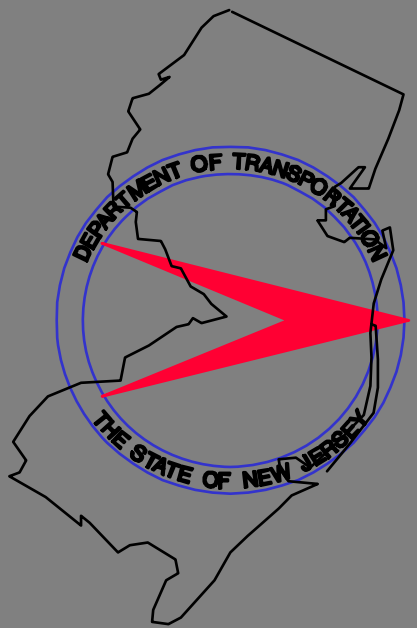
Linking Land Use and Transportation

NJ's Experience



January 18, 2006

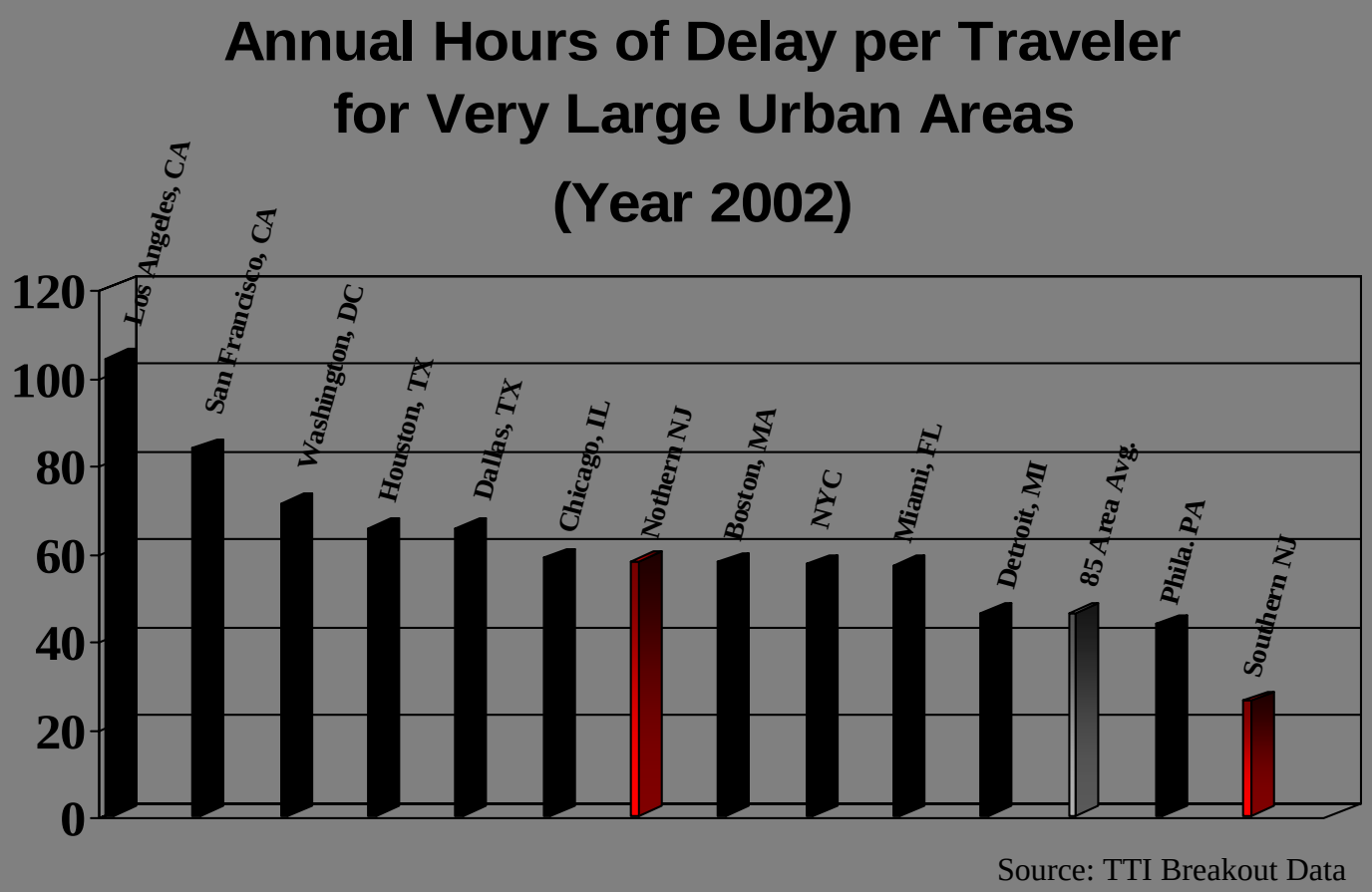
NYMTC - PFAC

Mark Stout

Planning & Development

New Jersey Department of Transportation

Where We Are

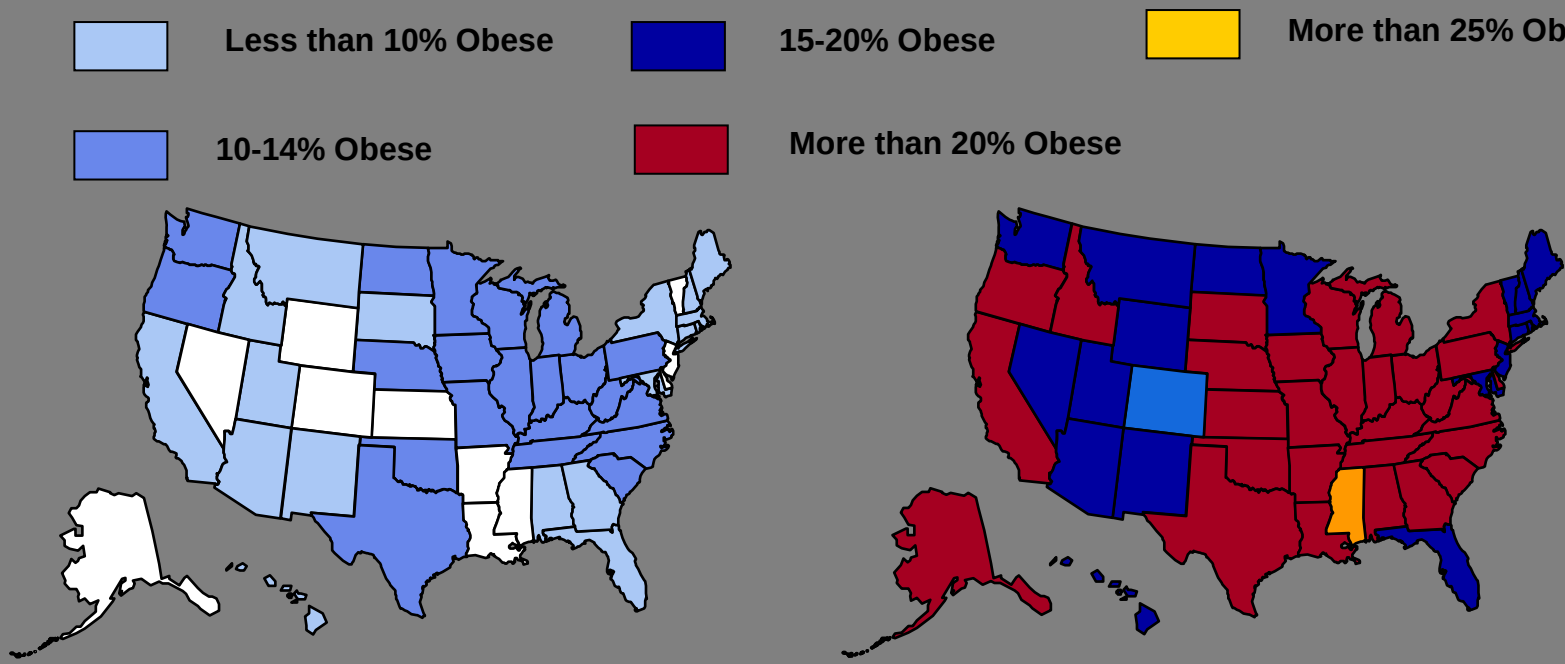


Source: TTI Breakout Data

Amongst the 85 Urban Areas studied, Northern NJ ranks 7th amongst the Very Large Urban Areas in 2002, in terms of Annual Hours of Delay per Traveler…

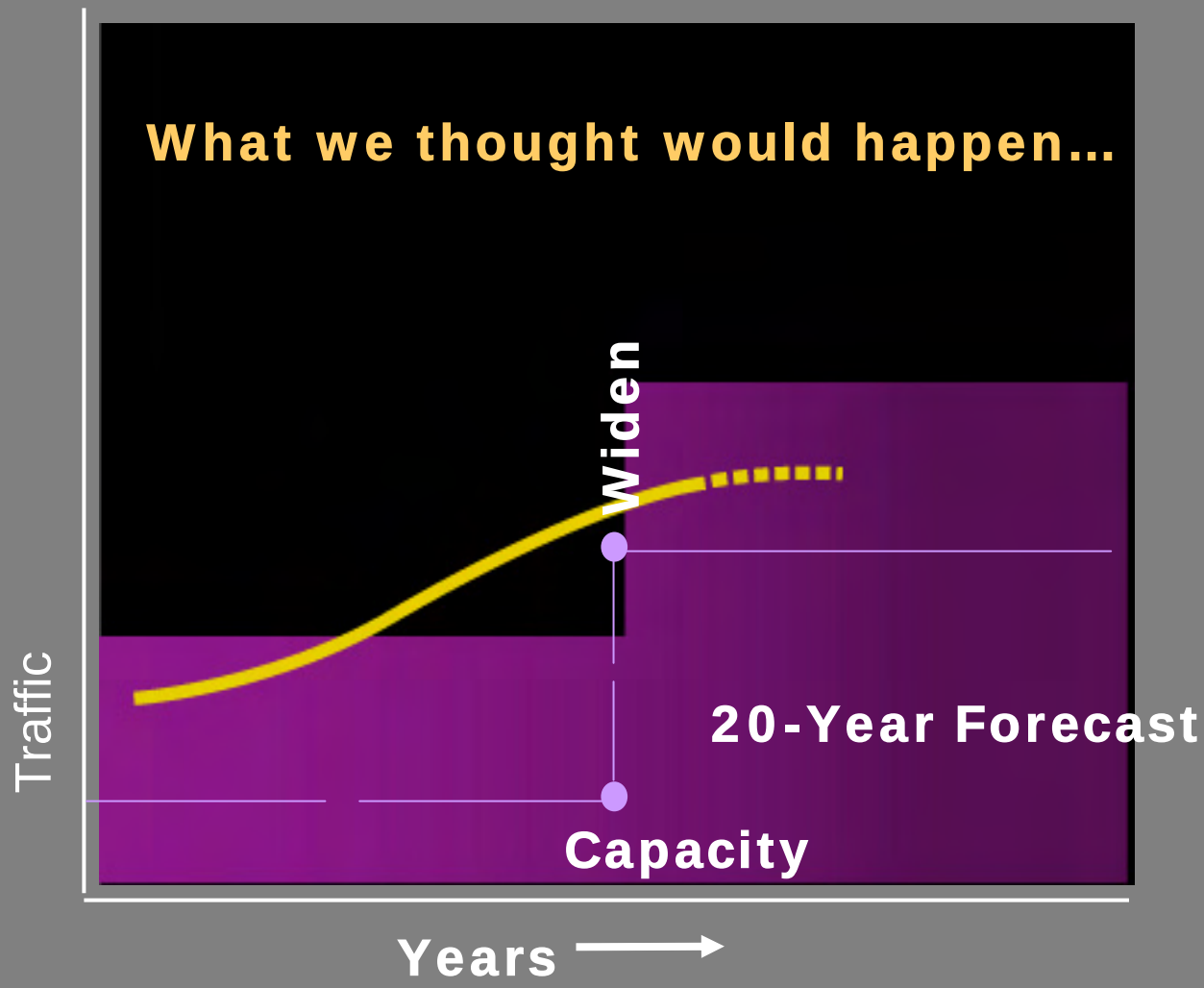
Where We Are

Obesity Rates in the US, 1989 (left) and 2001 (right)

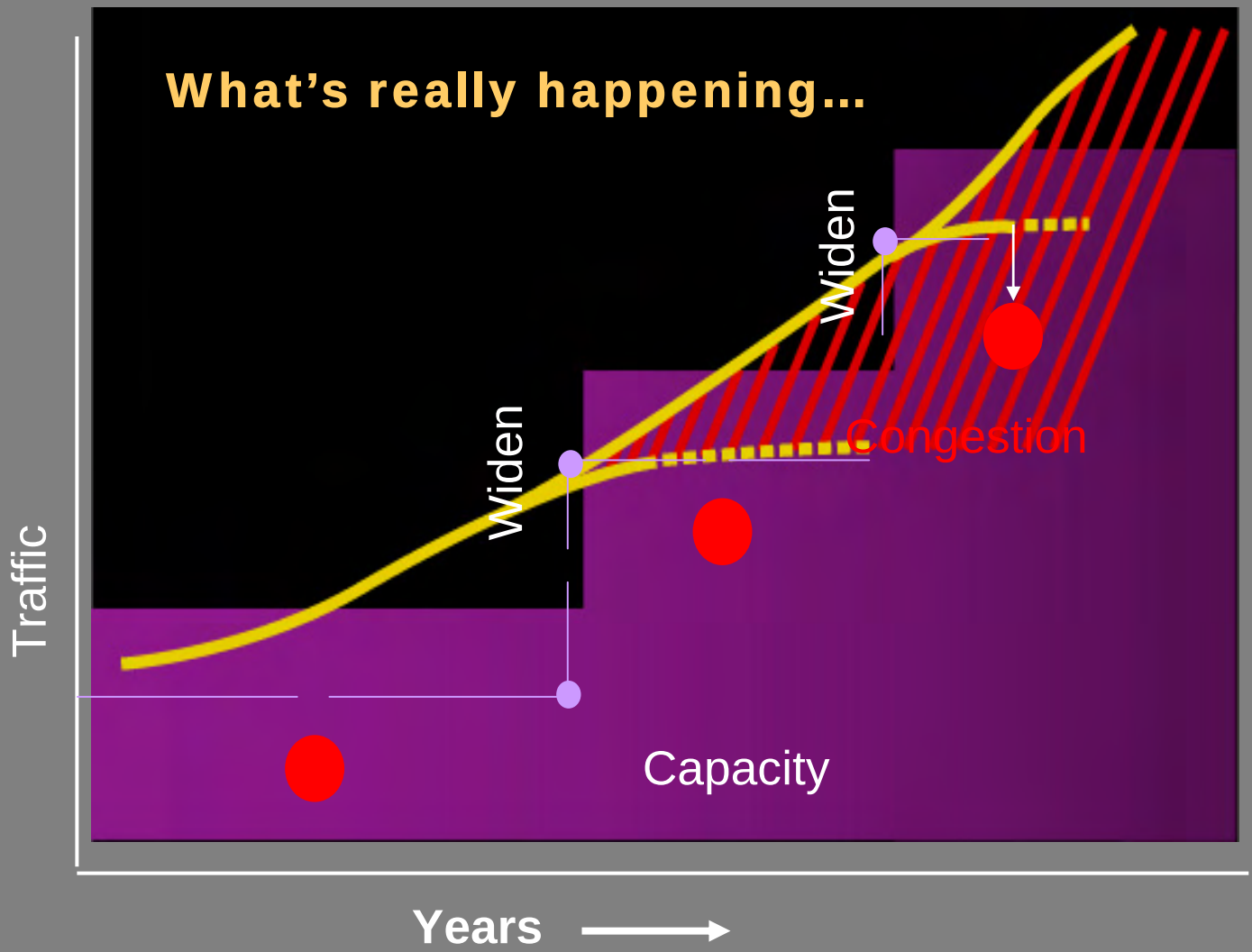


The Centers for Disease Control and Prevention (CDC) has labeled America's lack of physical activity as epidemic.

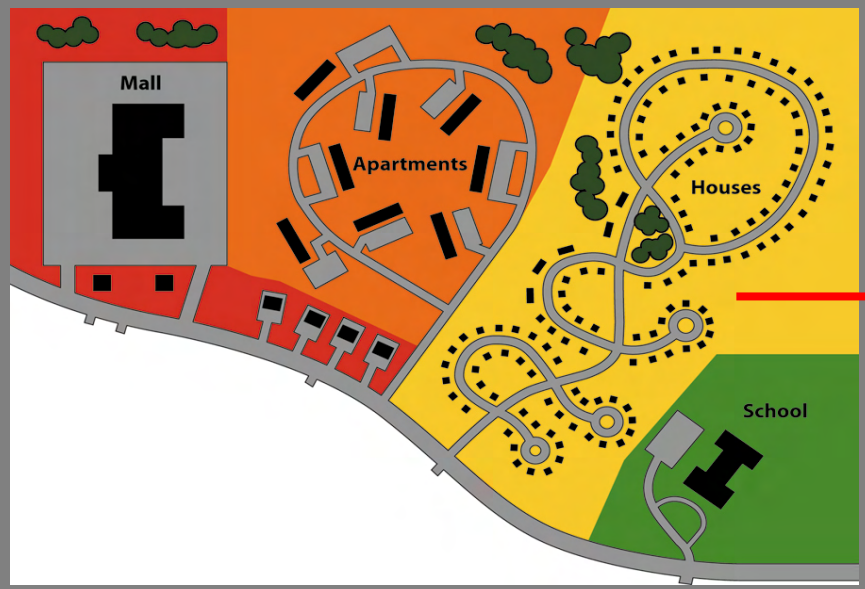
Why It's Happening

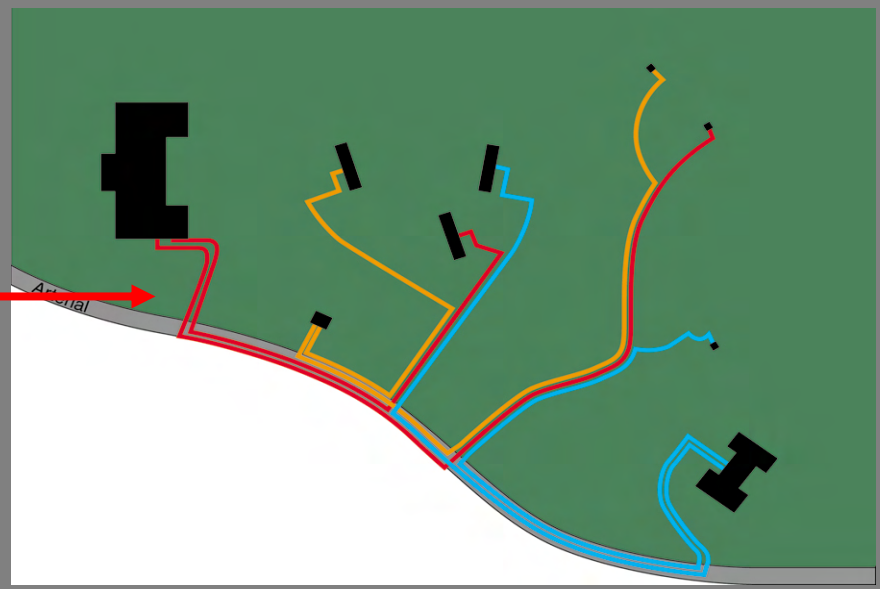


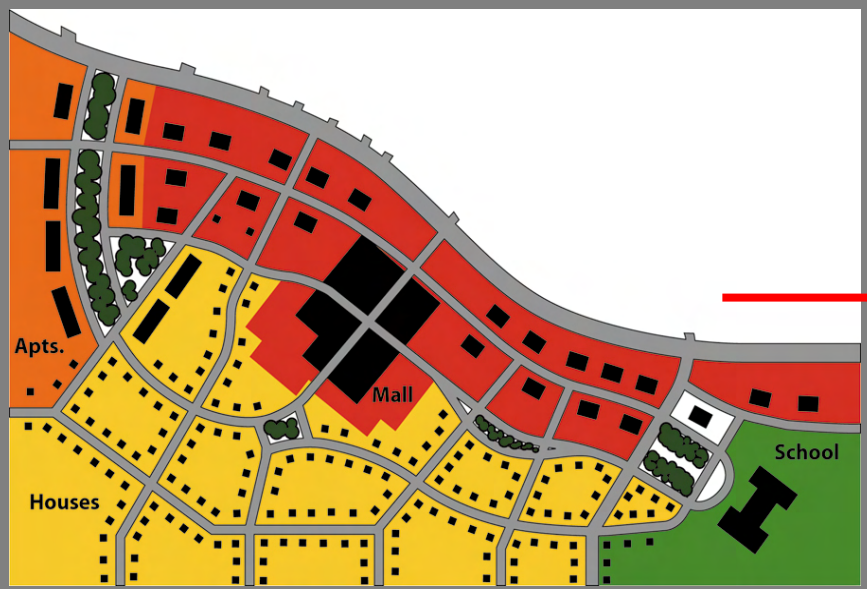
Why It's Happening

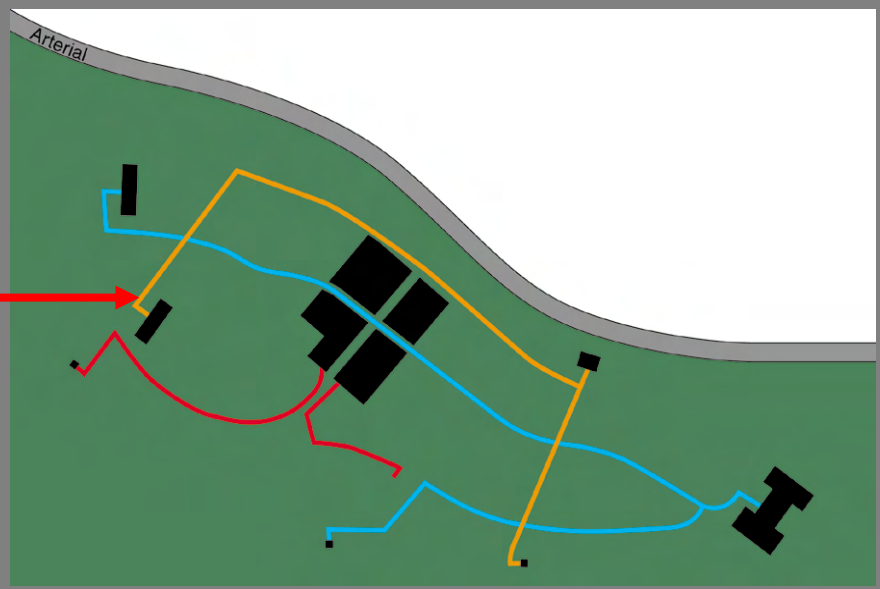


Why It's Happening



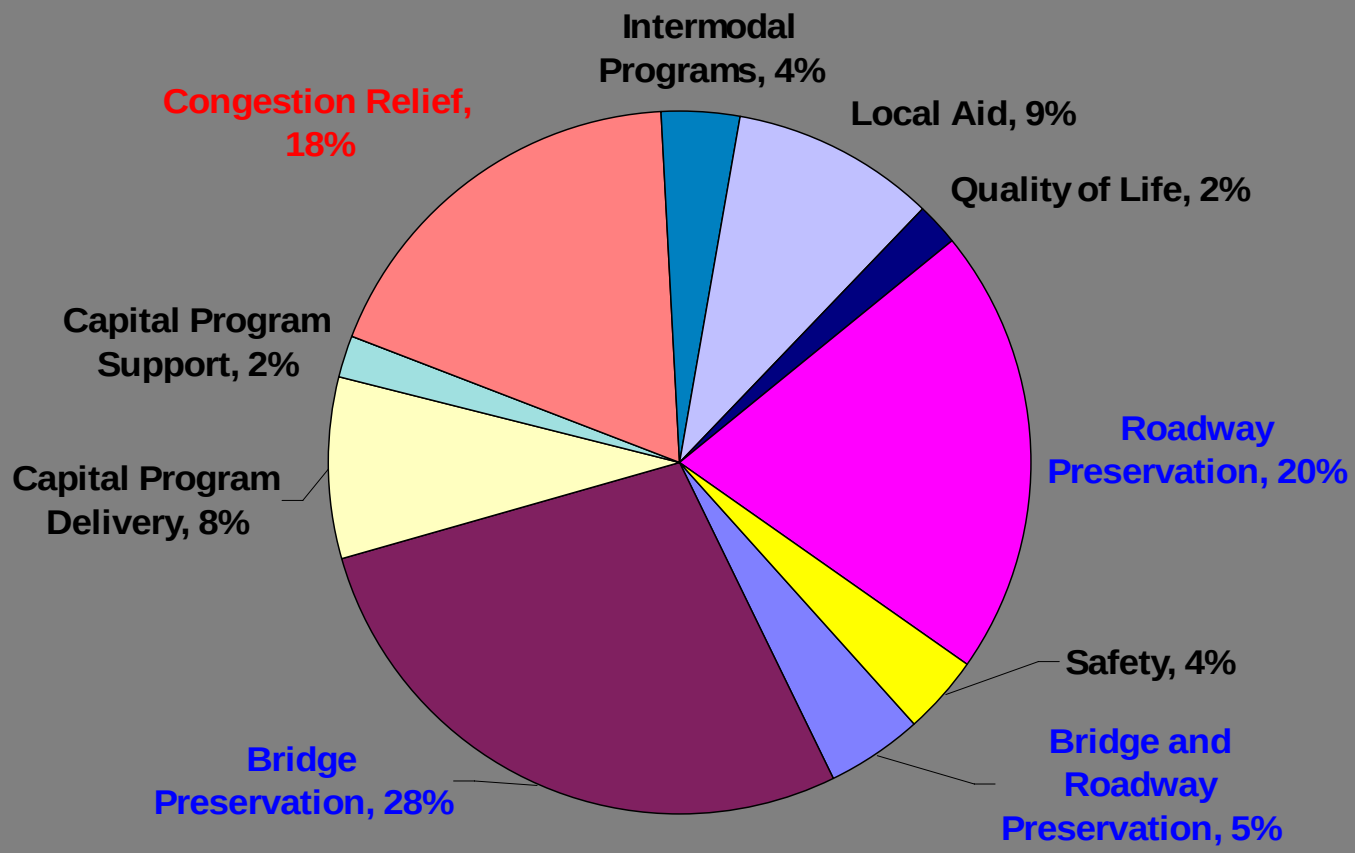






FY2007 Project Pool

PROGRAM CATEGORIES



NJDOT's New Approach to Congestion Relief

new jersey department of transportation

NJ FIT: Future in Transportation

www.state.nj.us/transportation/works/njfit/

Creating healthier communities through a more integrated transportation system

- Mix Land Uses
- Create More Connections
- Design Roads in Context
- Calm Traffic
- Improve Communication
- Give Travelers Options
- Sense of Place
- Environmental Resources
- Build For Transit
- Promote System Efficiency


PASSAIC
BERGEN
WARREN
MORRIS
ESSEX
UNION
HUNTERDON
SOMERSET
MIDDLESEX
MERCER
MONMOUTH
OCEAN
BURLINGTON
GLOUCESTER
CAMDEN
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
DELAWARE
Bloomfield
Rutherford
Rt. 17 Corridor
South Orange
Jersey City
Cranford
Rahway
Metuchen
South Amboy
Matawan
Morristown
Rt. 57 Scenic Corridor
Rt. 31 Flemington
Bound Brook
New Brunswick
Rt. 1 Central Jersey
Rt. 29 Downsizing
Rt. 9/33 Manalapan
Belmar
Rt. 130 Corridor
Riverside
Rt. 30 Camden
Rt. 38 Corridor
Rt. 9 Lakewood
Collingswood
Rt. 9 Corridor
Rt. 322 Corridor
Pleasantville
ATLANTIC OCEAN
DELAWARE BAY
KEY:
Transit Village
NJFIT Study
NJFIT

Smart Transportation

Principles

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets

Smart Transportation

Principles

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

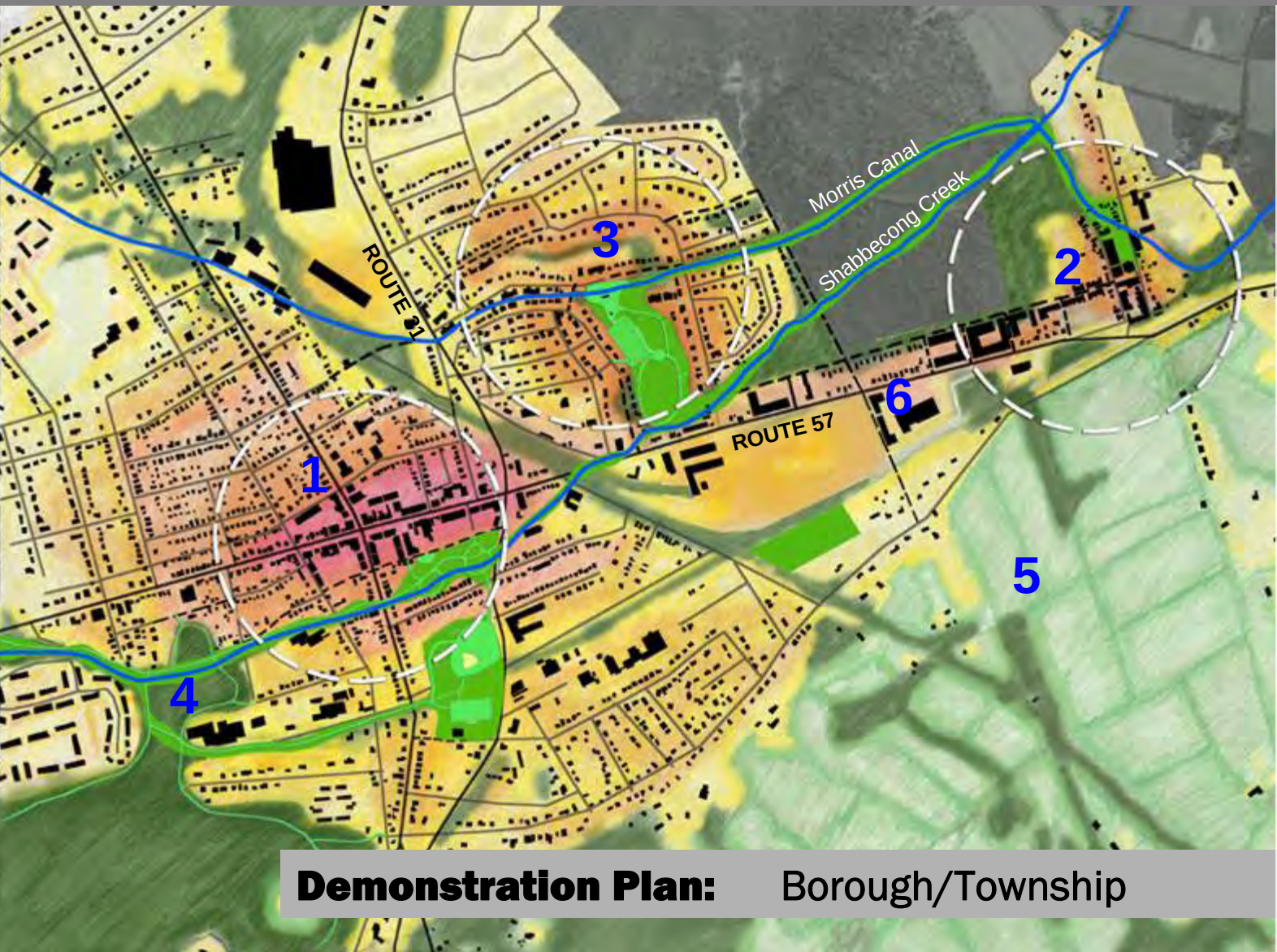
Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets

Route 57 Corridor Preservation Plan

Warren County



Demonstration Plan: Borough/Township

Key Elements

1- Infill in Existing Downtown

2- Enhanced Village

3- Neighborhood Infill

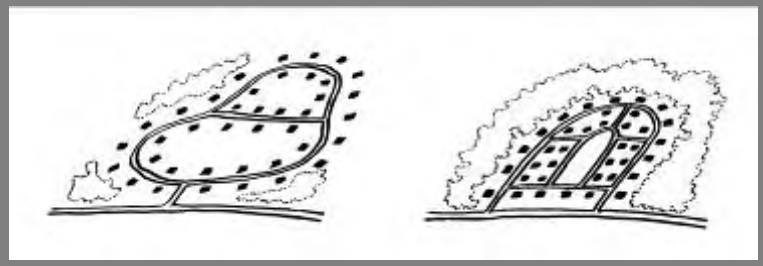
Strategies

4- Greenway and Parks

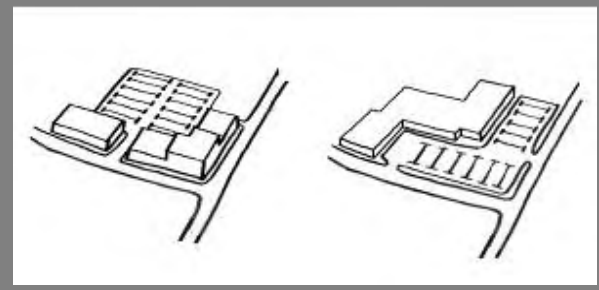
5- Agriculture/ Viewshed Preservation

6- New Corridors

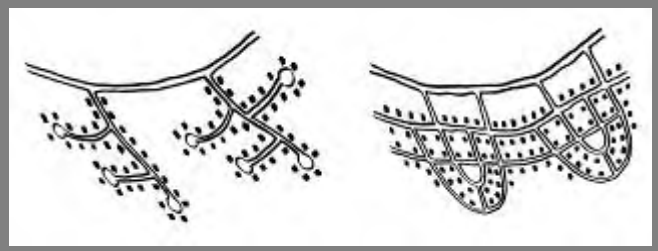
Development Principles



Rural Development



Site Design & Parking



Street Connectivity

Mixed-Use

Parks & Open Space

Development Guidelines

Downtown

Commercial Center

Village Center

Neighborhood Center

Rural Neighborhood

Design Guidelines for Future Development

2.a | DOWNTOWN DEVELOPMENT GUIDELINES

Downtown areas are focal points for the larger region. They are characterized by a higher-intensity and mixture of land uses than surrounding areas. Mixed-use blocks oriented around a Main Street define the center of the downtown. The Main Street must be low-speed and pedestrian-friendly, creating a walkable environment between small shops, stores, and offices. Higher-density residential areas are encouraged within close walking distance to the Main Street.

EXAMPLE FEATURES

1 Main Street
2 Mixed-Use Buildings Framing Main Street
3 Greenway along River
4 High-Density Residential Blocks

1. STREET LAYOUT & CONNECTIVITY

Street Types
Main Street, Neighborhood Street, Neighborhood Alley

The Main Street is the commercial center of Downtown and must be pedestrian-friendly, providing wide sidewalks, shade trees, and safe crosswalks. For higher-density residential areas, alleys are recommended to accomodate parking and service needs.

Connectivity & Block Size
300-600' blocks

Because of the building density, small block sizes are appropriate in the Downtown area, with commercial uses having the smallest blocks, gradually giving way to larger residential blocks. The tight network provides many routes for pedestrians, connects parking lots, and joins the residential and mixed-use areas.

2. SITE DESIGN

Building Height & Setbacks
2-5 stories, 0-15' setbacks (20' for residential)

The tallest buildings making up the Downtown Main Street provide a sense of spatial enclosure, creating an "urban room" for pedestrians. Setbacks should be minimized, with no setback along primary commercial streets.

Parking
On-Street, Surface, Residential, future potential for Structured

On-Street parking is encouraged along both commercial and residential streets. Surface parking should be placed to the rear of buildings, shielded from the sidewalk and Main Street setting. As density increases over time through redevelopment, structured parking may become a feasible option.

3. MIX OF USES

Types of Uses
Storefront Retail, Restaurant, Office, Service, Multi-Family Residential, Single-Family Residential

Downtown has the largest diversity of uses, combining retail and office in close connection to residential and other varied uses. This mixed-use quality is important to the vibrance of downtown, creating an energized streetscape for residents, patrons, and workers.

4. PARKS & OPEN SPACE

Integration of Open Spaces
Town Square, Greenway, Recreational Park

Due to its development intensity, Downtown has limited opportunities for open space. A Town Square is the most appropriate type of open space and is encouraged to establish a public civic space at the center of Downtown. Greenways may provide connections to downtown from surrounding areas and Recreational Parks may be placed at the edge of Downtown to serve the community at large.

3.b | BUILDINGS & FRONTAGE TYPES

4. SHOP FRONT

A shop front is intended to promote retail activity. The front building facade should be at or near the edge of the right-of-way. Higher ground floor heights ensure a civic presence at street level. The ground floor often has large windows, drawing attention inward and allowing pedestrians to 'window shop'. Awnings and signage may cantilever over the right-of-way.

5. PORCH FRONT

A porch front is designed to promote social interaction between pedestrians and residents of individual houses without compromising the privacy of those same residents. It is typically found in American neighborhoods built between 1890 and 1940.

6. RESIDENTIAL YARD

A residential yard uses a substantial building setback. The front yard created may be fenced or unfenced and should have similar landscaping to adjacent yards. With the deep setback as a buffer, a large lawnfront can be suitable for higher speed thoroughfares.

7. RURAL RESIDENTIAL YARD

A rural residential yard is applicable in rural residential areas. To maintain rural character, homes and buildings are substantially setback from the roadway. Within scenic rural areas, the placement of residences should be sensitive to viewsheds and open spaces to preserve the rural experience along the roadway.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

Design Guidelines: Design Elements and Standards

- Streets
- Building Frontages
- Parking
- Lighting
- Parks

Design Elements and Standards – Streets and Building Fronts

Commercial Street

Shop Front

Neighborhood Street

Porch Front

Design Elements and Standards – Parking and Signage

Safe for Pedestrians

Visible to Pedestrians

Route 29 Trenton

Established Urban Community

Route 29 Trenton

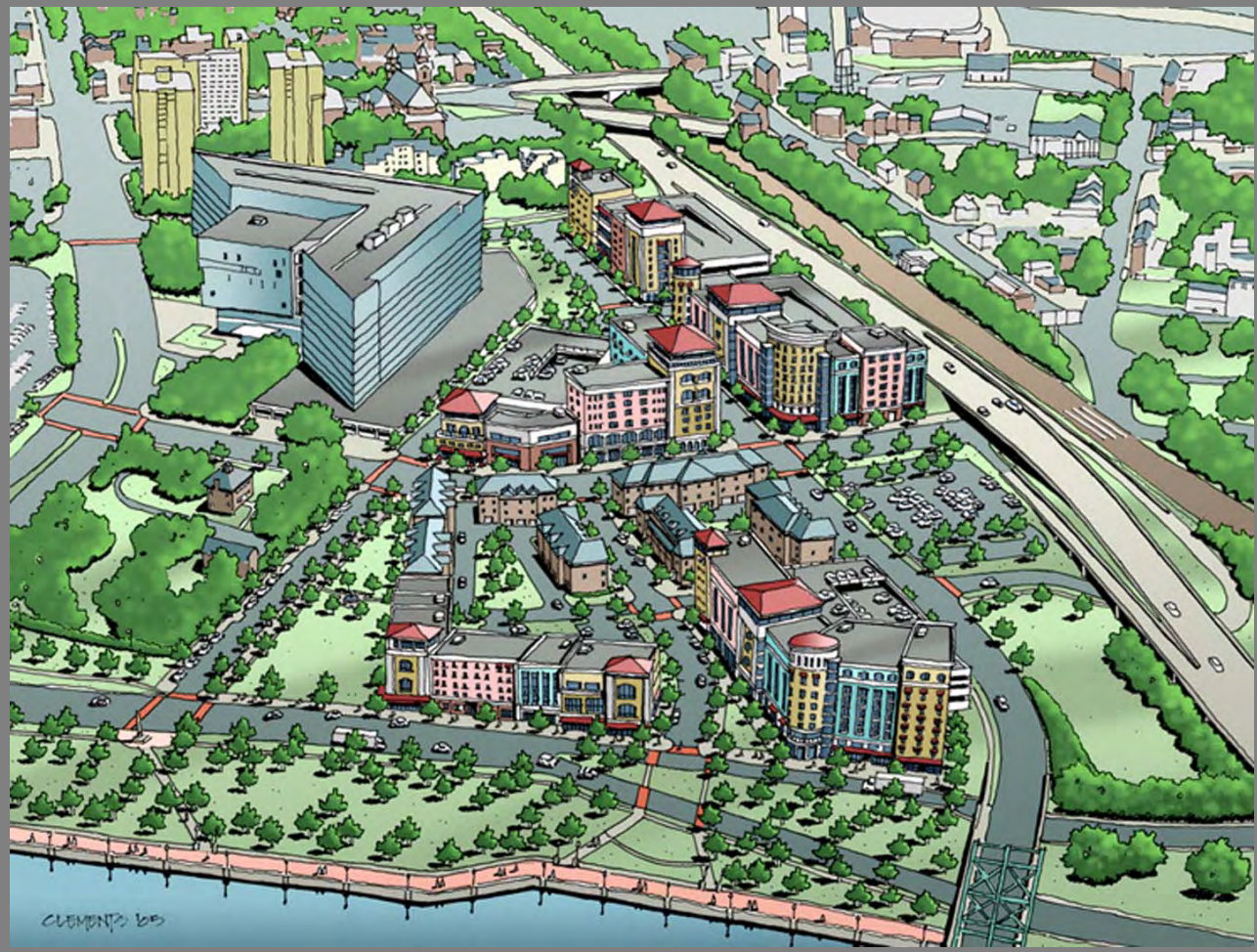
Established Urban Community

Route 29 Trenton

Established Urban Community

Route 29 Trenton

Established Urban Community

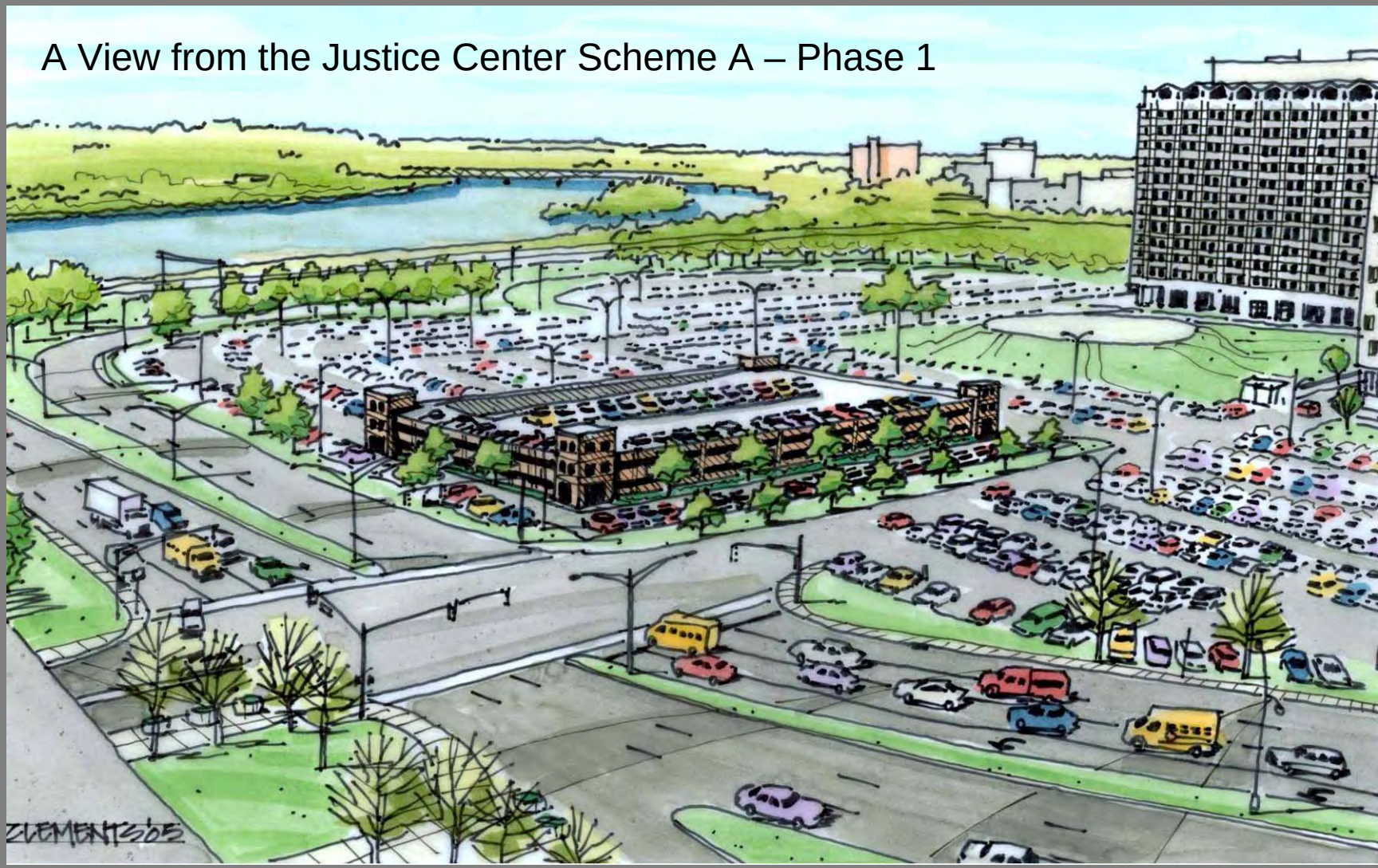


Route 29 Trenton

Established Urban Community

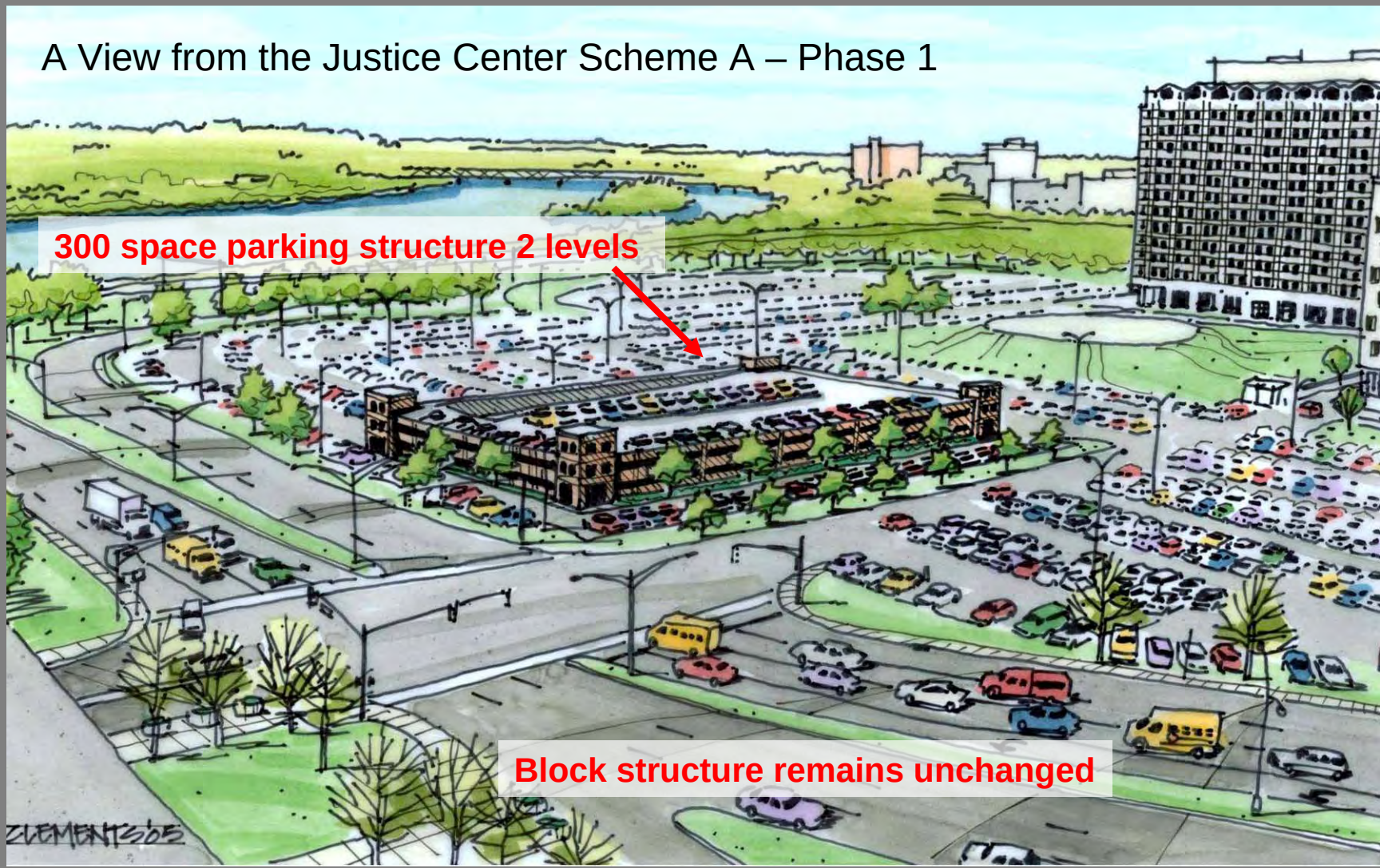
Route 29 Trenton

Established Urban Community



Route 29 Trenton

Established Urban Community

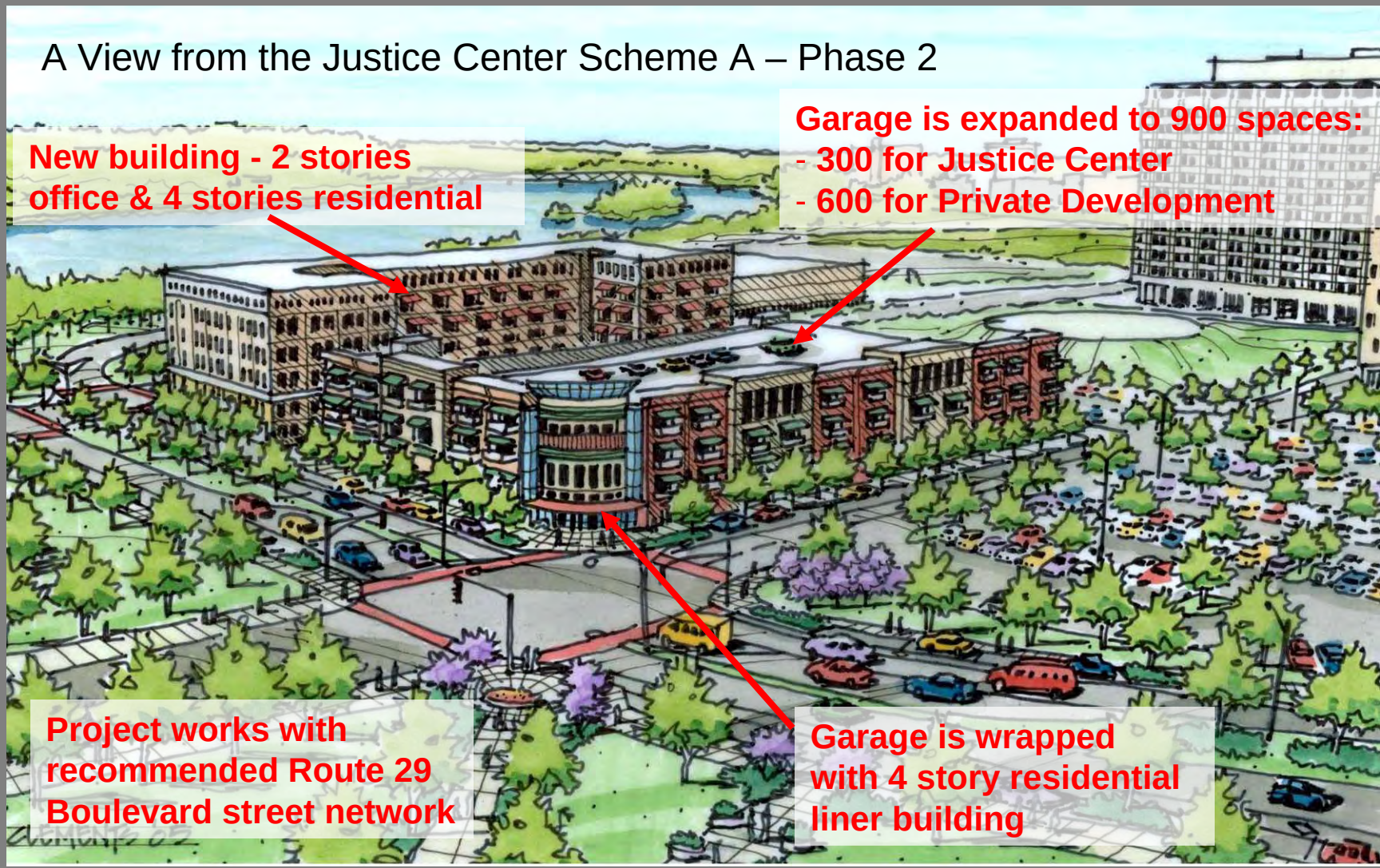


Route 29 Trenton

Established Urban Community

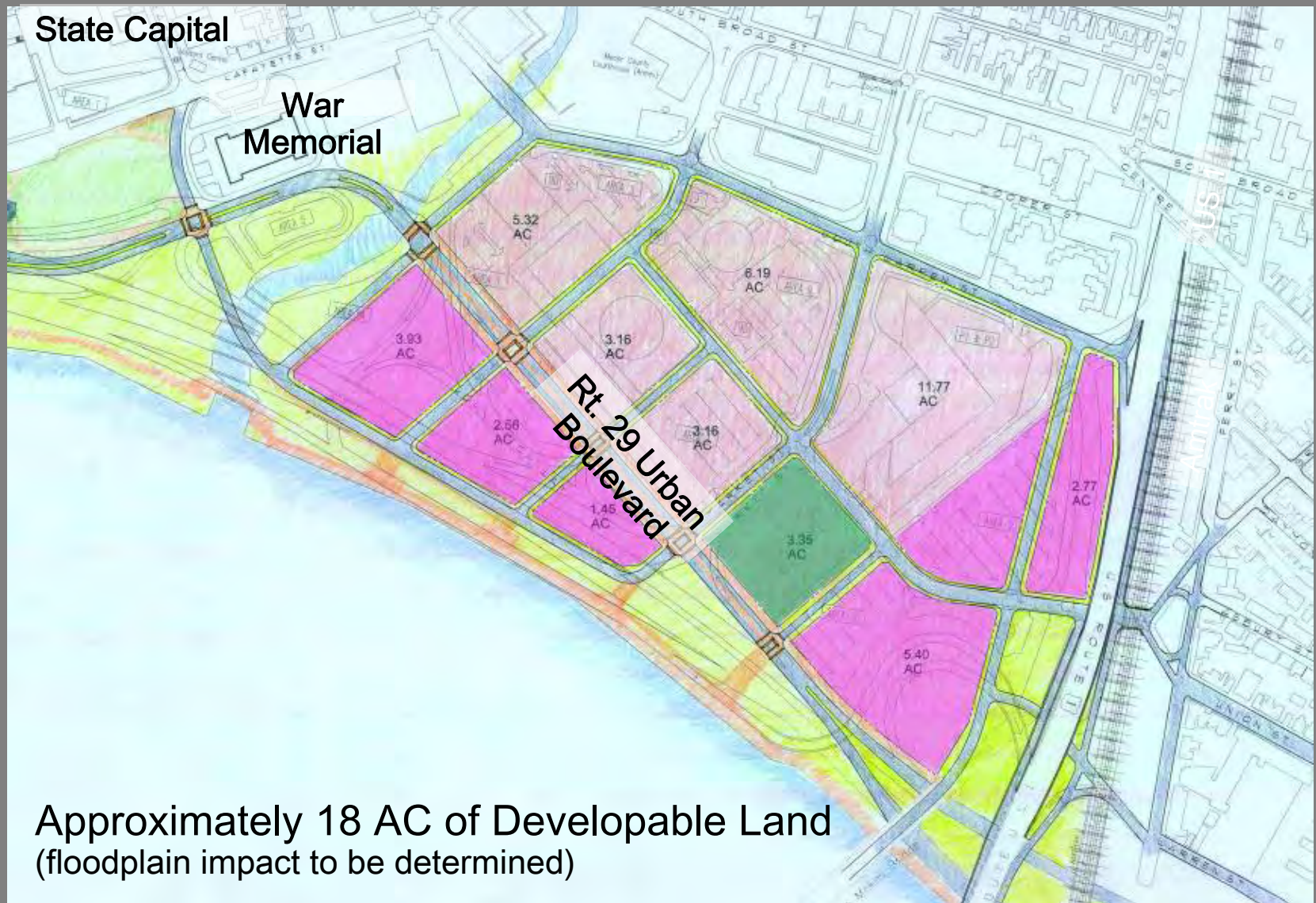
Route 29 Trenton

Established Urban Community



Route 29 Trenton

Urban Boulevard Alternative

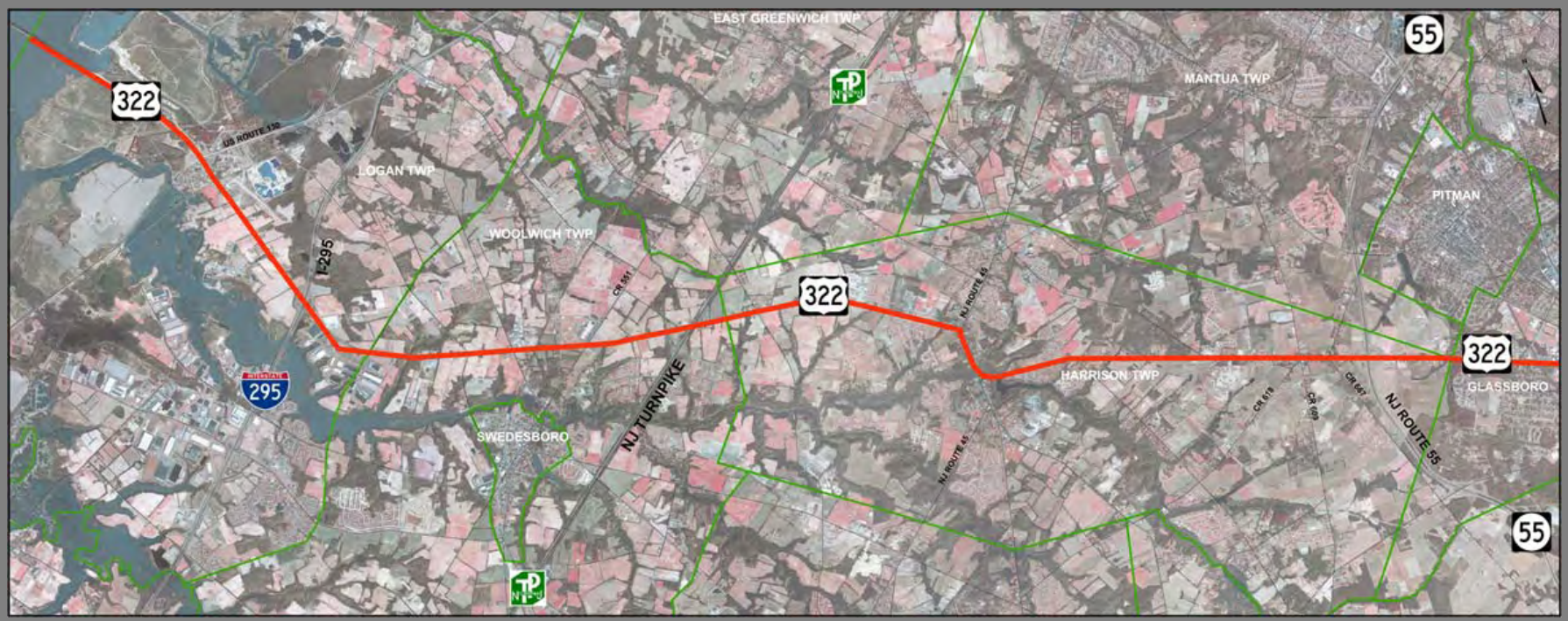


Approximately 18 AC of Developable Land
(floodplain impact to be determined)

Route 322 Corridor Land Use and Transportation Study

Gloucester County

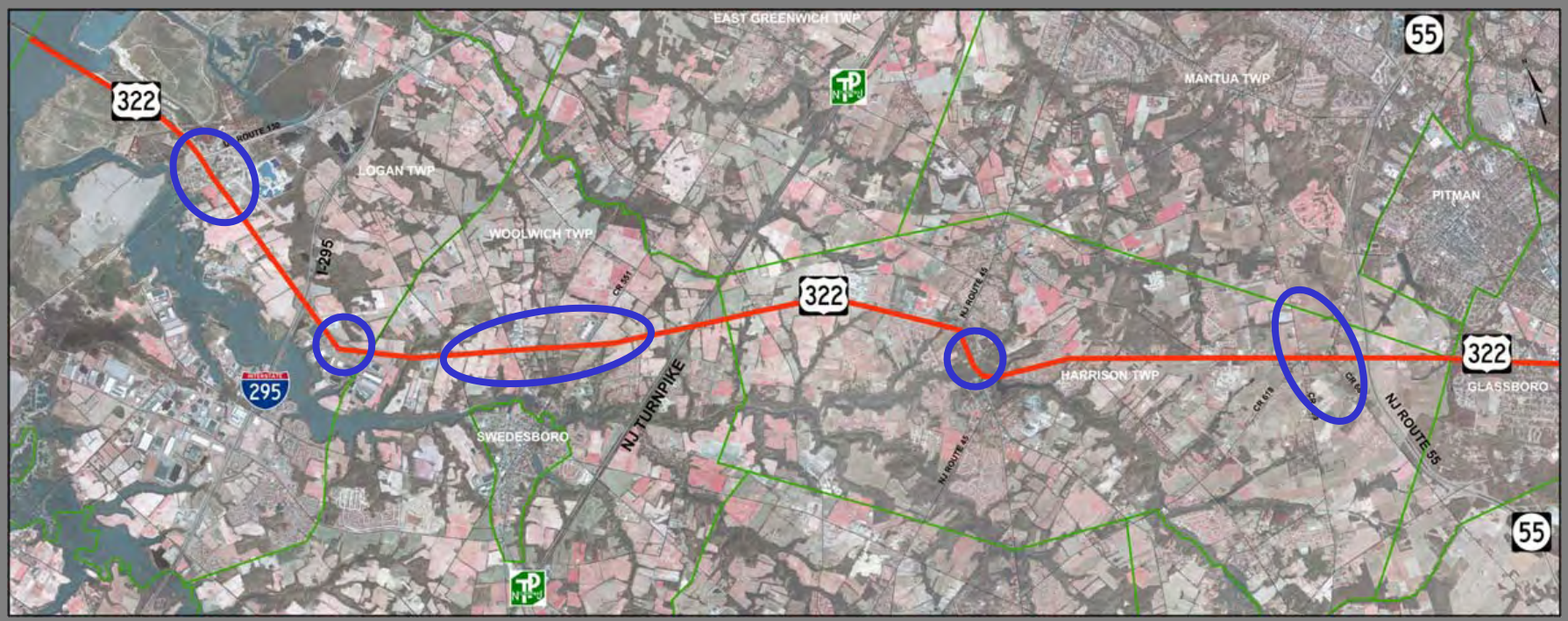
- One of the fastest growing regions in NJ
- Working with municipalities to proactively develop in a more sustainable pattern



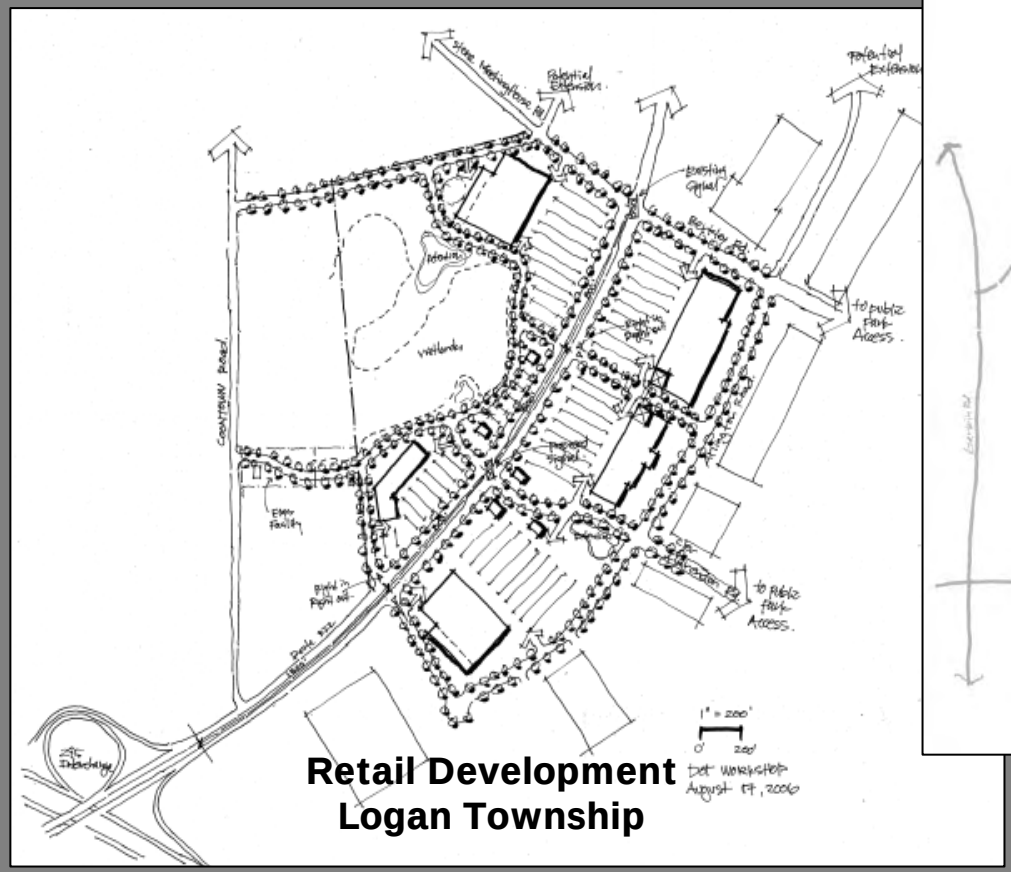
Route 322 Corridor Land Use and Transportation Study

Gloucester County

- **Towns have agreed to concentrate development in centers in order to preserve land, increase walkability, and make transit service more viable**



Route 322
Developer Design Charrettes



Route 33 Hamilton

Suburban Community
Grayfield Redevelopment

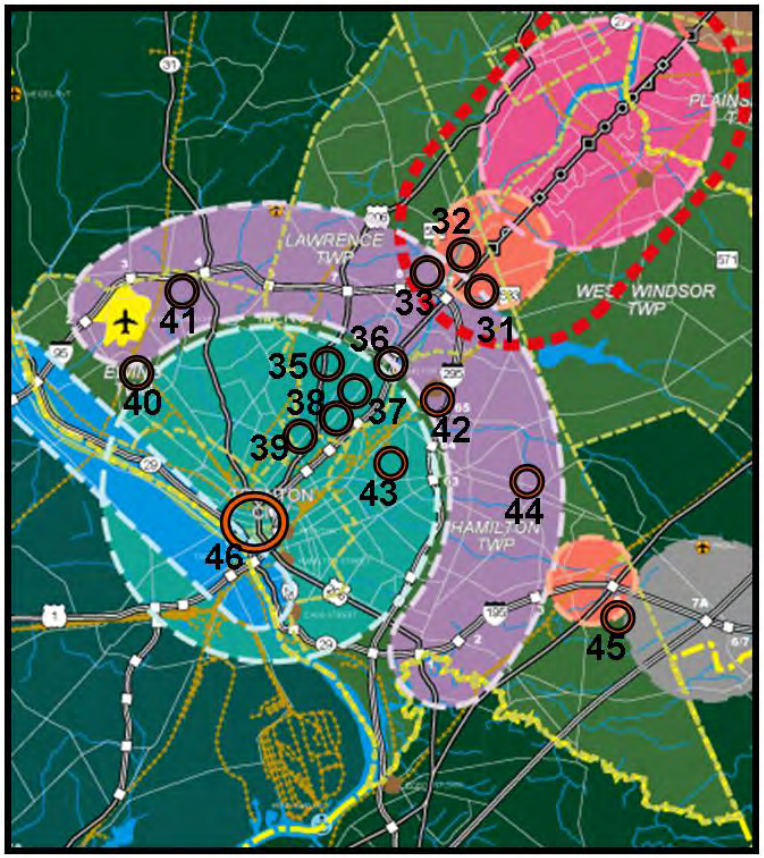
Route 33 Hamilton

Suburban Community
Grayfield Redevelopment

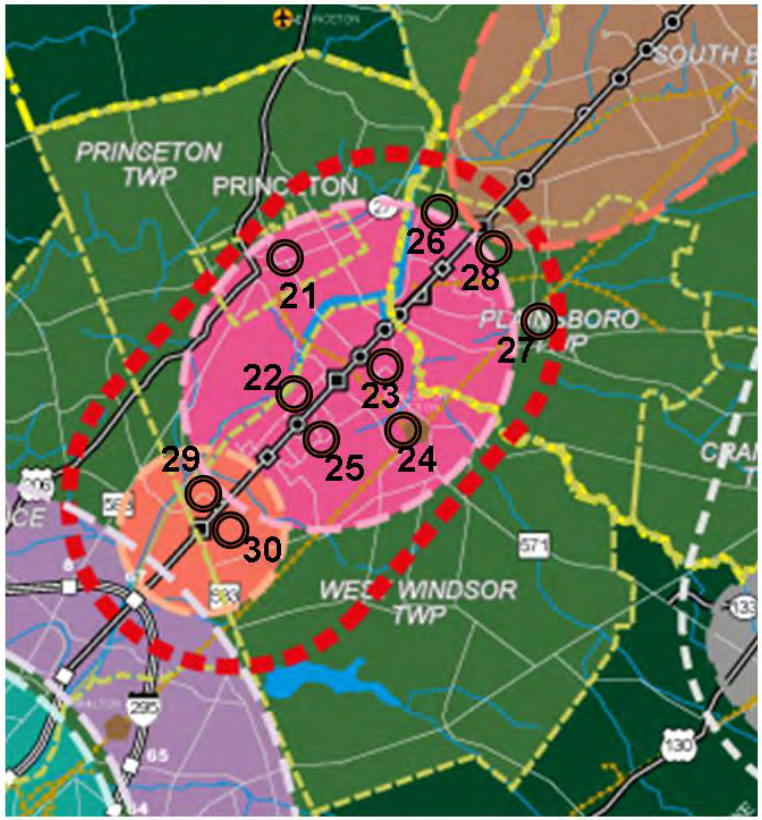
Route 1 Regional Growth Strategy

Proposed Centers and Nodes by Sub-Area

Route 1 Regional Growth Strategy
Proposed Centers and Nodes, Trenton Sub-Area



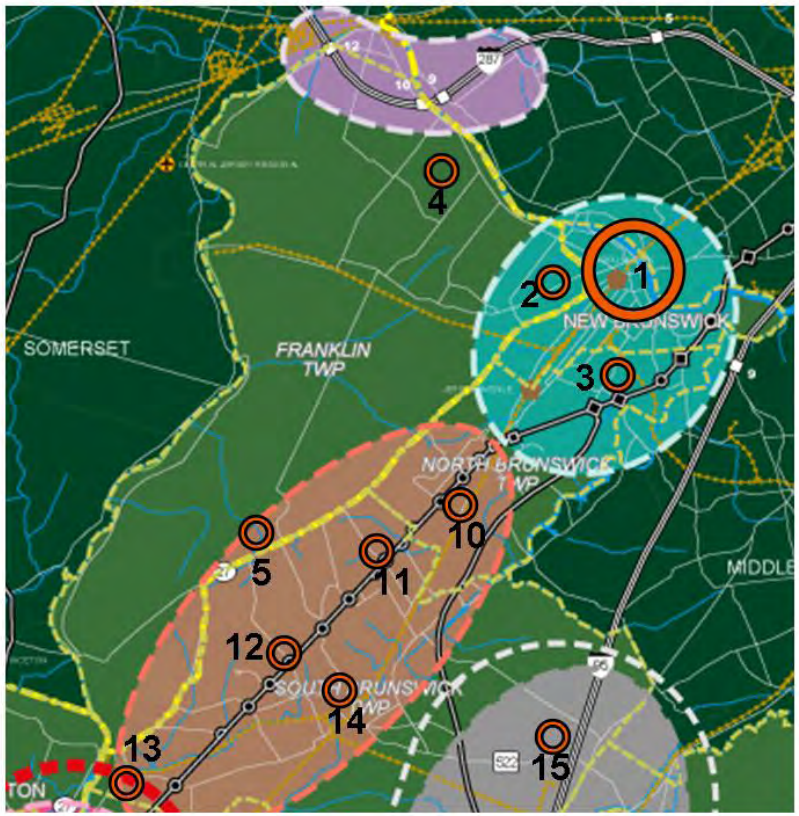
Route1 Regional Growth Strategy
Proposed Centers and Nodes, Princeton Sub-Area



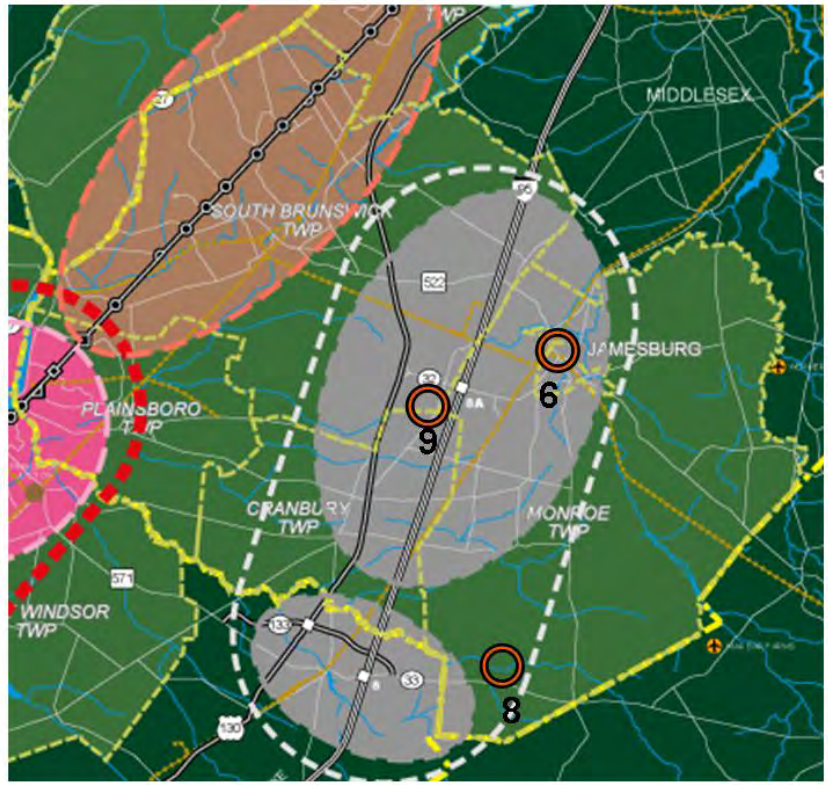
Route 1 Regional Growth Strategy

Proposed Centers and Nodes by Sub-Area

Route 1 Regional Growth Strategy
Proposed Centers and Nodes, New Brunswick Sub-area



Route 1 Regional Growth Strategy
Proposed Centers and Nodes, Turnpike Sub-area



Mobility & Community Form

A Guide to Linking the Circulation and Land Use Elements of the Municipal Master Plan

- Circulation
- Parking
- Transit Stops
- Natural Environment
- Neighborhoods
- Public Places
- Shopping Streets

Mobility & Community Form

Planning jointly for mobility and community form shifts the emphasis of the Circulation Element from the movement of vehicles, people and goods to a broader concern with the quality of people's experience in a community.

Mobility & Community Form

	Rural	Low Density	Town	Dense Suburb	City
Center					
Corridor					
Waterfront					

Smart Transportation

Principles

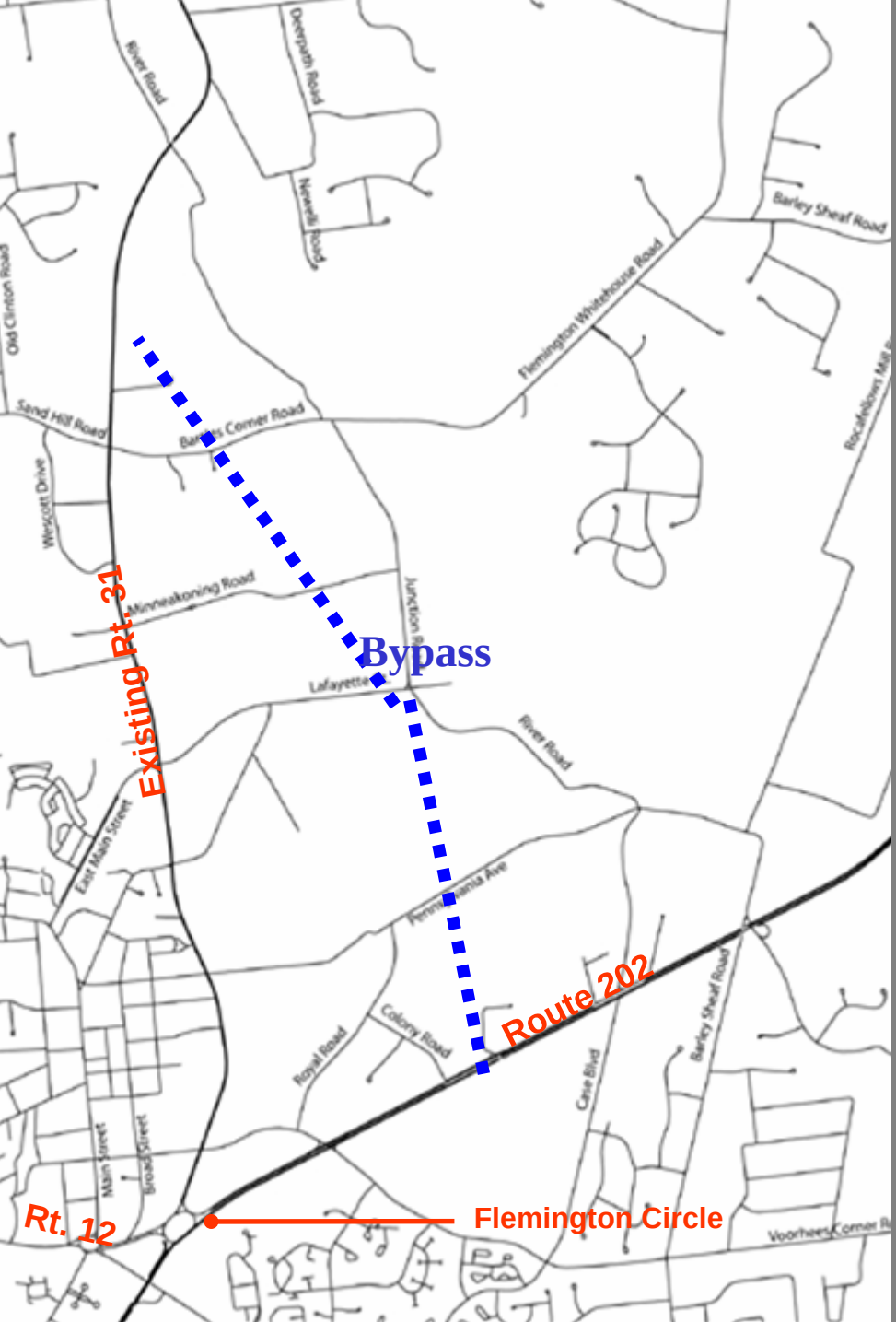
Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

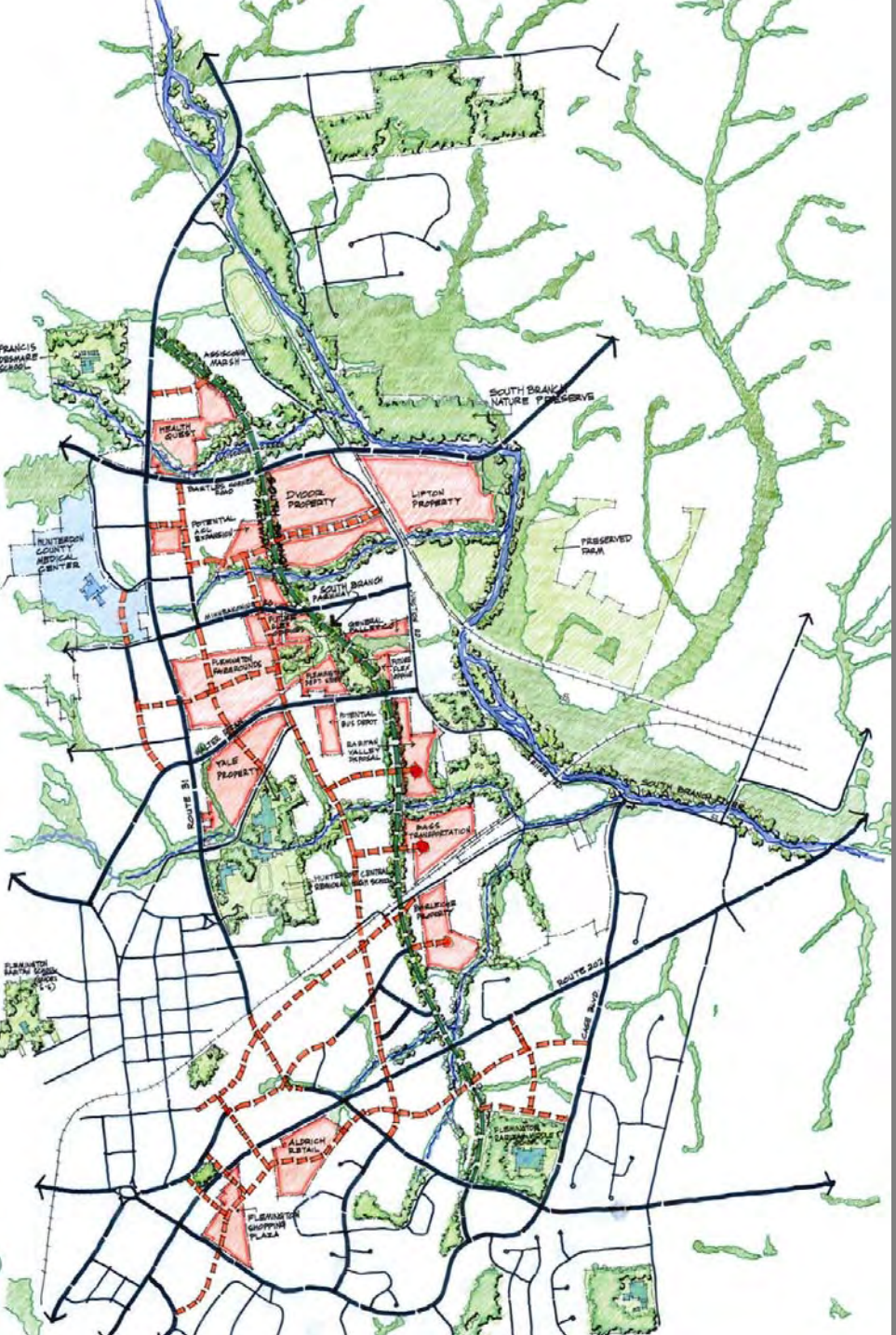
Design Context Sensitive Streets



Route 31 Bypass

Flemington

- 4-lane grade separated freeway in blue
- $ 125-150 million



Route 31 Bypass
Flemington

Integrated Transportation and Land Use "Framework Plan"

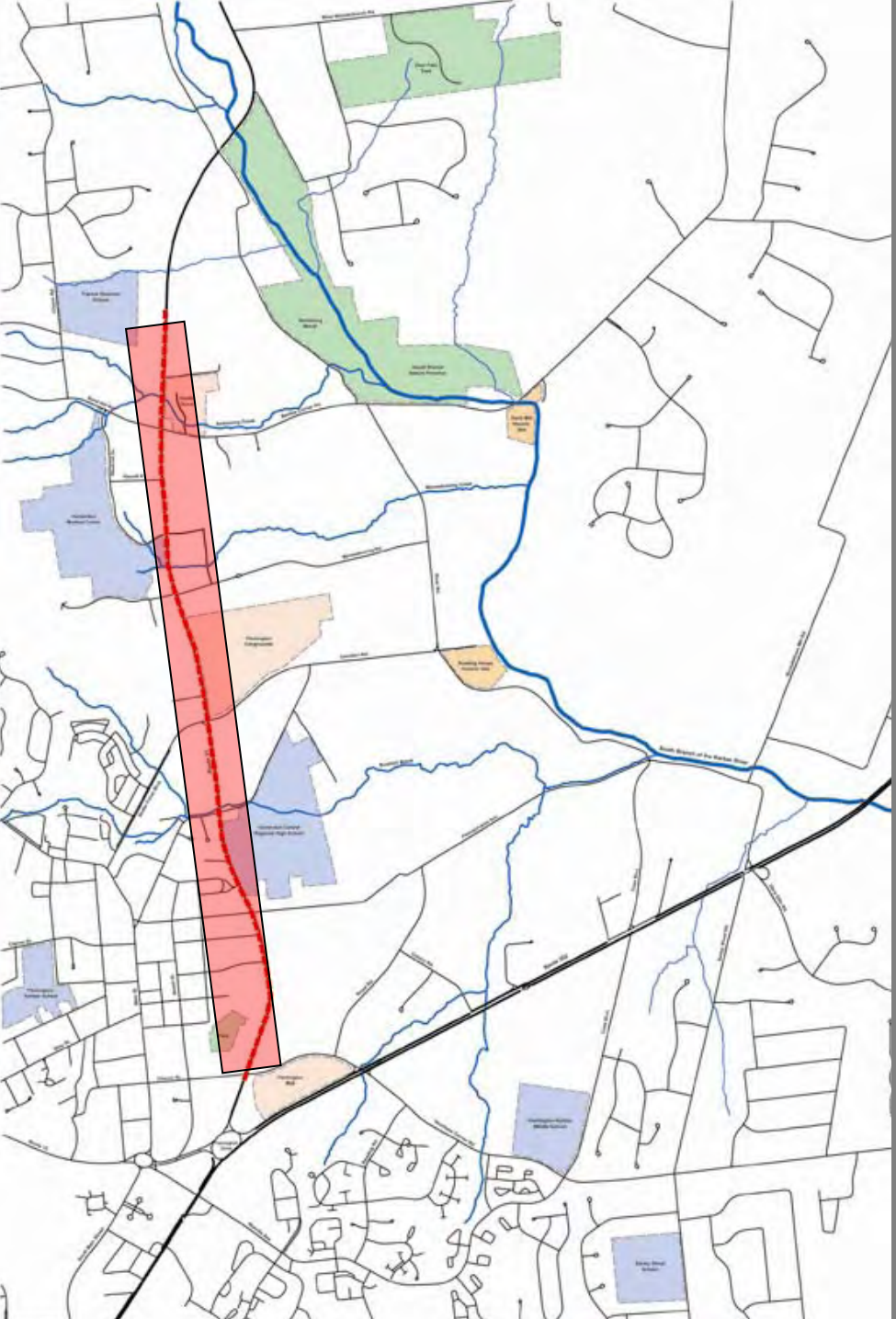
- **At-grade "South Branch Parkway"**
- **Network connections provide parallel routes to 202 and 31**
- **Work with property owners to manage access and support approved development plans**
- **Create a connected open space system as part of the South Branch River**

Route 31 Bypass

Flemington

- Parkway alternative
- Revised project costs, including local grid, is $90 million

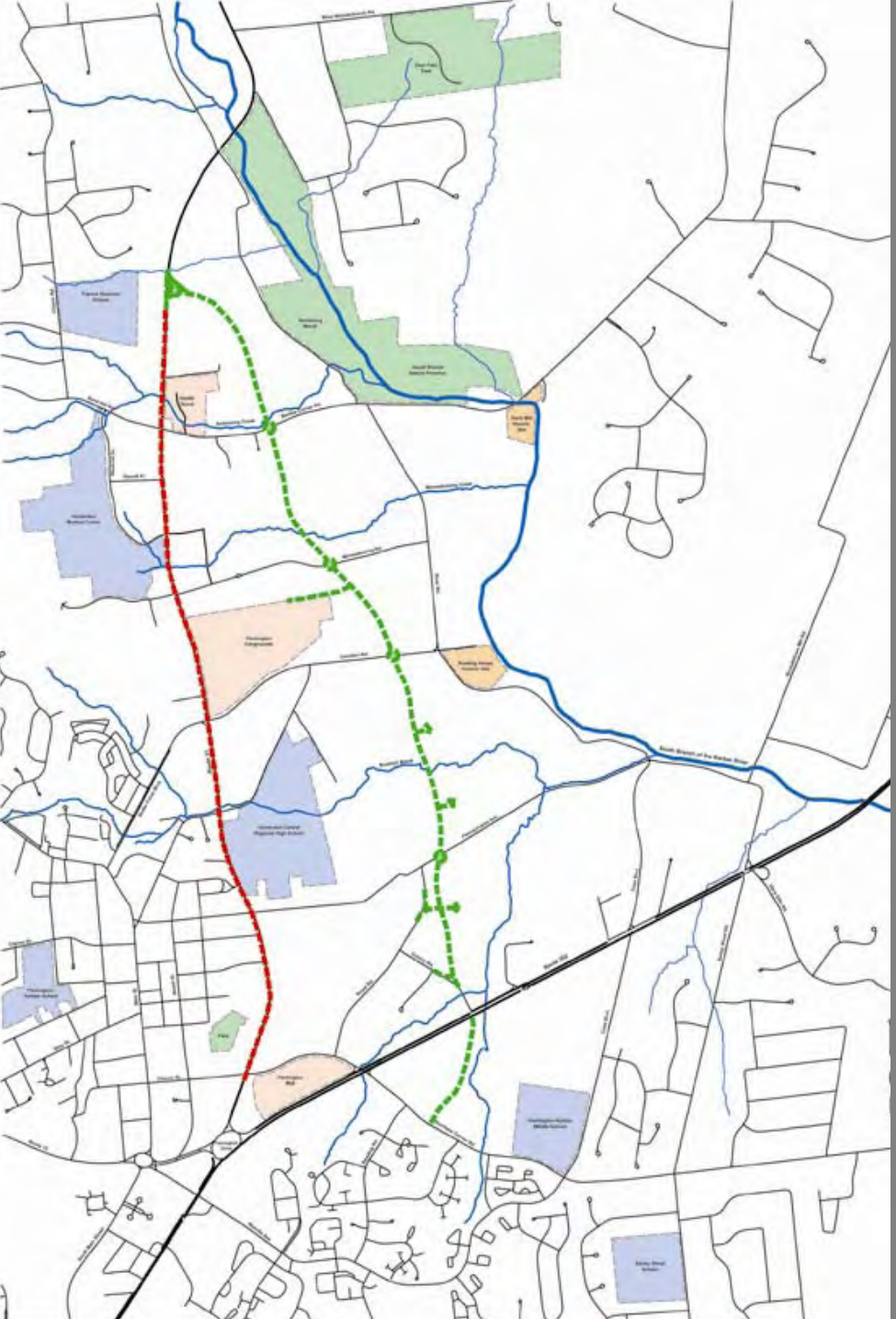
Route 31 Bypass
Parkway Typical Section



Route 31 Bypass
Flemington

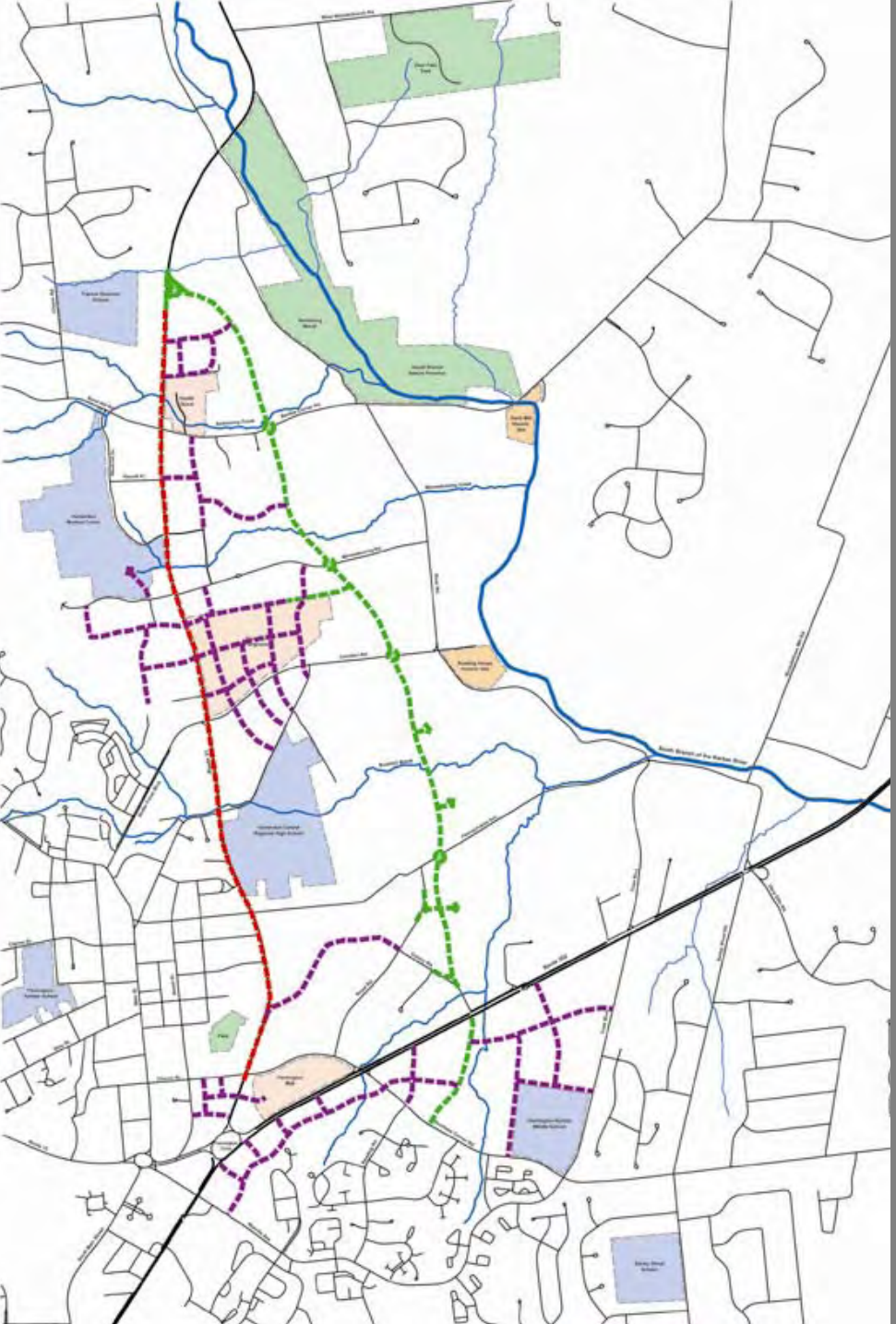
Phasing: Route 31

- Lane continuity
- East Main St. intersection
- Main Street Circle



Route 31 Bypass
Flemington

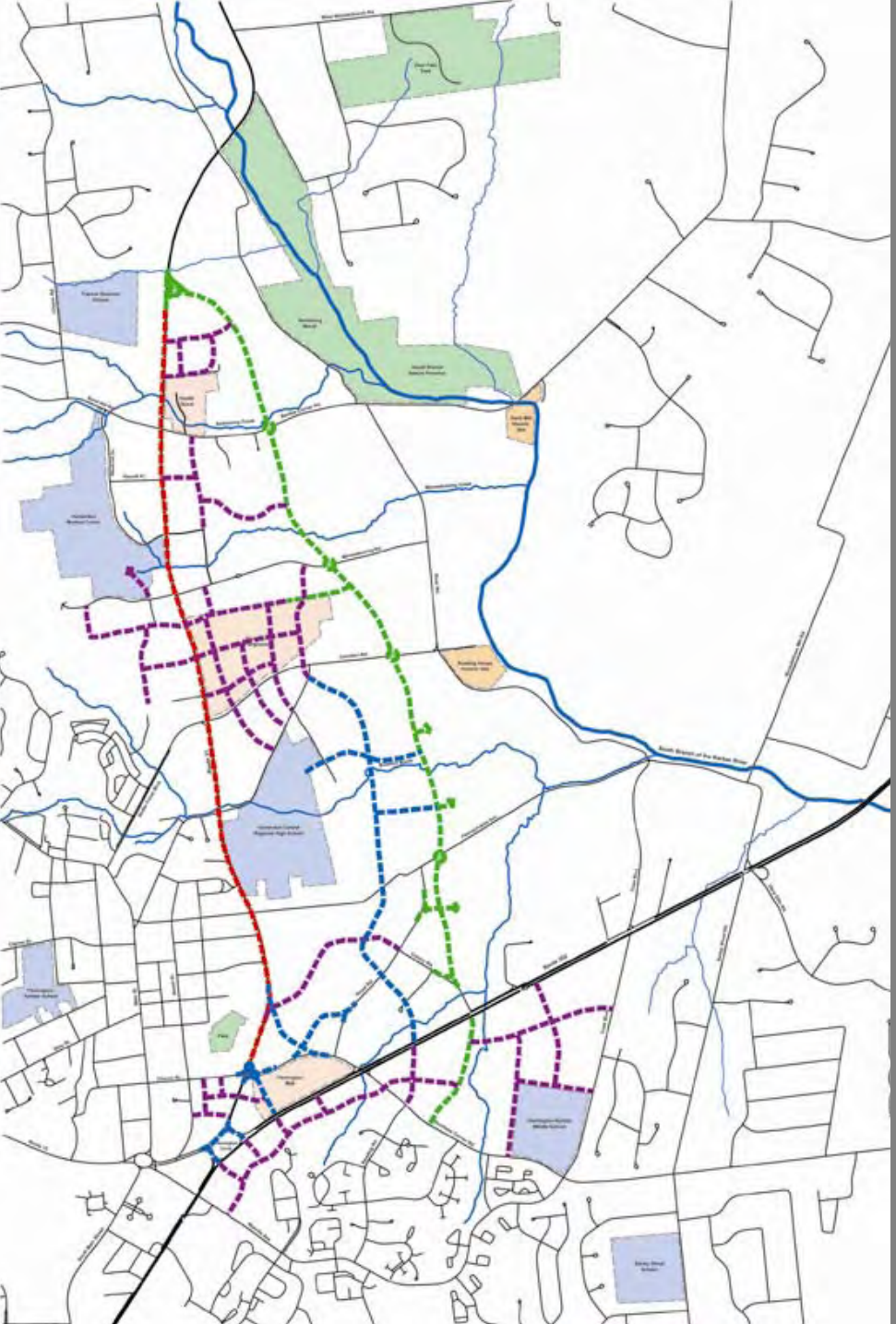
Phasing: South Branch Parkway



Route 31 Bypass
Flemington

Phasing: Development Streets

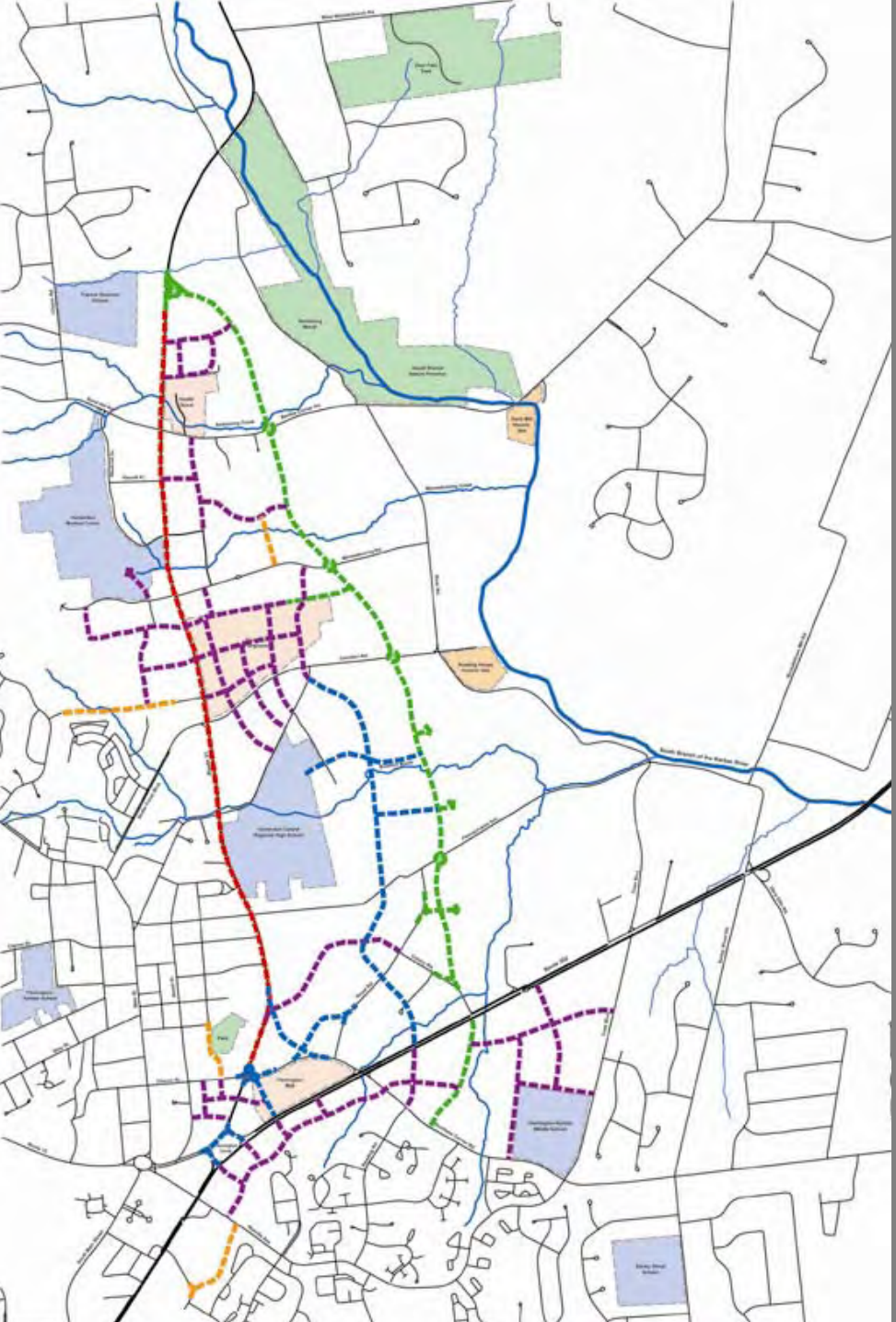
- Fairgrounds
- Route 202 Commercial
- Other Future Development



Route 31 Bypass
Flemington

Phasing: "Circle to Square"

- Route 12 & Church St. Realignment
- Circle to Square
- Additional parallel route to parkway



Route 31 Bypass
Flemington

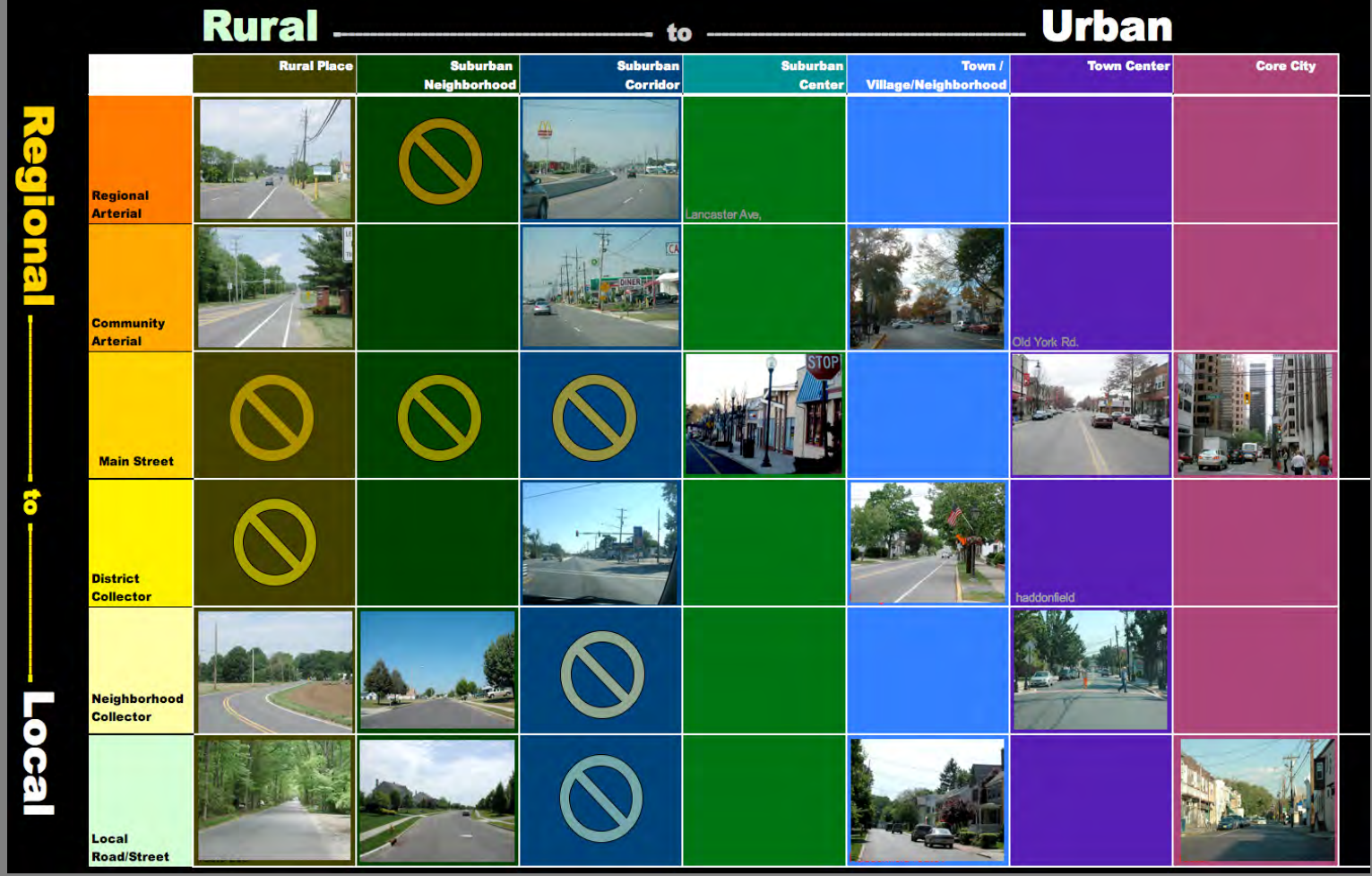
Phasing: Other Secondary Connections

Guidebook for Context Sensitive Solutions in NJ and PA

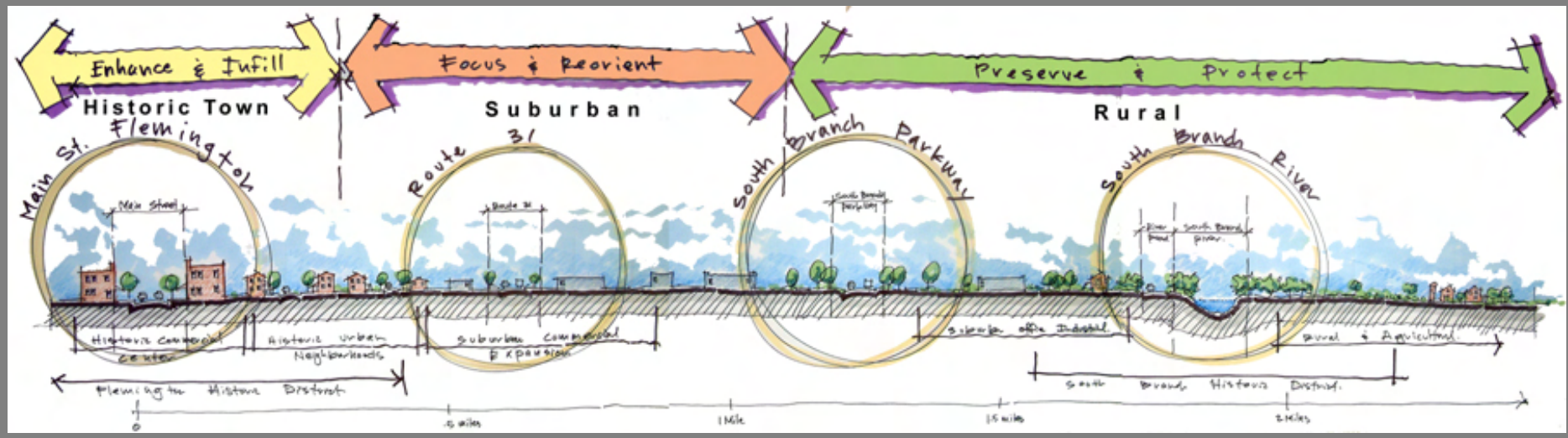
new jersey department of transportation

Pennsylvania Department of Transportation

PENNDOT



- Assigns design guidance based on Transportation and Land Use Contexts
- Collaborative Effort between NJDOT, PennDOT and DVRPC
- Prescribes Community Involvement & Contribution



Historic Town (Flemington)

Suburban (Route 31)

Rural (Raritan River)

Smart Transportation

Principles

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets

Better planning and design will get people out of cars!

A grid-like street network creates more direct routes & makes it easier to walk.

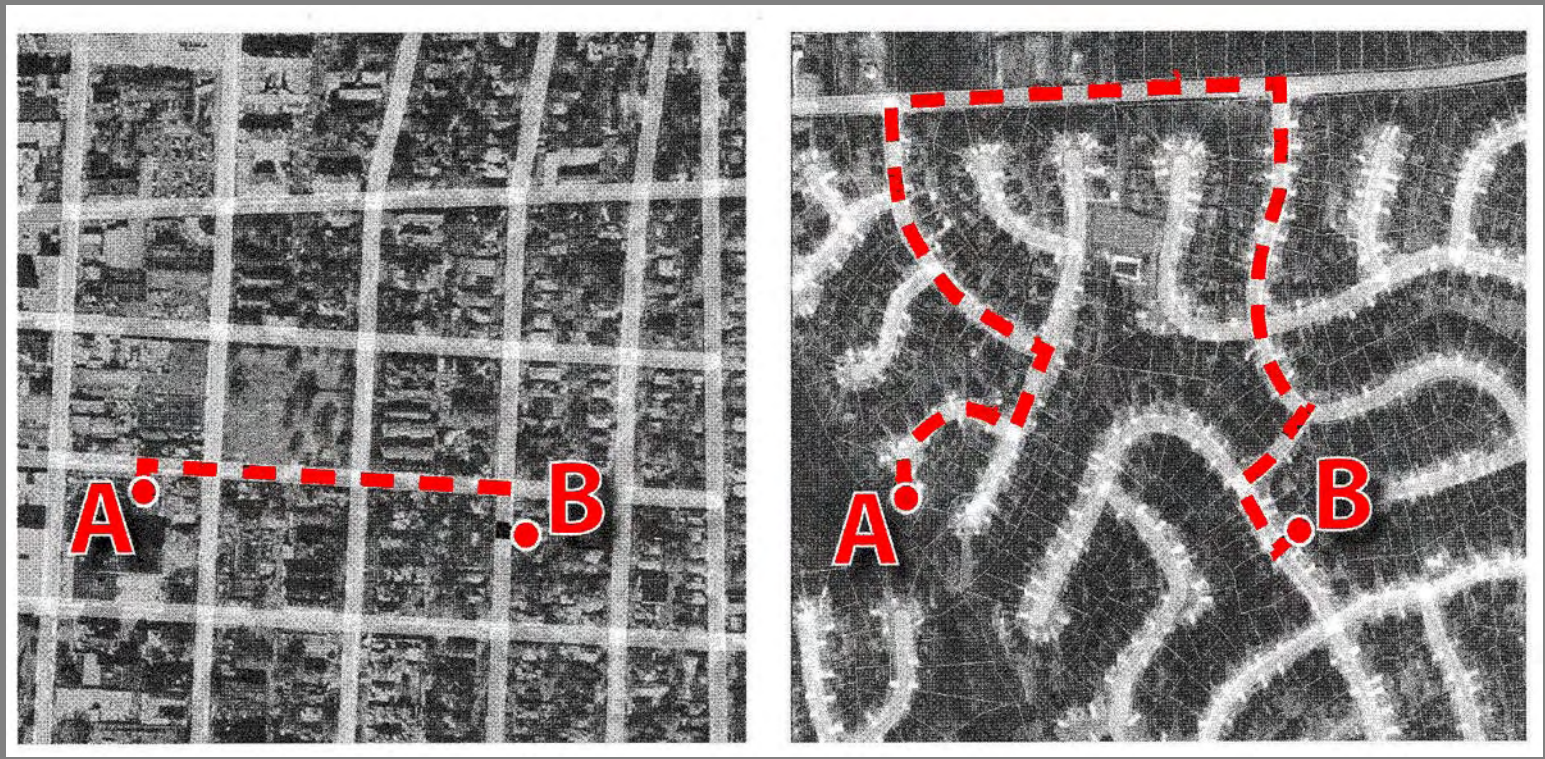


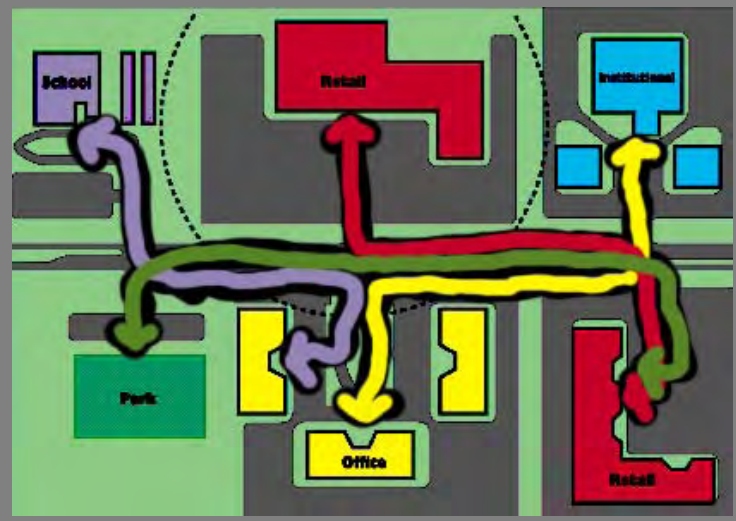
Illustration: Frank, LD “Health & Community Design”

Greenwald, M.J. *Transportation Research Record* 2001

Slide courtesy of Kate Kraft, RWJF

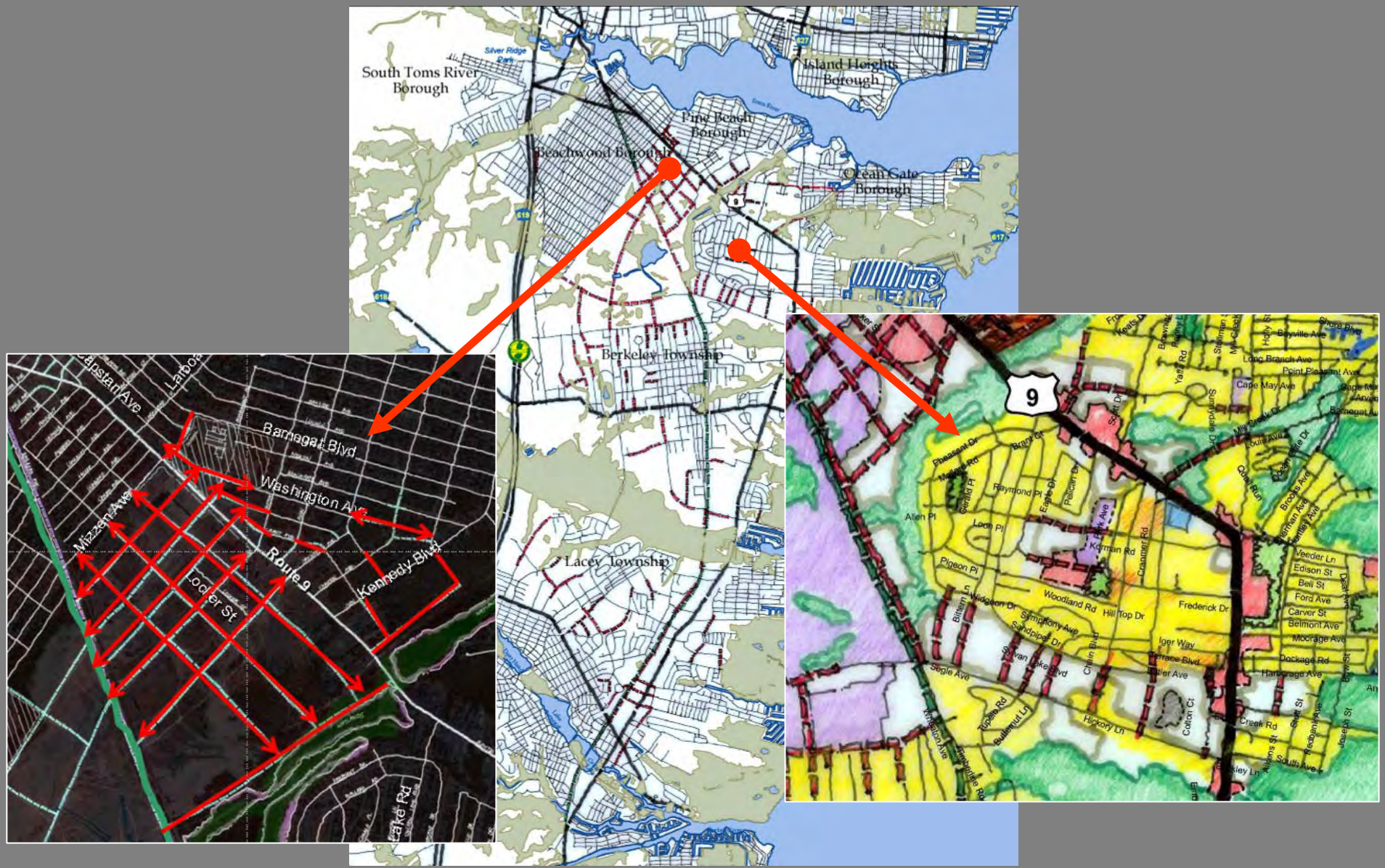
Street Connectivity

- Advantages of connectivity
  - Provides more direct routes
  - Helps disperse traffic
  - Preserves highway capacity
  - Improves bike/ped mobility
  - Improves emergency response times
- Resources available for addressing connectivity in local Master Plans
- Importance of planning for a network of interconnected streets

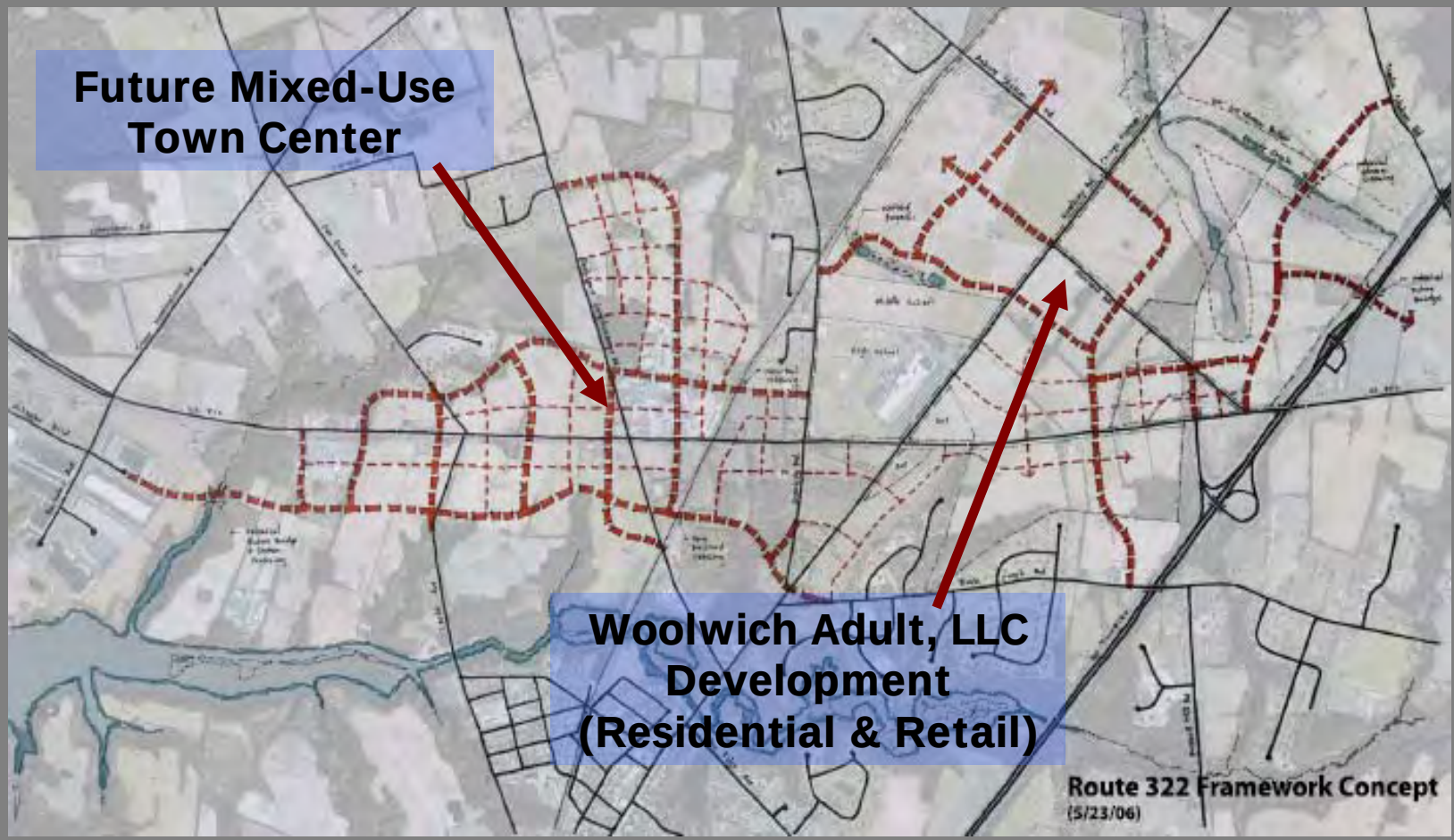


NJ Route 9
Ocean County

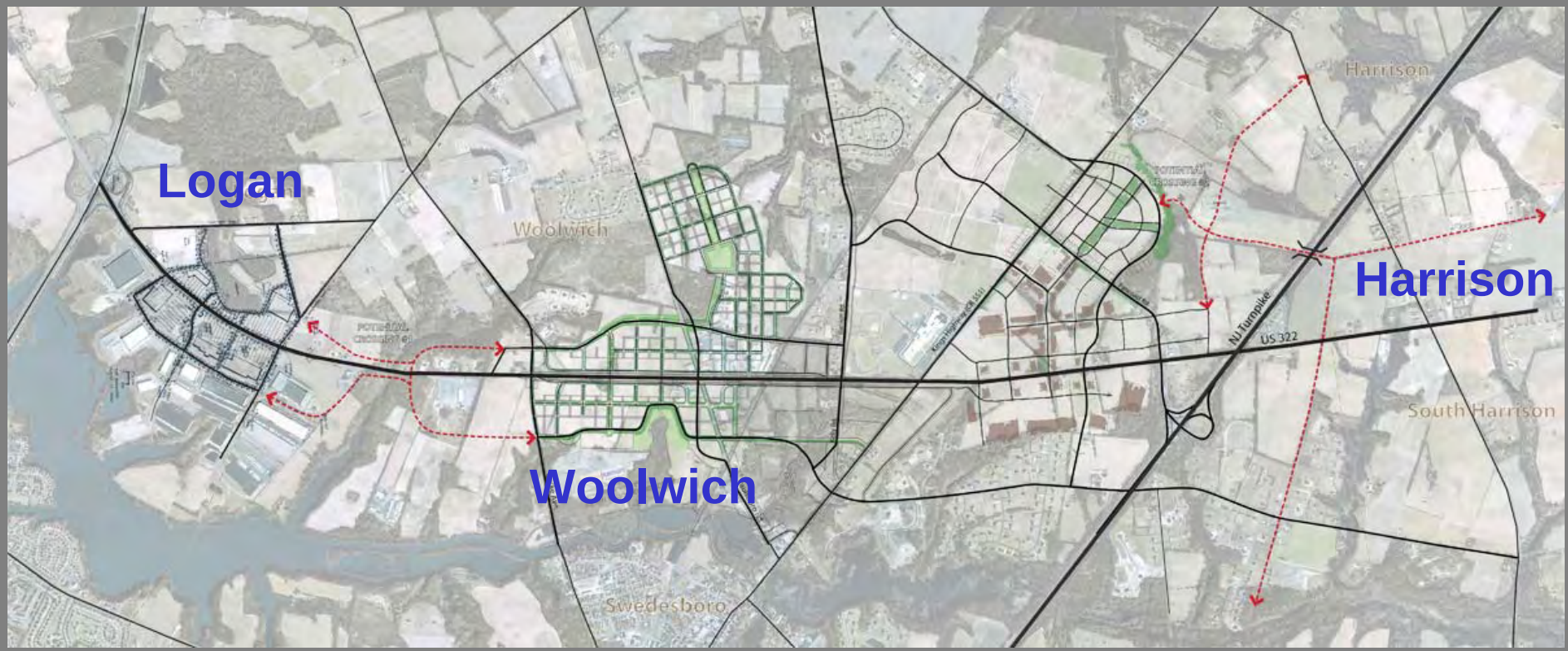
Route 9 Network Connections



Transportation Network Plan
Route 322, Woolwich Township

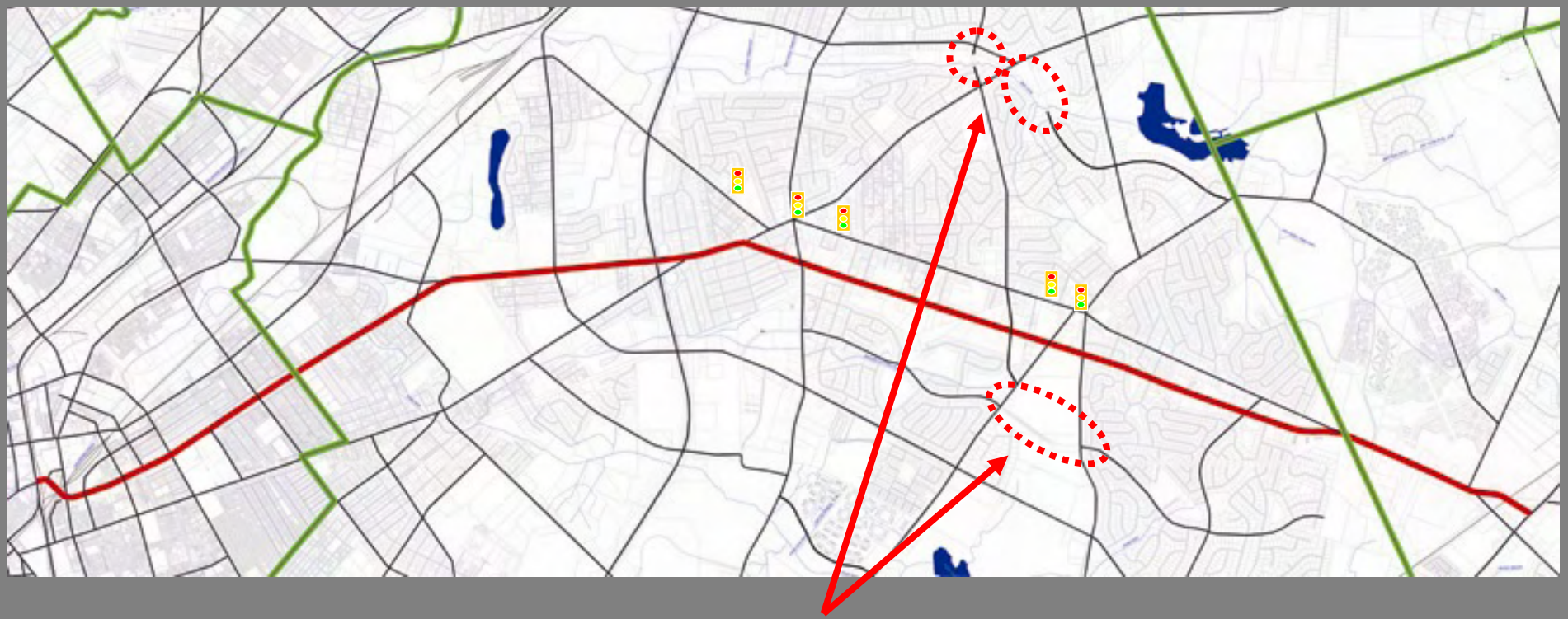


Transportation Network Plan
Route 322 Corridor



Route 33 Hamilton

Suburban Community Network Enhancements



Connect missing network

Smart Transportation

Principles

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets

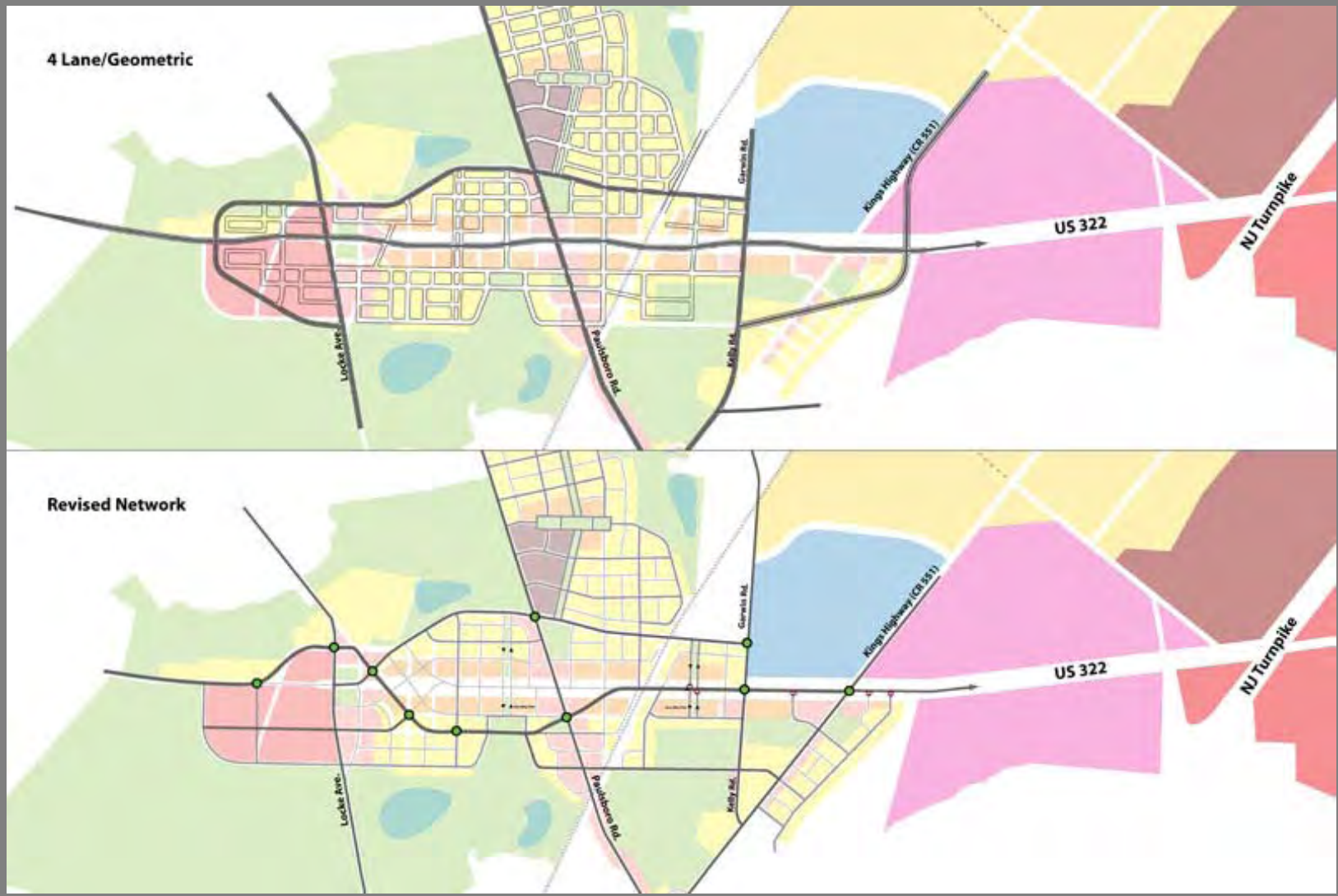
Route 31 Bypass

Flemington

- Parkway alternative
- Revised project costs, including local grid, is $90 million
- $20 million will be provided by private developers
- Local grid partially created by reshaping internal developer roads

Route 322 Corridor

Cost Sharing - Woolwich

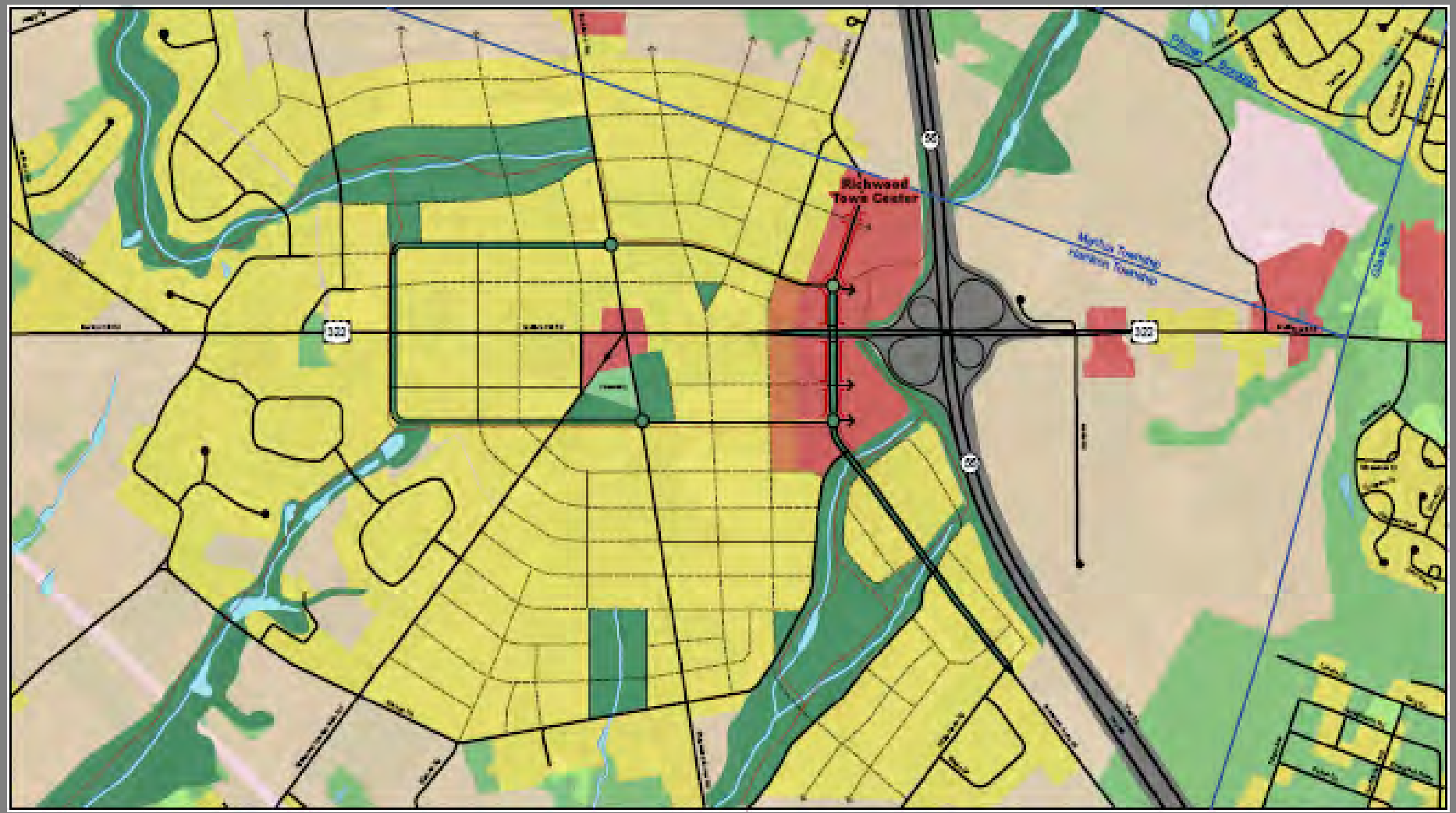


Route 322 Corridor

Cost Sharing - Logan

Route 322 Corridor Cost

Cost Sharing - Richwood



New Jersey Department of Transportation

Transit Village Initiative

Transit Village Initiative
Rutherford Station Square

Partnered with Township, NJ Transit and Boiling Springs Bank. BSB built a mixed-use bank/office/residential/commuter parking structure adjacent to the Circle.

Smart Transportation

Principles

Partner with Communities on Land Use Planning

Right-Size State Highway Investments

Enhance Network Connectivity

Leverage Private Sector Investment

Design Context Sensitive Streets

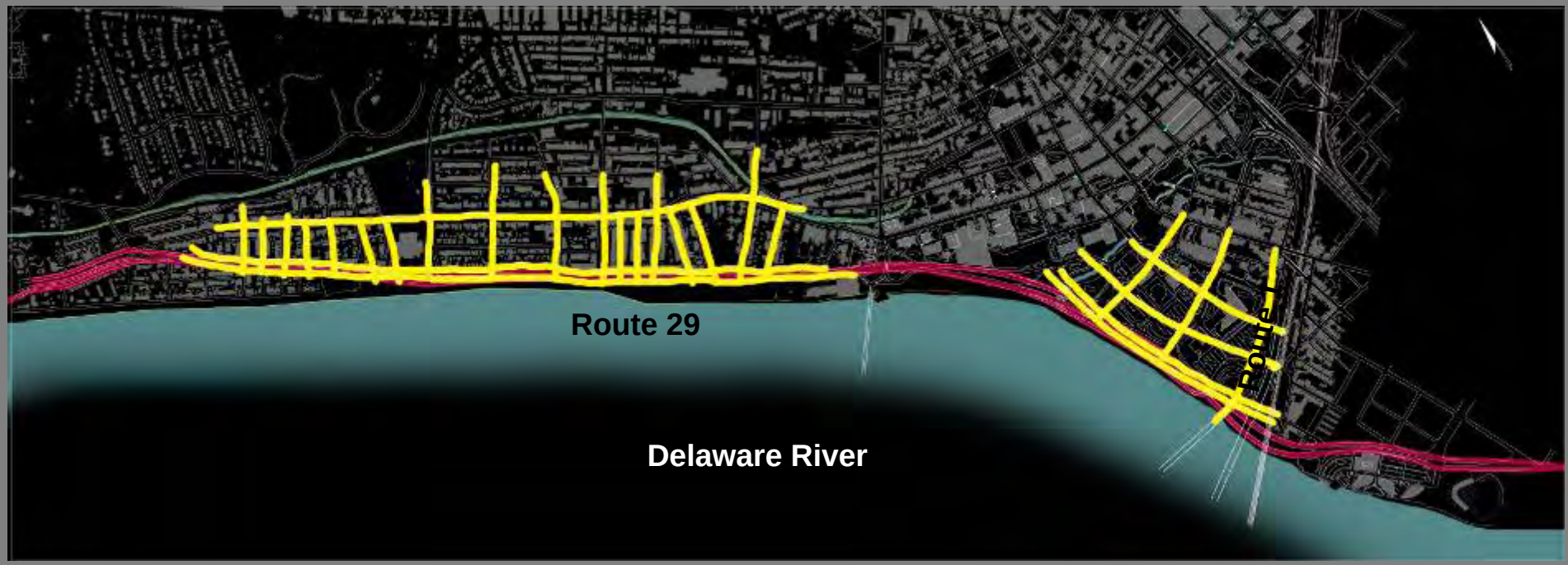

Route 29 Trenton
Context-Sensitive Roadways

Route 29 Trenton

Existing Urban Freeway

Route 29 Trenton

Urban Boulevard Alternative



NJ Route 9

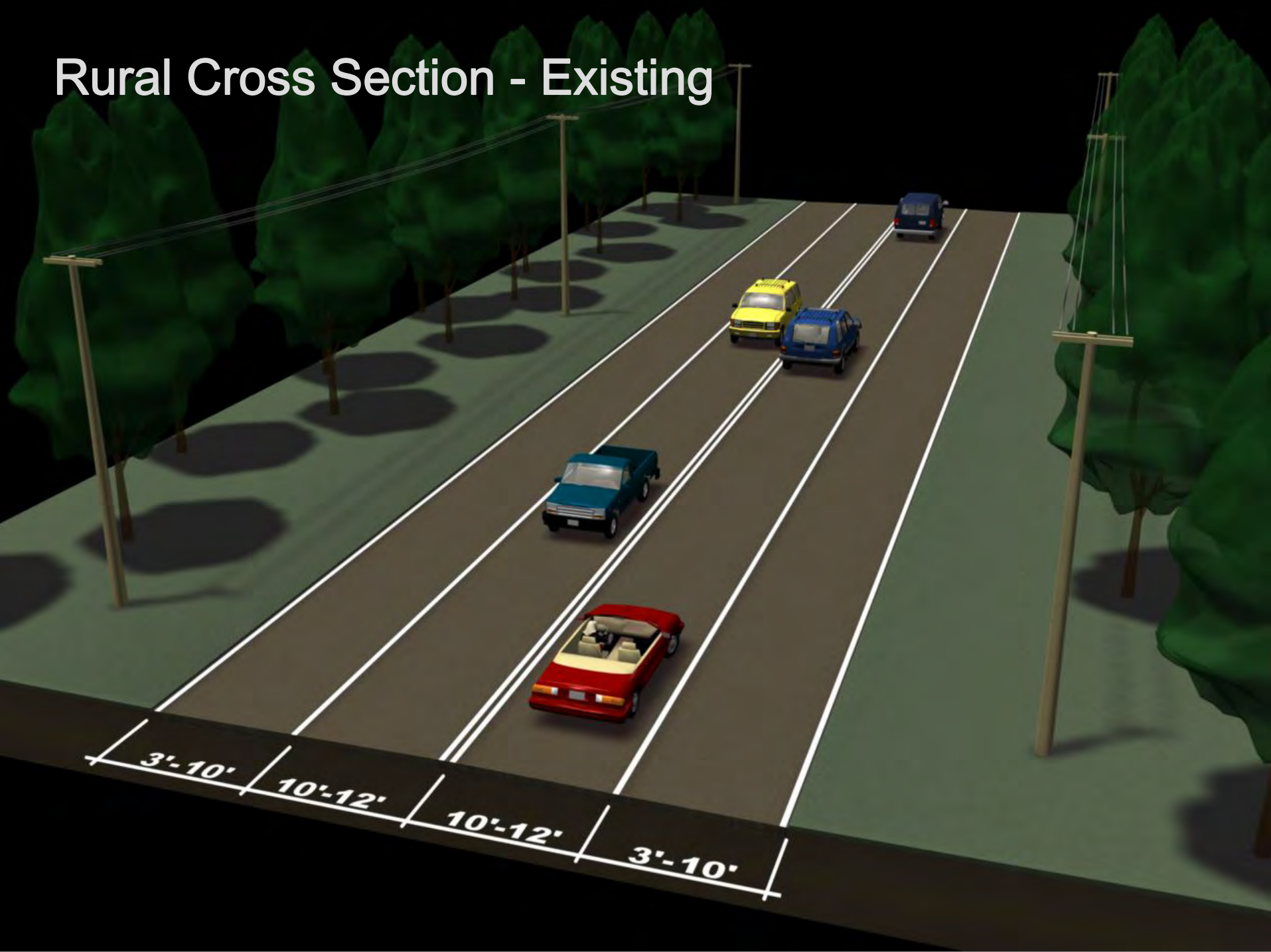
NJ Route 9

NJ Route 9

NJ Route 9

NJ Route 9

Rural Cross Section - Existing

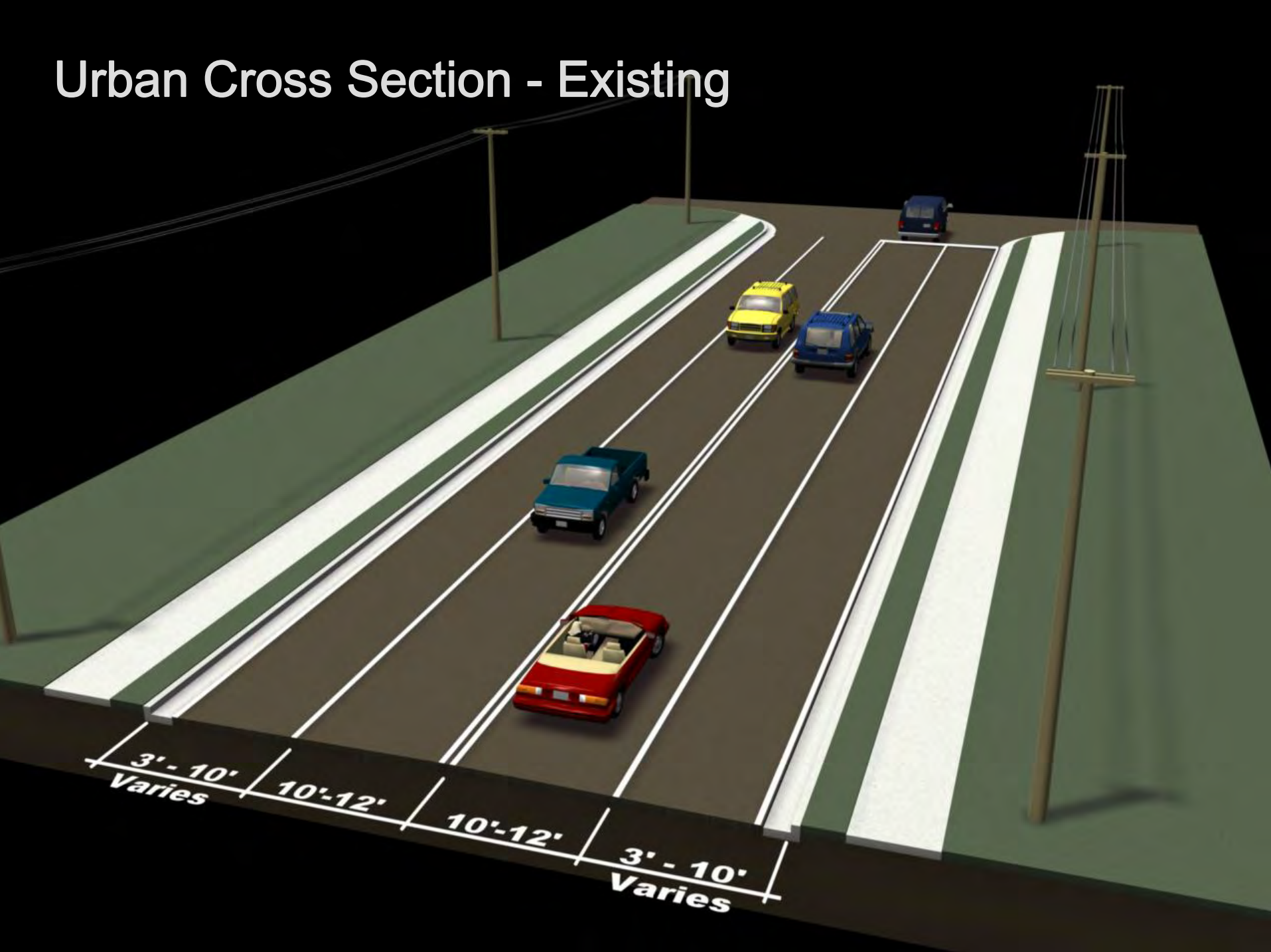


Rural Cross Section - Proposed

Suburban Cross Section - Existing

Suburban Cross Section - Proposed

Urban Cross Section - Existing



Urban Cross Section - Proposed

Urban Cross Section - Proposed

Urban Cross Section - Proposed

Route 9 Visioning
Urban/Village Cross Section

Route 9 Visioning
Suburban Cross

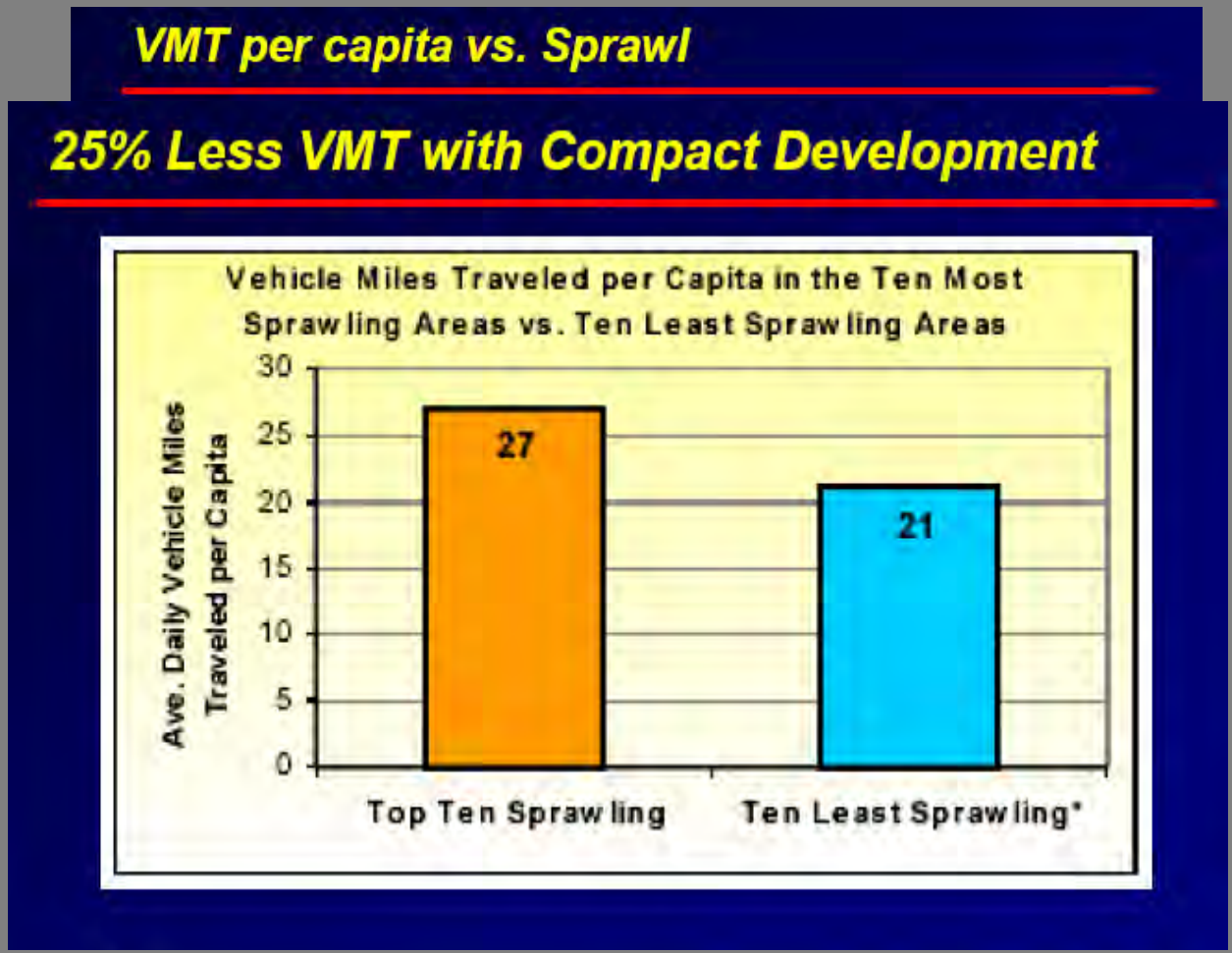
Guidebook for Context Sensitive Solutions in NJ and PA

new jersey department of transportation

Pennsylvania Department of Transportation

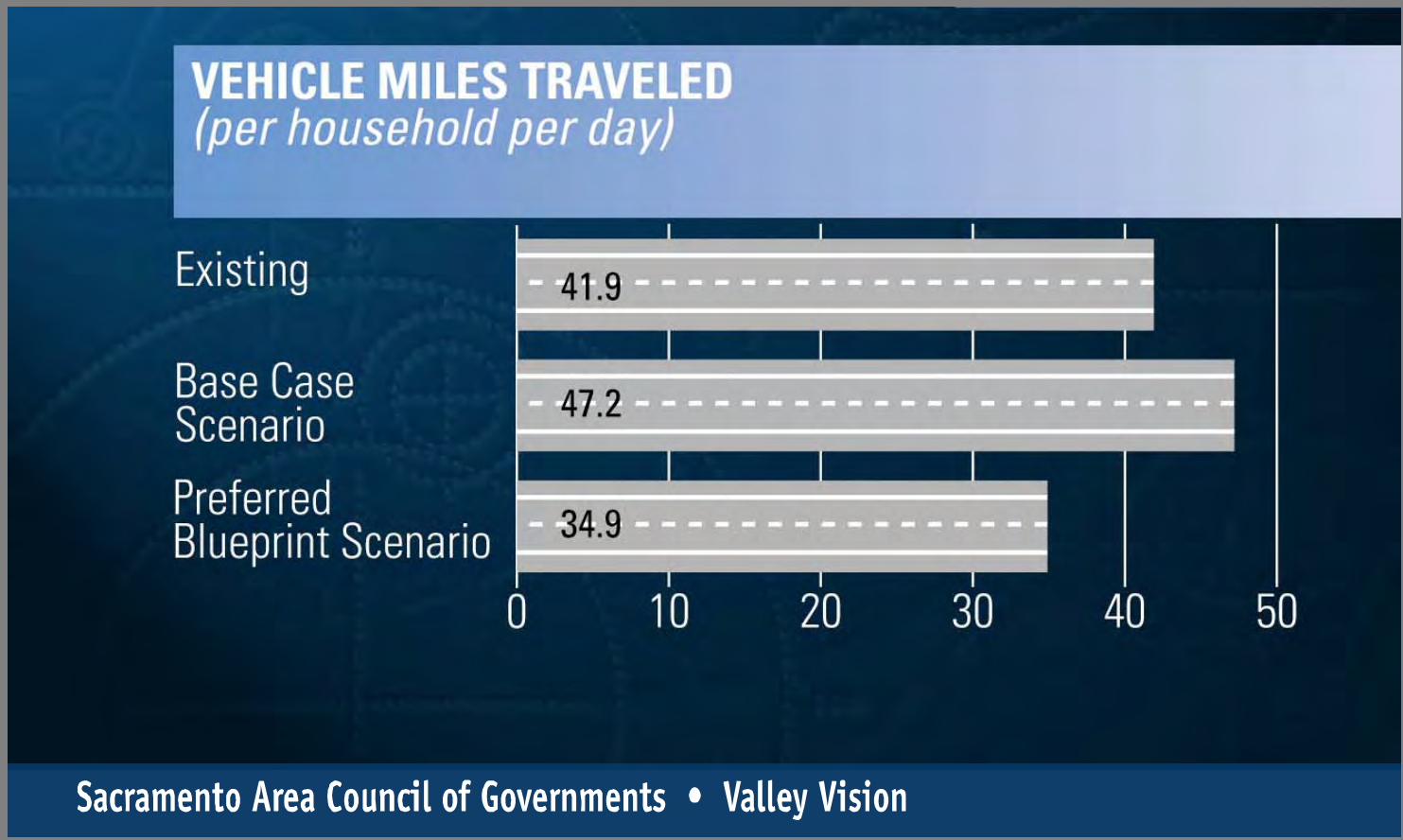
PENNDOT

Better planning and design will reduce VMT!



Reid Ewing, Generalizing from Sacramento: What Is Really Possible, a presentation made at the August 2005 Conference "Towards a Policy Agenda for Climate Change"

Better planning and design will reduce VMT!



Potential Travel Reductions with Managed Growth: A Sacramento Case Study
Gordon Garry, Sacramento Area Council of Governments, a presentation made at the August 2005 Conference "Towards a Policy Agenda for Climate Change"

www.state.nj.us/transportation/community