



# Route 146 Corridor Vision Study

## STUDY AREA

- Route 122A to Rhode Island State Line
- Approximately 20-mile long corridor
  - includes 5 mile at-grade section
- Mix of signalized intersections and interchanges

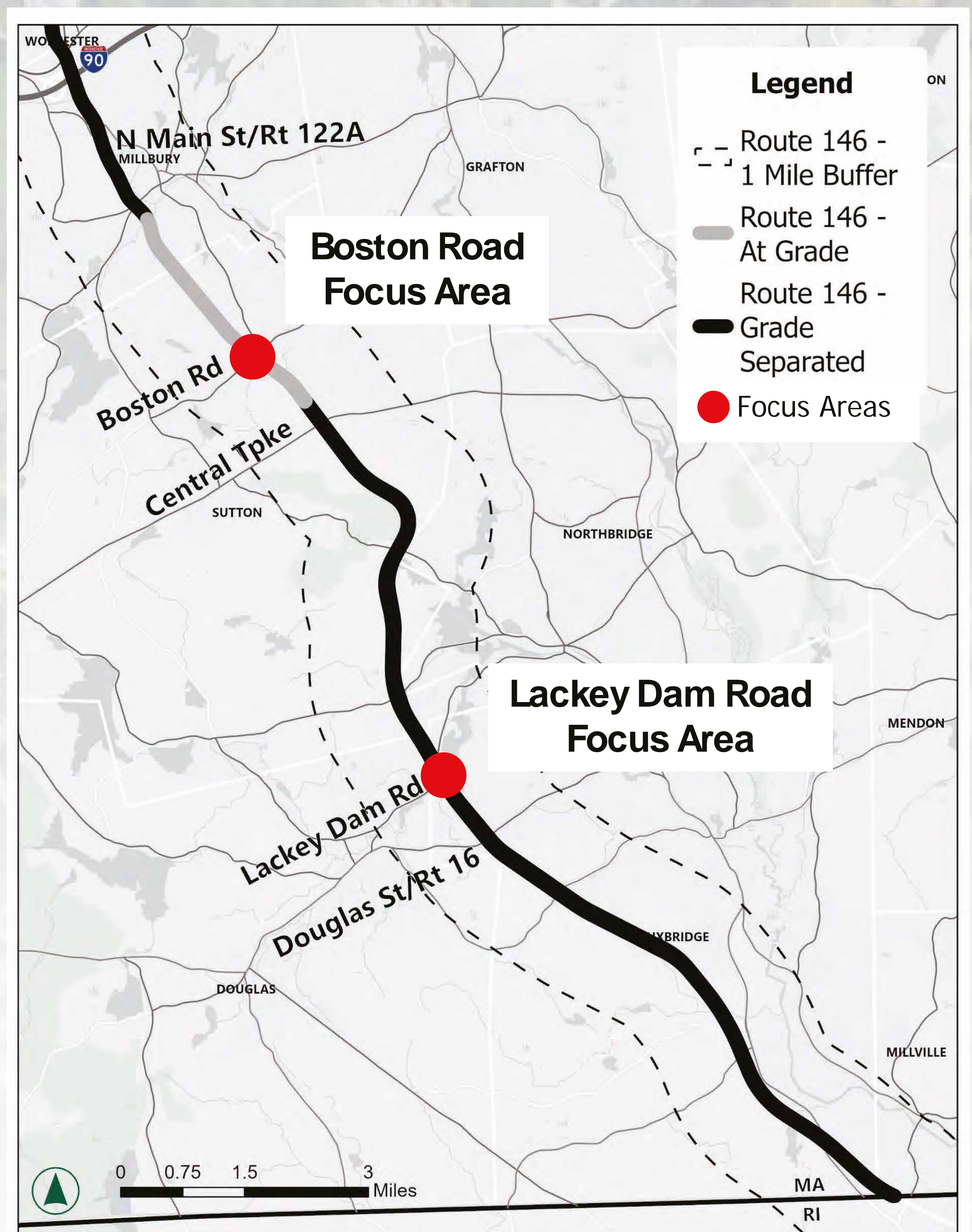
## STUDY INTERSECTIONS

### Route 146 and Boston Road

- At grade
- Signalized intersection
- Crash cluster

### Route 146 and Lackey Dam Road

- Grade separated
- Developments cluster





# Rt. 146 Public Meeting Comments/Feedback Received

## Safety Concerns

- Increase in commuter traffic using neighborhood roads to avoid congestion at Boston Road (example: Leland Hill Road and Dodge Hill Road)

## Safety Concerns

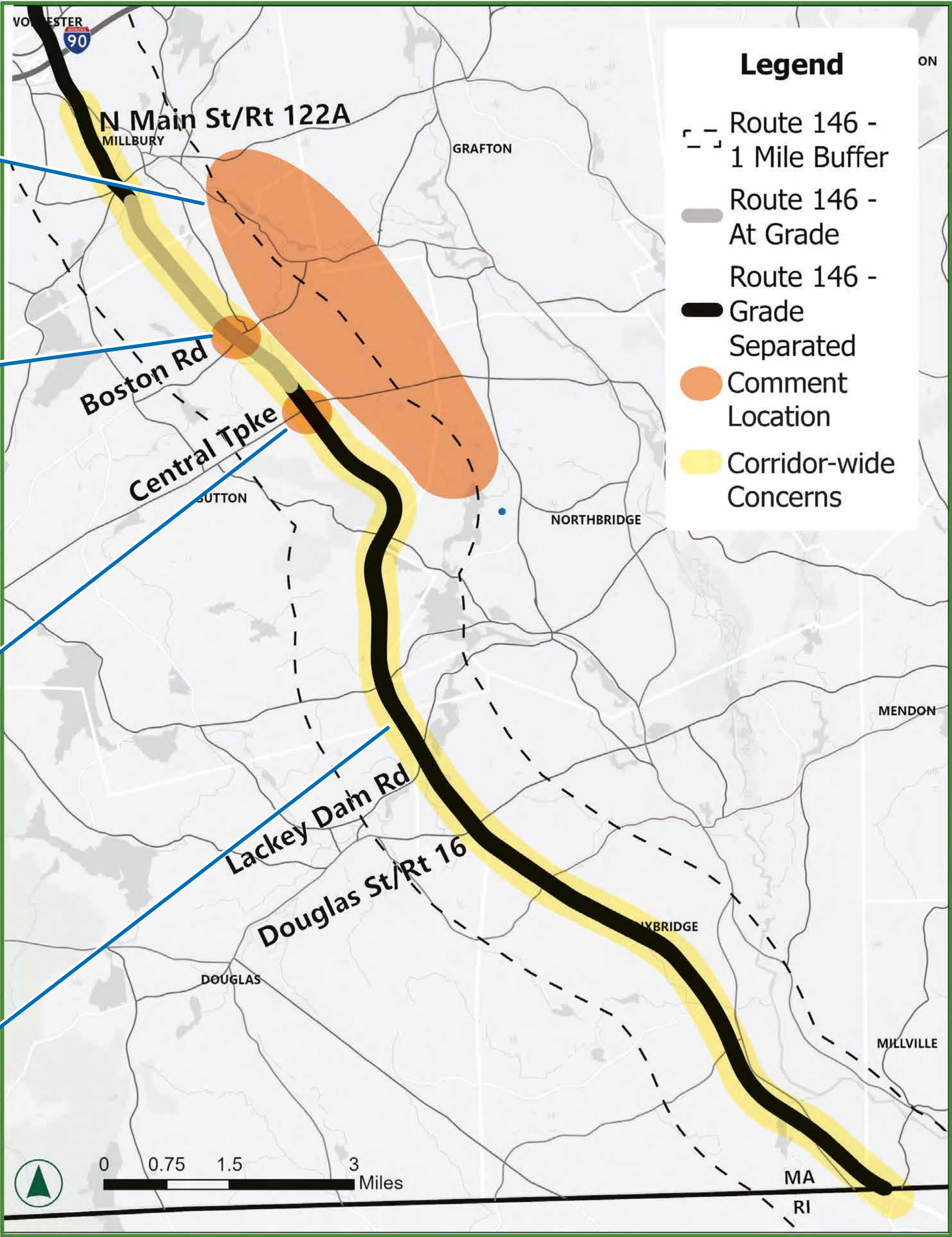
- Increased truck traffic
- U-turns
- Becoming cut-through to I-395
- Left turns are difficult due to sun glare and traffic volumes
- Signage improvements needed for left turn to Boston Road westbound

## Safety Concerns

- Increased truck traffic
- U-turns
- Becoming cut-through to I-395
- Left turns are difficult due to sun glare and traffic volumes

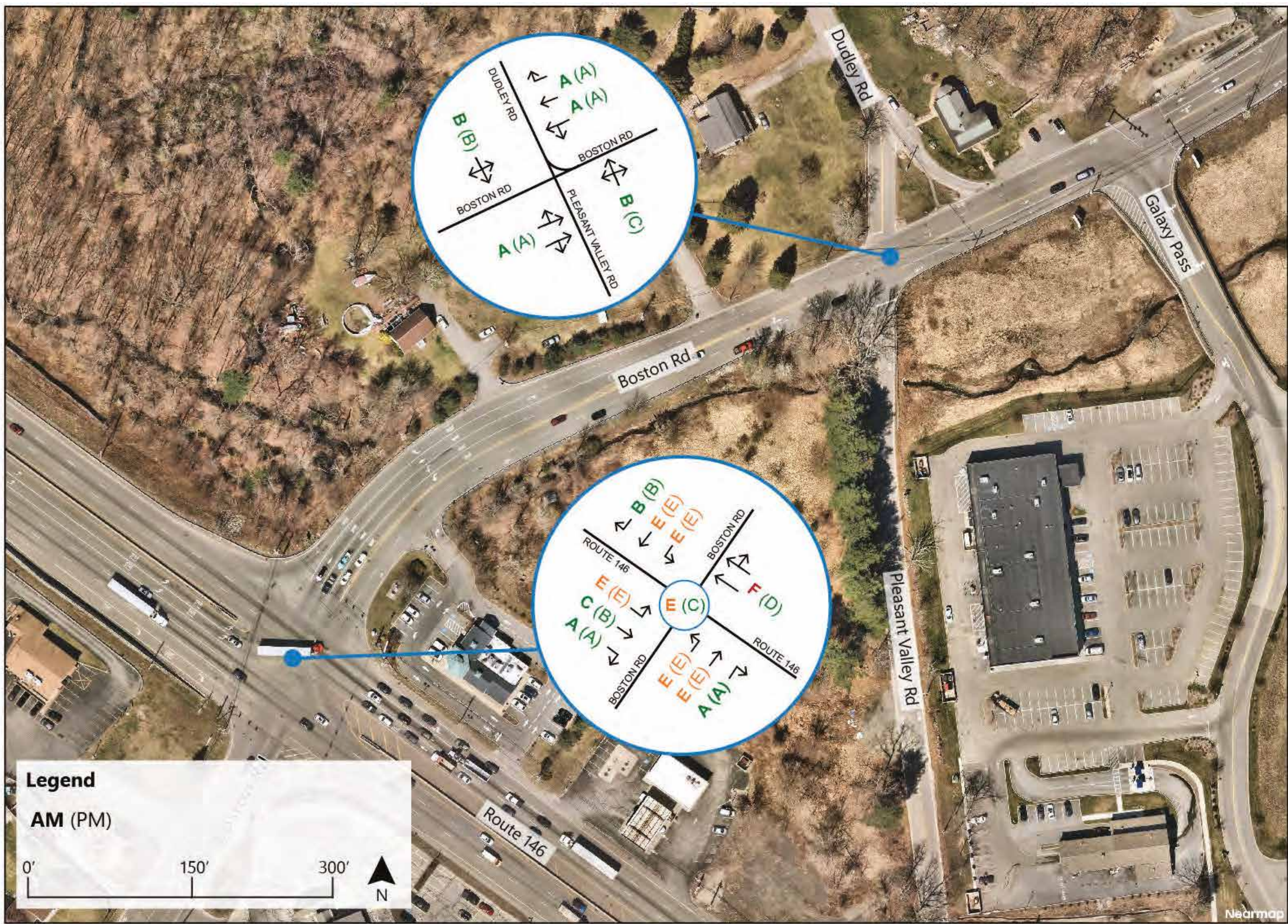
## Corridor-wide Concerns

- Truck traffic increasing – safety, environmental, and noise impacts
- High speeds
- Commuter cut-through traffic in neighborhoods
- Driveway access/egress safety and sight lines
- Lack of acceleration/deceleration lanes
- Underutilized rest areas
- Traffic and safety impacts of future growth





# Existing Conditions

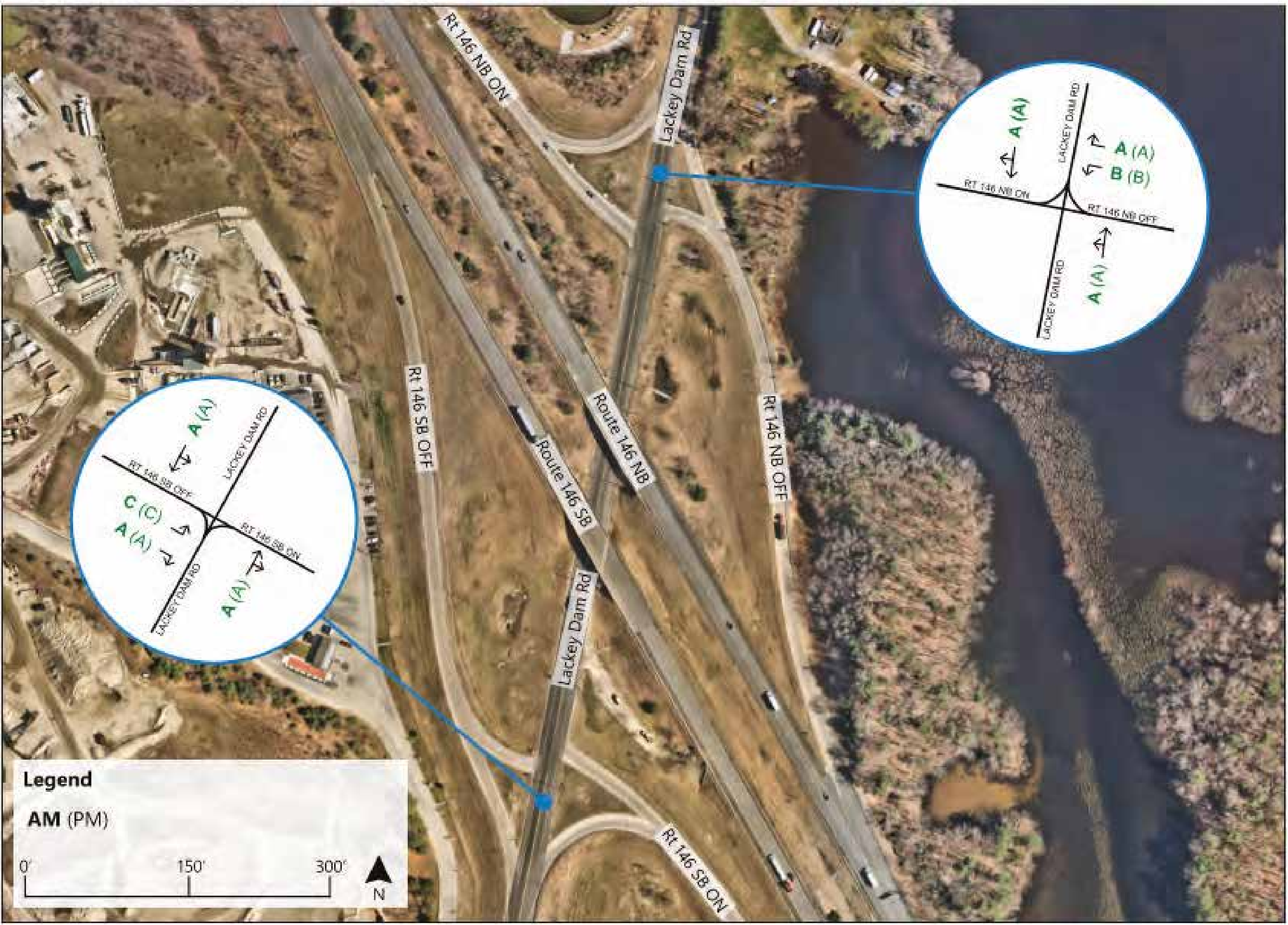


## Route 146 and Boston Road

### Existing Conditions Results

**Operations:** Nearing capacity limits in AM Peak Hour

**Safety:** Existing High-Crash Cluster / Top-200 Crash Location



## Route 146 and Lackey Dam Road

### Existing Conditions Results

**Operations:** Available capacity in both peak hours.

**Safety:** No High-Crash Clusters; not a Top-200 Crash Location

### What is Level of Service (LOS)?

- Grade for quality of service based on delay experienced by vehicles.
- Related metrics
  - Travel Time /Speed
  - Maneuverability
  - Safety
  - Vehicle stops
  - Queueing

#### LOS A - C

- Minimal delay
- Stable traffic flow
- Minimal queueing

#### LOS D

- Tolerable delay
- Noticable congestion
- Moderate queueing

#### LOS E

- Significant delay
- Volumes near capacity
- Long queues

#### LOS F

- Excessive delay
- Volumes exceed capacity
- Forced flow/jammed operation

#### LOS A - D:

Acceptable LOS for most scenarios

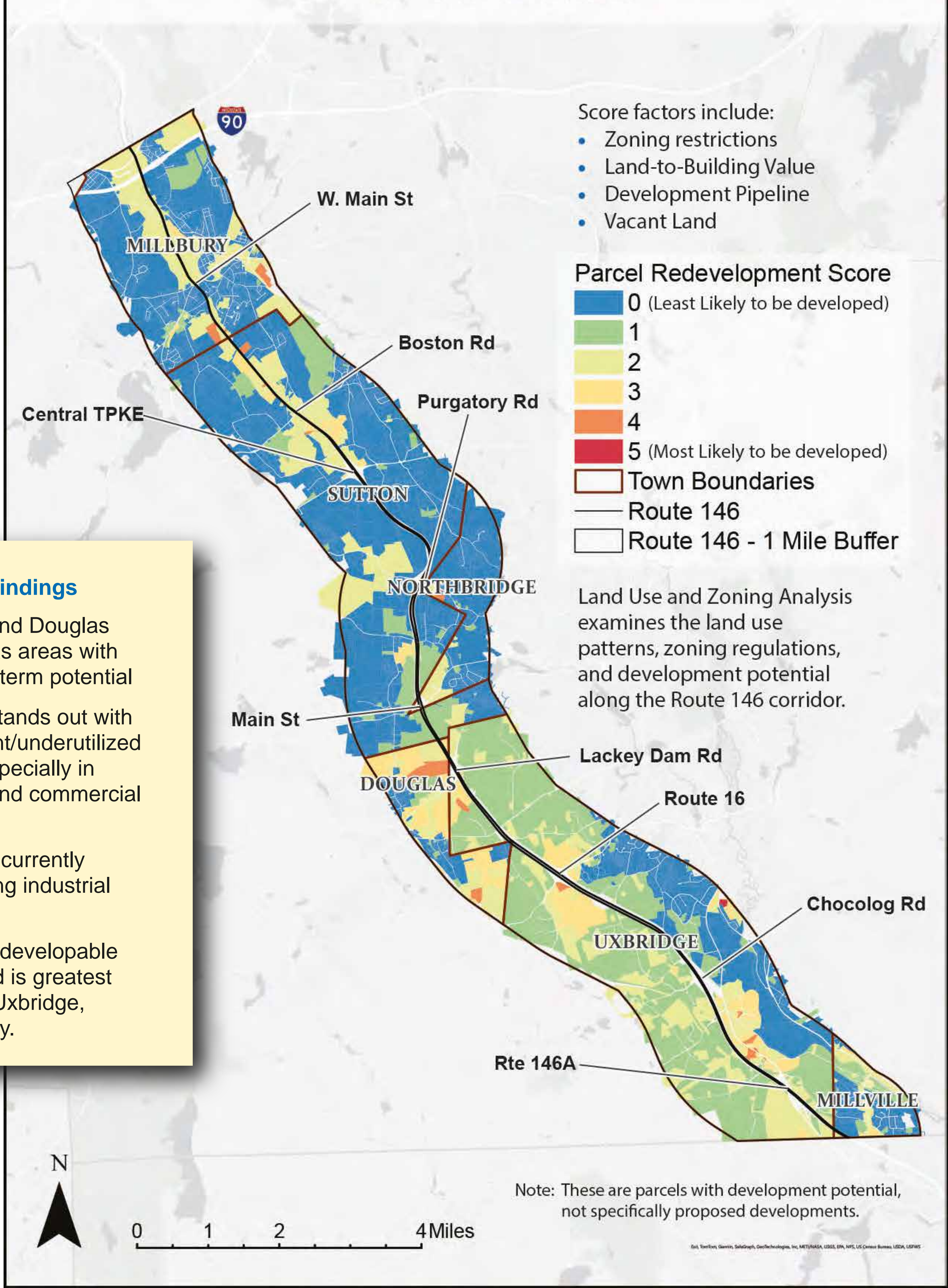
#### LOS E - F:

Consider improvements to traffic operations



# Development Potential

## Potential Parcels for Redevelopment Route 146 Corridor





# Future Conditions Without Improvements

## BOSTON ROAD

### Growth Potential

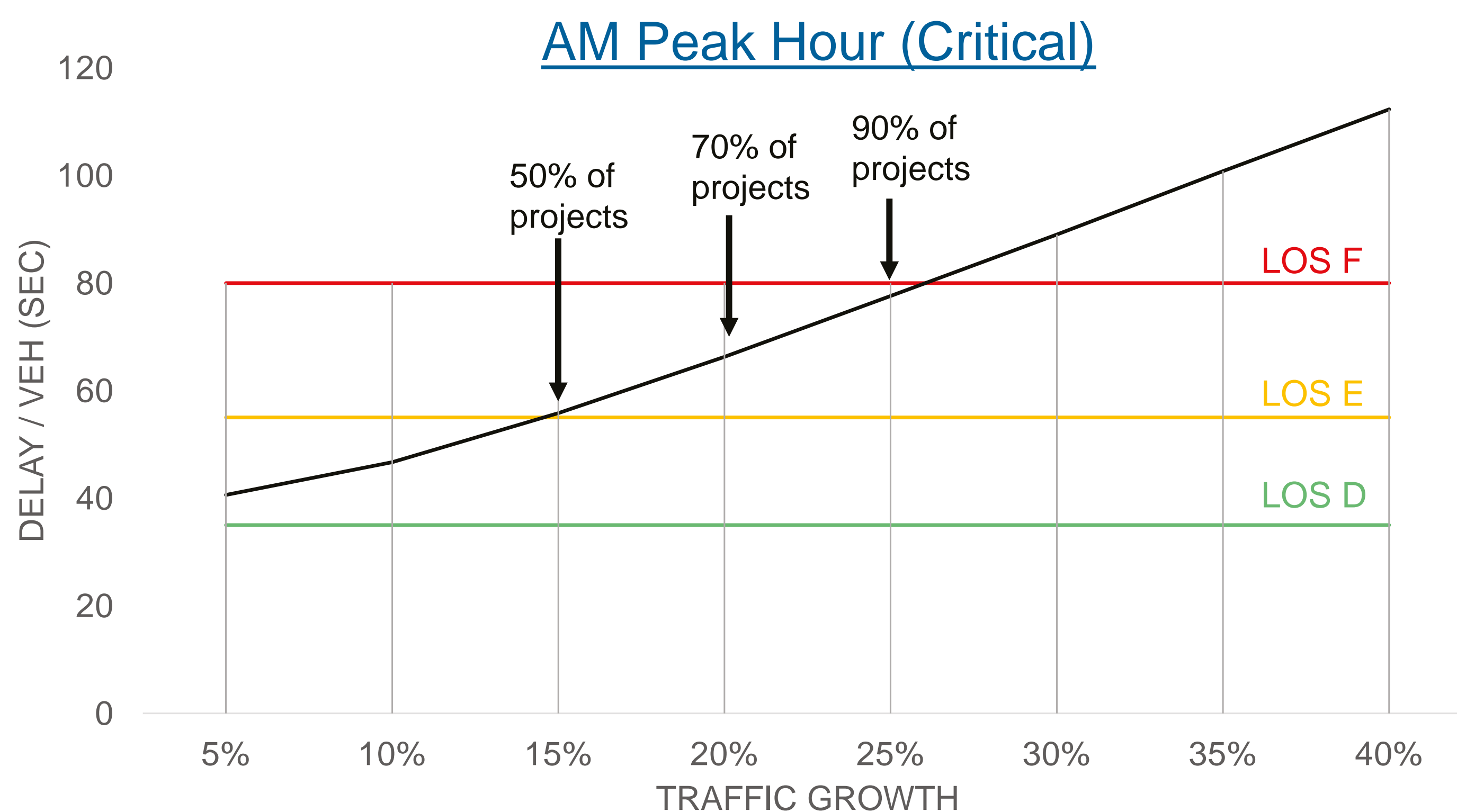
- Volume added from known developments
  - AM Peak → 1,196 veh/hr
  - PM Peak → 1,842 veh/hr

### Operations with Known Developments

- Level-of-Service (LOS) E at 1/2 development projects built, multiple movements failing
- LOS F at 2/3 development projects built, overall intersection failure.

***Intersection would be nearing total failure, with three of four approaches failing at 70% of known development.***

### Operations with Known Developments



## LACKEY DAM ROAD

### Growth Potential

- Volume added from known developments
  - AM Peak → 803 veh/hr
  - PM Peak → 821 veh/hr

### Operations with Known Developments

- Ramp intersections remain within theoretical capacity limits
- Improvements to lane capacity and/or control may still be beneficial in the future



# Lackey Dam Road Signalization





# Tight Diamond Interchange



0 70 140 210 280  
SCALE: 1" = 70'



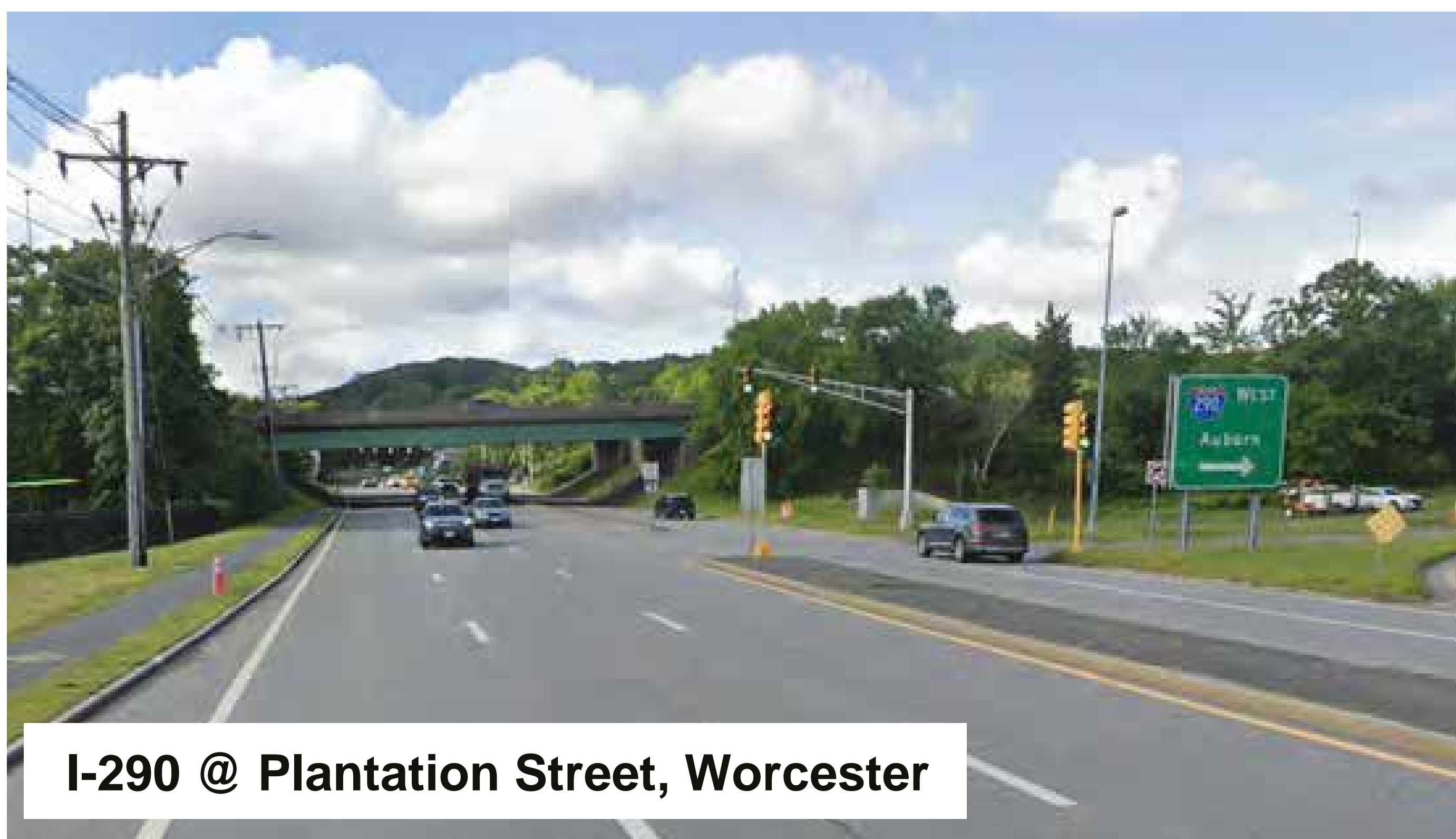
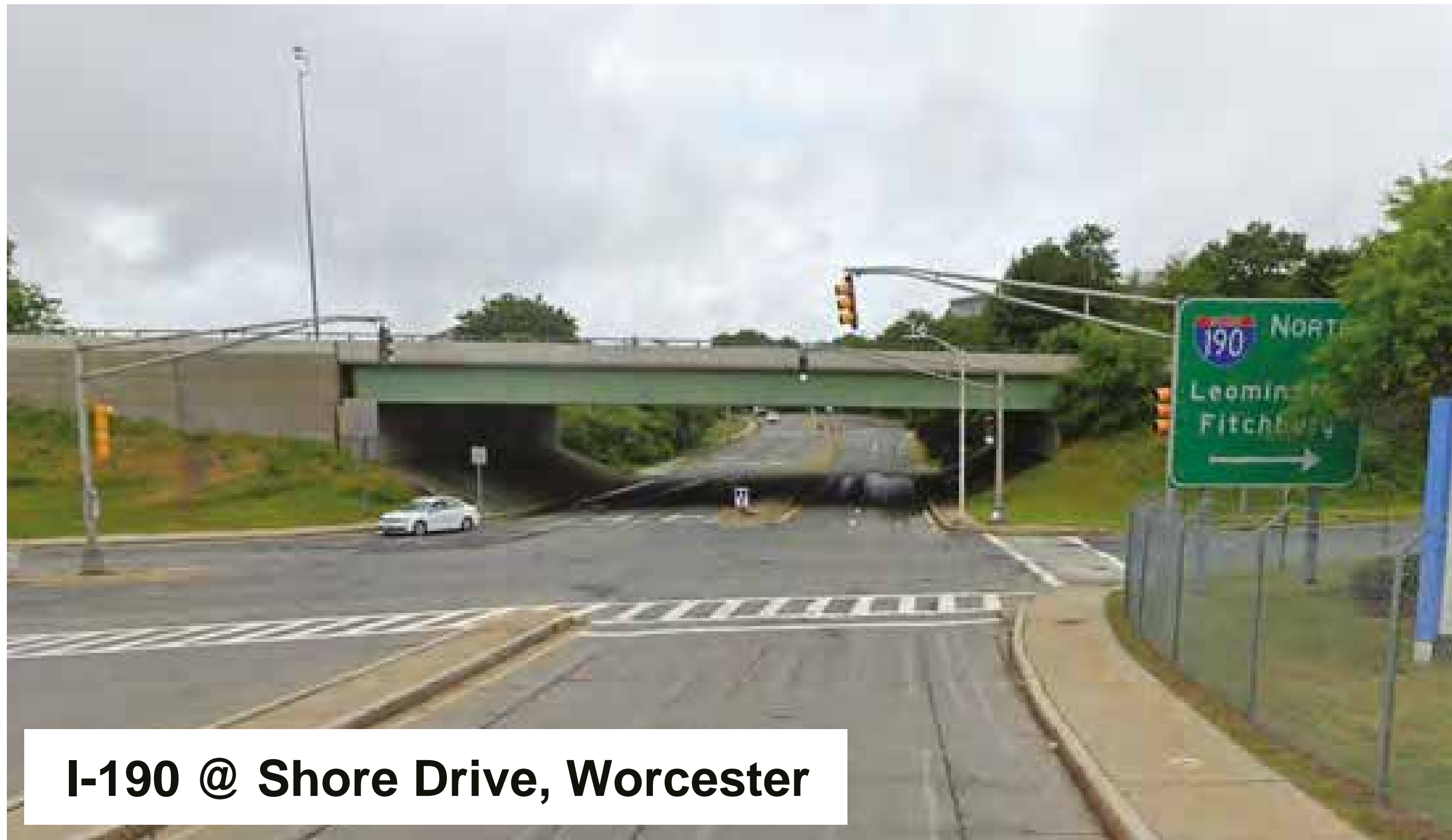
# Single Point Interchange



0 70 140 210 280  
SCALE: 1" = 70'



# Example Images





# Example Images

