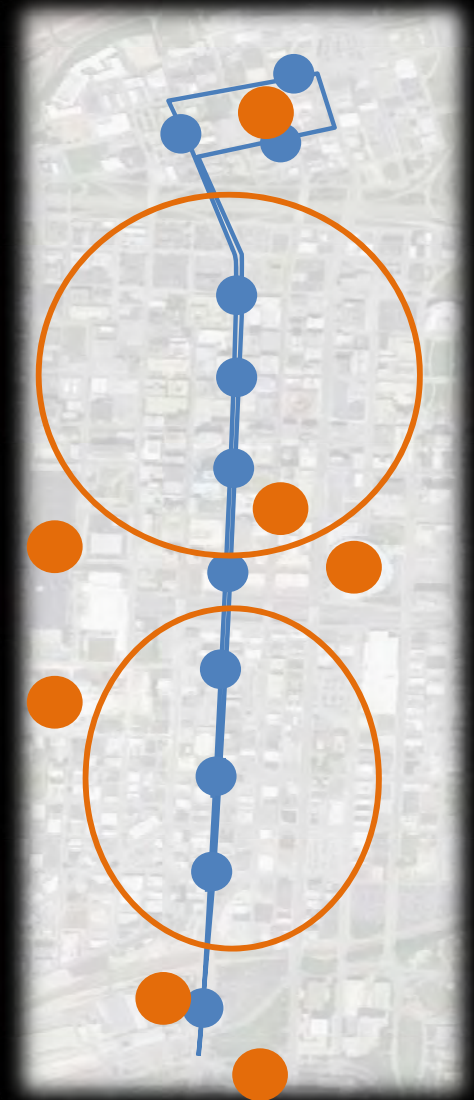
**Connectivity** between **existing** activities and **new** development

**Active urban real estate market**...or an urban **renaissance**

Great, pedestrian-oriented streets

**Strong** local leadership

**Project partner** support and investment







# Vehicles



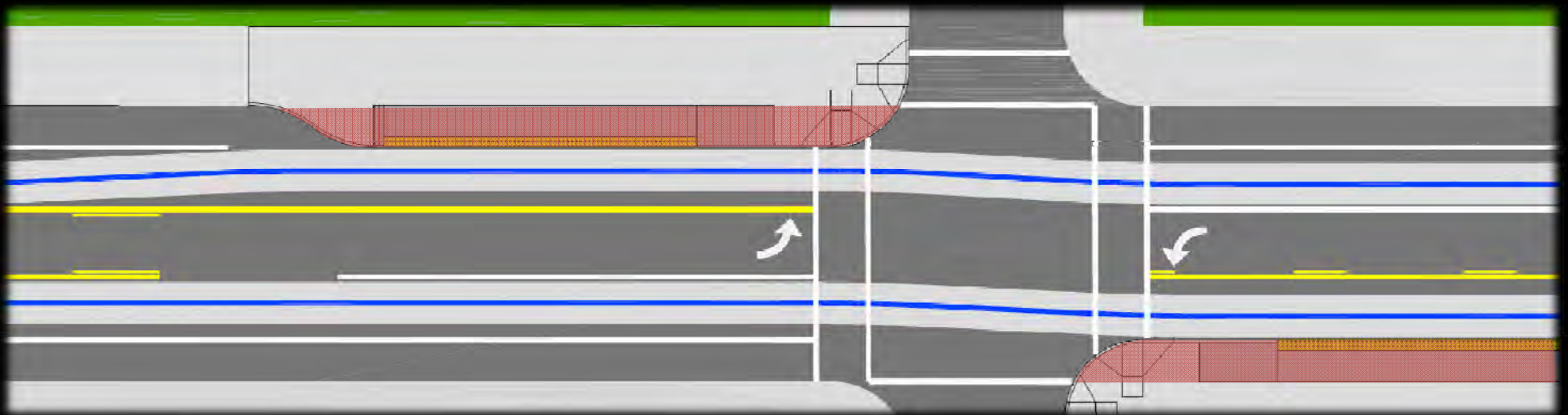


# Can operate in all weather conditions





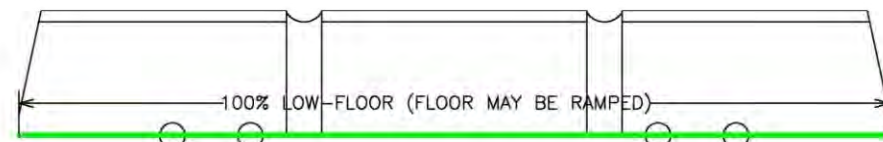
# Stops



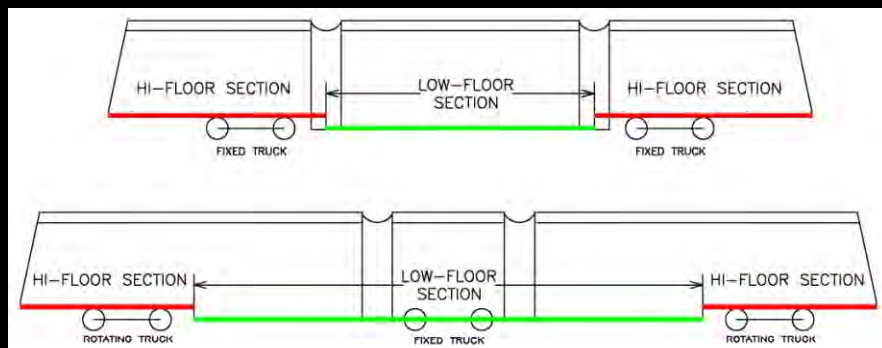
# Vehicles



## Level Boarding



## Nearly Level Boarding





# Stop Examples



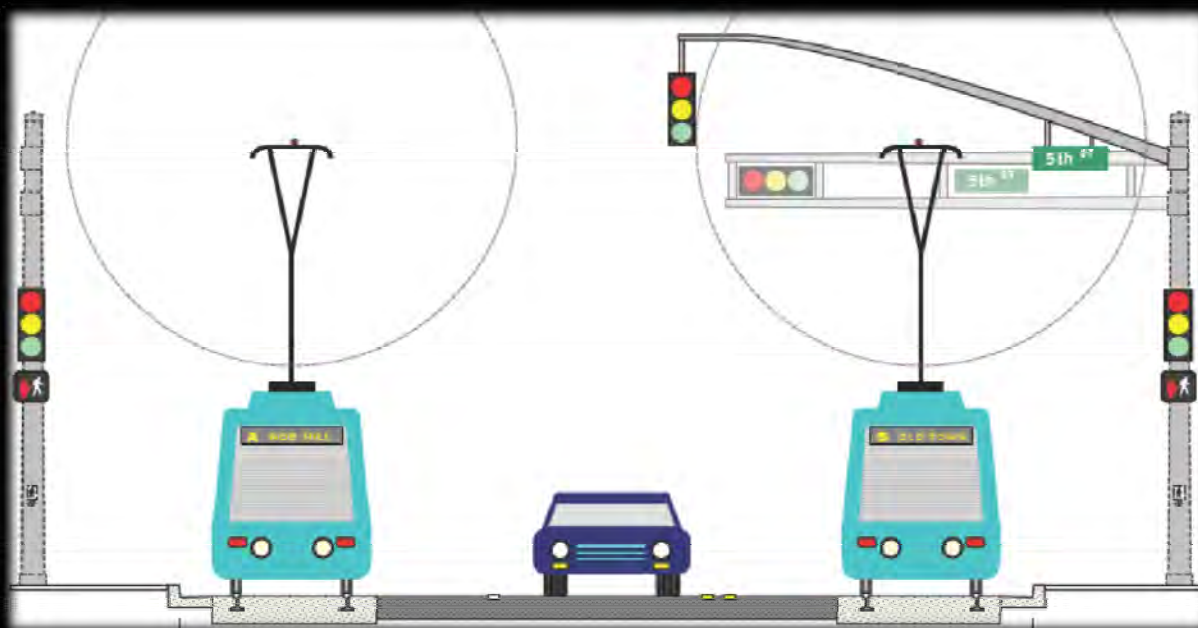


# Parking



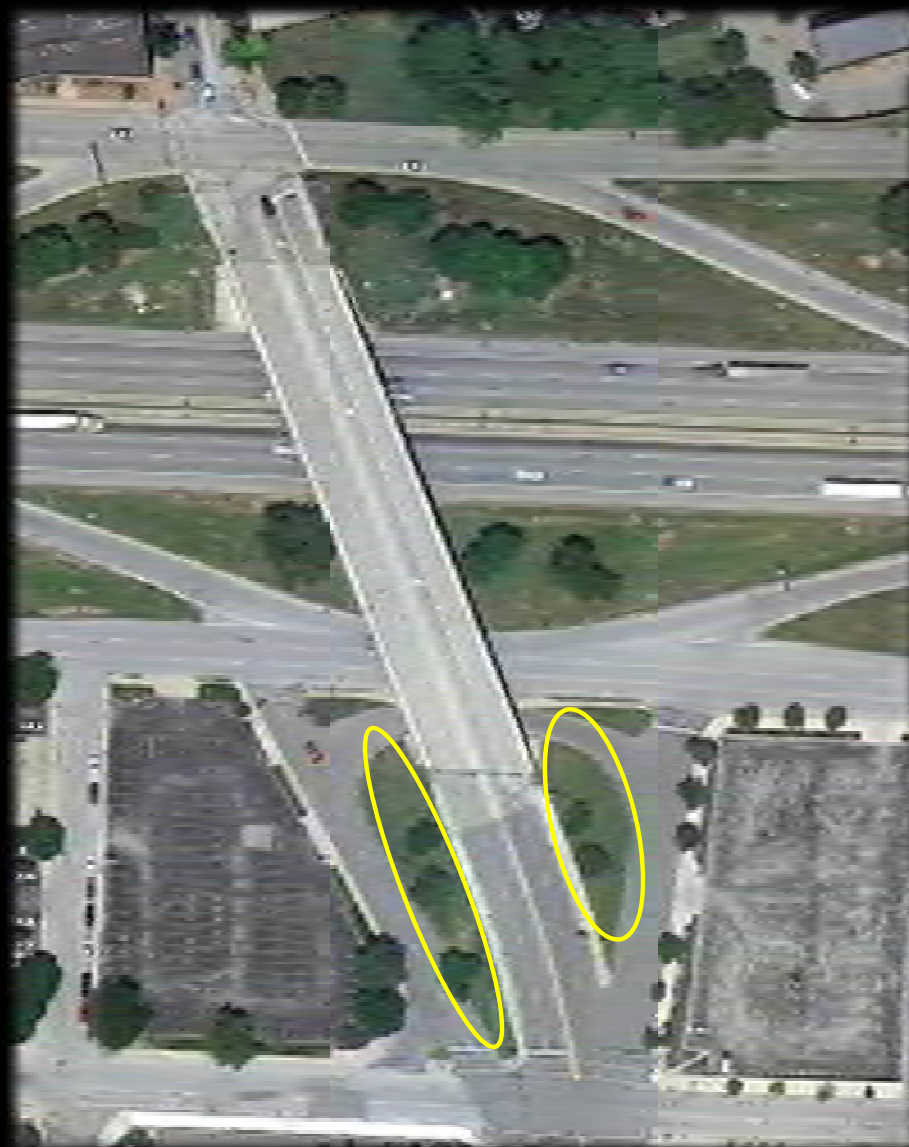
Photo: San Francisco Examiner

# Existing Traffic Signals

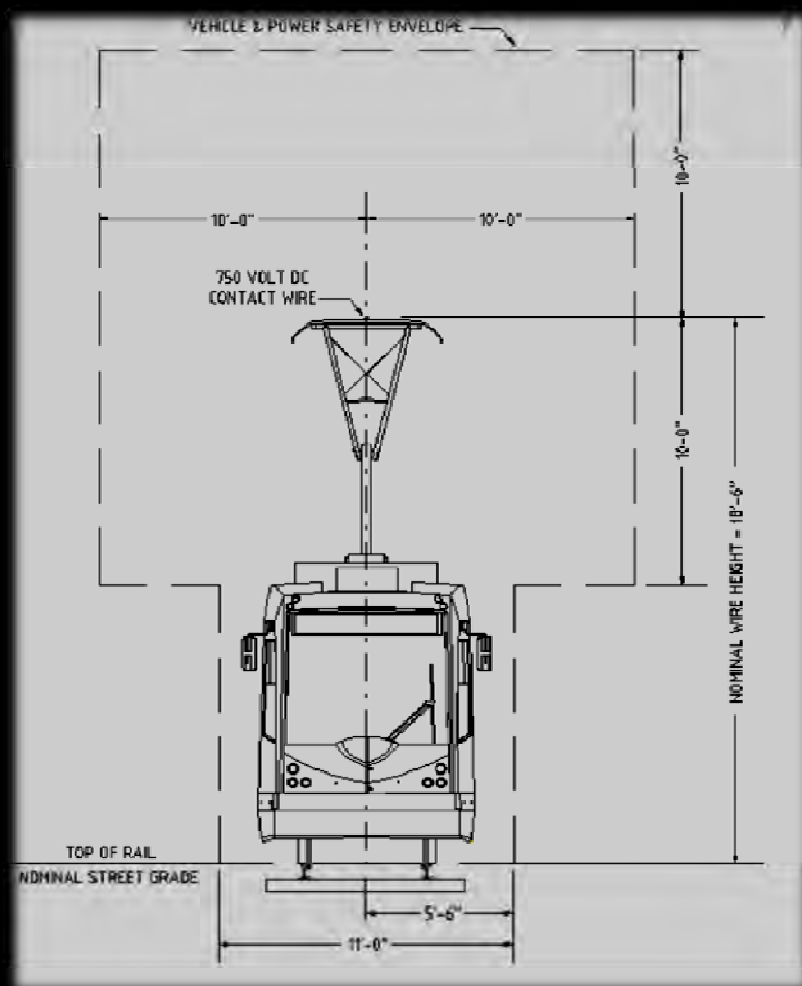




# Substations

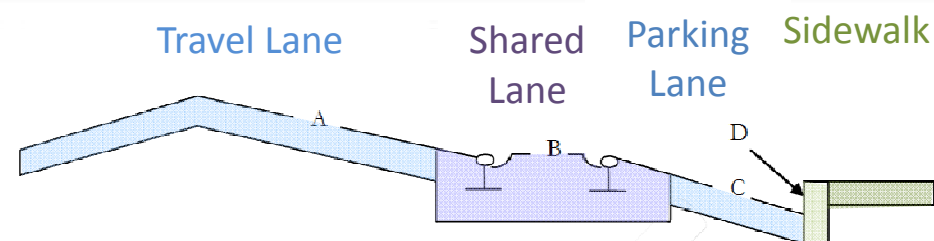


# Utilities





# Track Construction



	Desirable	Maximum	Minimum
A	2%	5% or Match Existing	1% or Match Existing
B	0%	1%	0%
C	2-4%	7% or Match Existing	1% or Match Existing
D	6-8 inches	10 inches	4 inches

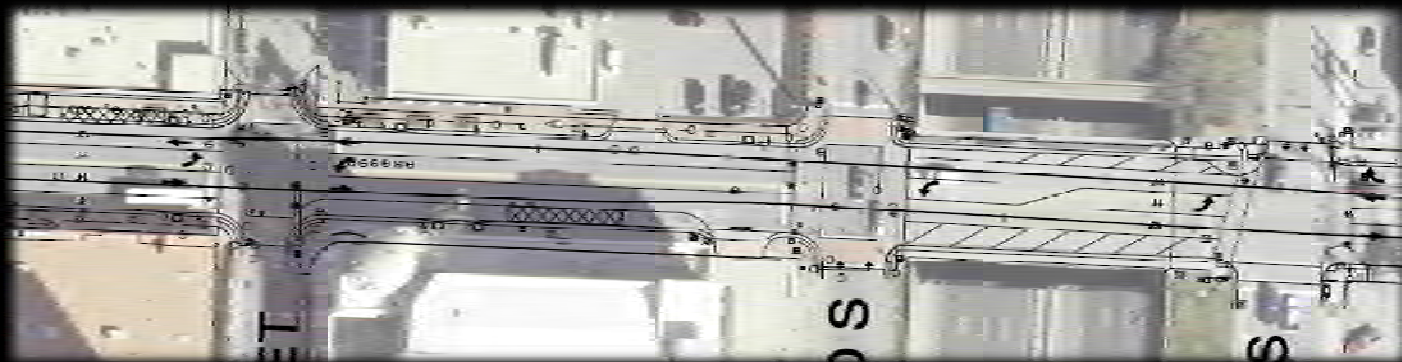


# Stop Construction





# KC Downtown Streetcar



*Christopher Kinzel, HDR*

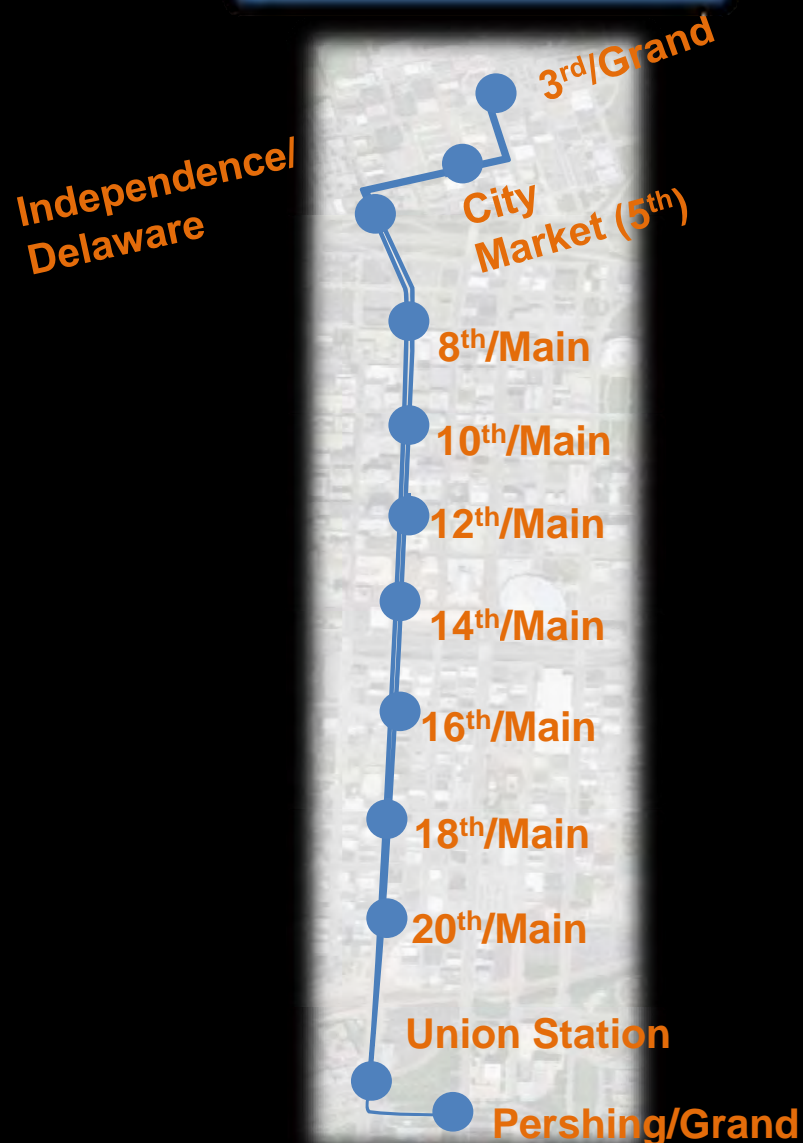
# What's Changed?

- Main Street adopted as Locally Preferred Alternative by KCMO, MARC, KCATA
- KCMO federal grant request: \$25 million
- TDD being put to public vote
- Advanced Conceptual Engineering and environmental studies underway
- Design refinements – north and south ends

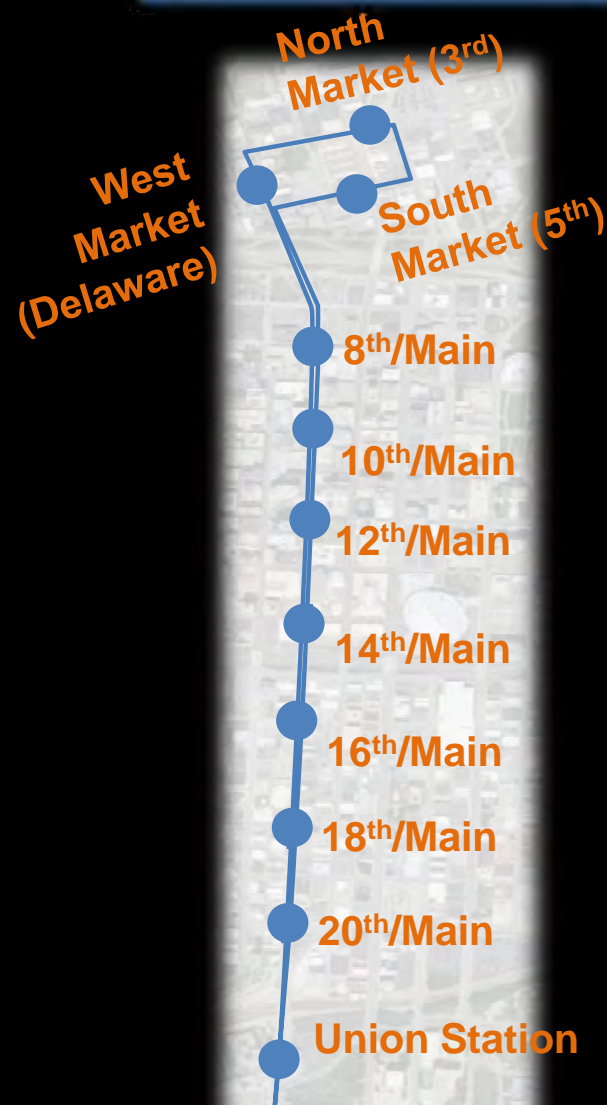


# Route Refinements

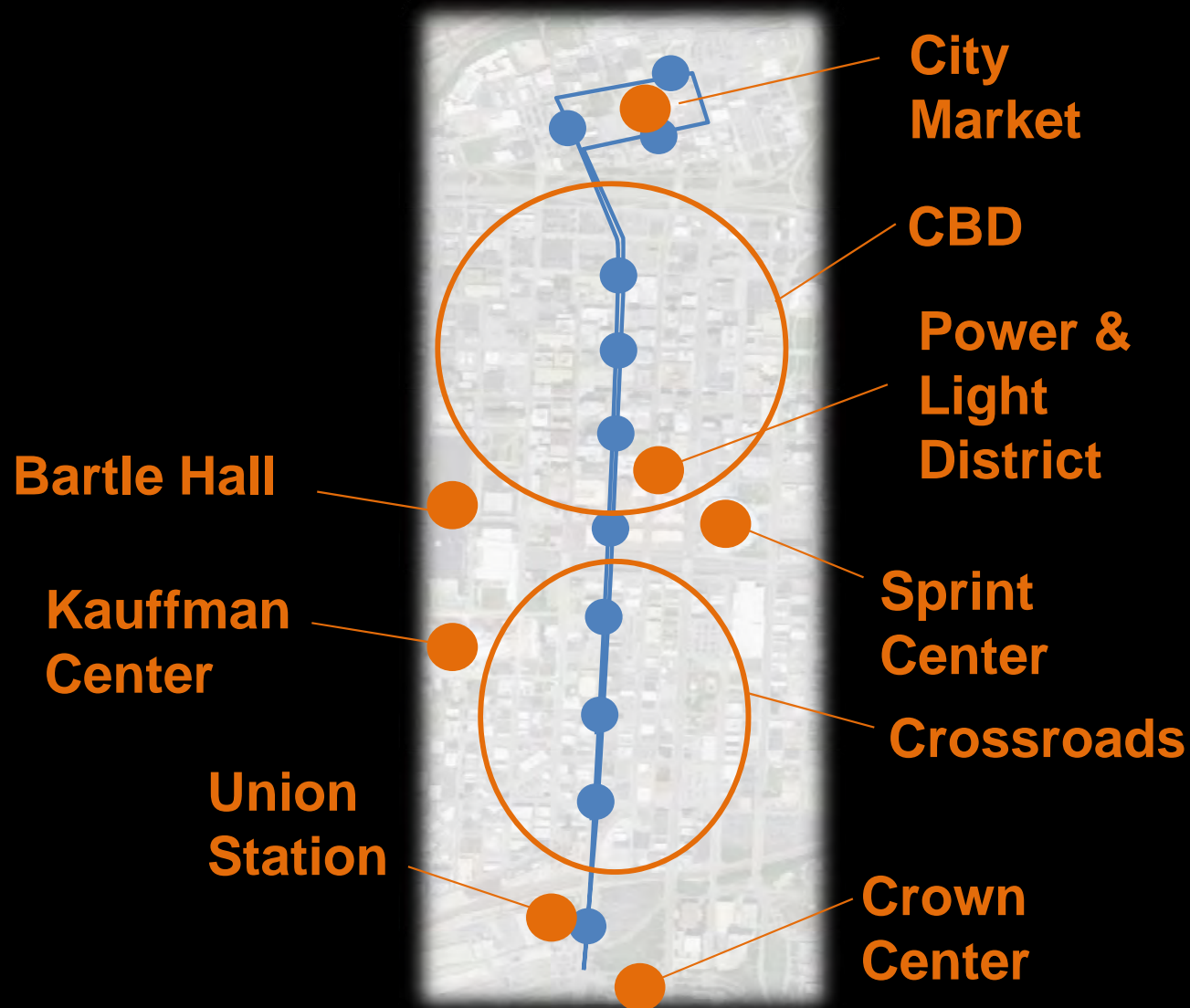
## Planning Phase



## Refined Concept



# Connecting Activity Centers





# Information Available Tonight

## Detailed Route Concept



## Construction Information



## Stops



## Videos



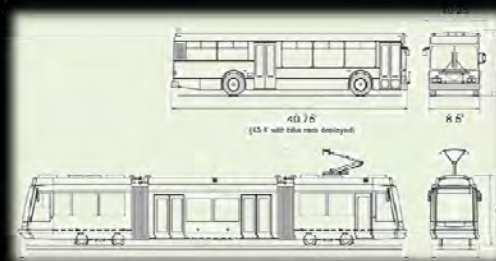
## TDD

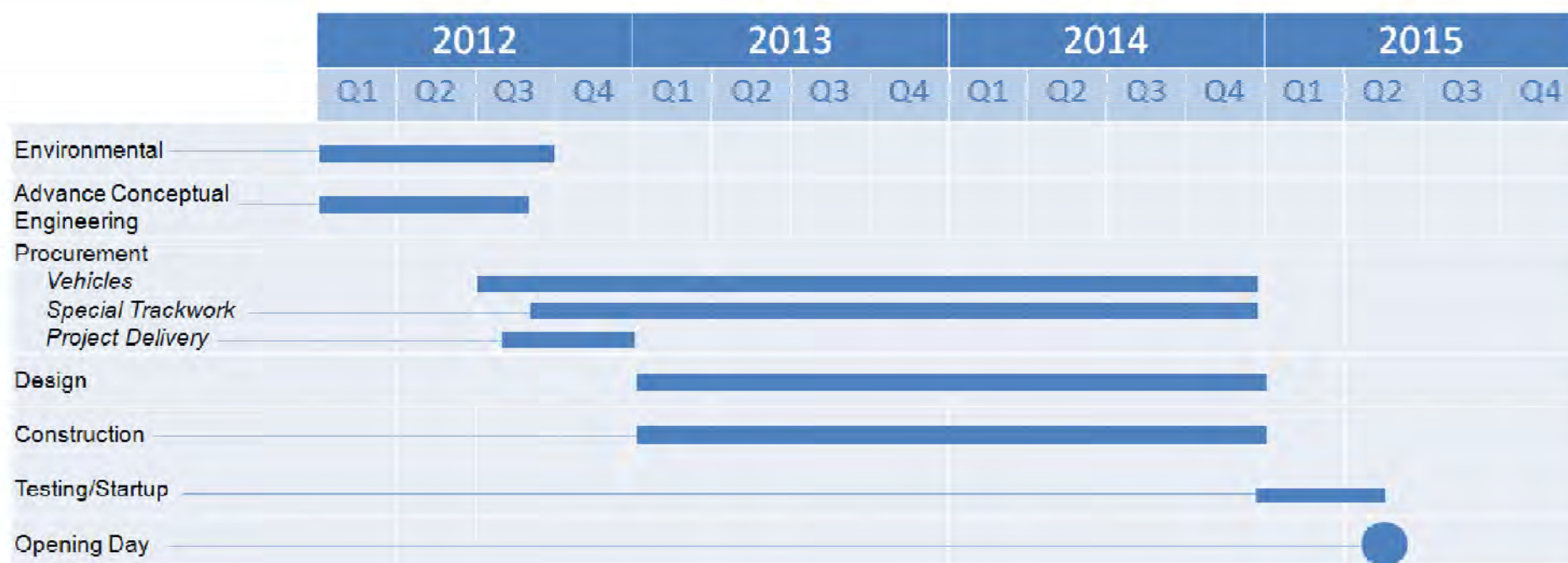


## Environmental Process



## Vehicles







# Thank You!

