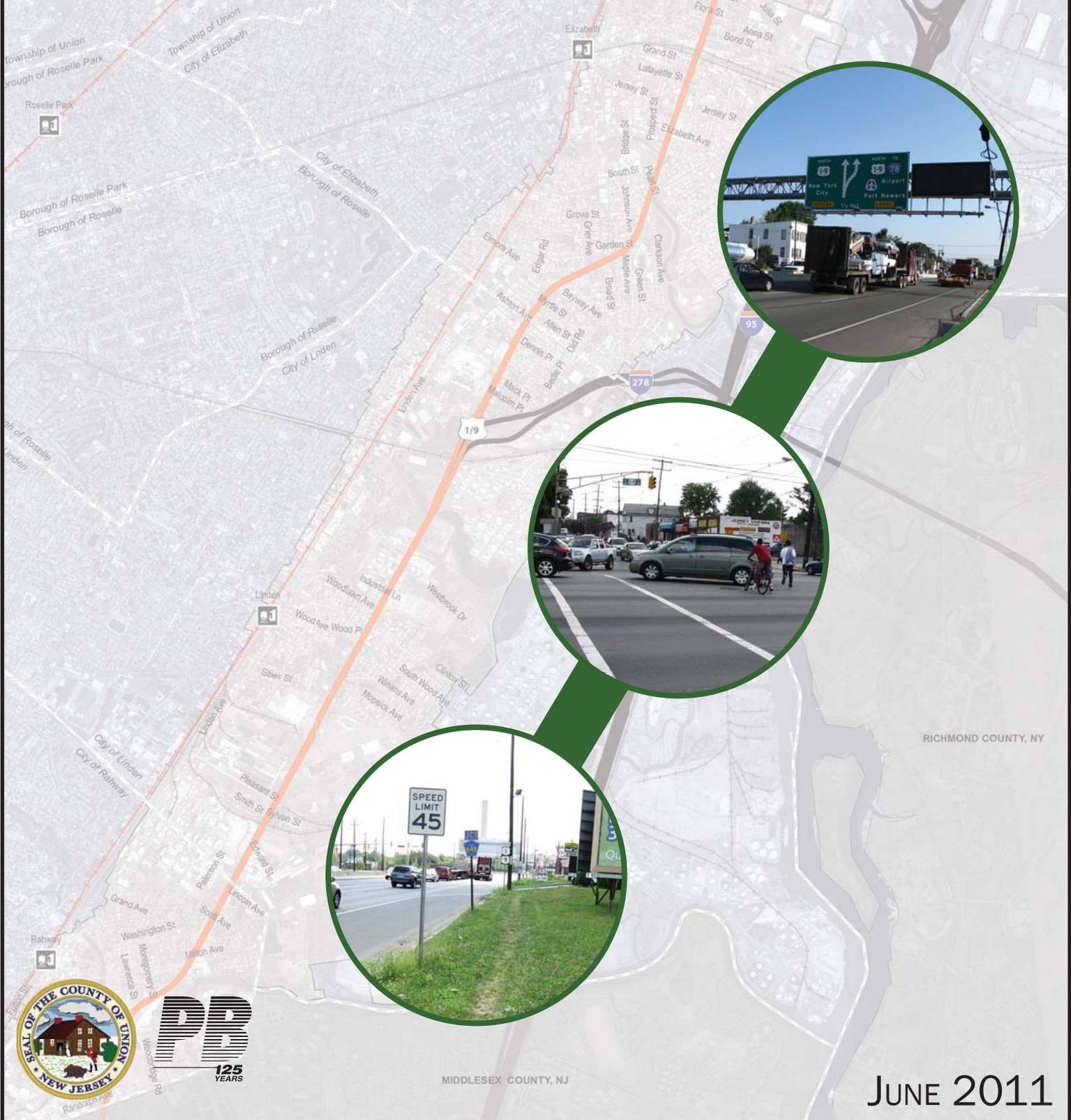


# UNION COUNTY ROUTE 1&9 CORRIDOR STUDY EXECUTIVE SUMMARY

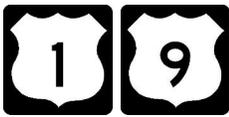


RICHMOND COUNTY, NY

MIDDLESEX COUNTY, NJ



JUNE 2011



## EXECUTIVE SUMMARY

### Goals

The Union County Division of Planning and Community Development initiated the Route 1&9 Corridor Study with funding through the North Jersey Transportation Planning Authority and the County to identify improvements that will meet the changing needs of the region and support municipal goals of improved safety, enhanced quality of life, and maintaining opportunities for redevelopment along the corridor. The Study was completed in June 2011.

### Background

Within Union County, Route 1&9 passes through the Cities of Elizabeth, Linden, and Rahway. A spine of commerce and community in the region, it serves a sizable portion of the county's residents and jobs. Route 1&9 provides connections to key transportation facilities, and forms a critical regional and national link as a parallel route to the New Jersey Turnpike.

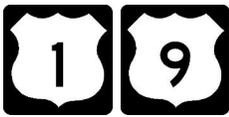
New Jersey Department of Transportation (NJDOT) has completed several projects in recent years to improve conditions, including the reconstruction of the Elizabeth River Viaduct, North Avenue intersection upgrades, the Magnolia Avenue Bridge reconstruction, the Rahway River Bridge replacement and the Bayway Circle improvements. Also, the NJDOT designated this section of the highway a Safe Corridor and undertook one of the first Safety Impact Team studies to identify problem spots. Despite these efforts, over four miles of the seven mile study corridor still has a crash rate higher than the state average for similar roadways.

### Key Issues

The corridor is evolving from its historic emphasis on manufacturing to one with a mix of both industrial and retail uses. The growing number of shopping centers draws shoppers from throughout the region. The route also bisects dense residential neighborhoods in Elizabeth, Linden, and Rahway, affecting the local quality of life. As a result of its many functions, corridor users face varied challenges:

- Automobile traffic faces a transition from a high speed divided highway north and south of the corridor to a signalized arterial with numerous friction points.
- Freight traffic within the corridor deals with challenging access to businesses along and within the vicinity of the corridor.
- Pedestrians attempting to cross Route 1&9 face long crosswalks, gaps in the sidewalk network, aggressive drivers, many conflicts with traffic, and an overall uninviting environment.
- Transit users face an unappealing environment with few amenities.
- A lack of sufficient wayfinding signage results in U-Turns on residential streets.
- During off peak hours the corridor suffers from aggressive driving and high speed traffic.
- Deficient lighting, pavement conditions, and drainage are common throughout the study corridor.

These conditions and the evolving nature of the area require a proactive examination of ways to improve conditions for all users of the Route 1&9 Corridor.



## Methodology

The project team analyzed existing conditions within the corridor using a combination of available data, field investigations, and informed input from local stakeholders and advisors. The corridor assessment included traffic and safety analyses, an investigation of pedestrian and bicycle conditions, lighting, freight and truck uses, and a review of existing transit, land use, demographic, and environmental data as well as NJDOT Management Systems data.

## Recommendations

The Study resulted in corridor-wide recommendations and intersection-specific improvements based on these assessments. Recommended corridor-wide improvements to improve circulation, safety, roadway aesthetics and maintenance and ultimately make Route 1&9 a more appealing roadway for all users. They include the following:

### Lighting

- Review existing lighting conditions within the corridor.
- Repair, upgrade, or replace lighting as needed based on a conditions assessment.
- Review crash incidence during dawn, dusk, or night periods.
- Improve pedestrian scale lighting at locations where the need is greatest.
- Review and consider revising lighting ordinances to manage off-roadway light sources.

### Drainage

- Review conditions at locations where documented drainage issues have been identified.

### Pavement/ Striping

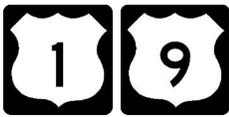
- Resurface the corridor within Linden and Elizabeth using modern pavement design or concrete to handle the high volumes of traffic, including heavy vehicles.
- Replace existing striping and pavement markings with thermoplastic markings to extend the lifespan of markings and reduce maintenance needs.
- Review spacing of stop bars and crosswalks for compliance with engineering standards.

### Signage

- Develop signature wayfinding signage for the corridor.
- Focus signage on points of interest to reduce U-Turns and use of local streets
- Install backlit cross-street signage at all signalized intersections.
- Provide pedestrian oriented directional signage to major landmarks as appropriate.

### Sidewalks/Crosswalks

- Install missing sidewalks along entire corridor.
- Provide improved sidewalks at bus stops and make ramps ADA compliant.
- Upgrade pedestrian signal heads to include countdown timers that inform the pedestrian of the remaining seconds available to cross.
- Restripe crosswalks to continental style at signalized intersections in transition areas between higher speed sections of the corridor and more urban settings where pedestrian activity is higher.
- Move traffic stop bars to increase distance between stop bars and crosswalks for better visibility and effectiveness.



- Ensure sidewalks to bus stops get snow clearance priority.
- Investigate new technologies in pedestrian detection.
- Provide pedestrian scale lighting at crosswalks to increase pedestrian visibility.

### *Bicycle*

- Review bicycle compatibility along potential parallel routes within the context of the Draft Union County Bicycle Master Plan.

### *Transit*

- Designate bus stops more prominently with the use of colored bus stop pads, special pedestrian oriented lighting and backlit bus stop sign pylons.
- Provide higher intensity, pedestrian oriented lighting of a different color spectrum and/or higher foot candle level to help denote bus stop waiting areas and critical access paths to bus stops.
- Use transit pylons to provide highly visible bus stop identification from a distance.
- Provide more transit information at bus stops.
- Improve bus stop amenities (shelters, lighting, seating) at locations where space permits.
- Perform a crime prevention assessment for each bus stop within the corridor.

### *Maintenance*

- Work with NJDOT to streamline requests and provide an estimated response time to the requesting city or county.

### *Freight Access*

- Investigate improved access to and from the Tremley Point area to take pressure off of Wood Avenue and Stiles Street.
- Investigate a longer-term improved connection from Interstate 278 to Route 1&9 Southbound and the ConocoPhillips facility.

### *A New Corridor Identity*

- Apply consistent cross sections and roadside treatments for three specific contexts found within the study corridor. With new investments, the corridor can achieve an overall enhanced identity consistent with the evolving context of the corridor:
  - The **arterial sections** of the roadway, characterized by few access points and limited traffic lights, would have buildings set back from the roadway and provide for street trees along the property lines.
  - The **transitional sections** could have buildings set back from the roadway or close to the street and would provide increased street trees along the property lines or in a buffer area between the roadway and sidewalk.
  - The **urban sections** would have buildings closer to the roadway and provide street trees or roadside planters along the sidewalk.

The recommendations seek to address both immediate concerns and to develop a context to evolve the roadway to meet the changing needs of both the corridor and its users. Additional recommendations included in the final report provide detailed concepts for each of the key intersections along the corridor. An implementation matrix spells out proposed responsibilities and time-frames for each improvement.