



Charlotte

# Easing Gridlock by Connecting Development & Transportation Demand Management

CHRIS FORINASH, Nelson\Nygaard  
JUSTIN SCHOR, Wells + Associates  
JAY CORBALIS, JBG SMITH

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THURSDAY, JUNE 10, 2021



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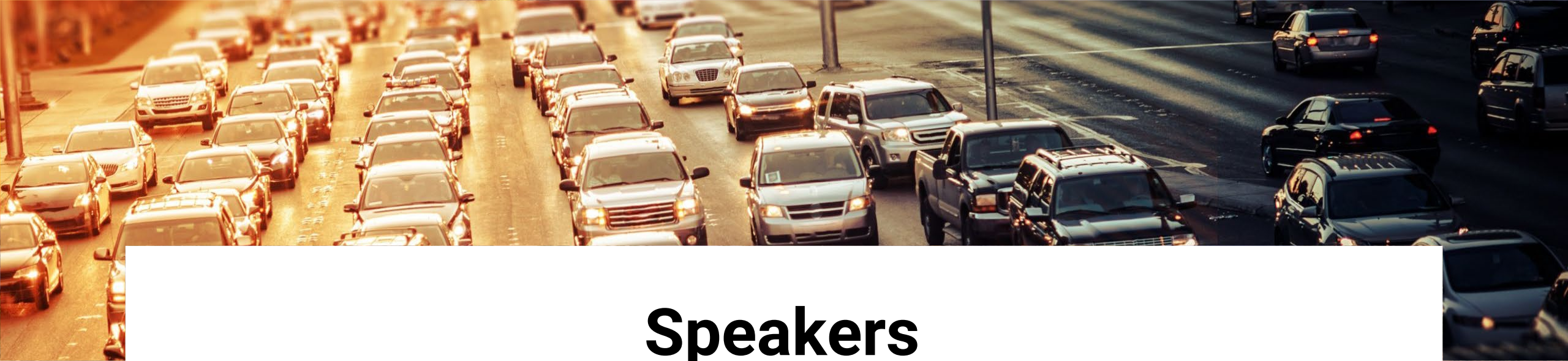
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**This program is made possible with support  
through a grant from the  
Bloomberg American Cities Climate Challenge**



# Speakers



**Chris Forinash**

*Principal*  
Nelson\Nygaard



**Justin Schor**

*Principal*  
Wells + Associates



**Jay Corbalis**

*Vice President of Public Affairs*  
JBG SMITH



**Chris Forinash**  
*Nelson\Nygaard*

# What could TDM mean for Charlotte?

ULI Charlotte: Easing Gridlock by Connecting Development & TDM



Christopher Forinash, Principal

June 10, 2021

**So, anything going on in Charlotte  
with development, planning, or  
transportation these days?**

# SO, ANYTHING GOING ON IN CHARLOTTE WITH DEVELOPMENT, PLANNING, OR TRANSPORTATION THESE DAYS?

- Charlotte Future 2040 Comprehensive Plan ... under development for 2+ years, in front of Council
- Unified Development Ordinance (UDO) ... TOD Districts adopted 2019, remainder in development
- Charlotte MOVES Task Force ... recommended transformational mobility network investments late 2020





# SO, ANYTHING GOING ON IN CHARLOTTE WITH DEVELOPMENT, PLANNING, OR TRANSPORTATION THESE DAYS?

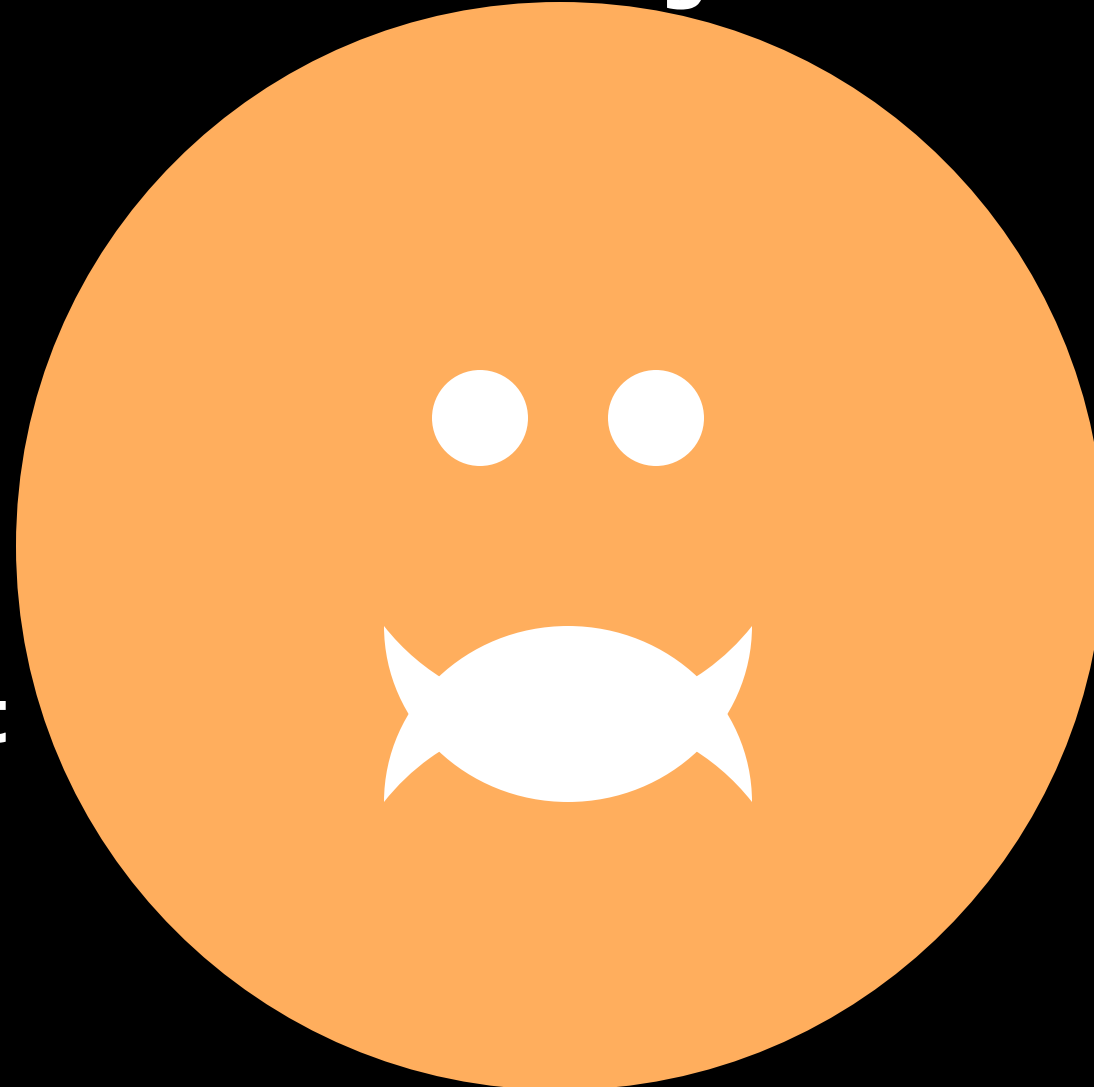
Meanwhile, development continues apace, in Uptown, TOD districts, and well beyond.

- City and region continue to attract new residents and businesses
- Increasing demand for living closer-in, near walkable streets and transit and greenways
- Demand for conventional suburban development remains ... but evolves
  - Outdated, inflexible minimums require too much parking in most contexts
  - Traffic Impact Study methods aren't capable of understanding multimodal travel
  - Traffic mitigations rigidly require expanding roads

# The Vicious Cycle

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## Traffic and Congestion




**More People  
Drive**

**More  
Development  
Happens**

**Widen  
Roads**

**Faster Driving**

An aerial photograph of a campus or office park. The image shows several large, rectangular office buildings with flat roofs, interspersed with parking lots and green spaces. A network of yellow lines is overlaid on the image, representing a Transit-Demand Management (TDM) plan. These lines form a complex web of paths that connect the buildings, parking areas, and transit routes, illustrating how TDM can be used to manage traffic and encourage alternative transportation modes. The campus is situated near a major highway interchange with multiple lanes and overpasses. The overall scene is a mix of built-up areas and open spaces, with the yellow lines highlighting the strategic placement of TDM measures.

TDM is cheaper and more effective. Oh, and it helps create places that align with our stated values.

# MOBILITY BEYOND EXPANDING ROADS

Goal: Safe and Equitable Mobility

- Mobility that serves everyone
- Gets them to where they want to go safely, conveniently, and affordably
- Gives them choices
- Meets other goals and values

How does it happen?

- The City plans and creates the mobility network (with developer contributions)
- Make sure it serves everyone, for most destinations, with real choices
- But providing the network is only part of what's needed
- Help people learn about, try, and maybe adopt a range of ways to meet their mobility needs



## GOAL 5: SAFE AND EQUITABLE MOBILITY

Charlotte will provide safe and equitable mobility options for all travelers regardless of age, income, ability, race, where they live, or how they choose to travel. An integrated system of transit, bikeways, sidewalks, shared-use paths, and streets will support a sustainable, connected, prosperous, and innovative network that connects all Charlotteans to each other, jobs, housing, amenities, goods, services, and the region.

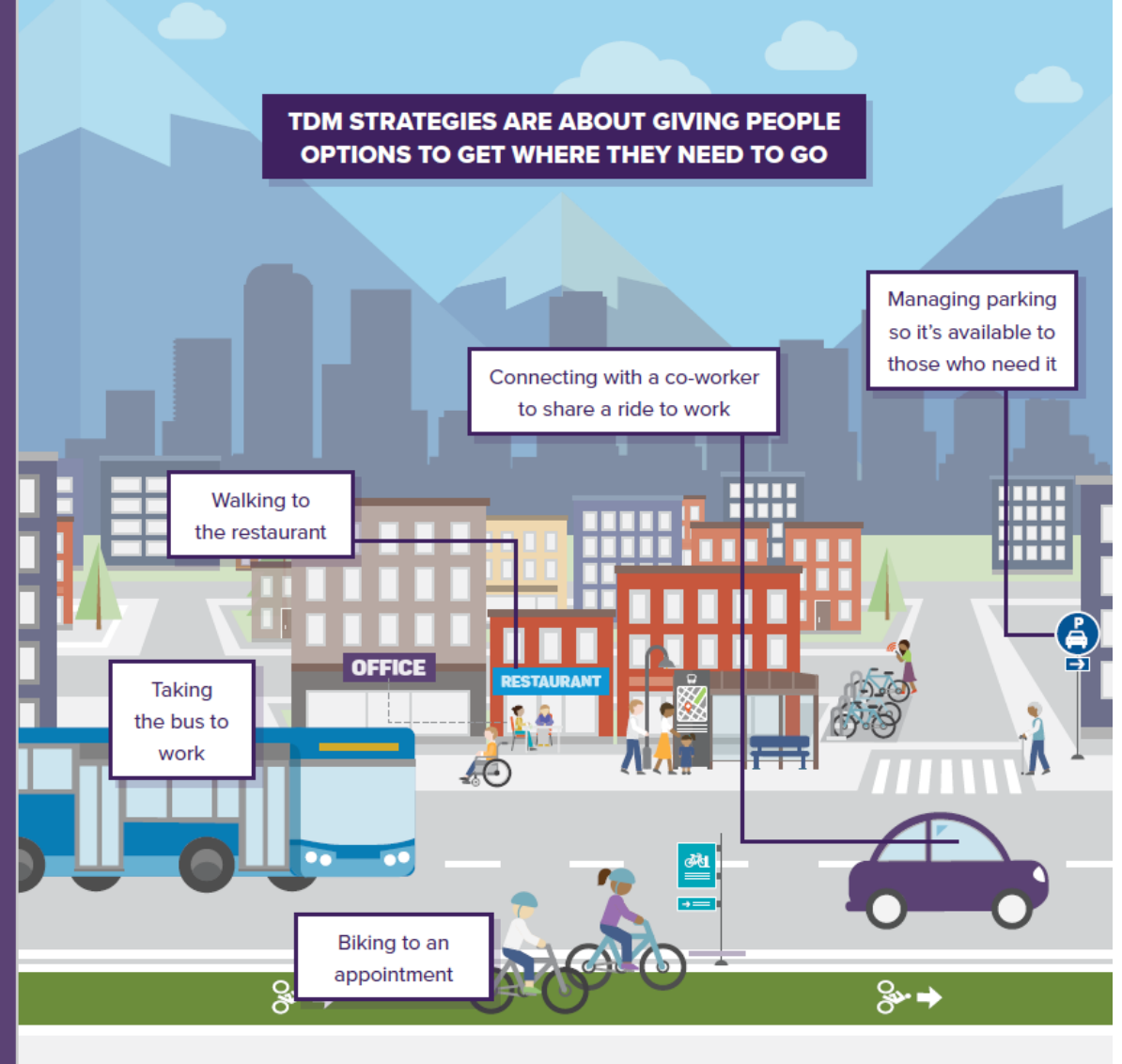
# What is TDM and how can it help?

Transportation demand management (TDM) strategies include:

| Services   | Infrastructure   | Parking Management  | Multimodal Subsidies   | Education  |
|--|--|---|--|--|
| <ul style="list-style-type: none"> <li>• Car-Share parking</li> <li>• Special event transit service</li> <li>• On-site child care</li> </ul> | <ul style="list-style-type: none"> <li>• Off-site active transportation improvements</li> <li>• Transit station/stop investment</li> <li>• Bicycle storage and showers</li> <li>• Pedestrian and cyclist wayfinding</li> </ul> | <ul style="list-style-type: none"> <li>• Unbundled parking</li> <li>• Parking cash-out</li> <li>• Preferential parking for carpooling</li> <li>• Parking fees/paid parking</li> </ul> | <ul style="list-style-type: none"> <li>• Visitor discounts to avoid peak period trips</li> <li>• Subsidize transit passes</li> <li>• Car-share or bike-share membership discounts</li> </ul> | <ul style="list-style-type: none"> <li>• New resident/employee welcome kits</li> <li>• Information kiosks, transit screens, or websites</li> <li>• Trip planning assistance</li> <li>• TDM program branding and messaging</li> </ul> |

## TDM STRATEGIES BENEFIT BY HELPING:

- ✓ **Attract and retain tenants**  
Provide easy and affordable travel options they want
- ✓ **Reduce congestion and traffic gridlock**  
Spend less time sitting in traffic and get where you need to go on time
- ✓ **Promote sustainability**  
Lower greenhouse gas emissions with fewer vehicle trips



TDM STRATEGIES ARE ABOUT GIVING PEOPLE OPTIONS TO GET WHERE THEY NEED TO GO

Connecting with a co-worker to share a ride to work

Walking to the restaurant

Taking the bus to work

Biking to an appointment

Managing parking so it's available to those who need it

- ✓ **Improve public health**  
Get more people walking, biking, and breathing clean air
- ✓ **Enhance equity**  
Reduce transportation costs and increase access to local destinations to support a thriving economy
- ✓ **Decrease development costs**  
Lower the cost of construction with unbundled parking; pass the savings on to tenants

# What is TDM and how can it help?

Transportation demand management (TDM) strategies include:



- Services**
  - Car-Share parking
  - Special event transit services
- Infrastructure**
  - Off-site active transportation
- Parking Management**
  - ...
- Multi-modal**
  - ...
- Services**
  - Trip planning assistance
  - TDM program branding and messaging

TDM STRATEGIES ARE ABOUT GIVING PEOPLE OPTIONS TO GET WHERE THEY NEED TO GO

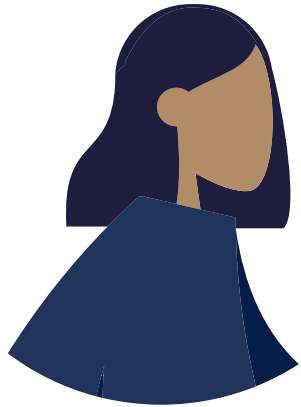
**It's NOT just developers!**  
**The City, region, transit agency, BIDs, neighborhood associations, employers, building owners and managers, ...**  
**ALL have a role to play in providing and supporting mobility options for everyone.**



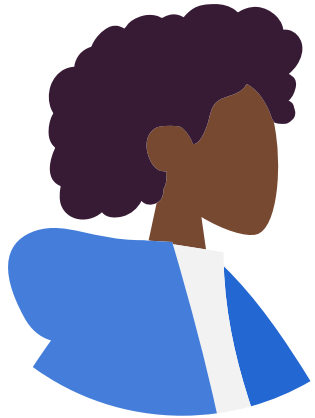
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# TO HELP EXPLAIN, LET'S INTRODUCE FIVE CHARACTERS



Renter  
Renee



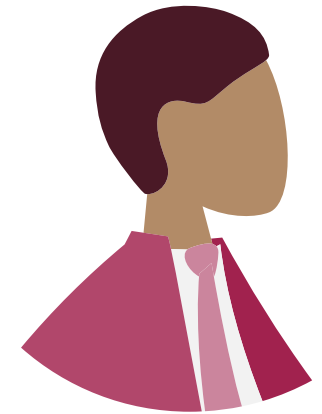
Homeowner  
Harriet



Shopkeeper  
Shauna



Developer  
Danielle



Planner Pamela

# A BALANCED APPROACH WOULD HELP



Renter  
Renee



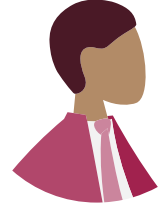
Homeowner  
Harriet



Shopkeeper  
Shauna



Developer  
Danielle



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1

Increase housing affordability  
and reduce construction costs



2

Give new flexibility to small business  
owners who want to use their off-street  
parking for other uses



3

Support economic growth



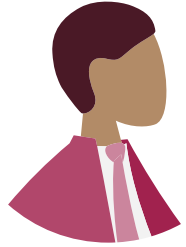
4

Reduce our emissions and make  
walking, biking, and transit more  
appealing

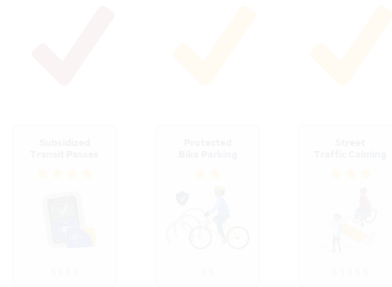




# HOW TDM WORKS



Planner Pamela provides a menu of tools designed to make it easier to walk, bike, and take transit



Renter Renee and Homeowner Harriet feel more empowered to walk, bike, and take transit

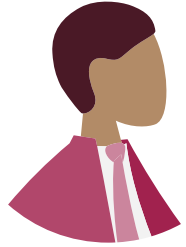


Developer Danielle chooses tools from the menu for her new development

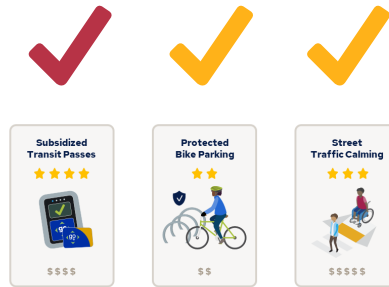
Shopkeeper Shauna chooses tools for her new store



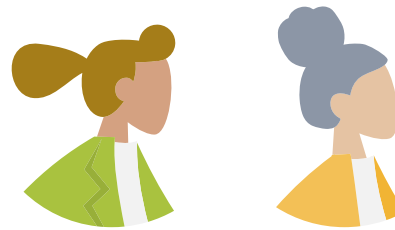
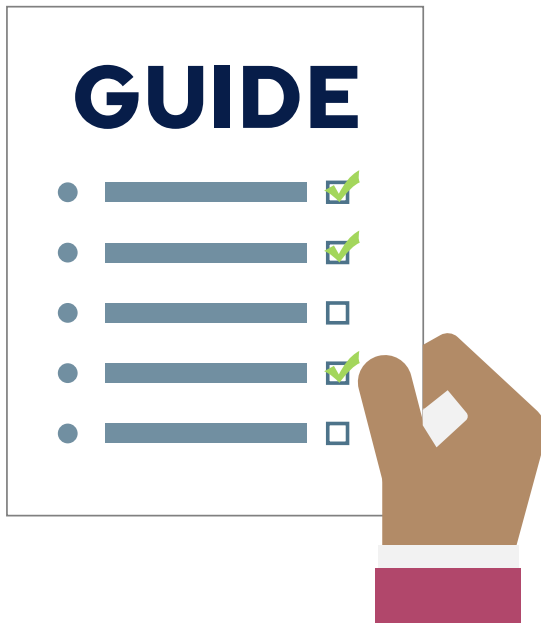
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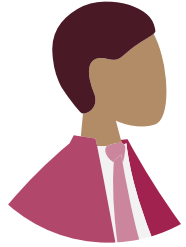


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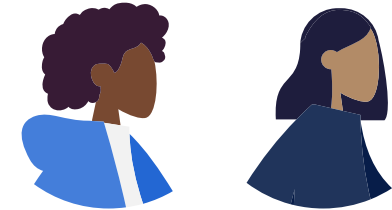
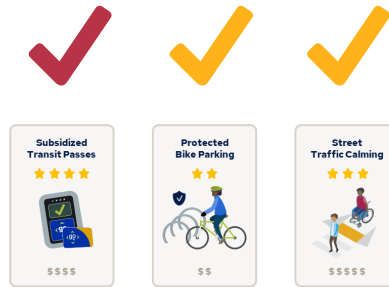
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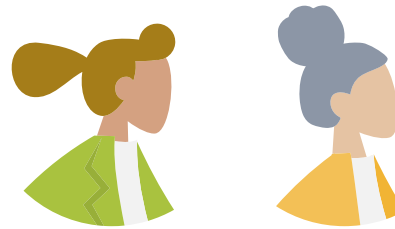
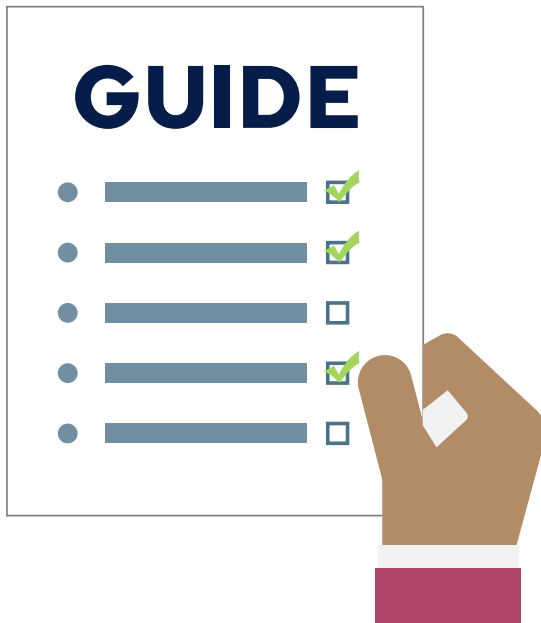
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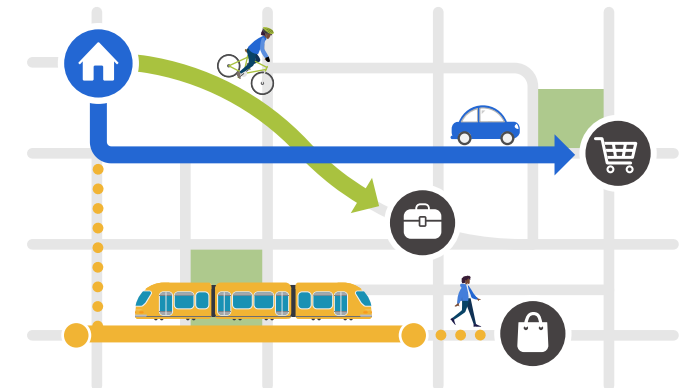


Renter Renee and Homeowner Harriet know about their choices and feel empowered to walk, bike, and take transit



Developer Danielle chooses tools from the menu for her new development

Shopkeeper Shauna chooses tools for her new store



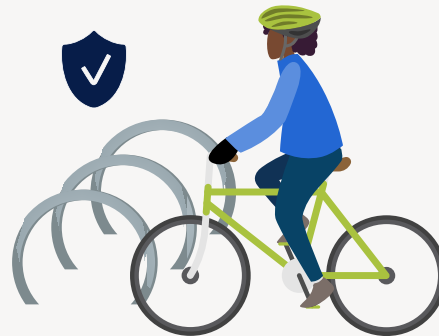
# THE MENU WOULD INCLUDE TOOLS LIKE ...

## Subsidized Transit Passes



\$\$\$

## Protected Bike Parking



\$\$

## Street Traffic Calming



\$\$\$\$

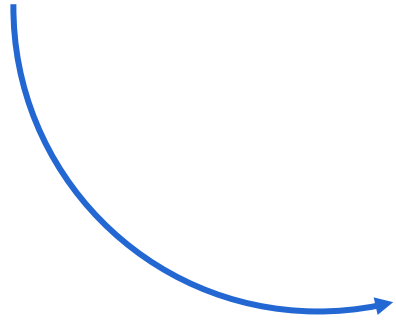
**Even before the pandemic, our shopping and  
work patterns were changing**

**For example,  
Homeowner Harriet  
was increasingly ...**

Using ride hail



Shopping online

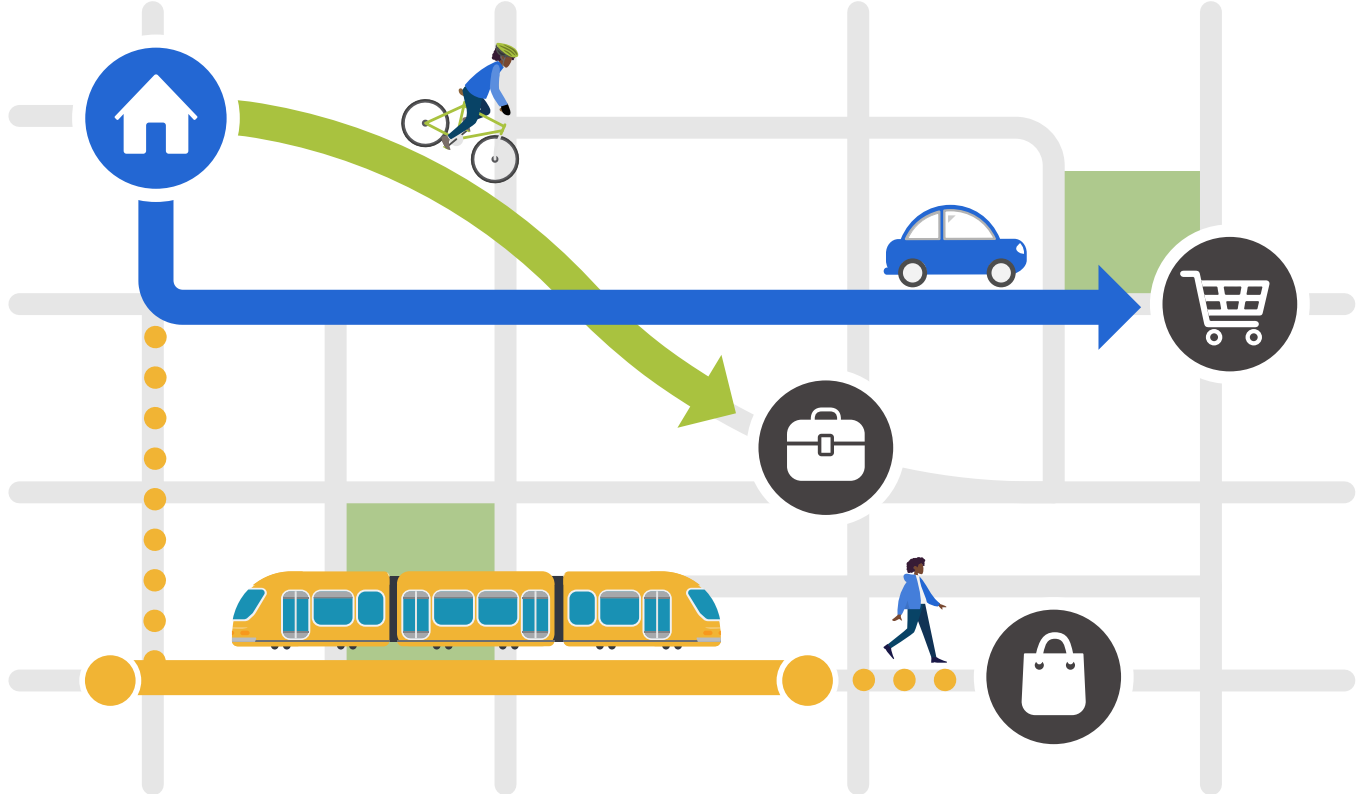


Working from home



Prioritizing  
experiences  
over things

**Even though she has a car, she uses it less often for shopping, visiting friends, and getting to the office**





## Shopkeeper Shauna sees these trends ...

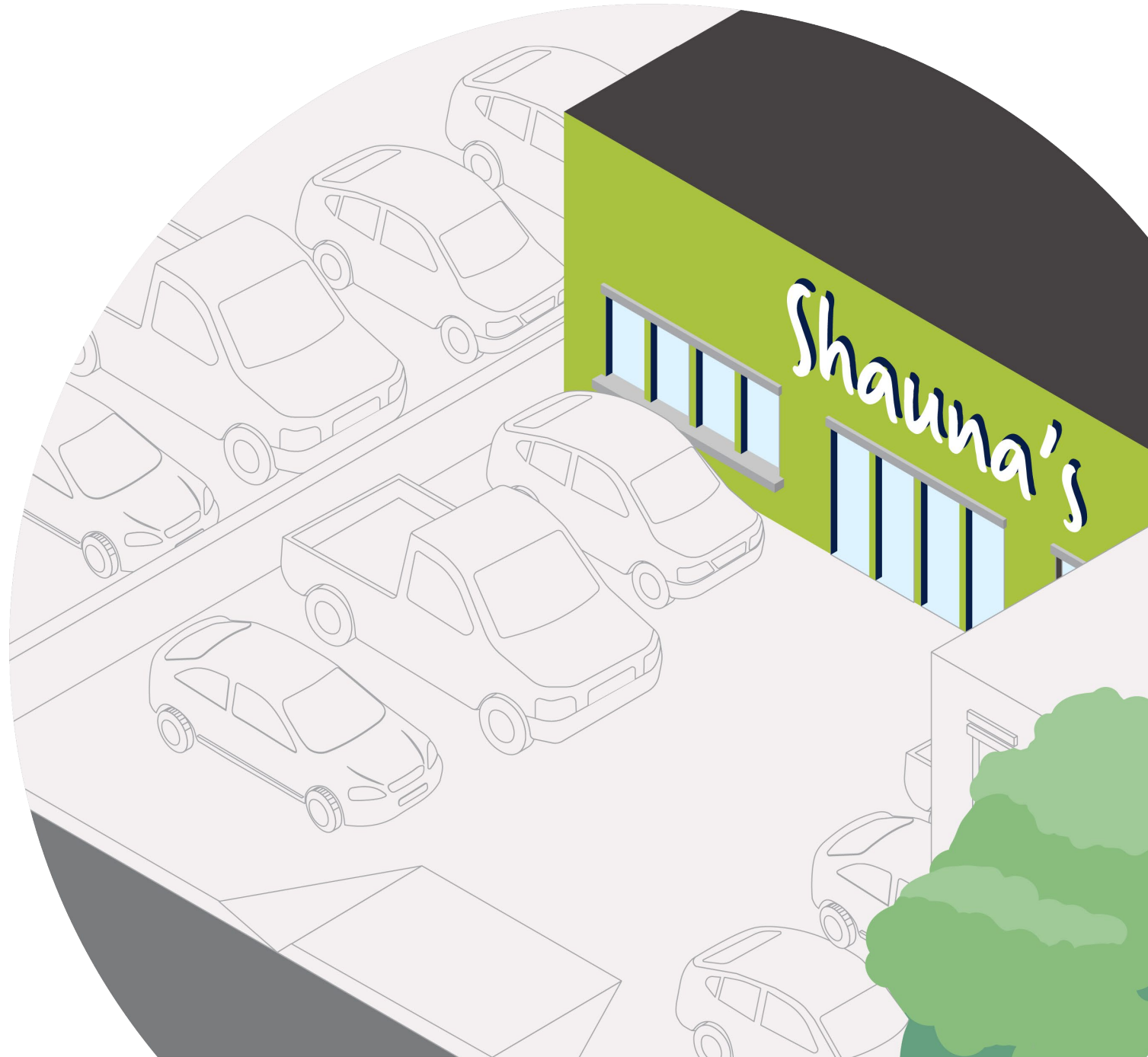
... and wants to attract  
people like Harriet with a  
better customer experience  
by converting part of her  
parking lot into a patio







**Not so fast: parking  
minimums!**



# YOUR ROLE IN CHANGE

- The TDM approach and tools aren't just for new development
- TDM is a tool for universal mobility
- You can influence policy changes to work best for you ...
- ... while helping you contribute to the overall vision
- Charlotte's peers are:
  - Striving to meet broader, values-based goals
  - Using TDM aggressively
  - In conjunction with TIS changes
  - Typically implementing a menu-based TDM approach
  - **Marketing the mobility benefits of their projects**



Ease of travel leads to upward mobility. Yet, in transportation demand management (TDM)—an industry focused on making mobility options more diverse, efficient, and sustainable—programs disproportionately benefit high-income earners.

TDM has a much broader and more impactful role to play in our communities. It's time for equitable and inclusive TDM that expands participation and tailors programs—going beyond climate goals and vehicle trip requirements—to directly improve people's lives. Here are five ways to make that happen:

## 1. Expand participation.

Most TDM policies are focused on two populations: (1) employees who travel to work during peak commute hours and (2) residents who live in new, multifamily residential developments. Relying on market-rate housing developers and large employers to lead TDM implementation excludes low-wage and hourly workers who commute outside traditional peak hours. This disproportionately affects people of color.<sup>1</sup>

Mobility programs offered at market-rate residential developments and large employment sites should also be offered at public and affordable housing developments, and they should be made available to non-peak commuters. Diverse, efficient, and sustainable transportation options need to be within everyone's reach. This includes transit subsidies, rideshare discounts, and parking cash-out programs. In practice, city and regional policies should work to broaden participation.

### Case Study: Casa Arabella

The City of Oakland has a reduction-based TDM policy that requires all new developments that generate more than 50 net-new a.m. or p.m. peak-hour vehicle trips to prepare and implement a TDM program. Unlike other cities' TDM programs, multifamily, affordable housing developers are required to participate.<sup>2</sup>

At Casa Arabella, a newly constructed affordable housing development in the Fruitvale neighborhood of Oakland, residents have access to the following mobility benefits:

- **Mobility Wallet:** Households receive \$150 per year in flexible transportation dollars, providing residents access to multiple transit agencies and micromobility services.
- **Bicycle Library:** Residents can borrow bicycles and gear through an on-site bicycle library. Non-recreational bike trips can shift household costs and improve health outcomes. These bicycle libraries also help residents avoid the significant financial investment of purchasing and maintaining a bike.
- **Family Amenities:** Residents can rent collapsible utility carts and strollers, helping families without access to a private vehicle meet their daily transportation needs.

### Case Study: Large Employer

A large employer in Oregon is thinking differently about how it helps employees get to work sustainably:

- In 2018, the employer implemented a subsidized Lyft program designed to support people who work the night shift. The program provided a subsidized Lyft ride to or from work during hours not well served by transit.
- In 2021, the employer is exploring ways to support low-wage workers by implementing a wage-based daily parking program. The program would tailor the parking price based on income to support equitable access to transportation options.

**Key Takeaway: Expand TDM policies to improve mobility and access for more people—for both commute and non-commute trips.**

<sup>1</sup> U.S. Bureau of Labor Statistics (2019). Labor Force Characteristics by Race and Ethnicity, 2018. Retrieved from <https://www.bls.gov/opub/reports/race-and-ethnicity/2018/home.htm>

<sup>2</sup> City of Oakland (2017). Transportation Impact Review Guidelines. Retrieved from <https://cao-94617.s3.amazonaws.com/documents/cao063581.pdf> and City of Oakland (2020). Standard Conditions of Approval. Pp. 59



**Thank You**

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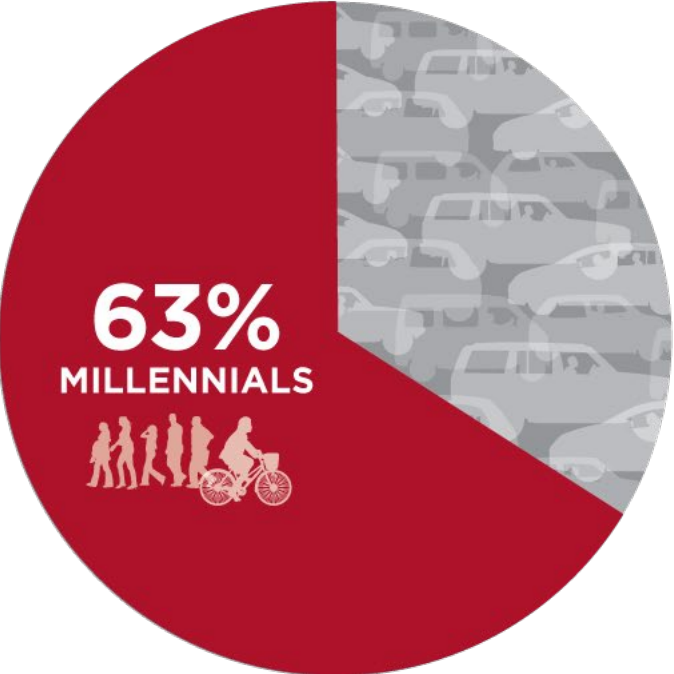
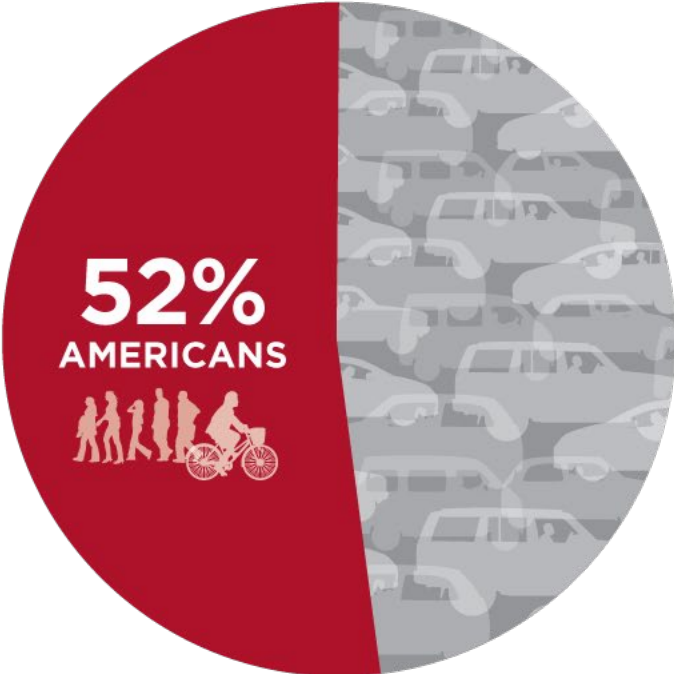


**Justin Schor**  
*Wells + Associates, Inc.*

# Building a Multimodal Future



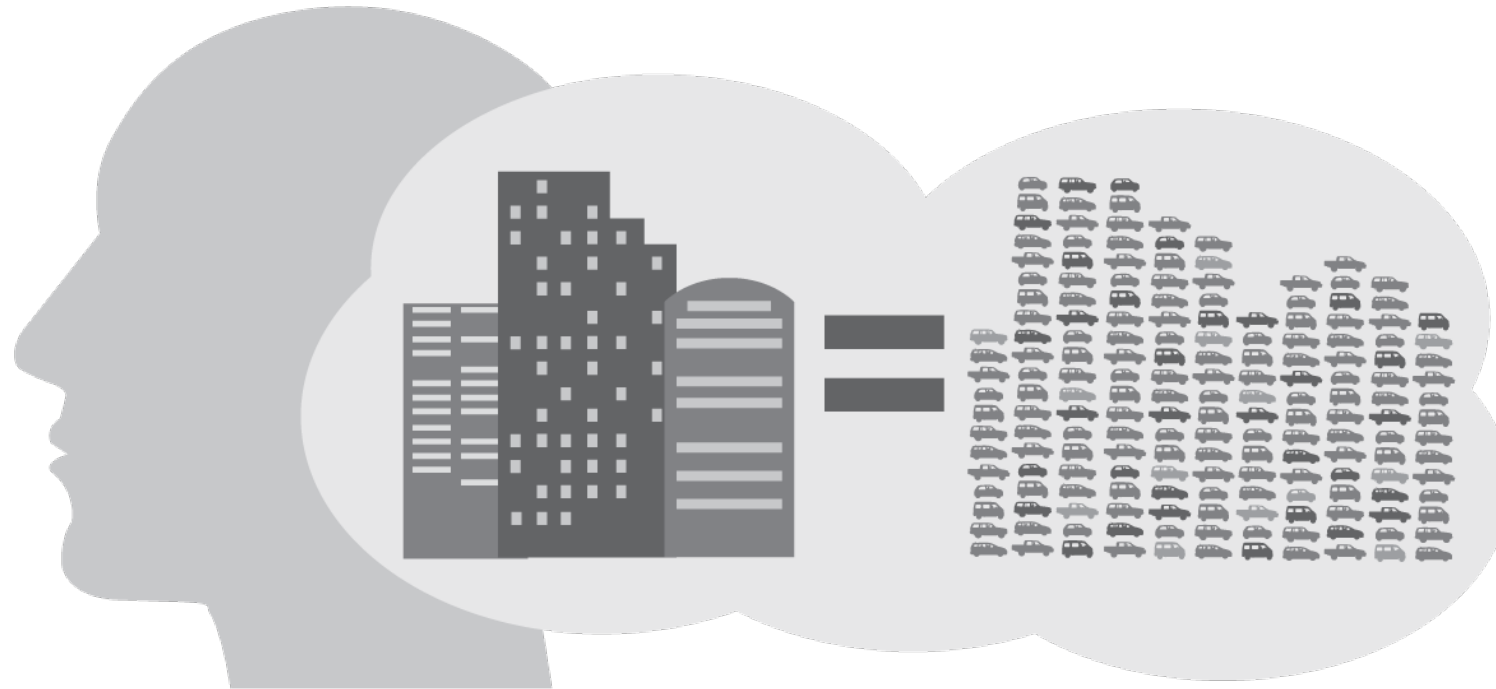
# Market Demand for Less Car Use



# Responding to Demand



# The Challenge





# The Solution





# The Role of Development in that Solution

- Buildings have people
- People generate traffic
- Reducing traffic requires engaging people in those buildings

# Engaging Development in that Solution

**Communities leverage permitting or rezoning process to require new developments to provide TDM**

# Making TDM Worthwhile: Increase Revenue



**INCREASED  
DENSITY**



**GREATER  
FLEXIBILITY WITH  
LAND USES**

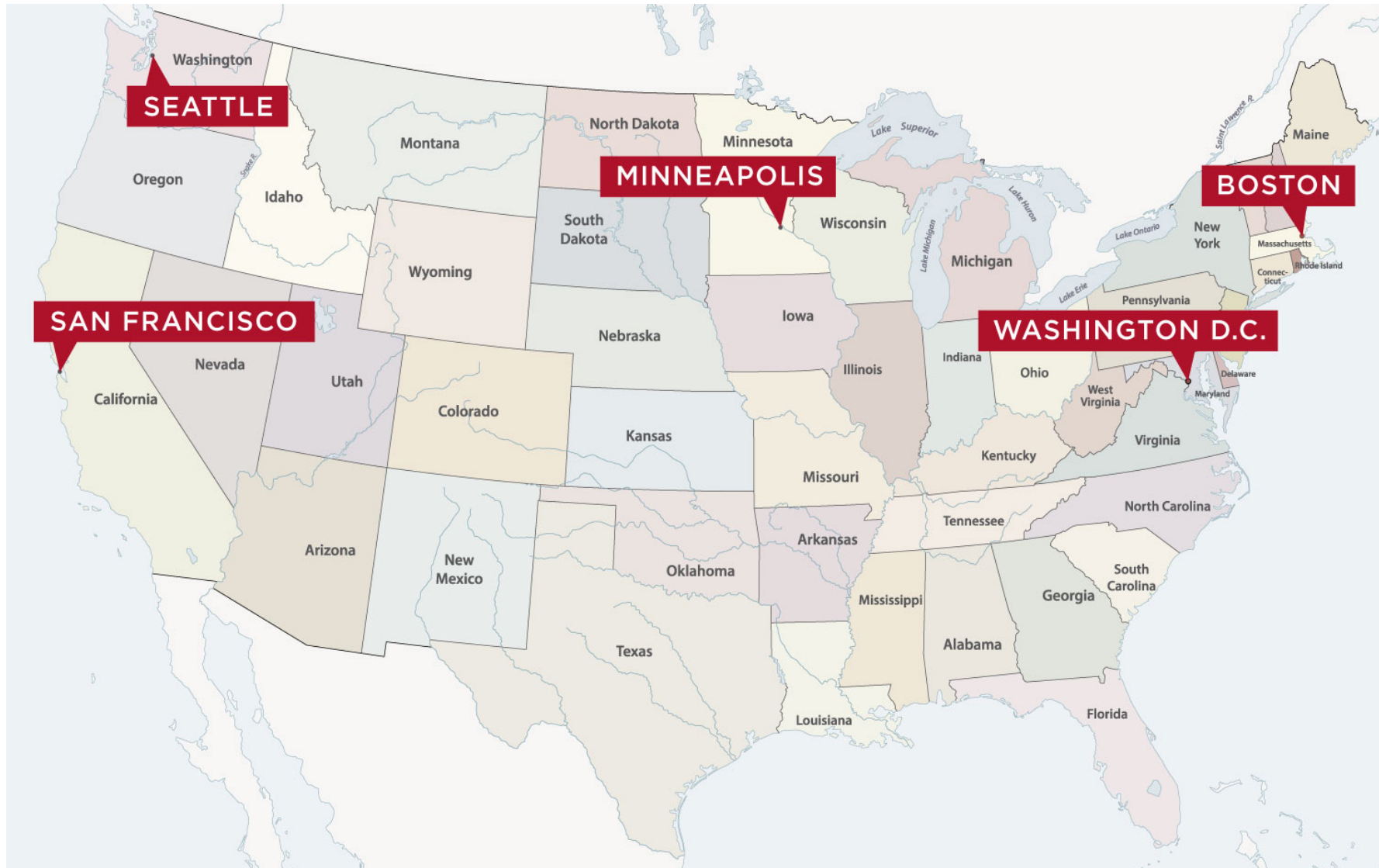


**LESS  
STRINGENT  
SETBACKS**

# Making TDM Worthwhile: Decrease Costs



# Where is this happening now?





# Steps for Establishing a TDM Policy in Your Community

## STEP 1:

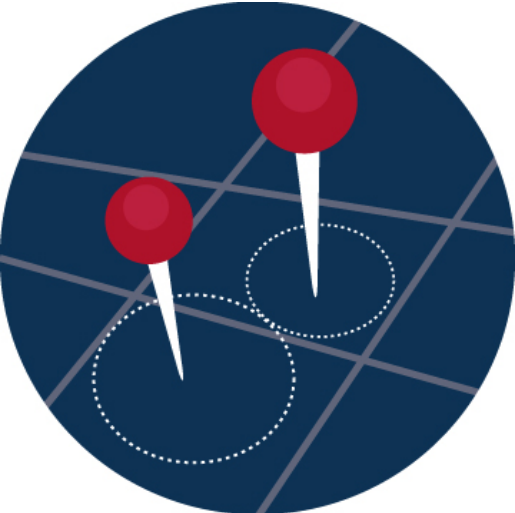
Understand How the TDM Policy Fits into the Planning Fabric of the Community





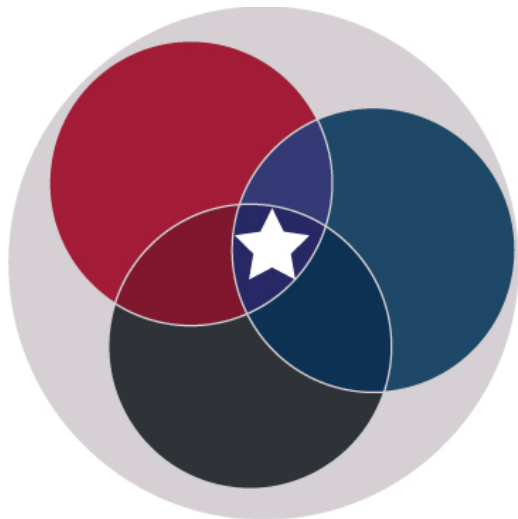
STEP 2:

Identify Where the  
TDM Policy Should Apply



**STEP 3:**

Determine the Types of Developments  
that Should Comply with the TDM Policy



## STEP 4:

Select an Appropriate Metric to Quantify Site-Based Success



## STEP 5:

Set the Appropriate Goal to  
Quantify Site-Based Success



## STEP 6:

Establish How the TDM  
Policy Will Be Monitored



## STEP 7:

Determine Appropriate TDM Strategies  
for Properties Affected by the TDM Policy



**STEP 8:**

Determine Whether a  
TDM Plan is Required



STEP 9:

Decide on a Enforcement Mechanism  
to Ensure TDM Policy Compliance







**Jay Corbalis**  
***JBG SMITH Properties***



# TDM from a Development Perspective

ULI Charlotte – June 10<sup>th</sup>, 2021

## JBG SMITH AT A GLANCE

### OPERATING PORTFOLIO

COMMERCIAL SF

**11.1M**

MULTIFAMILY UNITS

**5,999**

### UNDER-CONSTRUCTION

COMMERCIAL SF

**274K**

MULTIFAMILY UNITS

**161**

### NEAR-TERM DEVELOPMENT

**5.6M SF**

### FUTURE DEVELOPMENT PIPELINE

**10.0M SF**

### WEIGHTED AVERAGE LEASE TERM

**6.1 YEARS**

### TOTAL ENTERPRISE VALUE<sup>(1)</sup>

**\$6.7B**



WALK SCORE  
**83**

NET DEBT/TOTAL  
ENTERPRISE VALUE<sup>(1)</sup>  
**32.0%**

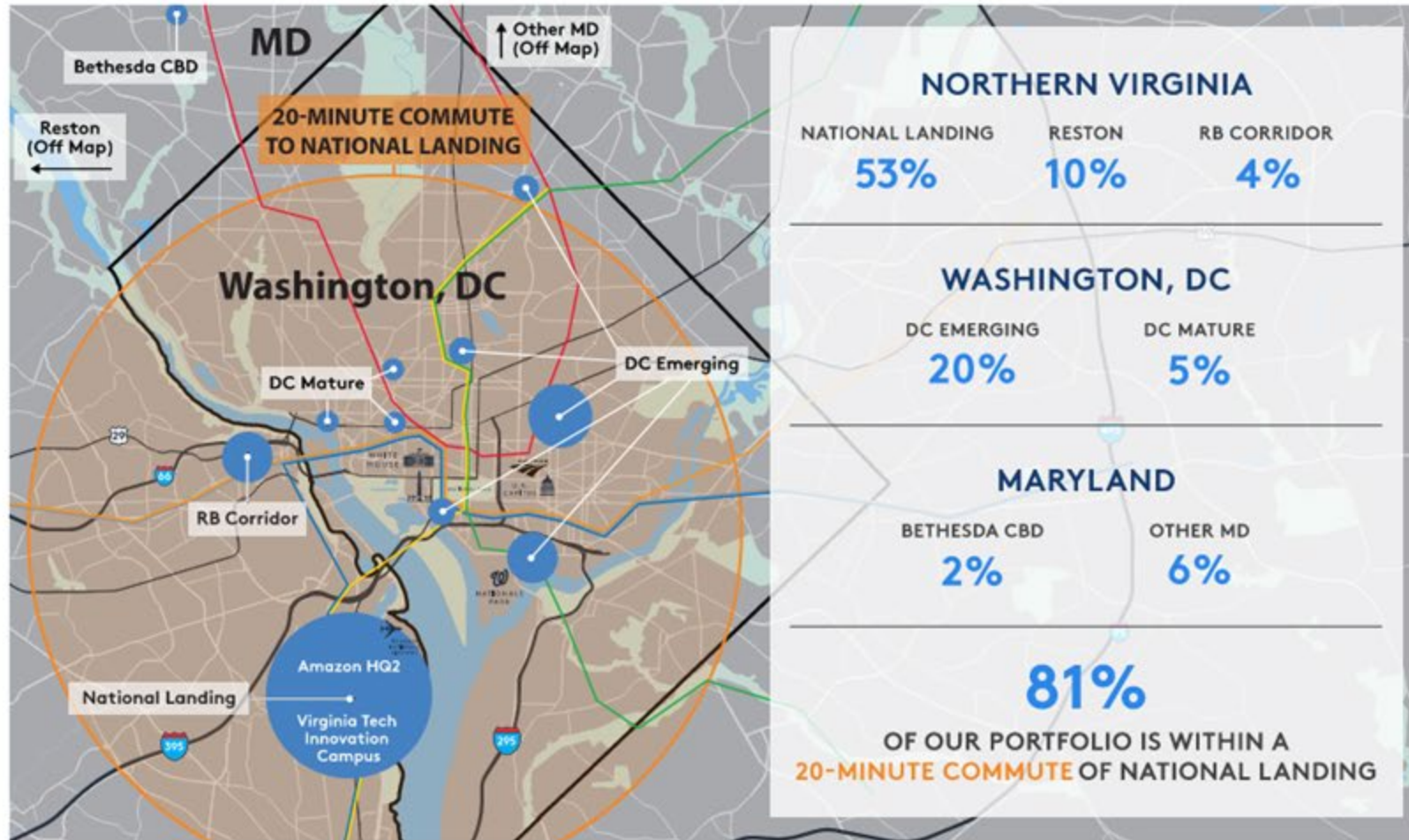
METRO-SERVED  
**97%**

NET DEBT/ANNUALIZED  
ADJUSTED EBITDA<sup>(2)</sup>  
**9.2x**

(1) Total Enterprise Value is based on the closing price per share of \$31.27 as of December 31, 2020.

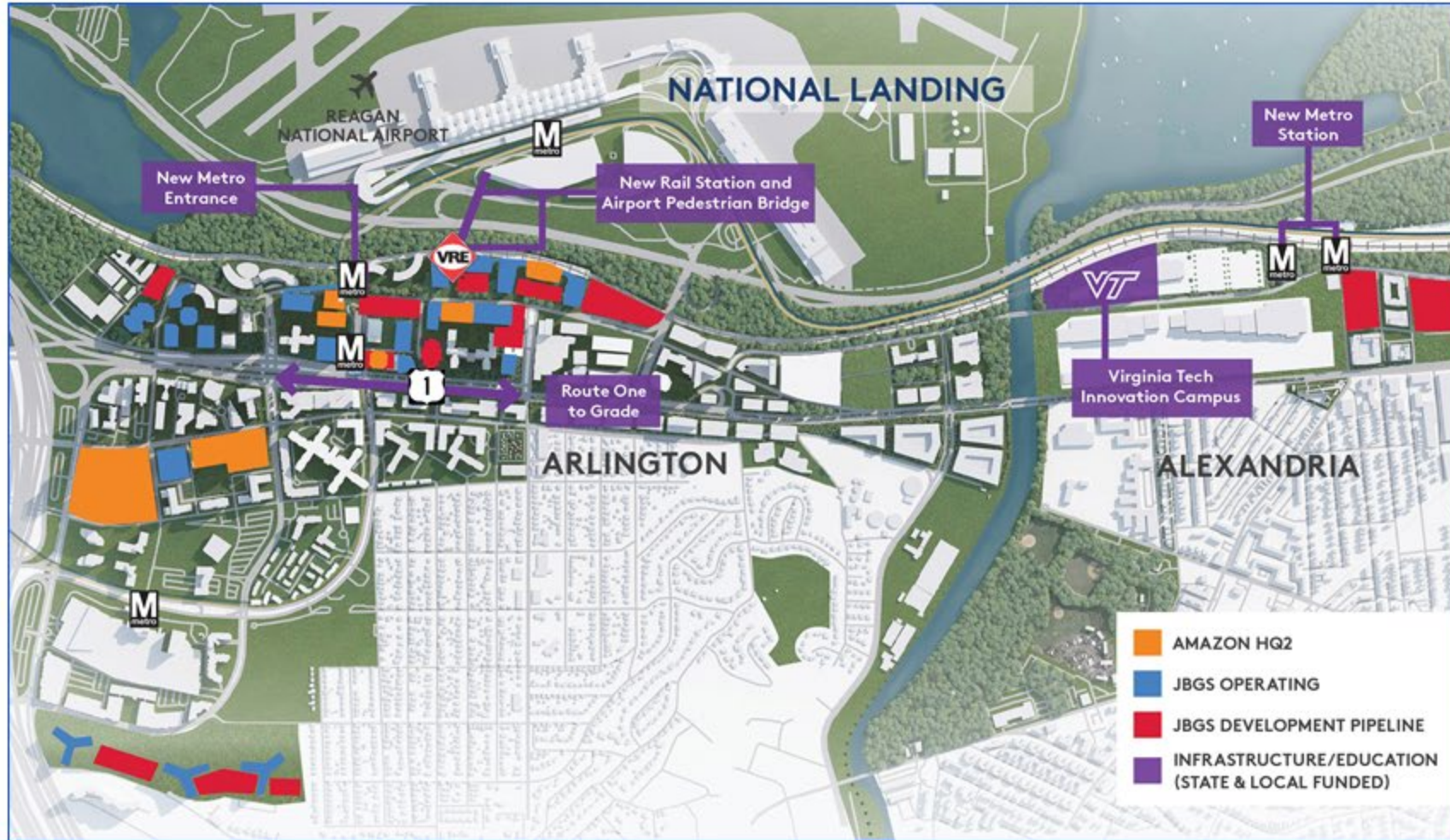
(2) Adjusting for estimates of the amounts management believes to be attributable to the COVID-19 pandemic, we believe our Net Debt/Annualized Adjusted EBITDA would have been 6.5x. On a trailing 12-month basis, our Net Debt/Adjusted EBITDA was 8.4x.

# JBGS' Portfolio



Note: Size of sphere based on square footage and includes Operating, Under-Construction, and Development Pipeline square footage. Target submarkets represent the primary focus of new JBGS investment: National Landing, DC Emerging, Reston Town Center, the Rosslyn-Ballston Corridor (RB Corridor), and Bethesda CBD.

# JBG SMITH in National Landing



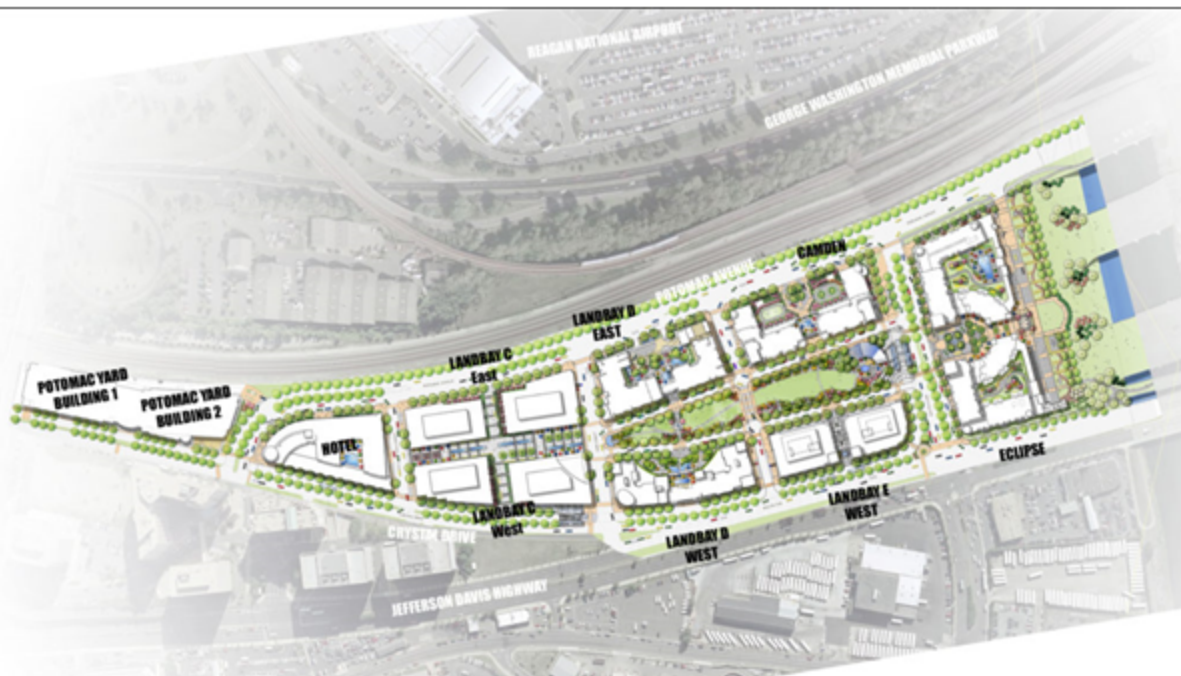
- 6m SF of operating assets + 7.2m SF development pipeline
- Development partner on Amazon's HQ2 and VT's Innovation Campus

# TDM: County-led Approach



- \$.06/sf/year, or \$16k
- Transportation information displays in lobby
- Dedicated car/vanpool spaces
- Bike parking/facilities
- Performance monitoring

# TDM: Developer-led Approach



- Between \$.2 and \$.3/sf/year
- Administered by the property owners via transportation management association
- Required to meet specific transportation goals re: mode share and passengers per vehicle.
- Specific activities determined by TMA, annual reporting required.

# Perspective

- Tangible activities/investments
- Involvement in decision making
- Goals > process
- Finding the right scale



An architectural rendering of a modern urban plaza. The scene is viewed from an elevated position, looking down a wide, paved walkway. In the foreground, a man in a striped sweater and jeans walks away from the viewer, carrying a brown bag. To his right, a woman in a blue patterned dress and another woman in a white dress walk towards him. Further down the path, several other people are walking, including a man with a bicycle. The plaza is flanked by modern buildings with large glass windows and balconies. A prominent feature is a large, curved, wooden slat canopy structure that extends over the walkway. In the background, there are more modern buildings, trees, and a green roof. A blue banner with the word "QUESTIONS?" in white capital letters is superimposed over the center of the image.

QUESTIONS?



**Q**  
&  
**A**

**Any questions?**

Contact [charlotte@uli.org](mailto:charlotte@uli.org)