

# METRO RTA TRANSIT MASTER PLAN

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May 25-26, 2011

# WHAT IS THE TRANSIT MASTER PLAN?

- § A twenty-year plan for METRO RTA
- § What will METRO look like in 2031?



# TRANSIT TECHNOLOGIES

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- § Transit technologies
  - § Create travel time savings that make transit more competitive with driving.
  - § Make it more convenient to use transit.
- § Can range from very low-tech (painted street markings) to high-tech intelligent transportation systems (real time locational data).



# QUEUE JUMP

- § Allows transit vehicles to move around a group of stopped vehicles at a traffic signal.
- § Implemented by restricting on-street parking approaching an intersection and limiting lane to right turning vehicles and buses.

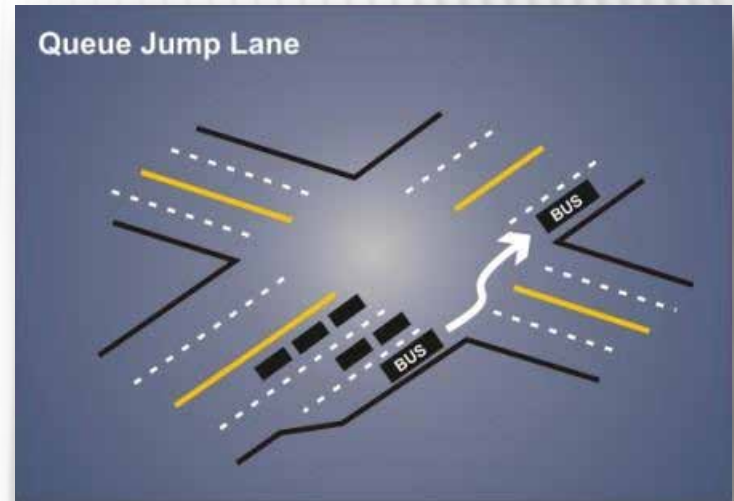


Image Source: Transport Canada

# TRANSIT SIGNAL PRIORITY

- § Similar to technology used to give priority to emergency vehicles at signalized intersections
- § Transit vehicles signal their arrival at an intersection to receive "priority."
- § Priority may include extended green light, left or right turn signal, reduced red light or bus only phase.

## Transit Signal Priority



Image Source: City of Overland Park

# SMART CARDS

Smart cards are reusable/reloadable cards embedded with a chip that stores fare information.

Benefits of smart cards:

- § Speeds boarding
- § More reliable than magnetic strip readers
- § Can reload card online, at loading machines, on bus
- § Don't lose your fare balance, even if you lose your card.
- § Can be modified to work with multiple transit operators (e.g. METRO RTA and GCRTA)





# NEXTBUS TECHNOLOGY

- § Uses GPS to track buses on their routes and estimates arrival time of the “next bus” based on real-time data.
- § Passengers can access the next bus arrival times via:
  - § Internet
  - § Smart Phones
  - § Any touchtone phone or cell phone (enter stop ID)
  - § Electronic message signs at transit centers and major bus stops



Image Source: WMATA



# EXPRESS TRANSIT SERVICES

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# LIMITED STOP BUS

- § Makes fewer/less frequent stops than a local bus.
- § May be operated in combination with local service.
- § Similar to Rapid service in Los Angeles.



Image Source: Metro Transportation Library and Archive

# EXPRESS BUS

- § Express service between major destinations.
- § Makes very few stops; stops consolidated at either end of the trip.
- § Similar to METRO RTA's Northcoast Express.





# RAPID BUS

- § Bus is operated in a barrier-separated guideway for most of trip.
- § Usually operated in mixed traffic at either end of the route.
- § Similar to busways in Pittsburgh.





# BUS RAPID TRANSIT

- § High capacity bus service usually operated in exclusive guideway or in mixed traffic with transit priority.
- § Offers amenities similar to light rail in a bus-based format.
- § Similar to the HealthLine in Cleveland.



# LIGHT RAIL



- § Light rail operated in a separated guideway.
- § Similar to Blue and Green Lines in Cleveland.



- § Light rail operated in mixed traffic.
- § Similar to Seattle Streetcar.



# COMMUTER RAIL

- § High capacity regional service, with stations spaced 3-5 miles apart.
- § Can be operated on existing track in conjunction with freight or other passenger rail service.



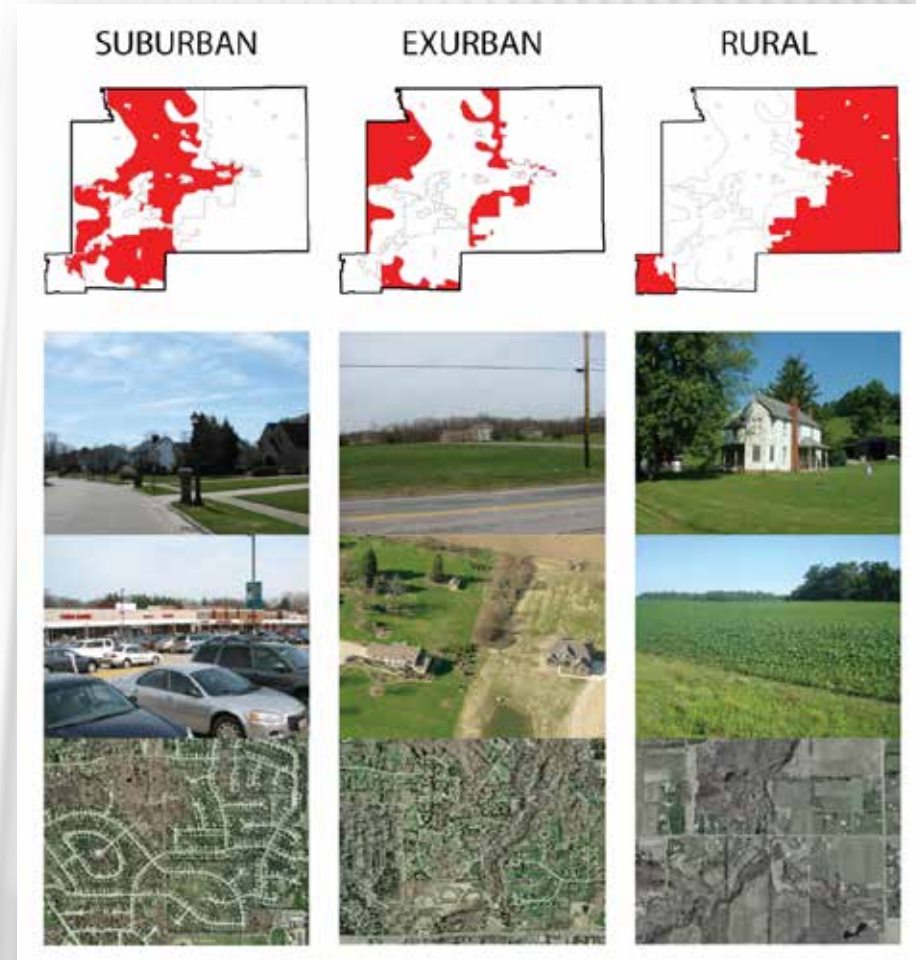
Image Source: Flickr user Thomas Le Ngo

# TRANSIT ORIENTED DEVELOPMENT



# TRANSIT-LAND USE CONNECTION

- § From 2000-2005, 25 square miles of vacant land were developed for residential use in the AMATS region, which gained only 6,000 new residents.
- § The predominant growth pattern has been low density residential development in suburban and exurban communities.
- § This type of low-density development is very difficult to serve with transit.



Source: AMATS Connecting Communities Plan

# TRANSIT-LAND USE CONNECTION

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*Between now and 2030 over 1.9 billion dollars will be needed just to maintain the roads and bridges in the AMATS area. While there is pressure to expand the transportation system in suburban and exurban areas, the most pressing need is preservation.*

- AMATS Connecting Communities Study

# TRANSIT-LAND USE CONNECTION

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- § Without supportive land use patterns and densities:
  - § Transit cannot reach its full potential.
  - § Infrastructure investments will continue to be overburdened.
- § Transit oriented development can:
  - § Increase transit ridership
  - § Reduce infrastructure spending
  - § Create more livable communities

# TRANSIT ORIENTED DEVELOPMENT

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Moderate to higher density development *located within an easy walk of a major transit stop* generally with a mix of residential, employment and shopping opportunities *designed for pedestrians without excluding the auto*. TOD can include redevelopment or construction of one or more buildings, designed to facilitate increased transit ridership.

*Caltrans TOD Study*



# THE SIX ELEMENTS OF TOD

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- § Moderate to higher density
- § Within an easy walk
- § A mix of uses
- § Designed for the pedestrian
- § New construction or redevelopment
- § Increases transit ridership

# TOD TRANSPORTATION BENEFITS



- § Reduces automobile use
- § Increases transit use
- § Reduces need for automobile ownership
- § Increases pedestrian activity



San Francisco & San Jose

# TOD COMMUNITY BENEFITS

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San Diego & Portland

- § Improves quality of life
- § Saves tax dollars
- § Improves air quality
- § Helps preserve land resources
- § Enhances economic development



# CORRIDOR-BASED AMENITIES

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# BUS SHELTERS

Cleveland



Vancouver



# BRANDING



Washington DC



Syracuse



# OTHER AMENITIES



Seattle



Victoria



Chapel Hill

**WHAT DO YOU ENVISION?**

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# WE WANT TO HEAR FROM YOU

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- § More information available at:  
[www.akronmetro.org/20-year-transit-master-plan.aspx](http://www.akronmetro.org/20-year-transit-master-plan.aspx)
- § Please fill out the survey
  - § Paper copies are available
  - § The survey is also available online at  
[www.surveymonkey.com/metro-master-plan](http://www.surveymonkey.com/metro-master-plan)