Traffic Calming

- Reduce Speed
- Reduce Volume
- Improve Safety
- Enhance Quality of Life
Speed Humps / Tables

- **Benefits:**
  - Inexpensive
  - Easy for Bicycles
  - Effective in Slowing Speeds

- **Disadvantages:**
  - “Rough” Ride
  - Emergency Vehicle Access
  - Snow Removal
  - Noise
  - Drainage

- **Cost:**
  - $2000 - $3000
Raised Intersections

- **Benefits:**
  - Improve Safety
  - Calm Two Streets
  - Aesthetics

- **Disadvantages:**
  - Drainage
  - Expensive Materials

- **Cost:**
  - $12,000 +
Textured Pavement

- Benefits:
  - Improve Safety
  - Calm Two Streets
  - Aesthetics

- Disadvantages:
  - Wheelchair Access
  - Expensive Materials

- Cost:
  - Varies
Traffic Circles and Roundabouts

- **Benefits:**
  - Moderate Speeds
  - Improve Safety
  - Calm Two Streets
  - Aesthetics
- **Disadvantages:**
  - Truck Access
  - Maintain Landscape
  - Right-of-Way
- **Cost:**
  - Varies
Chicanes

- Benefits:
  - Slow Traffic
  - Aesthetics
  - Easy to Navigate

- Disadvantages:
  - Curb Realignment
  - Landscaping Maintenance

- Cost:
  - $14,000+
Neckdowns, Bump-Outs & Islands

- **Benefits:**
  - Slow Traffic
  - Improve Pedestrian Access
  - Protect On-Street Parking
  - Improve Sight Lines

- **Disadvantages:**
  - Loss of Parking
Volume Control Measures

- Full & Partial Closures
- One-Way Streets
- Diagonal Diverters
- Raised Medians
Survey Results versus Burlington Streets
Residential Unstriped Roadways

Survey Photo
Speed: 30 MPH or less (95%)

Survey Photo
Speed: 30 MPH or less (74%)
Residential Unstriped Roadways

Sandy Brook Road
Commercial Unstriped Roadways

Survey Photo

<table>
<thead>
<tr>
<th>Travel Speed</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 MPH</td>
<td>16%</td>
</tr>
<tr>
<td>30 MPH</td>
<td>29%</td>
</tr>
<tr>
<td>35 MPH</td>
<td>20%</td>
</tr>
<tr>
<td>40 MPH</td>
<td>20%</td>
</tr>
<tr>
<td>45 MPH</td>
<td>8%</td>
</tr>
<tr>
<td>50+ MPH</td>
<td>8%</td>
</tr>
</tbody>
</table>

Survey Photo

<table>
<thead>
<tr>
<th>Travel Speed</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 MPH</td>
<td>4%</td>
</tr>
<tr>
<td>30 MPH</td>
<td>26%</td>
</tr>
<tr>
<td>35 MPH</td>
<td>43%</td>
</tr>
<tr>
<td>40 MPH</td>
<td>21%</td>
</tr>
<tr>
<td>45 MPH</td>
<td>5%</td>
</tr>
<tr>
<td>50+ MPH</td>
<td>1%</td>
</tr>
</tbody>
</table>
Arterial Roadways

Survey Photo
Speed: 45 MPH or more (57%)

Survey Photo
Speed: 45 MPH or more (56%)
Arterial Roadways

Middlesex Turnpike

Burlington Mall Road
Traffic Calming / Complete Streets Design

Survey Photo
Speed: 35 MPH or less (72%)
Roadway Alignment

Question 10: At what speed would you feel comfortable driving on this roadway?

<table>
<thead>
<tr>
<th>Travel Speed</th>
<th>Percentage of Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 MPH</td>
<td>3%</td>
</tr>
<tr>
<td>30 MPH</td>
<td>29%</td>
</tr>
<tr>
<td>35 MPH</td>
<td>15%</td>
</tr>
<tr>
<td>40 MPH</td>
<td>23%</td>
</tr>
<tr>
<td>45 MPH</td>
<td>22%</td>
</tr>
<tr>
<td>50+ MPH</td>
<td>9%</td>
</tr>
</tbody>
</table>
Roadway Alignment

Winn Street

Westwood Street
What is a Road Safety Audit?

- Analysis: Crash Data, Speeds, Volumes
- Site Visit / Group Analysis
  - Engineers (local & MassDOT)
  - Police / Fire Departments
  - Town Planners & DPW
  - School Staff
  - Residents & Stakeholders
- Draft Report
- Final Report
RSA Field Visit / Group Analysis

- Pre-Meeting Discussion of Issues
- Field Visit and Observations
  - Factors Impacting Safety
  - Pedestrian and Bicycle Accessibility
- Post-Meeting Wrap-Up
### Potential Safety Enhancements

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Costs</th>
<th>Costs Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term</td>
<td>Low</td>
<td>&lt;$10,000</td>
</tr>
<tr>
<td>Mid-Term</td>
<td>Medium</td>
<td>$10,000 - $50,000</td>
</tr>
<tr>
<td>Long-Term</td>
<td>High</td>
<td>&gt;$50,000</td>
</tr>
</tbody>
</table>

### Table 6. Potential Safety Enhancement Summary

<table>
<thead>
<tr>
<th>Safety Issue</th>
<th>Potential Safety Enhancement</th>
<th>Safety Payoff</th>
<th>Time Frame</th>
<th>Cost</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Control</td>
<td>Consider installation of a roundabout. This requires further study and may require the acquisition of substantial Right-of-Way.</td>
<td>High</td>
<td>Long-Term</td>
<td>High</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>Consider installation of a traffic signal. This requires further study.</td>
<td>High</td>
<td>Long-Term</td>
<td>High</td>
<td>Town</td>
</tr>
<tr>
<td>Dunstable Road Approach Alignment</td>
<td>Consider geometric modifications to Dunstable Road to improve alignment across Groton Road. Realignment of Dunstable Road approaches may not be needed if a roundabout is proposed.</td>
<td>Medium</td>
<td>Long-Term</td>
<td>High</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>Consider installation of pavement markings to Dunstable Road through intersection to improve vehicle tracking across Groton Road.</td>
<td>Medium</td>
<td>Short-Term</td>
<td>Low</td>
<td>Town</td>
</tr>
<tr>
<td>BP Gas Station Driveways</td>
<td>Consider site driveway closings, reconstruction or restrictions to reduce conflicts at the intersection and reduce cut-through traffic.</td>
<td>High</td>
<td>Long-Term</td>
<td>Medium</td>
<td>Town / BP Gas Station</td>
</tr>
<tr>
<td>Sight Lines and Visibility</td>
<td>Reset STOP bar pavement markings along Dunstable Road closer to the intersection while maintaining a safe distance from the edge of travel-way.</td>
<td>Low</td>
<td>Short-Term</td>
<td>Low</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>Remove or maintain shrubbery/bushes within the BP Gas Station landscaped island and along the #270 Groton Road property.</td>
<td>Medium</td>
<td>Short-Term</td>
<td>Low</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>Trim and maintain vegetation along the southerly edge of Groton Road.</td>
<td>Medium</td>
<td>Short-Term</td>
<td>Low</td>
<td>Town</td>
</tr>
<tr>
<td></td>
<td>Consider relocation of BP Gas Station signage and replace with signage on fueling station canopy.</td>
<td>Medium</td>
<td>Short-Term</td>
<td>Mid</td>
<td>Town / BP Gas Station</td>
</tr>
<tr>
<td></td>
<td>Move the mast arm shaft for the flashing beacon back away from the roadway edge to improve the sight lines for Dunstable Road northbound vehicles looking to the east.</td>
<td>Medium</td>
<td>Long-Term</td>
<td>Mid</td>
<td>Town</td>
</tr>
</tbody>
</table>
Fox Hill Road and Westwood St RSA

- Pre-Meeting:
  - Fox Hill School, Friday, June 19, 7:30 AM
- Field Visit and Observations:
  - Fox Hill Road & Westwood Street, 8:00 – 9:00 AM
- Post-Meeting Wrap-Up:
  - Fox Hill School, 9:30 AM