



***Vision Bergen: Blueprint For Our Future  
Networking Transportation To Make It Work  
Route 17  
BERGEN RAPID TRANSIT Study***



May 18, 2010

# Vision

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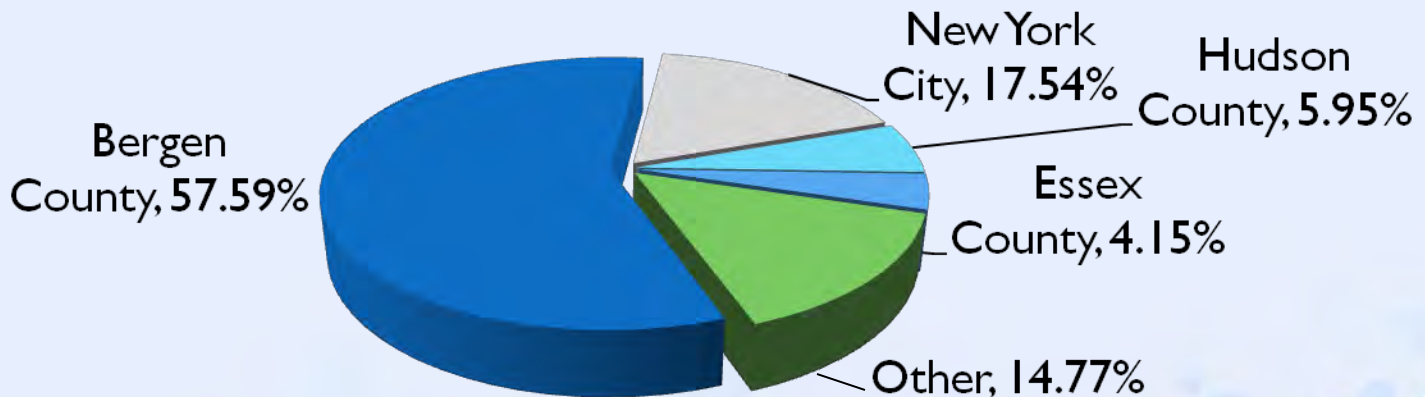
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To create an enhanced transit network that provides Bergen County and other destinations with efficient, frequent, high-quality service and a new premium travel choice

# Bergen County Demographics

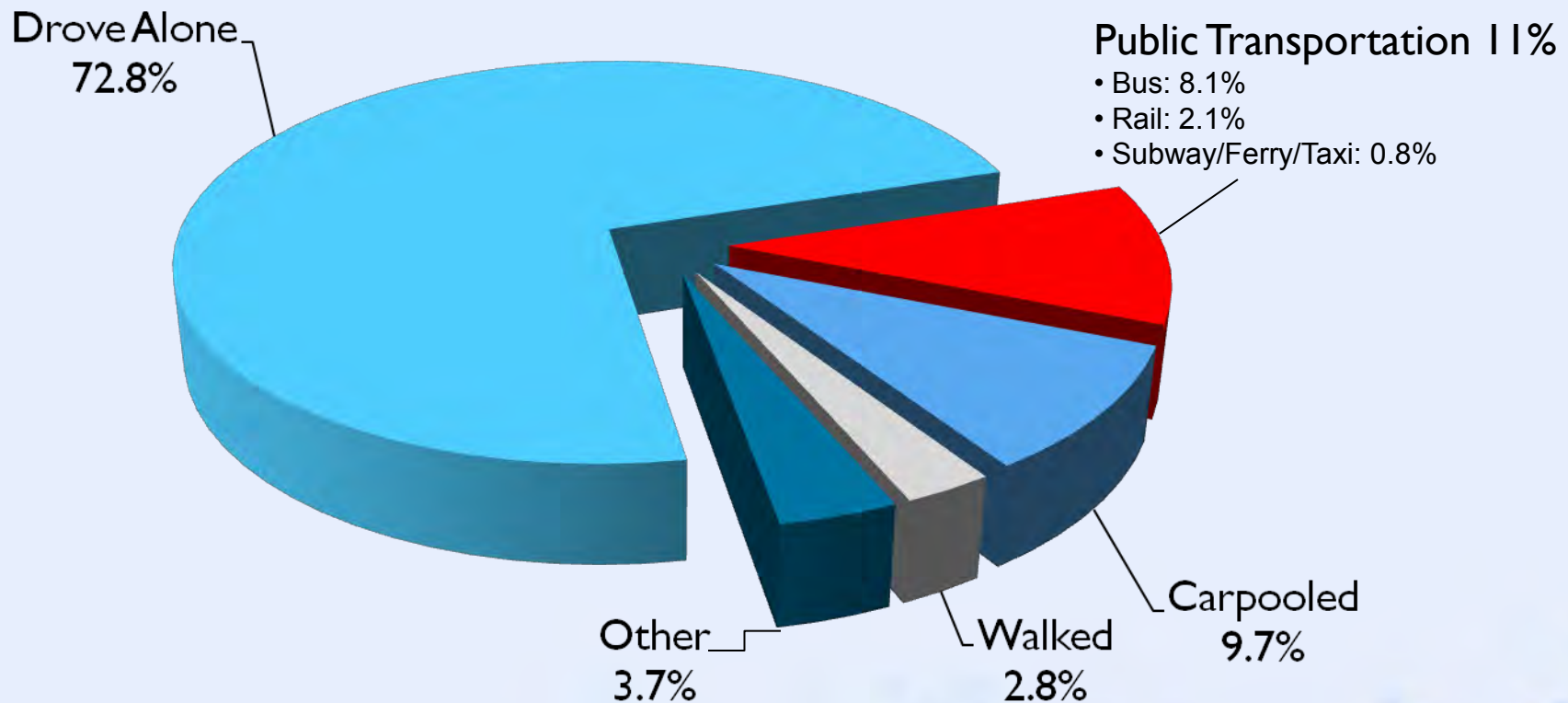
- Over 880,000 residents within the County
- Over half of Bergen County residents work in the County

➤ Employment destinations for residents:



# Bergen County Demographics

- Residents primarily drive to work
  - Means of transportation to work (2000 US Census)



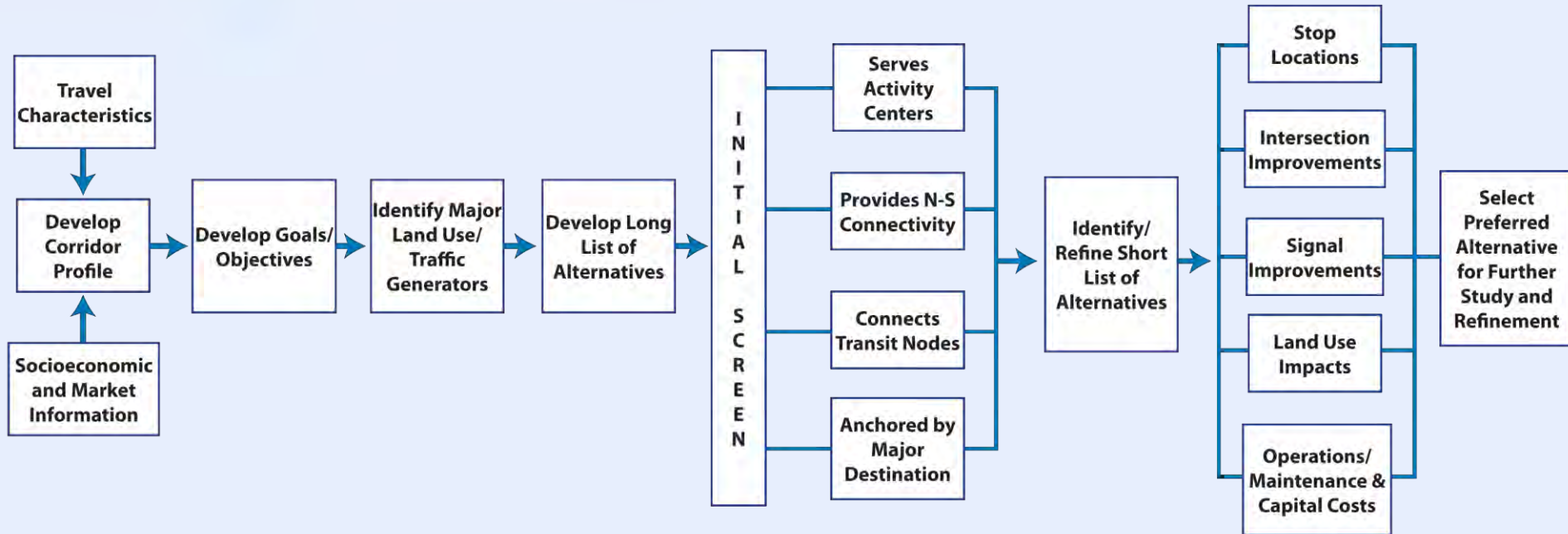
# Study Purpose

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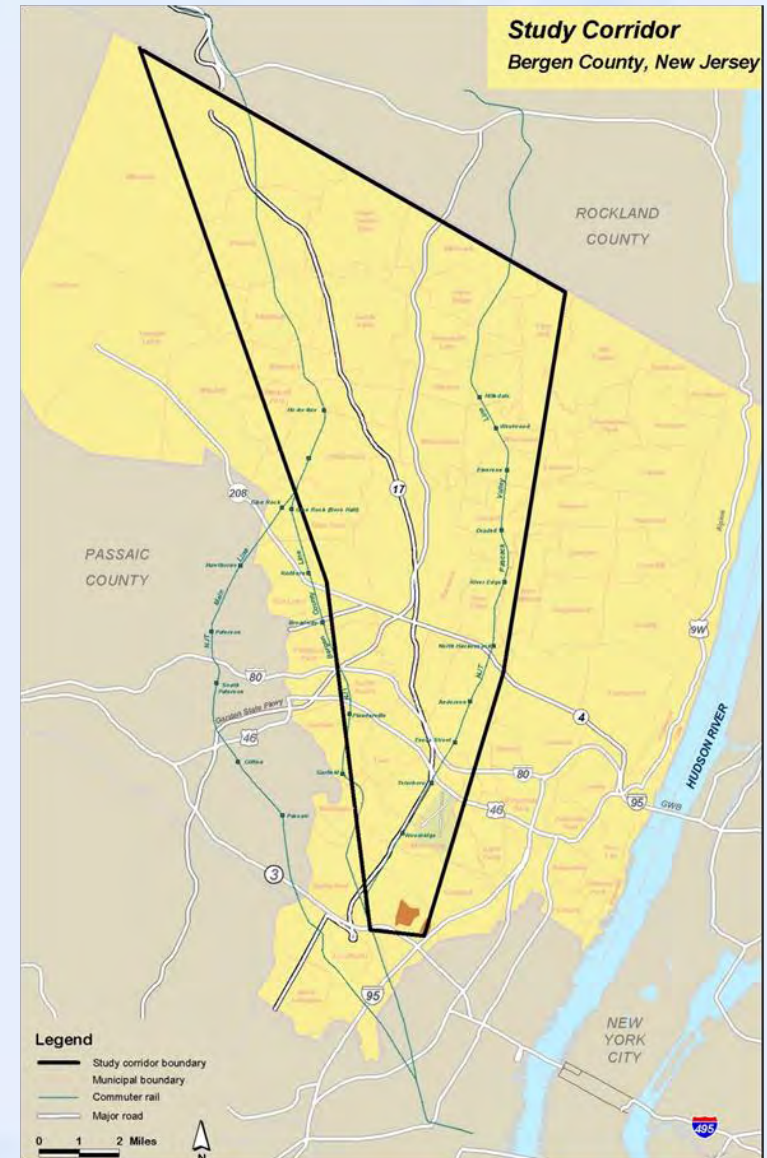
To increase the share of trips accommodated by public transportation by providing a new, competitive and efficient transit service along Bergen County's main North/South spine

# Study Process



# Study Corridor

- The Route 17 study corridor is defined by the following boundaries:
  - Bergen / Rockland County border (north)
  - Route 3 (south)
  - County Route 103 / Passaic River (west)
  - NJT Pascack Valley Line / Hackensack River (east)



# Transportation Problems and Shortfalls

## Route 17 Corridor

- High levels of traffic congestion on Route 17, particularly from Ramsey to Hasbrouck Heights
- Highest traffic volumes occur in Paramus with over 136,000 vehicles daily (in both directions)
- Ramsey, Saddle River, Ho-ho-kus, Rochelle Park, and Hasbrouck Heights daily traffic volumes range between 95,000 to 110,000 vehicles daily (in both directions)
- Buses travel in mixed traffic and are subject to the same slow speeds and delays as automobiles



Midday congestion at Route 17 and I-80

# Transportation Problems and Shortfalls

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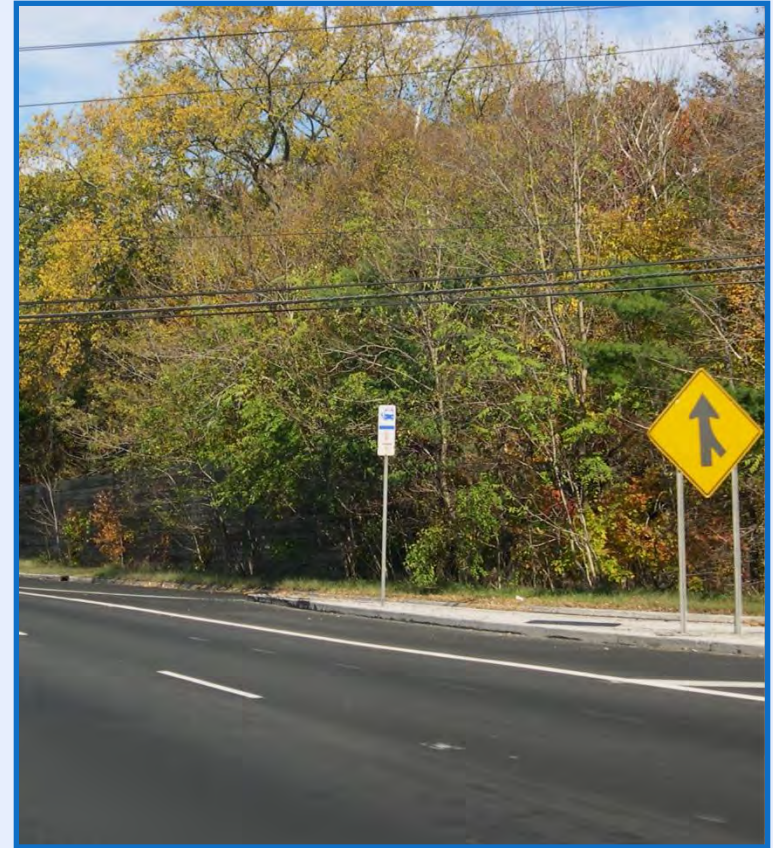
## Route 17 Corridor

- Public transportation services are primarily oriented towards NYC and do not adequately serve intra-county trips
- Numerous activity centers are not being served efficiently by public transportation

# Transportation Problems and Shortfalls

## Route 17 Corridor

- Transit services are competitive instead of coordinated
- Finding route or schedule information is difficult
- Transit stops do not display route maps, schedules, fares, how to ride guides, etc.



This transit stop located adjacent to Route 17 lacks basic passenger amenities

# Existing Transit Service

- Bergen County is served by both rail and bus
- Pascack Valley and Bergen County Lines
- Bus services include:
  - Local
  - Intra-county
  - Regional
  - Long distance



# Existing Transit Service

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- NJT operates 25 bus routes within the study corridor
  - 14 local and intra-county bus routes with hubs in Ridgewood, Paramus and Hackensack
  - 11 regional bus routes with service to NYC from Ridgewood, Paramus, Maywood, and Hackensack

# Existing Transit Service

- Other privately operated long distance, regional and shuttle bus services are available in the Route 17 corridor
  - Short Line and Greyhound provide long distance bus service from upstate New York and Pennsylvania to NYC
  - Short Line provides regional commuter service oriented towards serving NYC with 30-minute headways
  - Ramapo College, the City of Hackensack, Air Brook Airport Express operate shuttle bus services

# Major Traffic Generators

- Sports Complex
- Secaucus Station
- Bergen County Offices
- Schools
  - Bergen Community College
  - Ramapo College
  - Fairleigh Dickenson University
- Malls
  - Bergen Mall
  - Garden State Plaza
  - Shops at Riverside
- Hospitals
  - Hackensack Medical
  - Bergen Regional Medical Center



Bergen Mall



Garden State Plaza

# Transportation Network Concept

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- “String the Pearls”
- Build upon existing services
- Capitalize on areas of redevelopment and growth
- Accommodate increase in insular trips

# Bergen Rapid Transit (BRT) Concept

- Bergen Rapid Transit (BRT) network would consist of improvements to the following components of the network to accelerate transit service:
  - Vehicles
  - Roadways
  - Rights-of-way
  - Intersections
  - Traffic signals

# Routing Concepts

- New BRT routes developed serving intra-county trips and intermodal connections
- Three types of routes:
  - Trunk route: north - south access
  - Community route: east - west access
  - Shuttle route: connections between activity centers and trunk route

# Refinement of Study Corridor

- Route 17 study corridor was divided into two sections
  - Mahwah to Route 4
    - ❑ Bergen/Rockland County border (north)
    - ❑ Route 4 (south)
    - ❑ County Route 103 (west)
    - ❑ NJT Pascack Valley Line (east)
  - Route 4 to Route 3
    - ❑ Route 4 (north)
    - ❑ Route 3 (south)
    - ❑ Passaic River (west)
    - ❑ Hackensack River (east)

# Establishment of Long List of Potential Trunk Routes

- In addition to Route 17, other parallel county roadways that met the following criteria were considered:
  - Located within the study corridor boundaries
  - Continuous north-south access
  - Major roadways (i.e. county primary or secondary roads, parkways, arterial roads)
- Each of these roads represent potential trunk route segments
- Promising trunk route segments in each section could be combined to create a continuous route

# Long List of Routes

- County RT 103
- County RT 105
- County RT 507
- RT 17
- Garden State Parkway
- Forest Avenue
- Saddle River Rd
- South Paramus Rd
- South Fairview Avenue



# Preliminary Screening Evaluation Methodology

## Preliminary screening process

- Eliminated potential trunk route segments that did not meet feasibility criteria:
  1. Serves major activity centers within Route 17 corridor
  2. Provides simple, direct north-south routes
  3. Closely parallels Route 17
  4. Provides connections to existing transit nodes
  5. Anchored on one end by major destination

# Routes advanced to second level analysis



# Routes Advanced to Second Level Analysis

## Trunk Line BRT Routes

- County Route 507
- Route 17
- Garden State Parkway
- Saddle River Road
- South Paramus Road
- South Fairview Avenue

# Alternative Refinement

- Intersection Analysis
  - Curb space
  - Travel lanes
  - Adjacent land uses
- Identify Appropriate BRT Elements
  - Stations
  - Vehicle type
  - Row improvements
  - Technology
  - Fare collection
  - Operating plan/schedule

# Preferred Alternative

- Blue Route

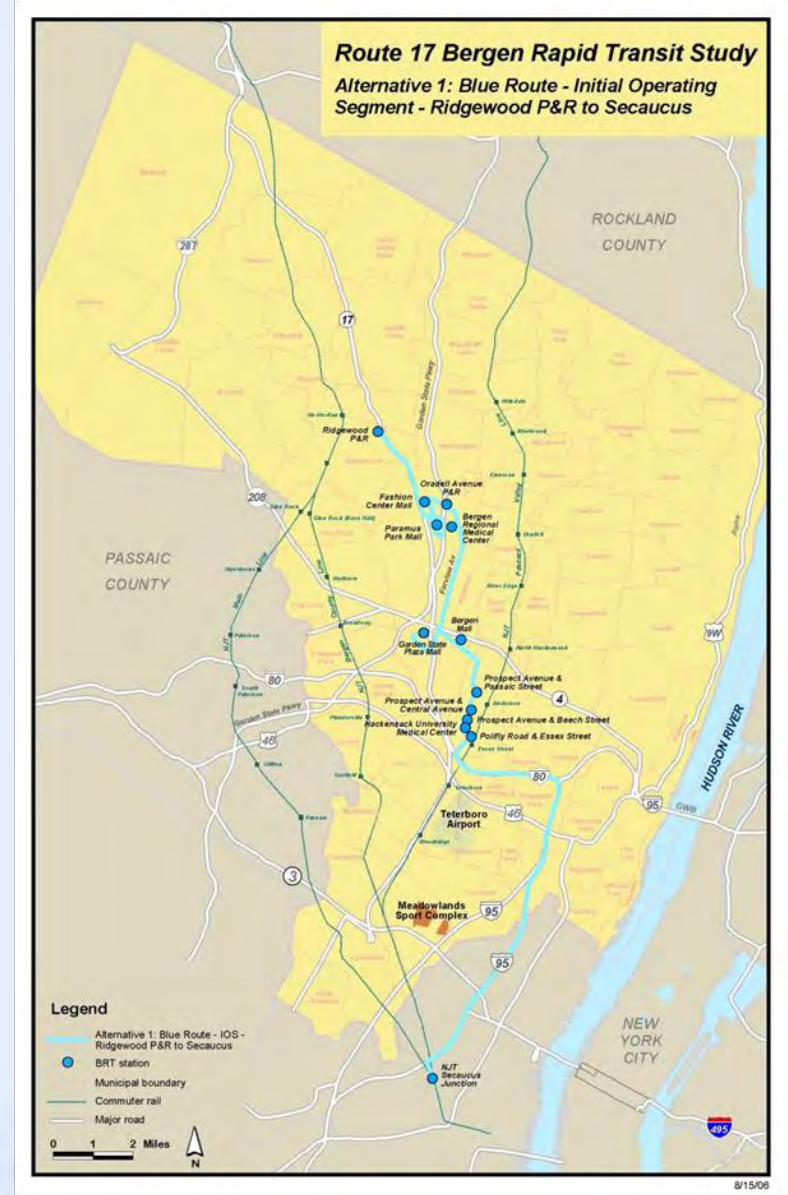
- Anchored in North/South by Ridgewood P/R and Secaucus Station

- Connections to NJT Service

- Accommodates Major Generators

- ❑ Paramus Park Mall
- ❑ Garden State Plaza
- ❑ Hackensack Medical Center

- 33 miles of service



# Blue Route Stops

- Route 17
- Oradell Avenue
- Fairview Avenue
- Spring Valley Avenue
- Summit Avenue
- Passaic Avenue
- Prospect Avenue
- Essex St
- Polifly Road
- I-80
- I-95

# Blue Route Attributes/Characteristics

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- Capital Cost \$45.5 million
  - Buses and stops comprise 90% of costs
- O/M Cost \$8 million
- Operates 6am to midnight, 7 days a week
  - 10-minute headways during peak periods
- Travel time savings from 25-50% of total trip time
- 4,200 new transit riders
- Expandable to capture additional generators

# Comparative BRT Systems

- Las Vegas 3,900 daily trips
- Kansas City 4,500 daily trips
- BLUE LINE 4,200 daily trips
  - Full expanded system 7,400 daily trips

# Vehicles



Stylized bus – Phoenix Rapid Express



Stylized, articulated vehicle – LA Metro Orange Line



Specialized vehicle – Las Vegas MAX

# Right-of-Way

- Separating BRT vehicles from general traffic increases speed and reliability

- **Exclusive Busways (at-grade)**

Cost: \$6 - \$10 million per lane mile  
(excluding right of way acquisition)

- **Exclusive Busways (elevated)**

Cost: \$12 - \$30 million per lane mile

- **Preferential lanes (i.e. HOV or bus only)**

Cost: \$2 - \$3 million per lane mile  
(excluding right of way acquisition)



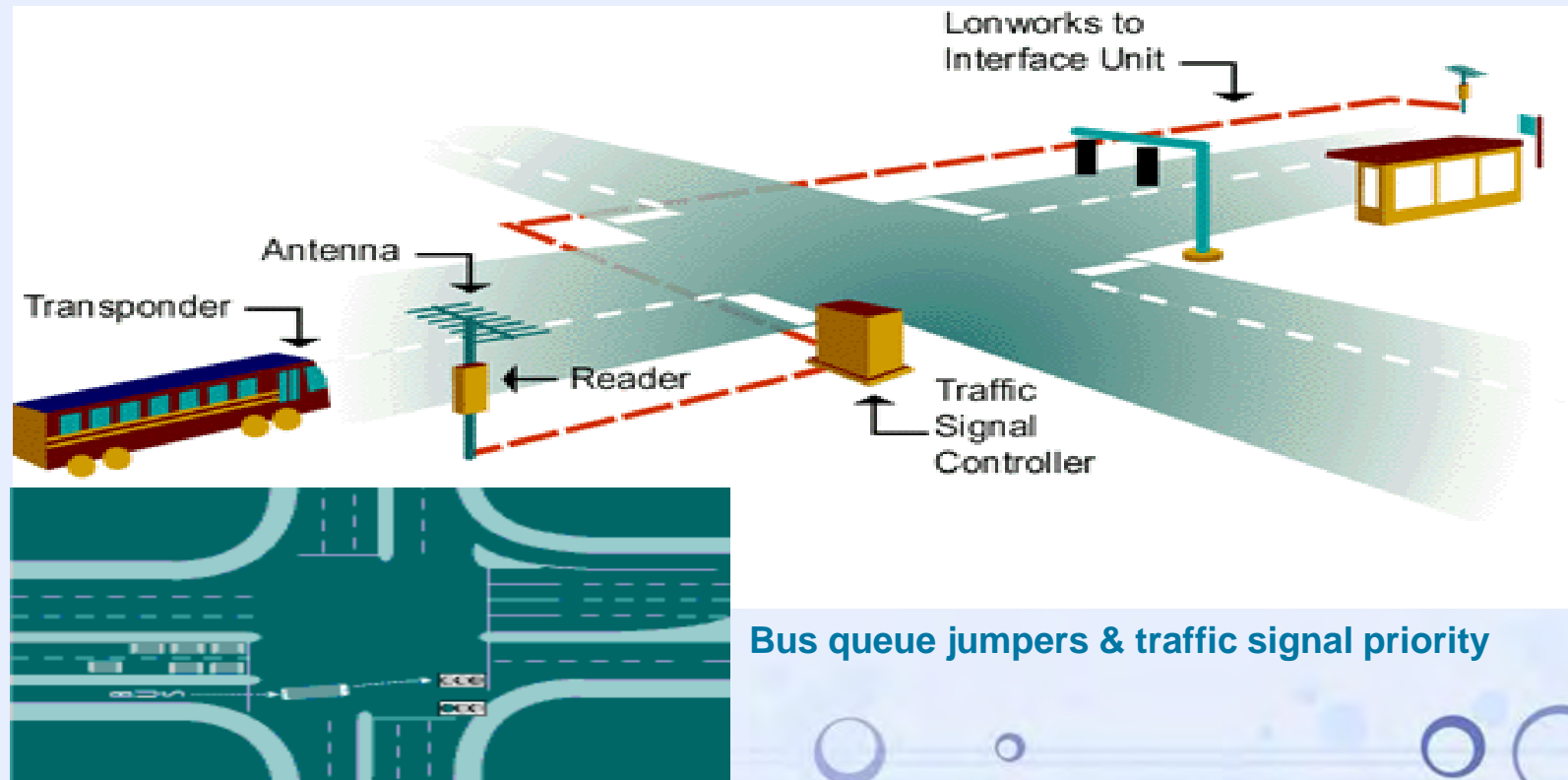
**BRT concept bus (Civis by Irisbus)  
on exclusive busway**



**BRT on preferential lane**

# Right-of-Way

- Dedicated queue jumpers allow buses to bypass traffic waiting at signals
- Traffic Signal Priority technologies can be used to extend or advance green times or allow left turns



# Funding Opportunities

- FTA
  - New Starts
  - Small Starts
  - Very Small Starts
  - Bus Money - Section 5307
- FHWA
- CMAQ
- STP
- Public/Private
- Transportation Enhancement Districts (TED)

# Benefits

## Bergen Rapid Transit

- Designed to appeal to non-transit customers
- Provides new high-quality rapid service linking Route 17 corridor intra-county destinations
- Can help spur transit-oriented development
- Provides new travel options for Bergen County residents
- Designed for work, entertainment, recreational and shopping trips

# Moving Bergen County into the Future

