YRT/Viva "Futures"
November 2, 2017

YORK REGION TRANSIT

VIVA

Sam Zimmerman
November 2, 2017

- Where are we, and where are we going?
- What's the situation elsewhere and what have other places done to meet similar challenges?*
- York observations and insights

- Complex, changing travel patterns
  - Origin/destination flows
    - Less CBD, central city focus for employment
  - Traveler characteristics
    - Diverse population
      - Significant numbers of new Canadians
  - Aging population
  - Travel time-of-day, day-of-week………
- Significant and increasing demand for T.O.D residential, commercial, retail space
- Challenges similar to other N.A. places
  - High auto ownership, growing income
  - Rapid residential, employment increases
  - Stalled PT market growth

Why Declining Transit Usage in N.A.?*

- Traditional service plans but changing markets
- Slow, unreliable, infrequent bus service
- Rail system condition
- Budget-related service (frequency) reductions
- Increasing car ownership
  - Immigrants, the poor buying cars
- Decreasing gasoline prices

***"What's Behind Declining Transit Ridership Nationwide?" City Lab, Laura Bliss, Feb. 24, 2017**

Why Declining Transit Usage in N.A.?*

- Competition from Uber and other network transportation companies
  - Related 3-6% decline in transit ridership, more in biggest cities, less in suburbs
  - Focused during night hours, weekends
  - Some commute usage
  - 3% increase in suburban rail, alternative to park/ride

*"What's Behind Declining Transit Ridership Nationwide?" City Lab, Laura Bliss, Feb. 24, 2017

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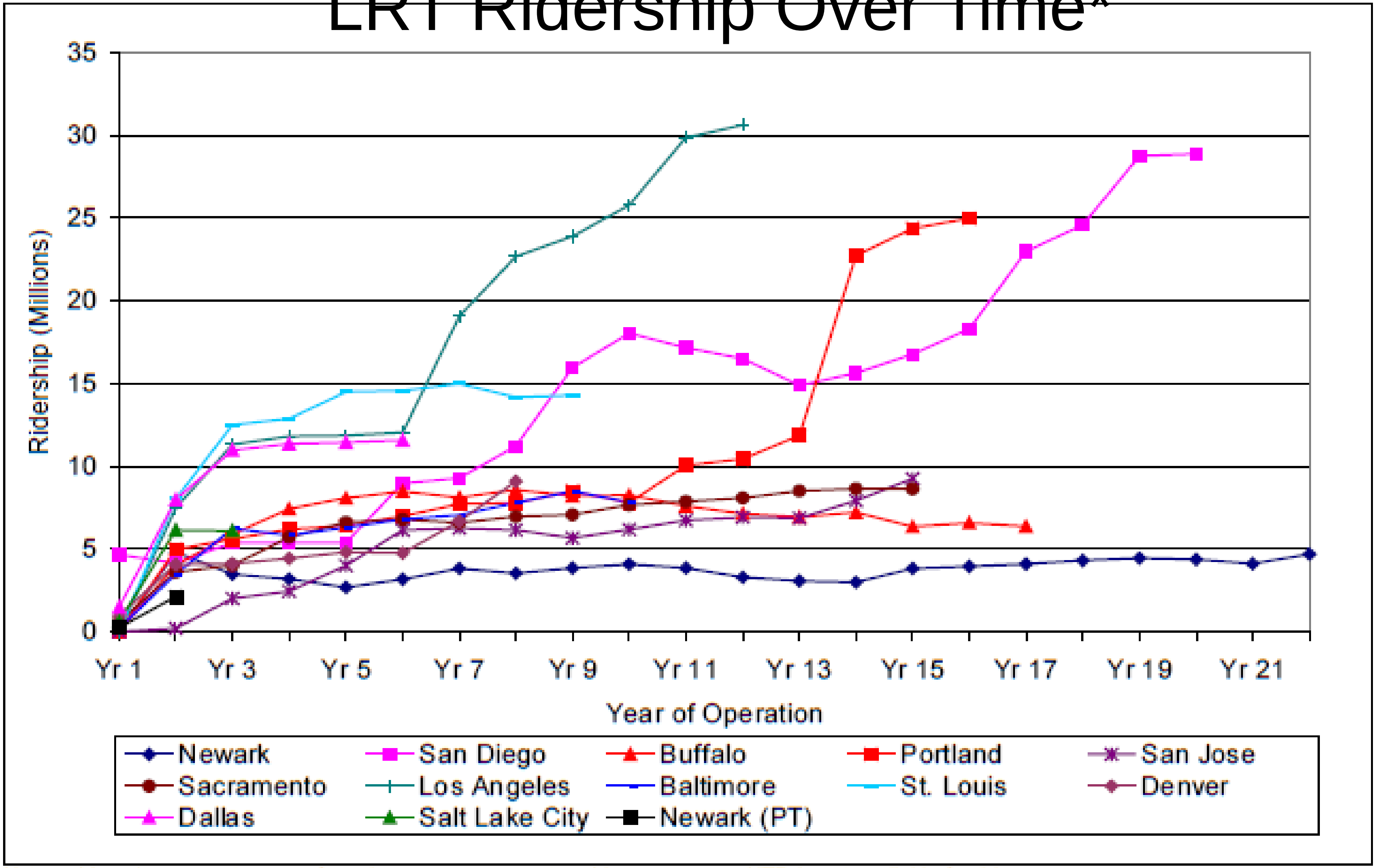
LRT Ridership Over Time*



Note: Year 1 represents year of service commencement and in some cases NTD is not available for this year
Source: American Public Transportation Association and National Transit Database

*Ridership Trends of New Start Rail Projects, Polzin et al, Center for Urban Transportation Research, University of South Florida, Tampa, 2003

Implications for Transit

- No single type of pubic transport/shared mobility “offer” will satisfy all market segments
- Transit agencies are increasingly acting as mobility managers as opposed to just operators or infrastructure builders

What Are Other Places Doing?

- Comprehensive “reimagining” of transit networks
  - Provide different types of PT services for different markets
  - High frequency corridors and rapid transit backbone
  - Demonstration of “new” shared mobility modes in low demand situations
- Emphasis on integration through fares, marketing and communications

“Reimagined or Reimagining”

- Vancouver
- LA
- Columbus
- Seattle
- Baltimore
- Houston
- Albany
- Philadelphia
- Anchorage
- Austin
- Dallas
- Richmond, Va.
- Washington
- London
- Dublin
- Seoul
- Stockholm
- Tel Aviv……

Technology (e.g. Smart Phones) Makes On-Demand Services More Viable

- For Customer
  - Makes it easier to order, pay for service
  - Supports fare integration
  - Better pax. information
  - Reduced waiting, stop times
  - Traveling group formation
- For Operator
  - Tracking for billing
  - Improved revenue security
  - Lower costs:
    - Better routing and dispatching
    - Ride sharing
    - Less dwell time
    - Traveling group formation

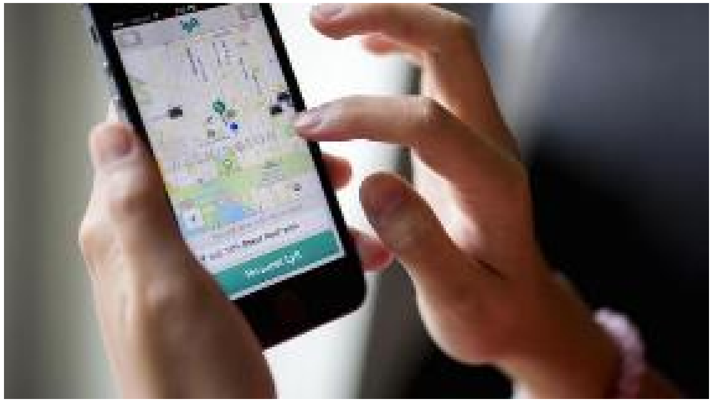


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Figure 1. The evolution of shared mobility services

Carsharing 1.0 Station Based	Early model of carsharing where vehicles are picked up and returned to the same location; typically through an hourly rental
Carsharing 2.0 One-to-Many	Second generation of carsharing where vehicles can be picked up and dropped off in different locations (possibly by zone vs. designated parking spots); typically charged by minute
Carsharing 3.0 P2P	Peer-to-peer sharing where individuals can rent out their personal vehicles to others when not in use
Ride-hailing	Platform where individuals can hail and pay for a ride from a professional or part-time driver through an app
Shared Ride-hailing	Extension of ride-hailing where individuals can be matched in real-time to share rides with others going on a similar route
Microtransit	App and technology-enabled shuttle services, typically in a van-size vehicle; some with dynamic routing, others with semi-fixed routes

Disruptive Transportation: The Evolution of Shared Mobility Services, R. Clewlow, G.S. Mishra. U.Cal. Davis, Octo. 2017

Key Lessons from Elsewhere

- Public transport needs a market orientation in increasingly complex regions
  - No single service type will meet every need
  - Markets should drive planning process

- Advanced information/communications technologies create opportunities for new types of services
  - **not just first and last mile connectivity!**

- Service offer is planning starting point

- Multi-dimensioned integration, is critical
  - Fares
  - Pass. Information
  - Infrastructure
- Need strong communications program, including branding, before and during planning and after during operations

Frequency, Rocks!!

In Cleveland, about 40% of Total Cost of Euclid Corridor (Health Line BRT) Project Went to “Place-making”

- Streetscape Improvements
- Creation of Public Spaces
- Landscaping
- Art

The Pay-off

Euclid Corridor project has already brought $4.3 billion in new investment to the city

The rebirth

"Cleveland Plain Dealer"
Feb. 10, 2008

Cleveland

JOHN KUNTZ | THE PLAIN DEALER

Bus stops designed by Robert P. Madison International are a signature feature of the Greater Cleveland Regional Transit Authority's Silver Line on Euclid Avenue.

Inside

See where the more than $4 billion in investment is along the Euclid Corridor. **A8**

STEVEN LITT | PLAIN DEALER ARCHITECTURE CRITIC

AMID ALL THE BAD NEWS ABOUT CLEVELAND'S ECONOMY, one big, positive number is sure to impress all but the most hardened cynics: $4.3 billion. ¶ That's how much fresh investment — conservatively speaking — is being poured into the four-mile-long strip of land flanking Euclid Avenue, the city's Main Street, between Public Square and University Circle. ¶ The spending, which encompasses everything from museums and hospitals to housing and educational institutions, includes projects completed since 2000, those now under way and those scheduled for completion within five or six years.

ANALYSIS Private developers with proven records as doers, not speculators, are gearing up to start projects worth more than $1 billion along the corridor in the next five years or so. They include Douglas Price III, Nathan Zaremba, Ari and Richard Maron, and Gordon Priemer.

The amounts they and nonprofit institutions are investing will easily dwarf the money spent by government and partners in the 1990s on sports stadiums and the Rock and Roll Hall of Fame and Museum.

One big reason for the energy is the Greater Cleveland Regional Transit Authority's $200 million Euclid Corridor project, which is reshaping Euclid Avenue around a bus rapid transit line.

Pundits have long derided the project, funded primarily by federal money, as a boondoggle. Media coverage has focused primarily on businesses that failed during construction, along with the hassle of negotiating a sea of orange traffic cones.

The mortgage-foreclosure crisis, which has left as many as 12,000 homes vacant in Cleveland neighborhoods, has also obscured the impending rebirth of Euclid Avenue.

SEE EUCLID | A8

Use of Surface Park-Ride Lands as Locations for TOD and Sources of Funds

Former Park-Ride Lot
Dunn Loring Metro Station
Vienna, Virginia

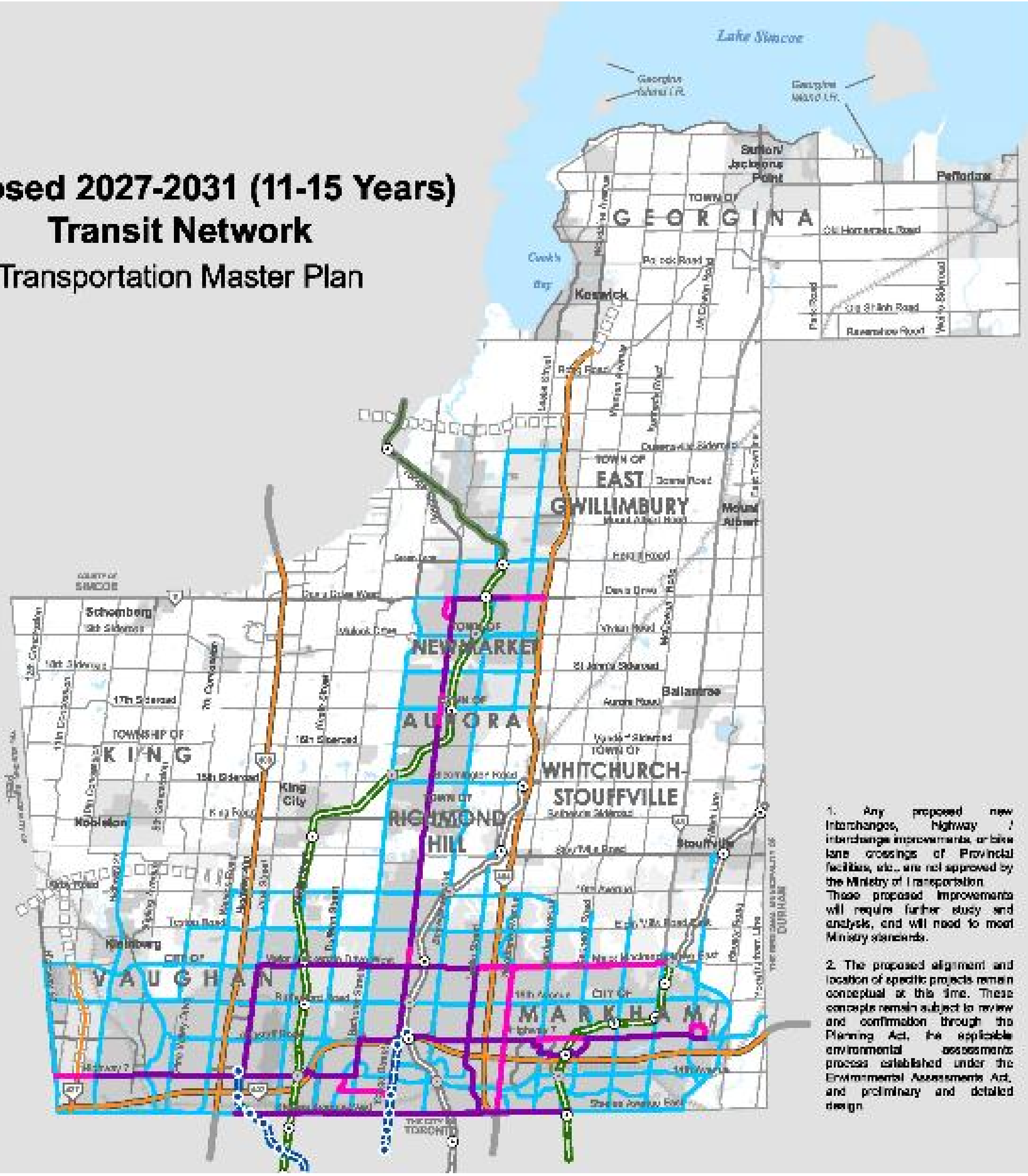
York Observations

- York 2020 Strategic Plan is sound and a model
  - Moving to more hierarchical, segmented network
    - Rapid transit, frequent corridor backbone
- Already planning/using shared mobility options
  - Potential for redeployment of existing resources
    - Exploring alternatives for weaker services
- Great data, analysis tools, analysts
- Stable ridership despite negative secular trends and reductions in service levels
- TOD support policies already producing visible benefits

- Similar to financial performance of suburban systems through Canada and rest of NA
  - Range of farebox recovery, including some “profitable” routes
  - Significant amount of resources in less well performing routes
  - Room for changes without necessarily increase in bottom line subsidy

Proposed 2027-2031 (11-15 Years) Transit Network

Transportation Master Plan



1. Any proposed new Interchanges, highway / interchange improvements, or bike lane crossings of Provincial facilities, etc., are not approved by the Ministry of Transportation. These proposed improvements will require further study and analysis, and will need to meet Ministry standards.

2. The proposed alignment and location of specific projects remain conceptual at this time. These concepts remain subject to review and confirmation through the Planning Act, the applicable environmental assessments process established under the Environmental Assessments Act, and preliminary and detailed design.

MAP 14

Thursday, May 12, 2016

2027 - 2031 Transit Network

- Dedicated Rapidway
- VIVA Curbside Service
- Frequent Transit Network
- Highway Bus Service (YRT/Viva, GO)

Subway Extensions

- Subway Extension
- Subway Extension Station

GO Rail

- GO Train, 15-min Two Way All Day Service
- GO Train, Two Way All Day Service
- GO Train, Rush Hour Service
- Existing GO Station
- Potential GO Station

BASE MAP INFORMATION

- Provincial Freeway
- Provincial Highway
- Road
- Railway

0 1 2 4 6 8 km

York Region yorkmaps

Produced by
Infrastructure Management & PMO Branch
Transportation Services

York T.O.D: An Example for all of Canada, North America and World

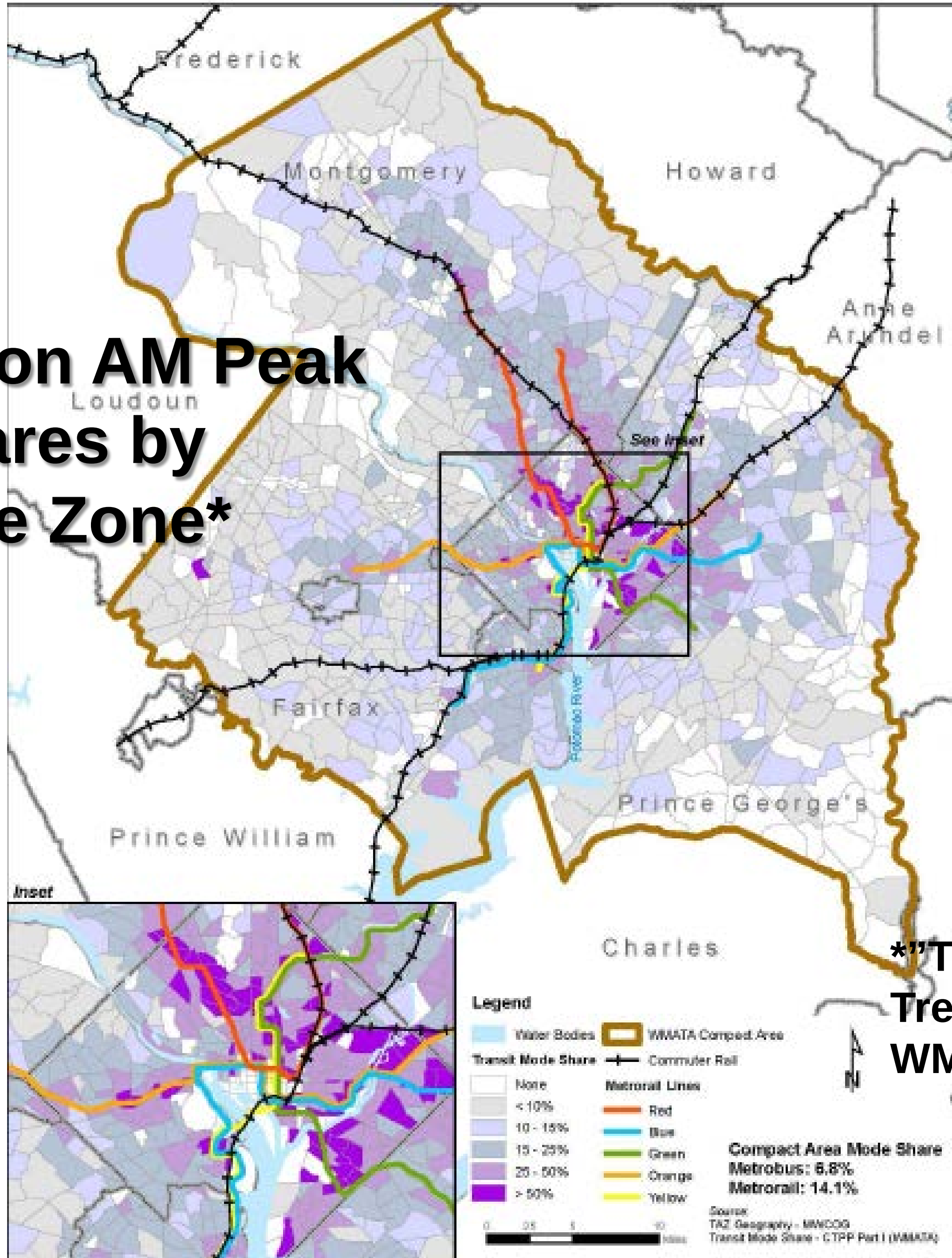
- Willingness to spend money on place-making and streetscape improvements
- Improves quality of life
  - Creation of public meeting places usually missing in suburban environments
- Significant increases in tax base

Benefits of York TOD

- More transit, fewer car trips over time
- Potential for walking and biking trips already being realized
- Shorter trip lengths

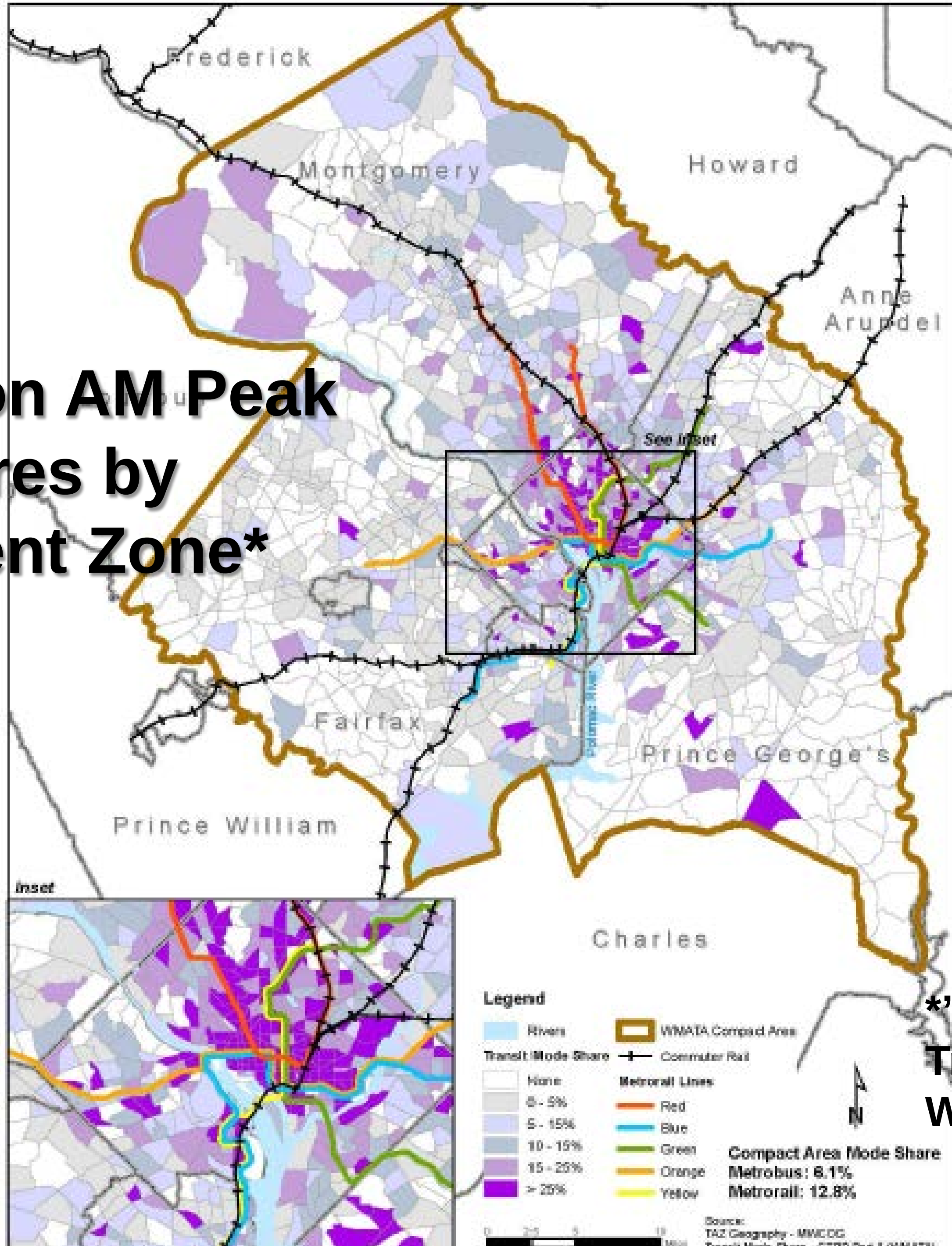
Markham Town Centre

Washington AM Peak Mode Shares by Residence Zone*



*"Transit Ridership Trends and Markets," WMATA, 2009

Washington AM Peak Mode Shares by Employment Zone*



*"Transit Ridership Trends and Markets," WMATA, 2009

Transit Use and LU type

- All things being equal, higher transit mode shares for residential rather than commercial or office development near rapid transit
  - Self-selection process for TOD housing resulting in mode shares as high as 40%
  - Absent other strategies, office and commercial mode shares < 15%

- Parking management the key

“Free” Parking is not Free

Figure 2 Financial Performance*

Measure	Montgomery County	Ann Arbor	Boulder
Direct Parking Income (Fees, Fines, Etc.)	25,823,253	18,254,775	5,797,553
In Lieu Fee (or equivalent) income	11,266,747	NA	NA
Other Parking-Related Revenue	2,265,146	68,027	2,471,976
Direct Income per Space	$1,221.30	$3,196.98	$1,766.47
Parking-Related Costs	$28,657,365	$18,131,945	$6,818,875
Parking Costs per Space	$1,355.34	$3,175.47	$2,077.66
% of Parking Costs Covered by Parking Income	90%	101%	85%

*Montgomery County (Md.) Parking Policy Study

Importance of Parking, Parking Management

- Tough to get suburban ***workers*** on transit or in ride sharing if they receive un-priced, “free” parking
- Considerable experience throughout N.A. with parking “cash-out.”
  - Parking is charged for
  - Employees receive non-mode specific transport benefit;
    - Can use for parking, ride sharing or transit
- Parking cash-out, improved transit services, ***employer and university pass*** programs complimentary

Summary

- York already doing and planning what has worked well in other places
- Need to “stay the course"

A word of thanks

Thanks for inviting me to come to York and see first hand how transport and quality of life vision has become reality!!!!!!!!!!!!!!!!!