



# Walkability Beyond Downtown

Presented by: David Fields, AICP

November 2016

**N** NELSON  
NYGAARD



# Next in The Tomorrow Plan 2016 Speaker Series

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“The Missing Middle Housing”  
Daniel Parolek, Opticos Design

8:15 a.m. Friday, December 16  
Olsen Center at  
Des Moines University



*Responding to the Demand for Walkable Urban Living*



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# What are Streets For?

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# Movement and Storage

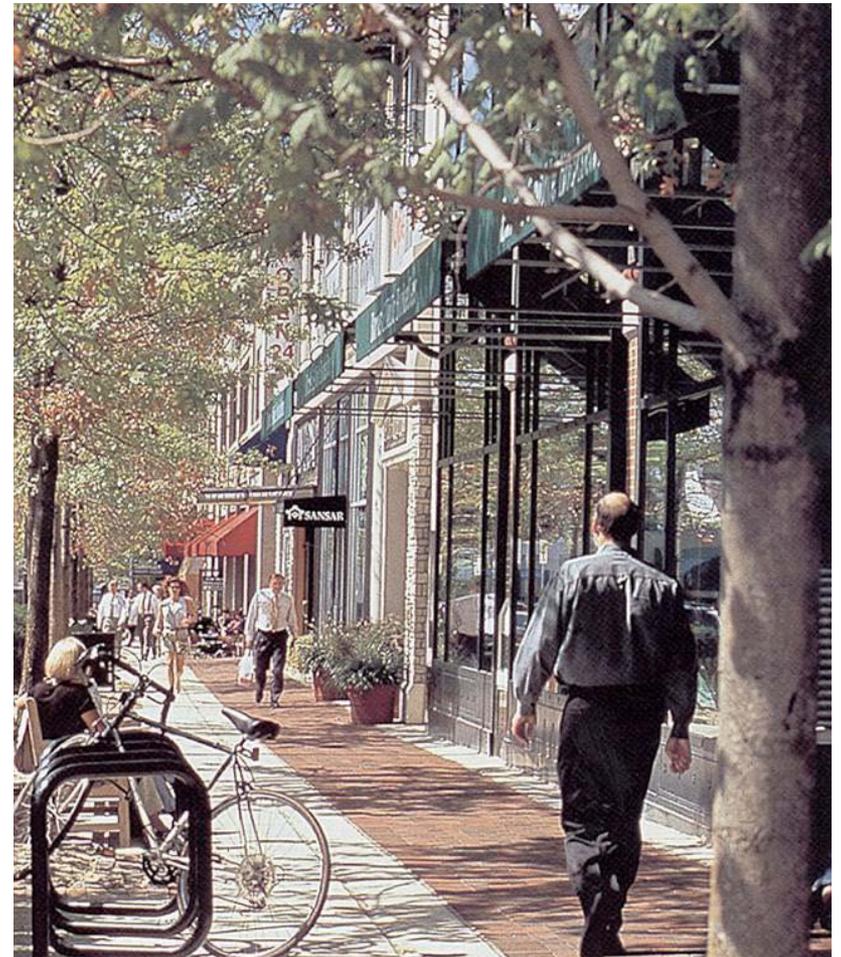
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# Connections



# Retail

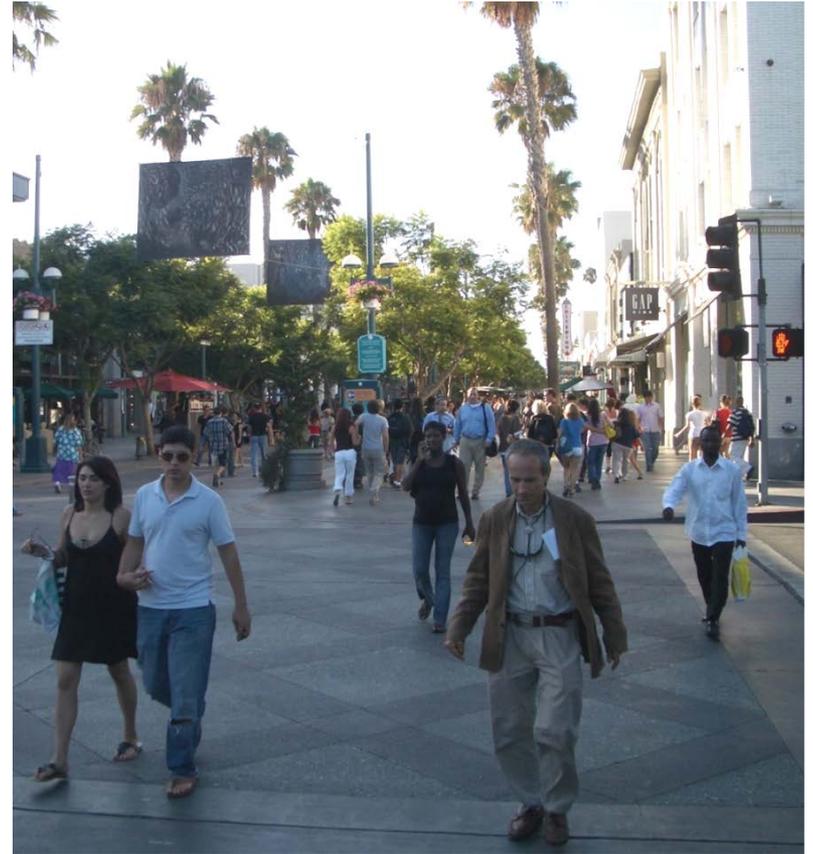


# Recreation



# Interaction

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# Streets support health, especially walkable streets

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<b>Activity</b>	<b>Calories Burned Per Minute per Person</b>
Driving a Car	3.125
Carpooling	1.625
Riding a bus	1.625
Bicycling (leisure)	8.5
Walking (leisure pace)	4.375
Walking (brisk 3.5 MPH)	5.375

<https://sites.google.com/site/compendiumofphysicalactivities/Activity-Categories>

# Walking is very healthy



# Walking is healthy for our economy

## RESIDENTIAL

### DISCONNECTED NETWORK



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POOR ACCESS TO GOODS AND SERVICES DECREASES HOME VALUES

### CONNECTED NETWORK



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HIGH WALKABILITY INCREASES HOME VALUES  
(\$4,000 to \$30,000 Higher Sales Price)

SOURCE: CDC's for Cities, "Walking for Health: How Walkability Boosts Home Values in US Cities" 2009

## COMMERCIAL

### DISCONNECTED NETWORK



POOR ACCESS TO GOODS AND SERVICES REDUCES COMMERCIAL PROPERTY VALUES

### CONNECTED NETWORK

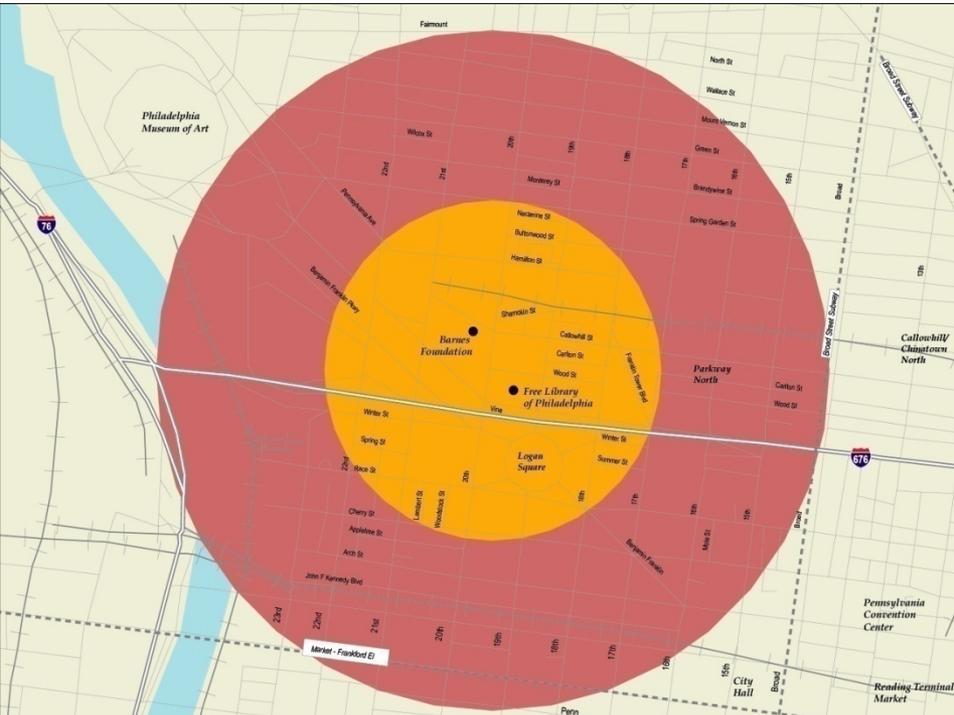


HIGH WALKABILITY INCREASES COMMERCIAL PROPERTY VALUES  
(Valued at 54% higher per square foot)

SOURCE: Fico, Gary and Jeffrey D. Hahn, "The Walkability Premium: Is Distance to Local Retail Investments? Working Paper, Research Property Investing Center, University Of Arizona Network Center for Real Estate Studies, Indiana University, February 2012.

# Planning Golden Rule = 10 Minute Walk

distance



time



# What are We Aiming For?

## Level of Service (LOS) Depends on Who's Asking



Engineer's LOS:

**E**

**A**

Economist's LOS:

**A**

**E**



# How do people walk around without being hit by a car?

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## Walkability:

- Interconnected streets and neighborhoods
- Buildings that define the public realm
- Neighborhood retail within 10 minute walk
- Access to transportation choice
- Safe and green streets

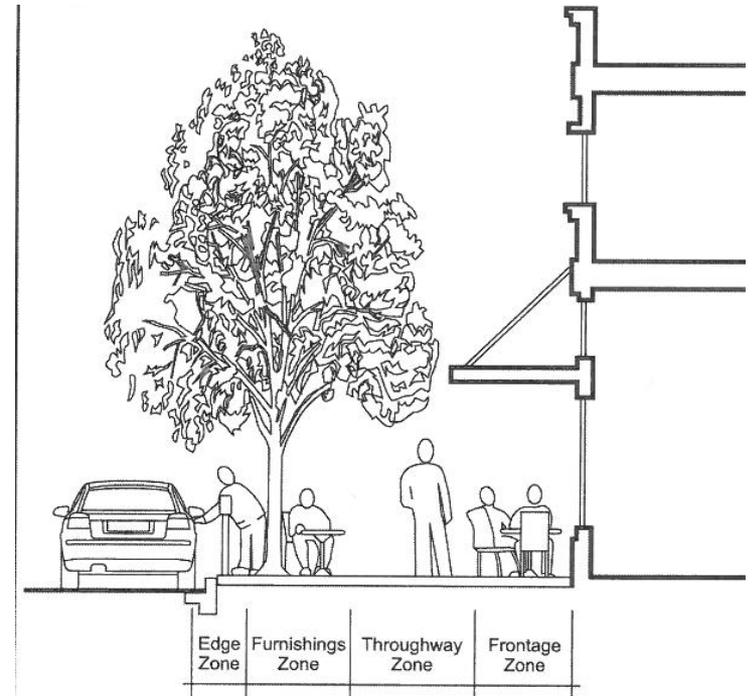
## Pedestrian improvements are:

- Simple
- Isolated
- Site-specific
- Human scale



# Walking: Safe + Attractive

- Principles
  - Make walking not just safe, but attractive
  - Encourage staying
- Produces
  - Induces walking
  - Improves health
  - Less auto reliance
- Connect Nodes and Corridors



*Provide lighting*



*Add greenery*



*Seating*

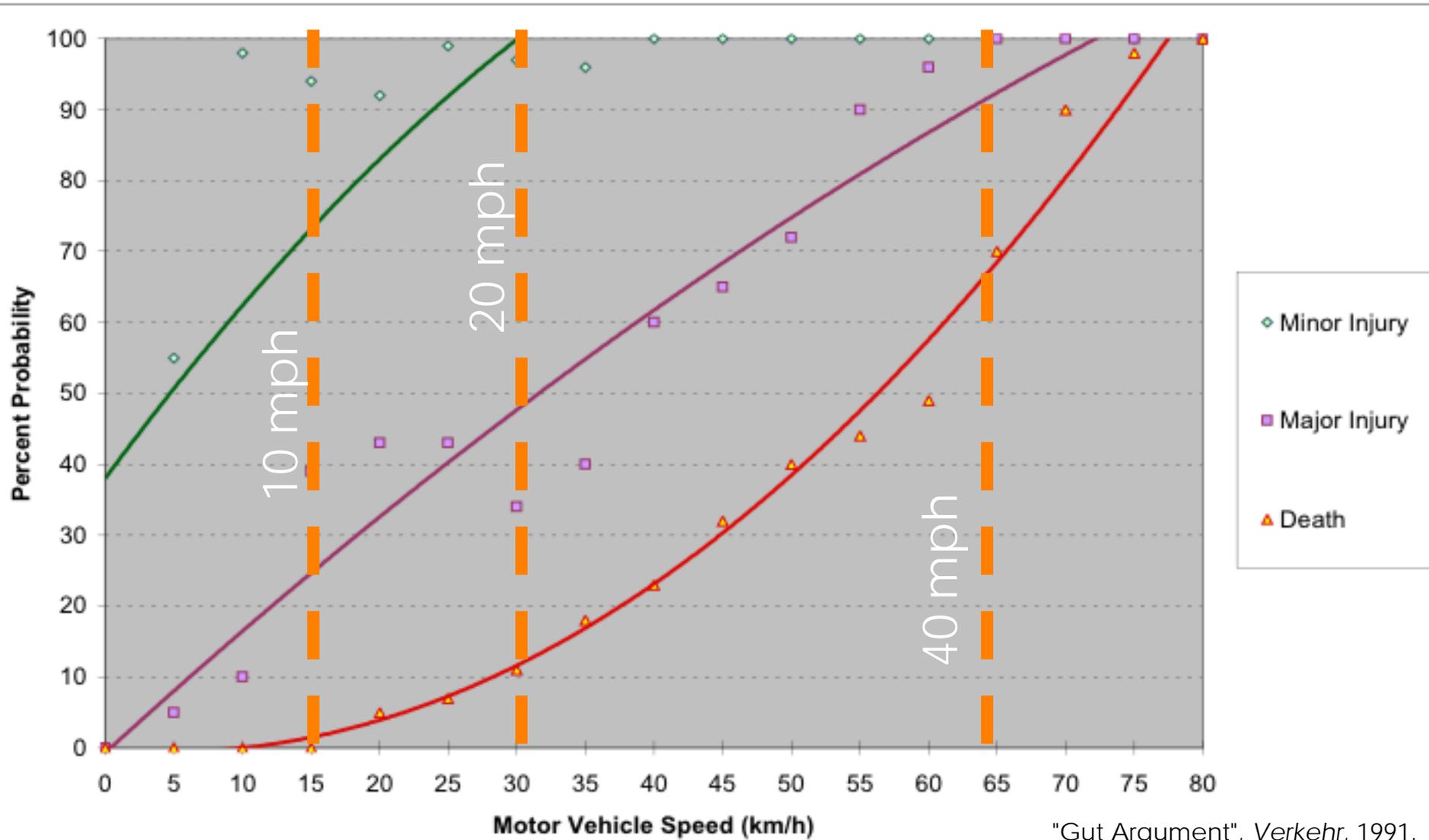
## 6 Keys to Walkability: Safety

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Pedestrians should be well protected from road hazards such as vehicles



# Vehicle Speed v. Pedestrian Injury



"Gut Argument", *Verkehr*, 1991.

## 6 Keys to Walkability: Security

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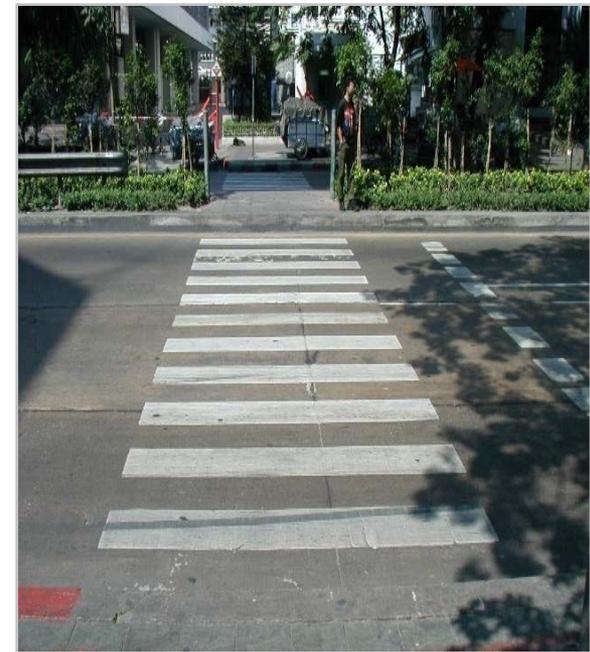
Pedestrians are not susceptible to robberies or other crimes – or even feel unsafe



## 6 Keys to Walkability: Direct

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A pedestrian path that minimizes the distance travelled



Don't add more than 30 seconds of delay

# Walkers Don't Wait

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Don't add more than 30 seconds of delay

<b>Pedestrian Delay (seconds)</b>	<b>Likelihood of Non-Compliance</b>
<10	Low
10-20	
21-30	Moderate
31-40	High
41-60	
>60	Very high

Source: *Highway Capacity Manual 2000 (Transportation Research Board)*

Wall Decaux

St. Vincent de Paul  
of St. Louis

[www.servingthepoor.com](http://www.servingthepoor.com)



touching  
BUILDING FIGURES.

PROBATION



**TEMPORARY  
RESTORE**

August 3, 2009  
until May, 2010

314-331-2345



# To get beyond downtown, Complete Networks matter

- Intersection Density: Well-connected grid encourages pedestrian travel.
  - ✓ Ideal intersection density = four-way intersections every 300 feet or 1,300 legs per square mile.
- Sidewalk completeness
  - ✓ Percentage of streets with sidewalks on both sides



# 6 Keys to Walkability: Easy

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No onerous actions, such as walking up steep inclines



# 6 Keys to Walkability: Comfortable

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Quality and quantity of pathway, plus protection from inclement weather, such as sun, wind, and rain





**Make Walking a Pleasure**

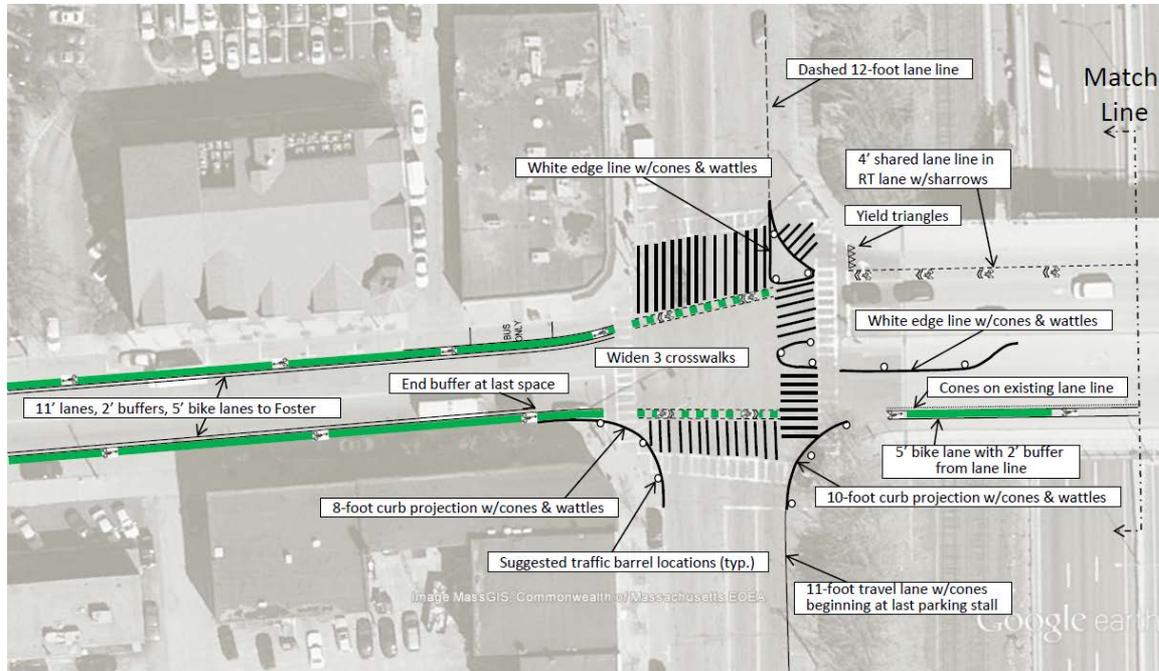
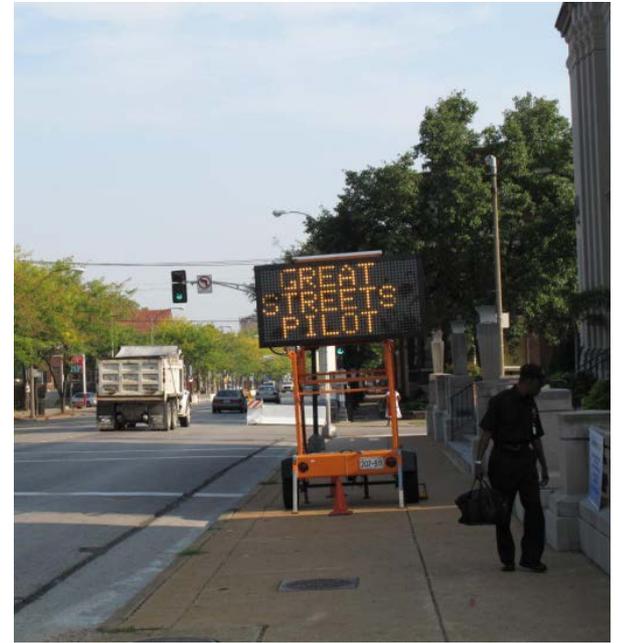
# 6 Keys to Walkability: Aesthetics

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The walking environment is pleasing to the eye...material and greenery



# Don't answer yet...Try a pilot project



# What does parking have to do with walking?

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Parking is an important part of the transportation network, but:

- Parking consumes land
- Parking is expensive
- Parking can work for or against the pedestrian

# Focus on balance over parking

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# Parking tools available to all

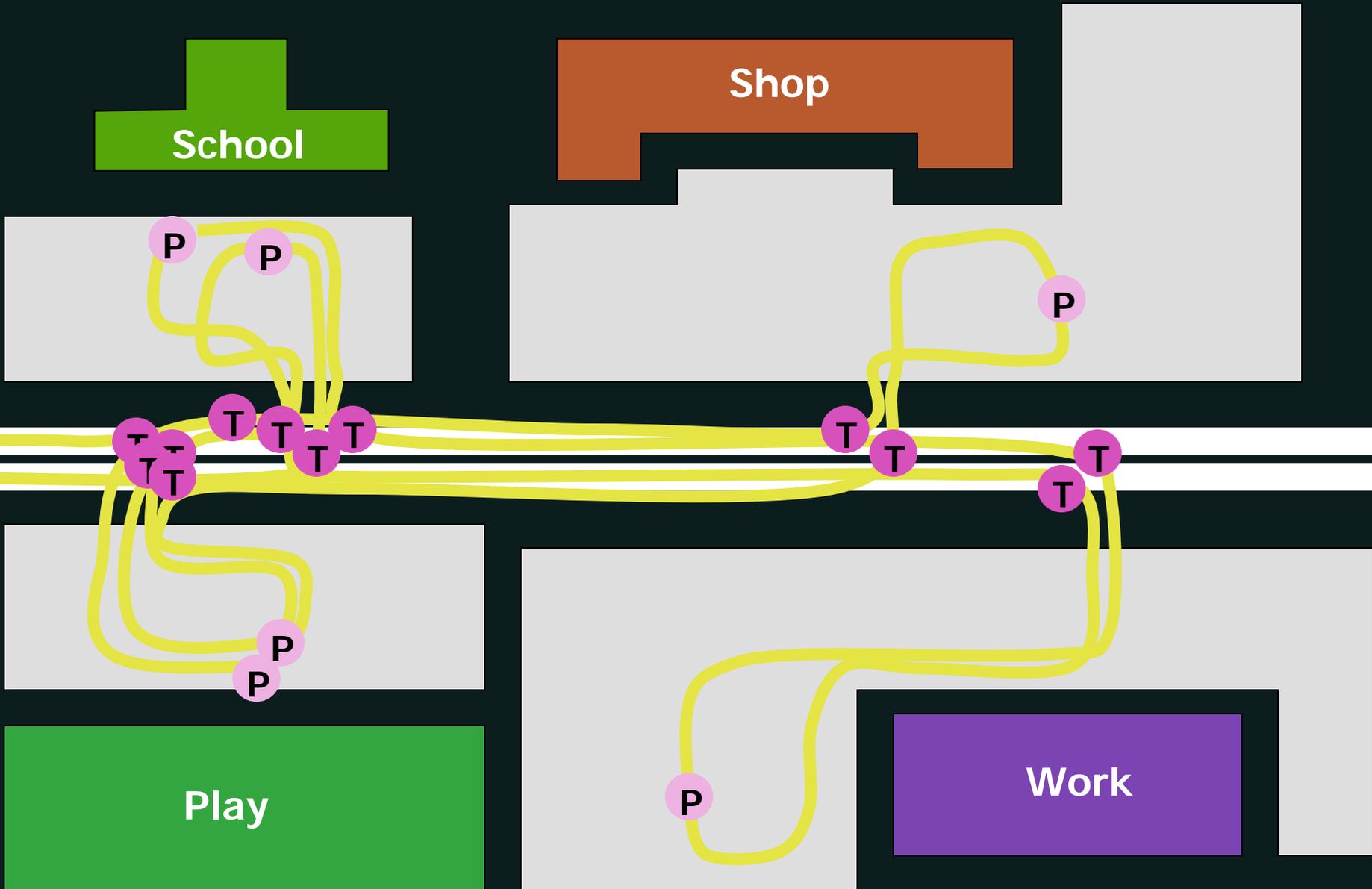
	<u>Typical Minimum Requirements</u>	<u>'Tailored' Minimum Requirements</u>	<u>Abolish Minimum Requirements</u>	<u>Set Maximum Requirements</u>
<b>Typical Tools</b>	<ul style="list-style-type: none"> <li>❖ Requirement &gt; Average Demand</li> <li>❖ Hide all parking costs</li> </ul>	Adjust for: <ul style="list-style-type: none"> <li>❖ Density</li> <li>❖ Transit</li> <li>❖ Mixed Use</li> <li>❖ 'Park Once' District</li> <li>❖ On-street spaces</li> </ul>	<ul style="list-style-type: none"> <li>❖ Market decides</li> <li>❖ Garages funded by parking revenues</li> <li>❖ Manage on-street parking</li> <li>❖ Residential pkg permits allowed by vote</li> </ul>	<ul style="list-style-type: none"> <li>❖ Limit parking to road capacity</li> <li>❖ Manage on-street parking</li> <li>❖ Market rate fees encouraged/required</li> </ul>
<p> <span style="margin-right: 100px;"><b>Drive Alone</b></span>  <span><b>Multimodal</b></span> </p>				

# Parking in context lets you plan for the people

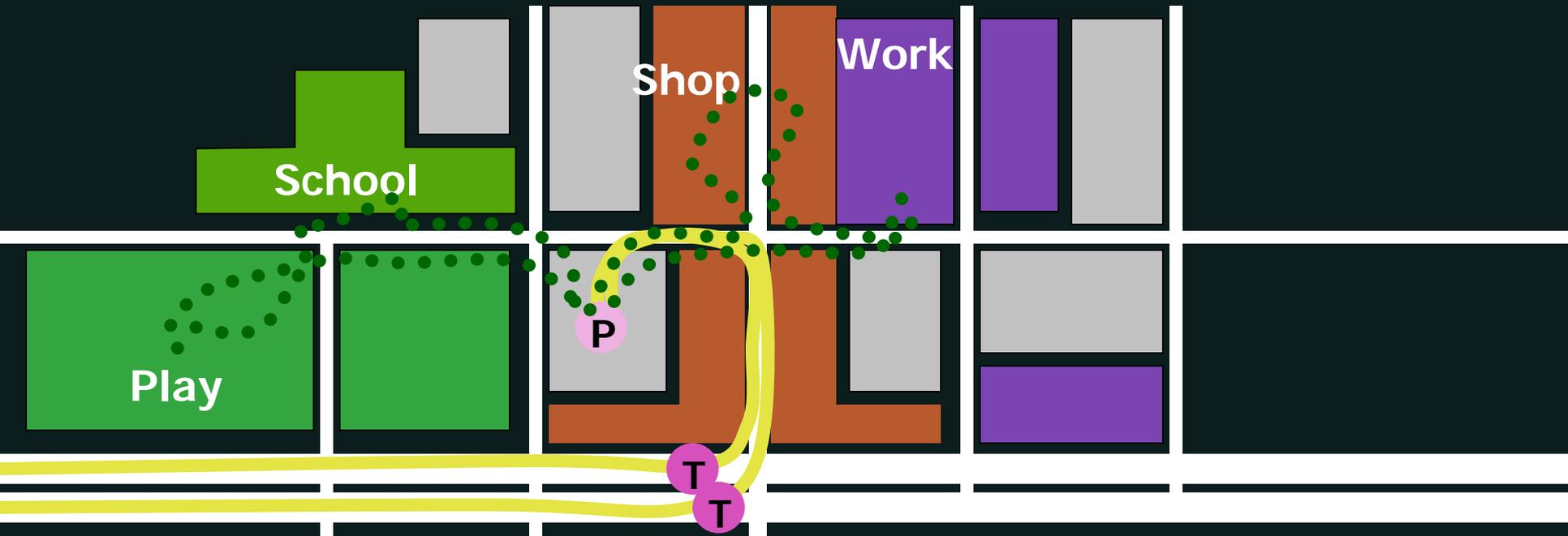
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# Conventional Development



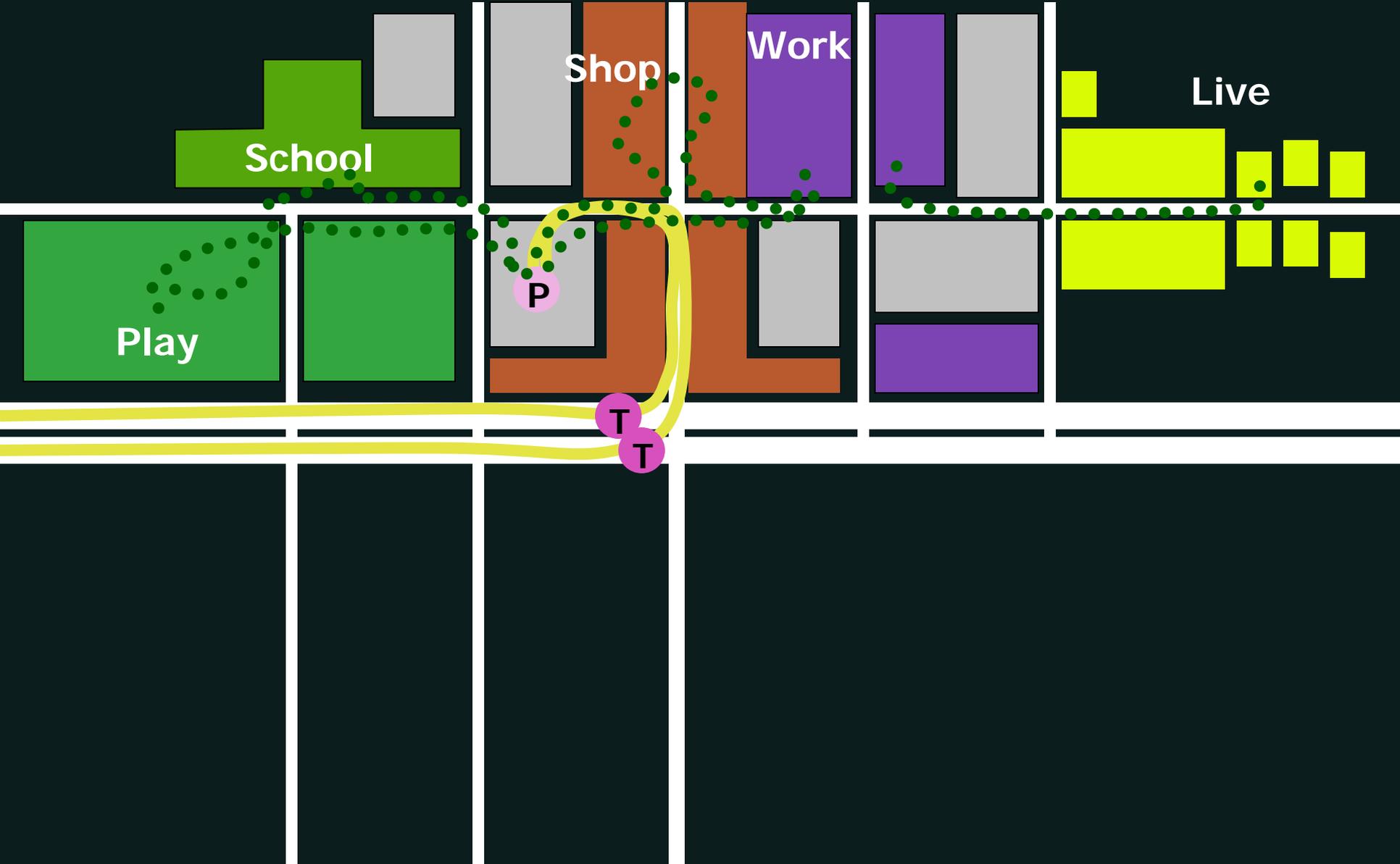
# Walkable, Park Once District



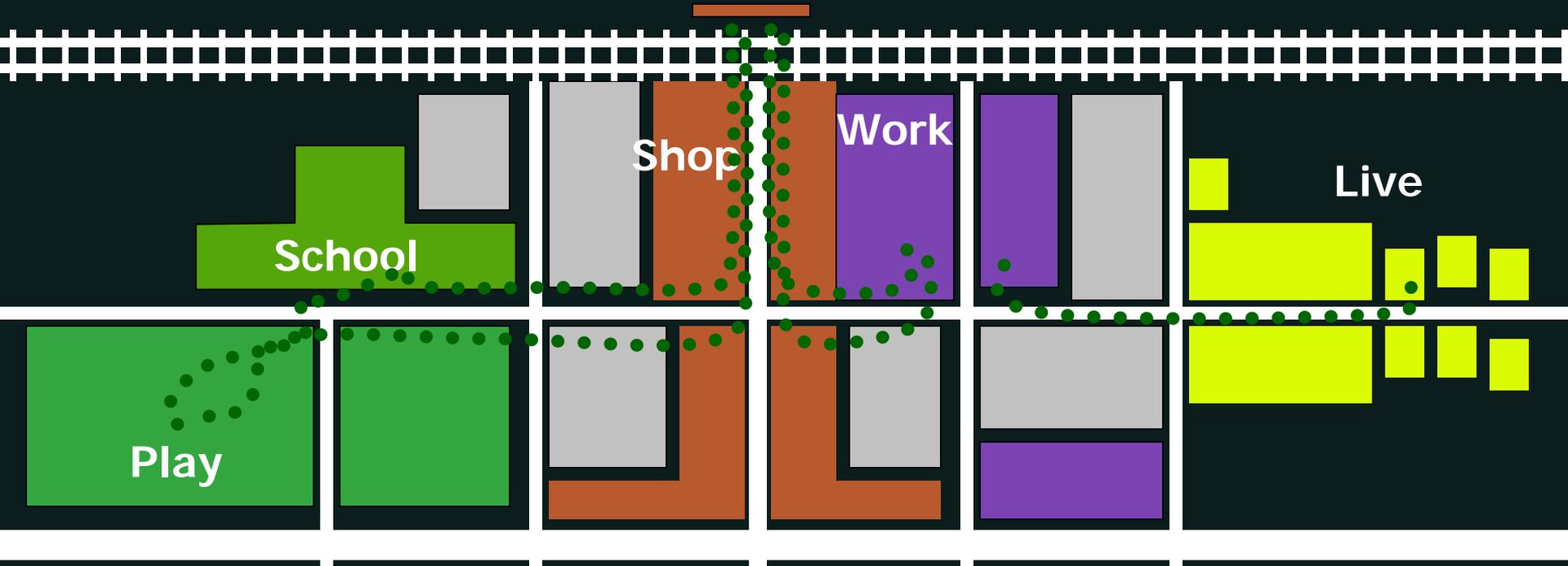
## Results:

- $< \frac{1}{2}$  the parking &  $< \frac{1}{2}$  the land area = uses close enough to walk
- $\frac{1}{4}$  the arterial trips &  $\frac{1}{6}^{\text{th}}$  the arterial turning movements = more ROW and signal time for walking

# Walkable, Park Once, Mixed Use Node

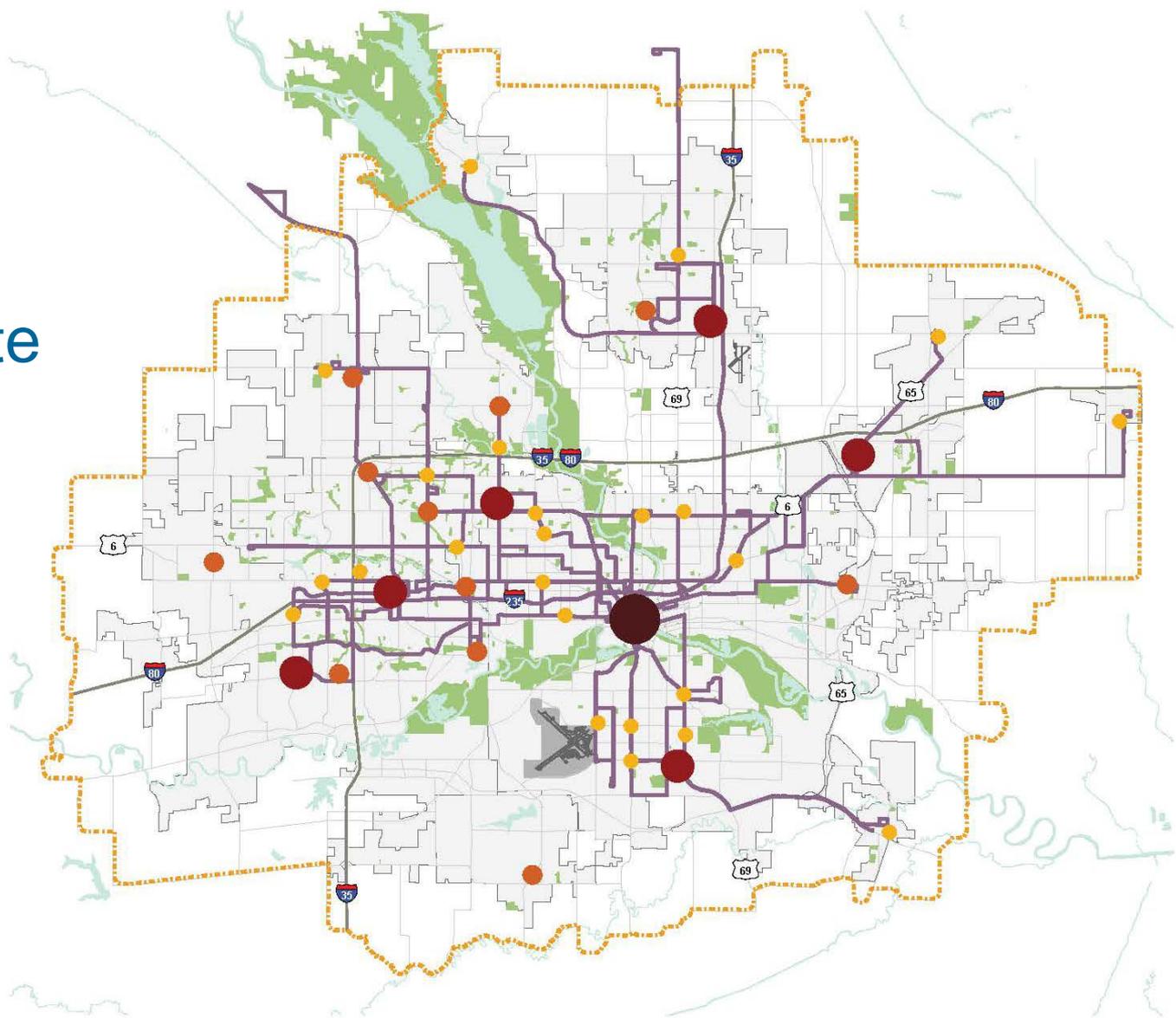


# Multiple Nodes = Corridor



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# Walkable Nodes Create Corridors Throughout the Region



- |   |                   |   |                |   |                             |
|---|-------------------|---|----------------|---|-----------------------------|
|  | DOWNTOWN NODE     |  | LAKES + RIVERS |  | STUDY AREA BOUNDARY         |
|  | REGIONAL NODE     |  | PARK SPACE     |  | DART FORWARD 2035 BUS ROUTE |
|  | COMMUNITY NODE    |  | AIRPORT        |  | MAJOR ROAD                  |
|  | NEIGHBORHOOD NODE |  | CITY BOUNDARY  |   |                             |

Don't forget...everyone is a pedestrian



# Indicator species

- Walking to school
- Recreational walkers
- Aging in place/retirees



*The model used to be to isolate old people on cul-de-sacs backing up to a golf course. The new model is for walkable urban places.”*

-Christopher Leinberger,  
Developer and GWU Professor  
(NY Times 10/15/16)



# Thank You



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