



Transportation Chapter of Master Plan

City of Dover



Public Workshop

November 2, 2015

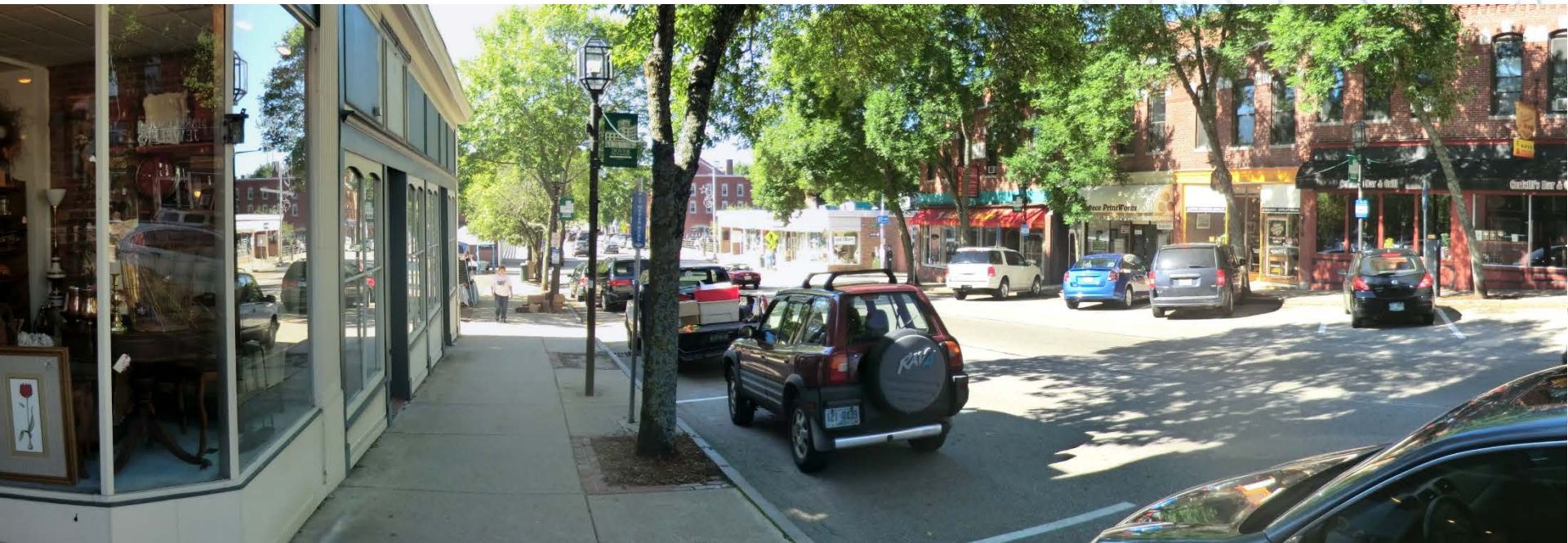
Tonight's Workshop will include:

- Vision and Purpose
- Existing Data (summarized on maps)
- Warm-up Exercise
- Workshop (1 hour)
 - Issues and Opportunities
 - 3 Work Stations
 - Traffic Congestion/Crash Locations
 - Transit/Bike/Pedestrian Connectivity
 - Neighborhoods/Traffic Calming/ Land Use Patterns
 - Brief Report Back
- Wrap-up

Vision and Purpose

The City's Transportation Vision

Dover has an excellent and fully interconnected transportation system for pedestrians, bicyclists, motor vehicles and a public transportation system that is supportive of, and responsive to, new technology and continuous improvement.



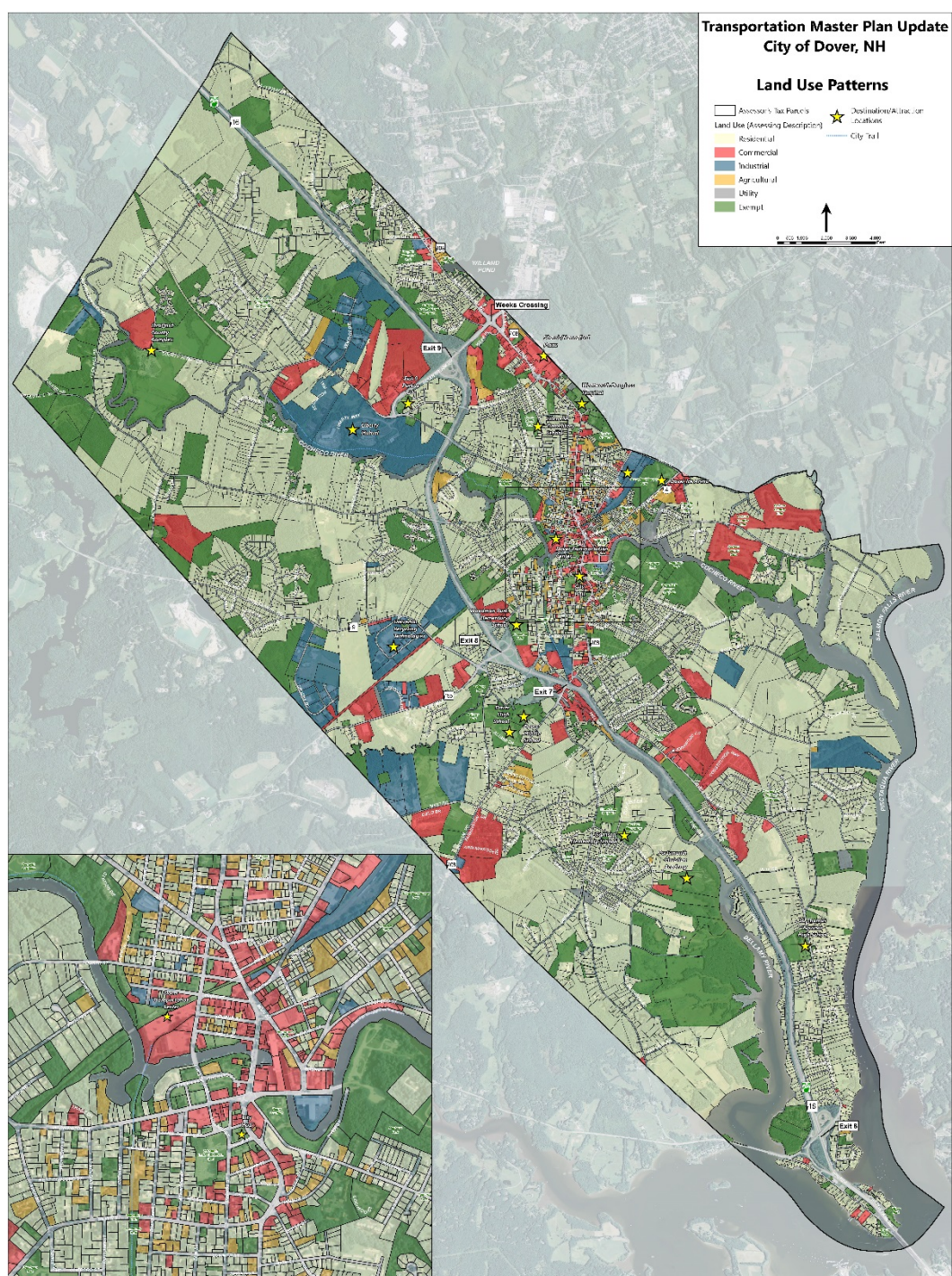
Our Purpose

The Transportation Chapter of the Master Plan is intended to identify the transportation actions needed over the next ten years to realize the City's transportation vision.



Existing Data

Land Use Patterns



Traffic Calming

TRAFFIC CALMING

Traffic Calming Is The Use Of Mainly Physical Measures To:

- * Reduce the negative impacts of motor vehicle use
- * Alter driver behavior
- * Improve conditions for non-motorized street users

OBJECTIVES:

- * Slow speeds
- * Reduce frequency and severity of collisions
- * Increase safety for non-motorized users of the street
- * Reduce need for police enforcement
- * Enhance street environment
- * Increase access for all modes
- * Reduce cut-through motor vehicle travel

GOALS:

- * Increase quality of life
- * Incorporate preferences of people using the area along the street
- * Create safe and attractive streets
- * Reduce negative effects of motor vehicles
- * Promote pedestrian, cycle and transit use

TRAFFIC CALMING TOOLBOX

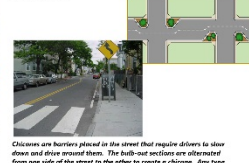
NECKDOWNS



Neck downs are curb extension at midblock or intersection corners that narrow a street by extending the sidewalk or widening the planting strip and give the perception that speed should be reduced. Neck-downs can be applied at crosswalks to reduce the distance of the crossing. Typically designed to narrow road to 20 feet for two-way traffic and the drainage should be a key consideration.

Typical Cost:
Approximately \$8,000 to \$15,000

CHICANE



Chicanes are barriers placed in the street that require drivers to slow down and drive around them. The built-out sections are alternated from one side of the street to the other to create a chicané. Any type of barrier or post can be used to create this slowing/weaving type effect on the road.

Typical Cost:
Approximately \$10,000 to \$15,000 which does not include any potential right-of-way widening/losses

DIAGONAL & SEMI-DIVERTER



A diagonal diverter is a barrier placed diagonally across an intersection to convert the intersection into two unconnected streets. Vehicles on the two streets will thus be forced. This measure is more advantageous when included in an overall plan for a neighborhood street system.

Typical Cost:
Approximately \$10,000 to \$15,000 (depending on the barrier used and the degree of landscaping)

HOV Closure
A HOV closure is a barrier to traffic at the intersection of two streets in which one direction is blocked, but traffic from the opposite direction is permitted to pass through. It blocks only half of the street. HOV closures are an alternative to using a one-way street designation because they can still allow two way travel on the roadway. They are best used to prevent a road being used as a shortcut.

Typical Cost:
Approximately \$2,000 to \$5,000

SPEED HUMP



Speed humps are raised areas in the pavement in front of a street that extend across the roadway. The various speed humps and speed tables can vary from rounded to flat topped. Speed humps can typically be crossed at 15 to 25 mph. Speed humps typically range in length from 12 to 24 feet although other lengths used include 10, 22 and 30 feet and generally range in height between 3 to 4 inches.

Typical cost:
\$2,000 to \$3,000 per hump

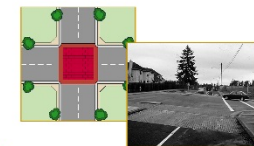
RAISED CROSSWALK



Raised crosswalks are elongated speed humps with a flat section in the middle and ramps on the ends. Speed tables are typically 22 feet long in the direction of travel with a 10 foot flat section and 6 foot ramps on either end. Similar to speed humps the height typically range from 3 to 4 inches.

Typical cost:
\$2,000 to \$5,000 for asphalt tables. Will be much higher to other treatments such as brickwork, stamped asphalt, concrete ramps.

RAISED INTERSECTION



Raised intersections
A raised intersection is where the middle of the intersection is raised such that drivers are alerted that they are passing through an intersection. The pavement is raised even with the curb with appropriately sloped ramps between street grade and intersection grade.

Typical Cost:
Reported costs range from \$20,000 to \$40,000

MEDIAN TREATMENT & TRAFFIC ISLAND



Median Barriers/Center Island Narrowing

Center island narrowing are raised islands located along the centerline of a street that narrows the travel lanes at that location. Median barriers can be used at intersections to prohibit left turns from the major road onto the minor road in which case are most successful if the median is carried for a long distance.

Typical Cost:
Costs have ranged from \$15,000 to \$50,000

ROUNDBOUT



Roundabouts are channelized intersections where traffic moves in a one-way direction around a raised central island which is usually circular in shape. They should be fitted to the characteristics of the intersection and designed so that emergency vehicles and trucks can easily navigate the circle. A smaller version of the roundabout is the traffic circle or intersection island which are raised islands around which traffic circulates.

Typical Cost:
Approximately \$150,000 to \$750,000 for urban roundabout

TEXTURED TREATMENTS



ENHANCED CROSSWALK



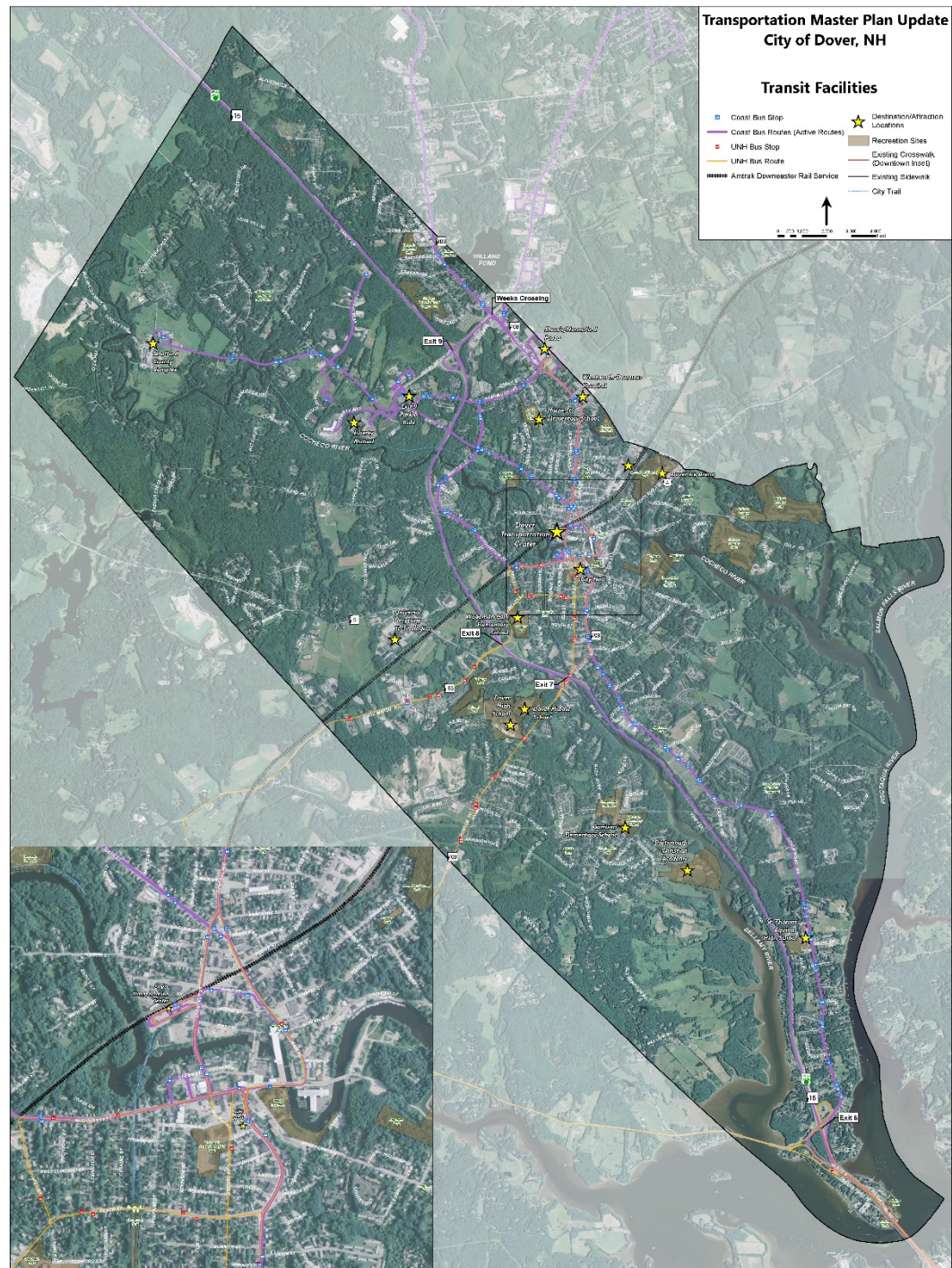
LIGHTING



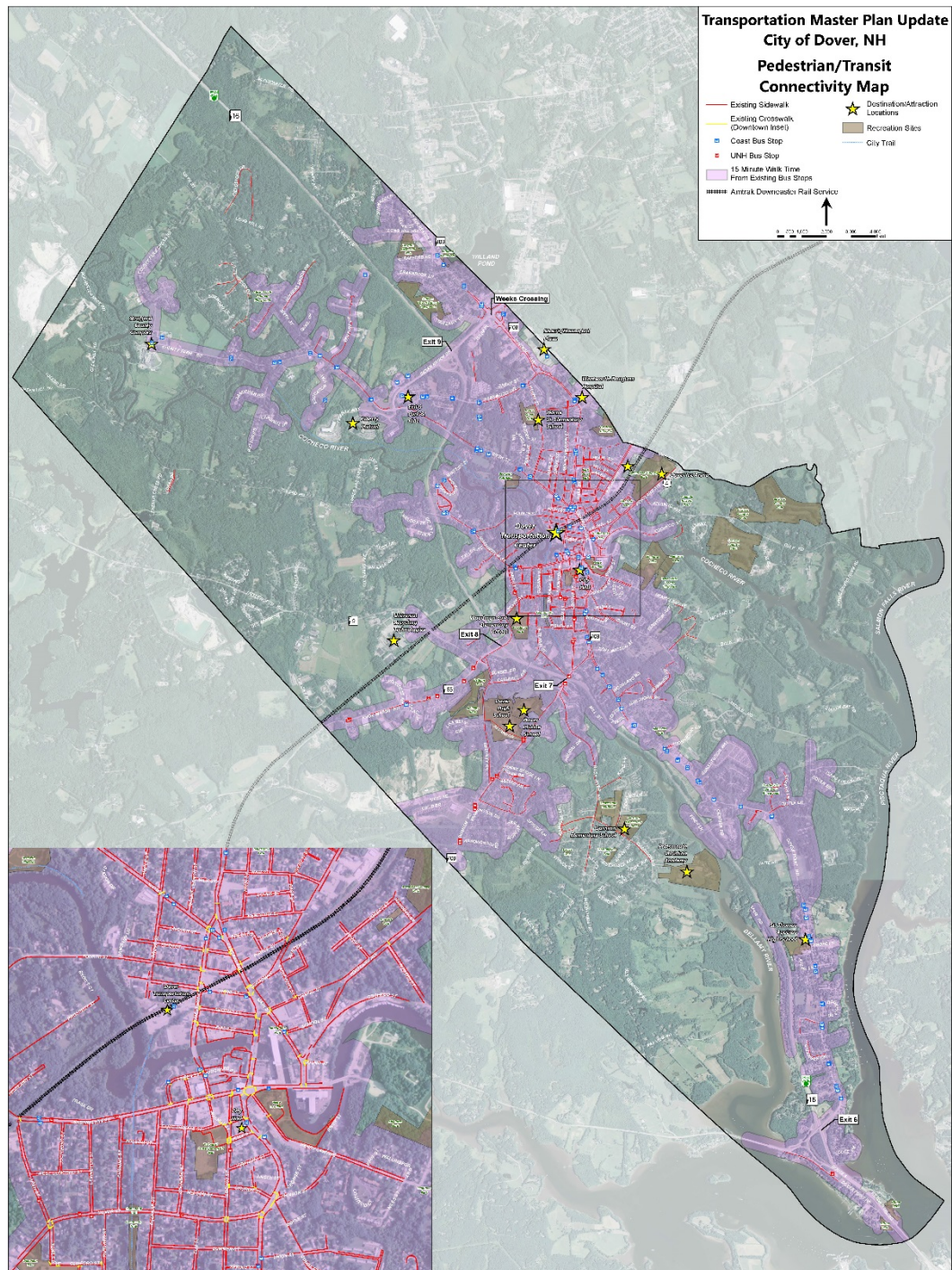
GATEWAYS



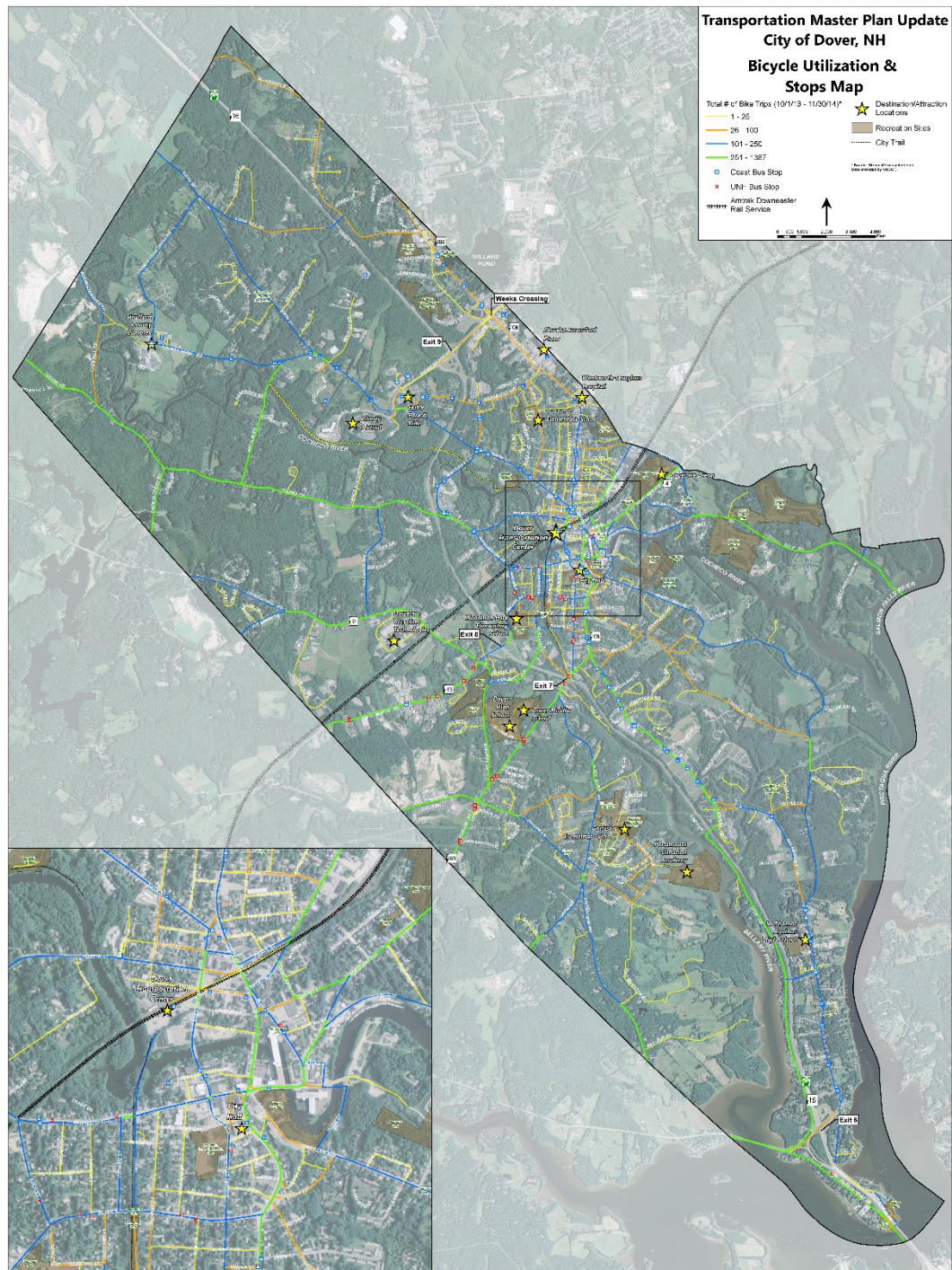
Transit Facilities



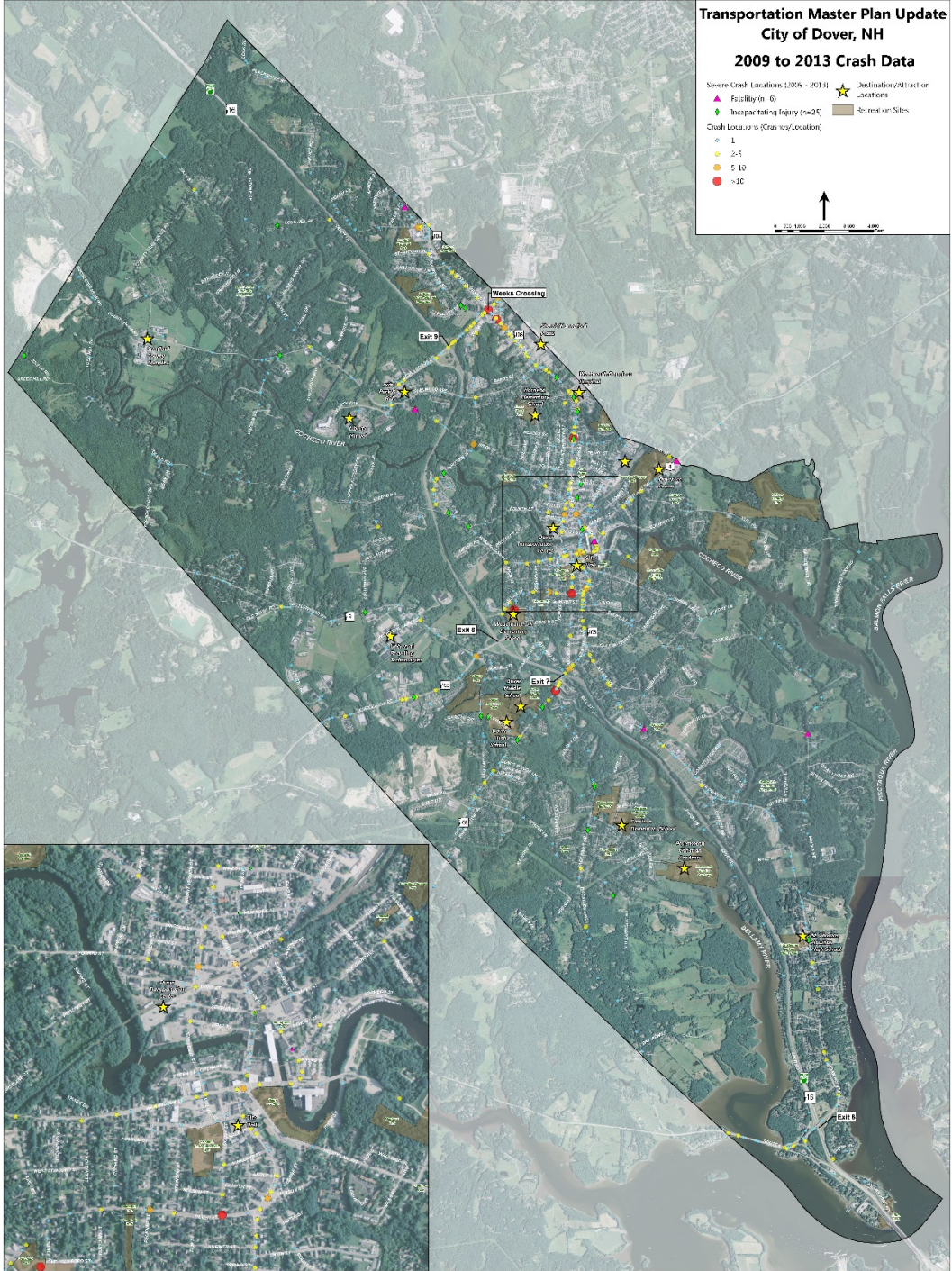
Pedestrian and Transit



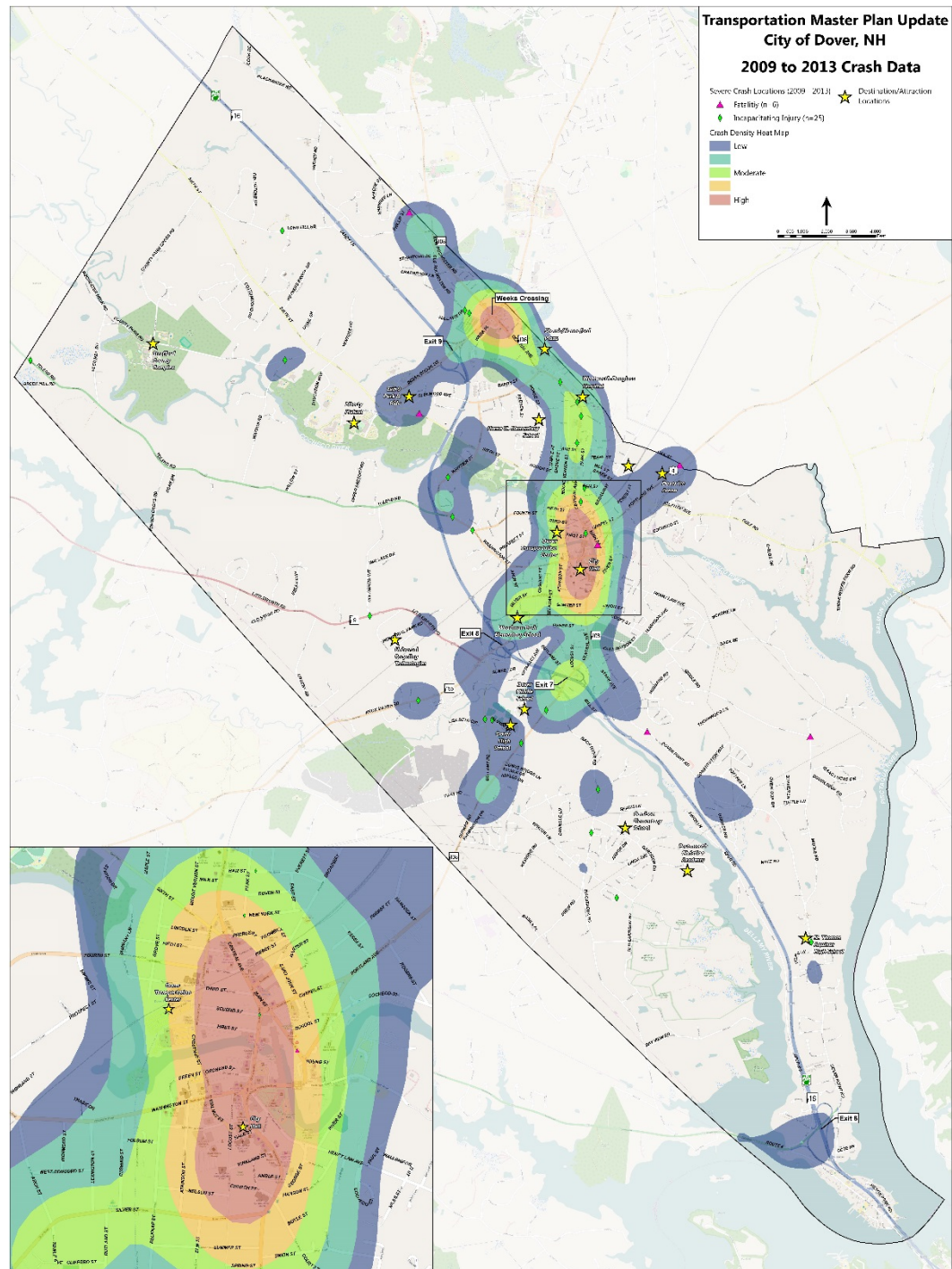
Bicycle Utilization



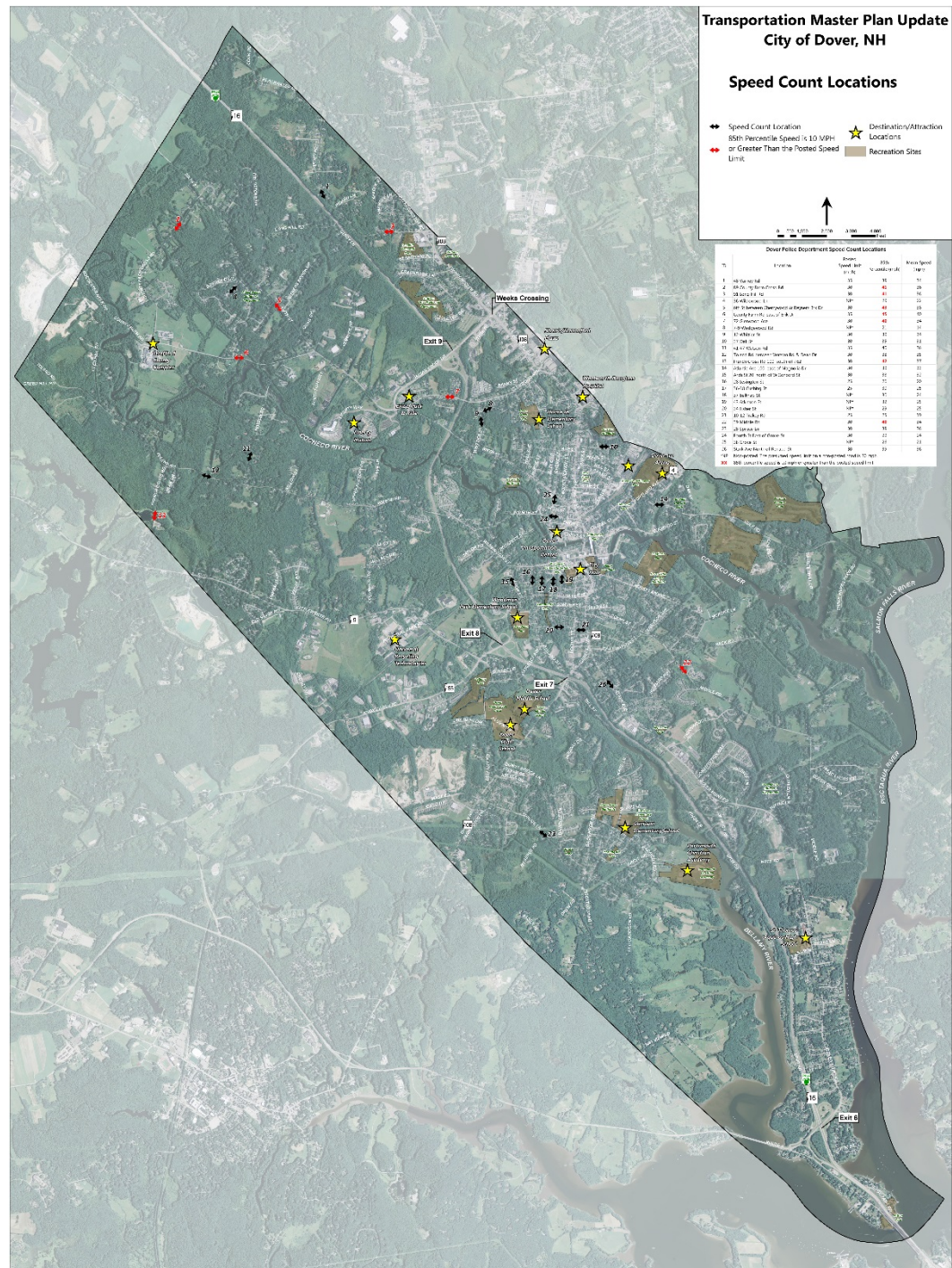
Vehicle Crash Locations



Vehicle Crash Heat Map



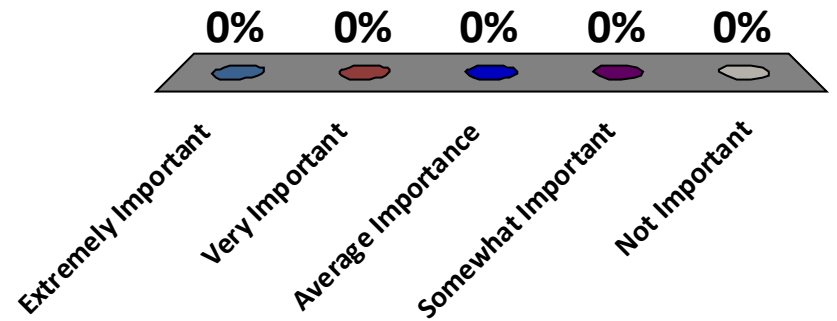
Vehicle Speeds



Warm-up Exercise

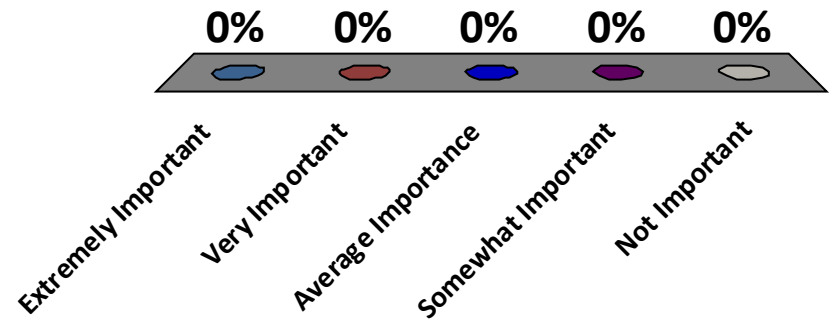
How important is vehicular mobility?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important



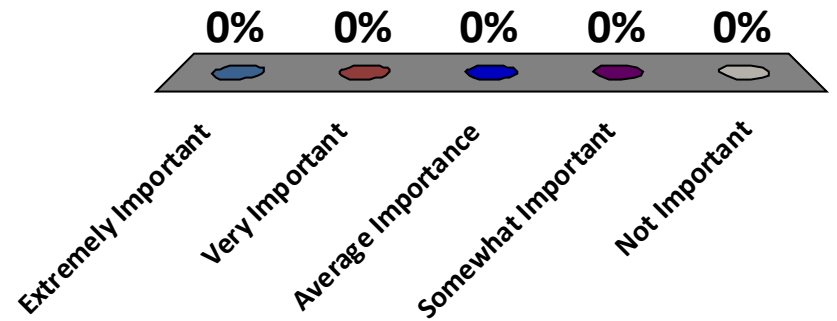
How important is pedestrian mobility?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important



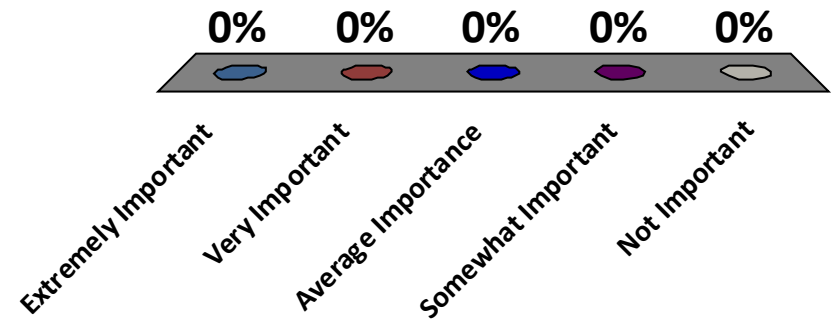
How important is bicycle mobility?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important



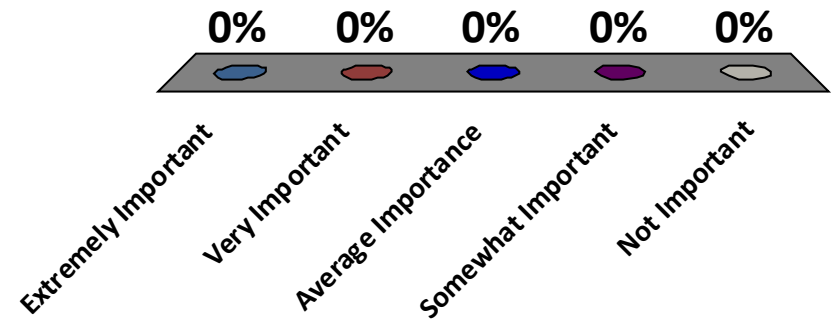
How important is access to bus service?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important



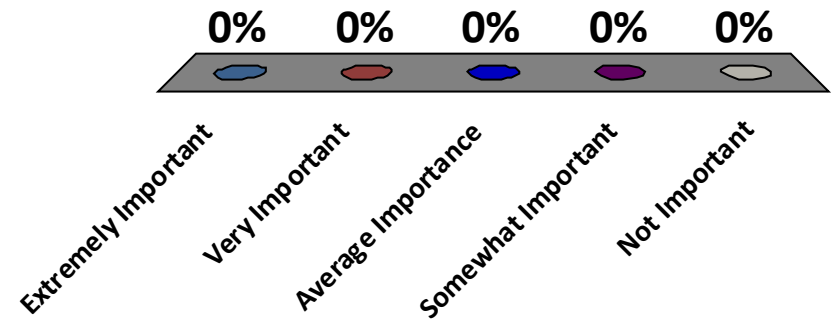
How important is access to train service?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important



How important is convenient parking?

- A. Extremely Important
- B. Very Important
- C. Average Importance
- D. Somewhat Important
- E. Not Important

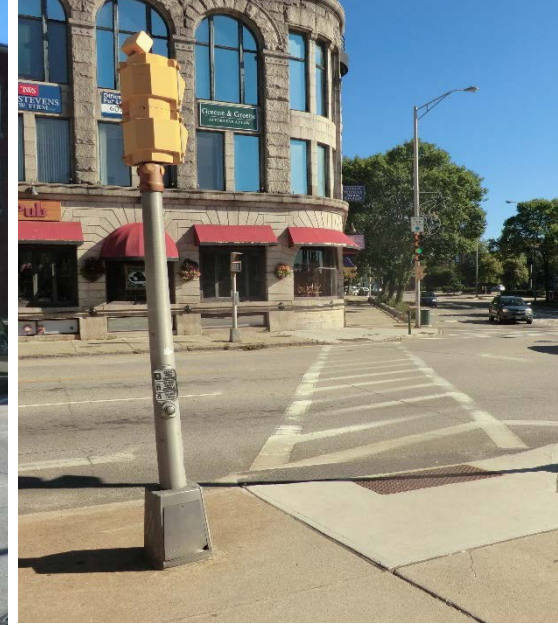


Workshop

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Wrap-up



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