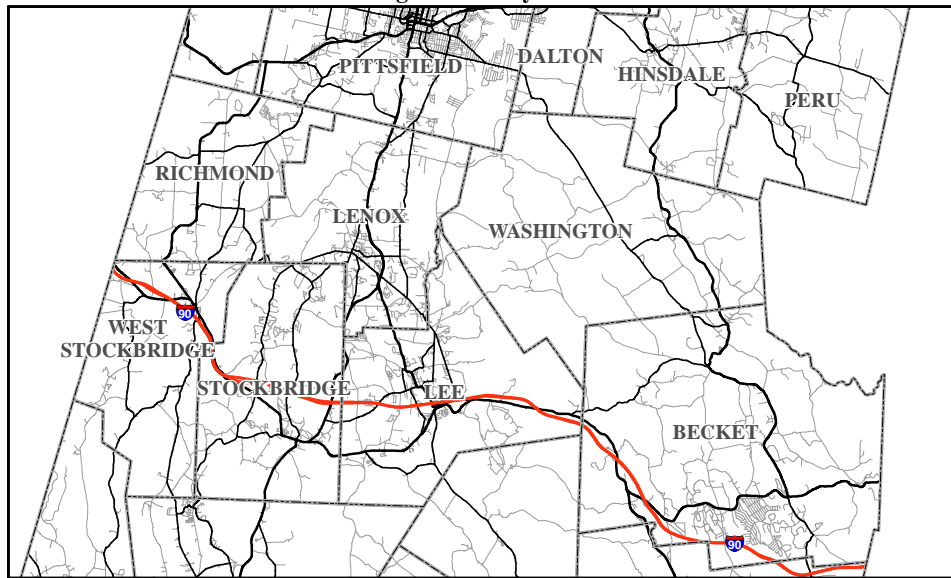


Executive Summary

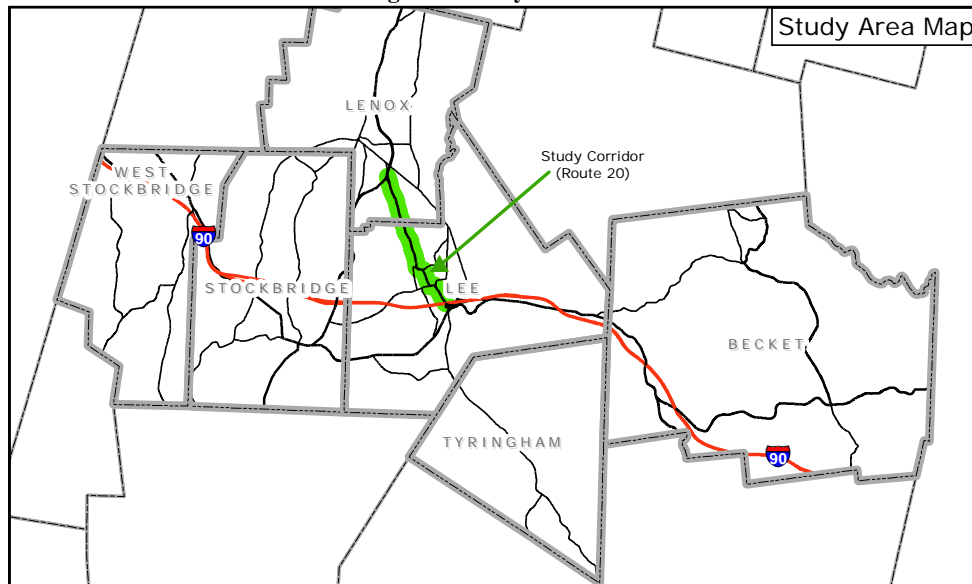
In 2003, town officials from Lee, Lenox and Stockbridge requested the Berkshire Regional Planning Commission (BRPC) explore ways to help mitigate traffic congestion in downtown Lee. This congestion and its impact on regional mobility was identified as an issue needing study in the Berkshire Regional Transportation Plan (2003/2007) and MassDOT's North Central Berkshire Access Study (2001).

Figure 1: Study Area



BRPC initiated the Lee Area Traffic Study to evaluate a wide range of potential transportation improvements, and develop recommendations for improvements that best address local and regional mobility needs. The study area includes the towns of Lee, Lenox, Becket, Stockbridge and West Stockbridge. The study corridor was defined as Route 20 from the Lee/Lenox town line to the Prime Outlets retail site in Lee. Figure 1 and Figure 2 show the study area and the study corridor respectively.

Figure 2: Study Corridor



This report presents the results of BRPC’s analysis. The report is organized into three chapters:

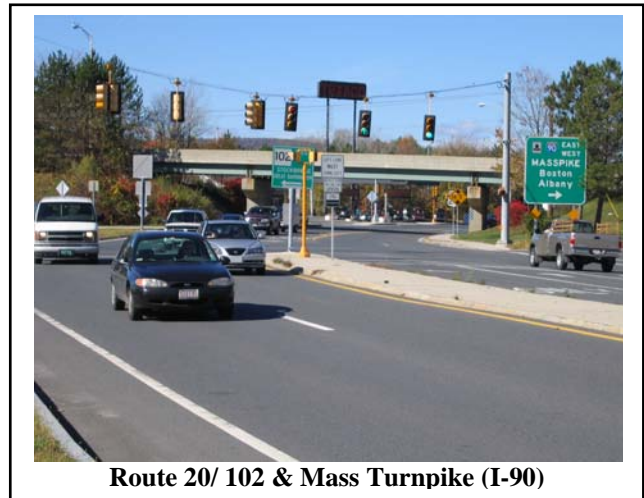
- Chapter 1: Introduction
- Chapter 2: Existing and Projected Conditions Analysis
- Chapter 3: Identification and Evaluation of Alternatives

Existing and Projected Traffic Conditions

During 2006 and 2007, BRPC undertook an extensive traffic data collection effort. This included the analysis of data from MassDOT’s continuous traffic count locations, additional 24-hour traffic counts at supplemental locations, turning movement counts at key intersections, a travel time and delay survey on Route 20, and an accident analysis of the study corridor.

Key findings on existing and projected traffic conditions in the Study Area are summarized below.

- Route 20 from the Massachusetts Turnpike to the Rte. 7/20 intersection in Lenox carries a high traffic volume for a two lane roadway. Sharp turns on Route 20 at the three most problematic intersections in Lee, the presence of on-street parking on Main Street, the concentration of pedestrian crosswalks and high level of pedestrian activity, the steepness of Rte. 20 (Laurel Street) headed northbound, the narrowness and winding nature of the highway north of the Housatonic River, and the high accident rate at the Rte. 20/Blantyre Road-Plunkett Street intersection all exacerbate traffic conditions on this high volume two lane highway.



- Rte. 20 through Lee carries a high proportion of trucks (12% of average daily traffic in some locations). During public meetings, this was raised as an important traffic related public concern. The high number and proportion of trucks has significant impacts to residents and visitors in downtown Lee, including detrimental air quality and noise impacts, and potentially serious safety impacts. From the trucks’ perspective, navigating through Lee is a challenge due to the number of turns, the amount of pedestrian activity, on-street parking, the steepness of Laurel Hill north of the Housatonic River, and the general narrowness of the highway. In short – the town would prefer that fewer trucks were travelling through it and the trucks would just as soon not be there.



- Three STOP sign controlled intersections; Main St @ Center St, Main St @ Park St, and Park St @ Housatonic St have failing Levels-of-Service for the minor street approaches, which will get worse by 2030. One additional intersection, Park Street @ High Street is projected to experience added delay. The existing levels of side street delay can create additional traffic in surrounding neighborhoods, as cars seek to avoid problem intersections on Route 20. As side street delay worsens, this will lead to an increase in diverted trips and a probable increase in accidents at problem locations as frustrated drivers try to squeeze into inadequate gaps in the traffic.
- Accident Rates at study corridor intersections are lower than the Berkshire County average for most locations (with two exceptions). The accommodations for on-street parking and pedestrians in the downtown area, such as bump-outs, and the sharp turns at Main/Center, Main/Park and Park/Housatonic all serve as traffic-calming measures and probably account for the relatively low accident rates. However, it is important to note that there have been two serious car/pedestrian accidents along Main Street over the past two years which are not reflected in the accident data available when the analysis was conducted.

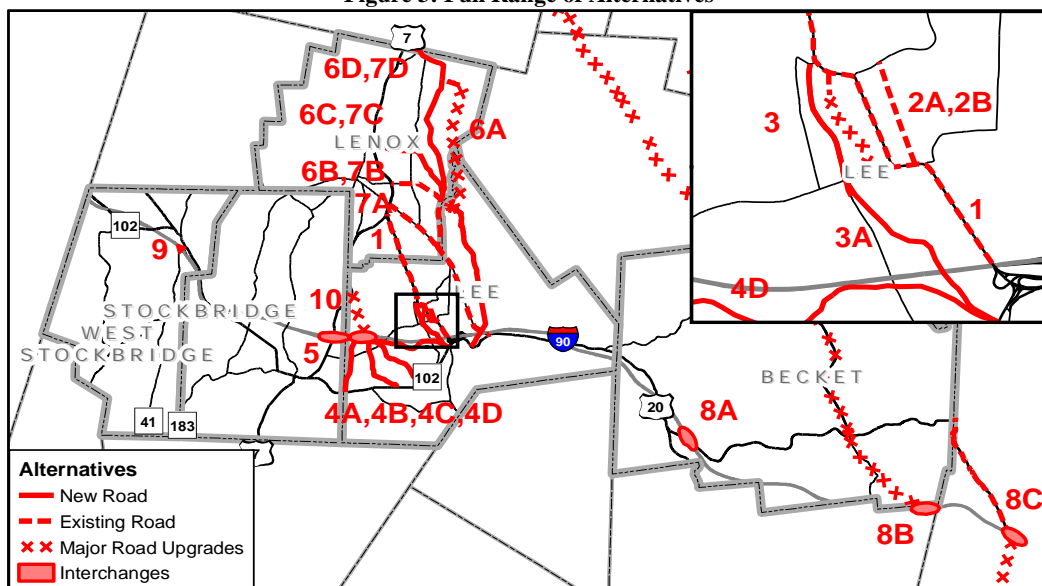


Identification and Evaluation of Alternatives

During the second phase of the study, BRPC worked jointly with a Study Working Group composed of representatives from area towns, MassDOT, and other community interest groups. Public input was also solicited during three public meetings held during the course of the study. Direction received from the Study Working Group and the public was used to identify a wide range of improvement alternatives.

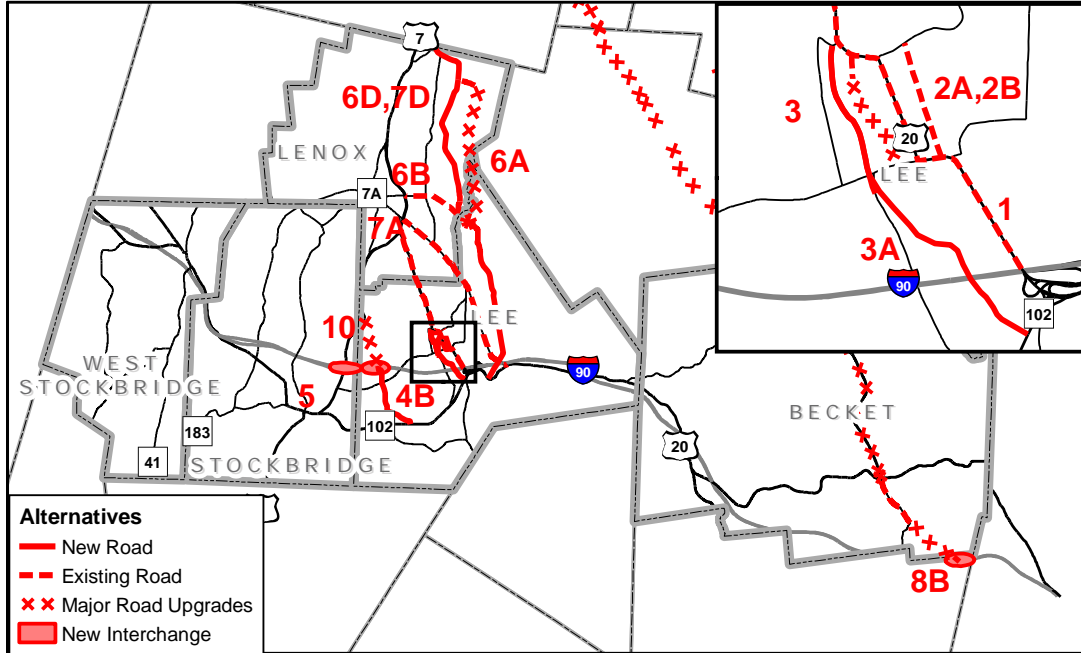
At the study's outset, a total of 27 alternatives were identified. Some of these alternatives had been identified in previous studies, including MassDOT's North Central Berkshire Access Study. Figure 3 shows the initial 27 alternatives.

Figure 3: Full Range of Alternatives



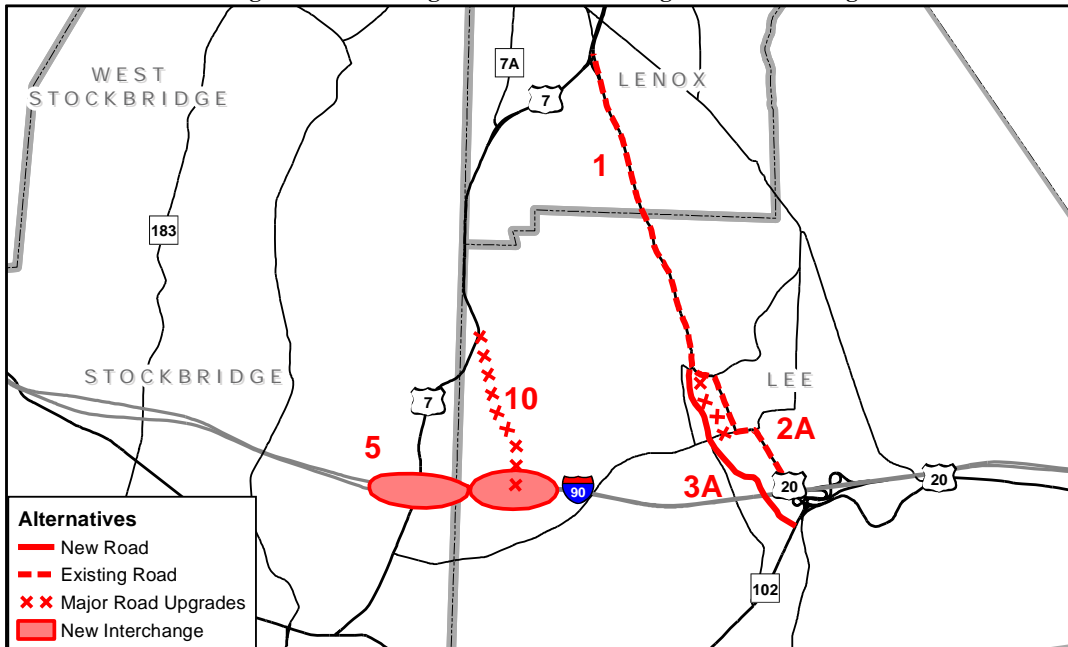
The evaluation process began with a coarse screening analysis. Based on an assessment of environmental, land use and transportation factors, the coarse screening reduced the number of alternatives from 27 down to 13. Figure 4 shows the 13 alternatives identified for further analysis after coarse screening was completed.

Figure 4: Remaining Alternatives following the coarse screening



A fine screening analysis was performed for the remaining 13 alternatives. This screening incorporated more detailed evaluation of environmental, land-use and transportation data. The fine screening reduced the 13 alternatives down to 5 final alternatives.

Figure 5: Remaining Alternatives following the fine screening



Public Participation Process

BRPC staff conducted an extensive public outreach effort for this study. This outreach included:

- A study Working Group comprised of town officials appointed by town Select Boards from Lee, Lenox, Becket, Stockbridge, and West Stockbridge; MassDOT staff; BRPC staff; and representatives from the Berkshire Chamber of Commerce and the Berkshire Natural Resources Council. Table 1 lists the Working Group Members. The Working Group met eleven times from April 2007 - December 2008. This group provided input and technical support throughout all phases of the study and endorsed the elimination of various alternatives at each step of the alternatives evaluation.

Table 1: Lee Area Traffic Study Working Group Members

Working Group Member	Agency/ Affiliation
Michael Supranowicz	Berkshire Chamber of Commerce
Bryan Emmett	Berkshire Natural Resources Council
Doug Bruce	Berkshire Natural Resources Council
Alison Church	Berkshire Regional Planning Commission
Anuja Koirala	Berkshire Regional Planning Commission
Nathaniel W. Karns	Berkshire Regional Planning Commission
Christopher Pompei	Lee Department of Public Works
Robert Nason	Lee Town Administrator
Gerald LePrevost	Lee Traffic Commission
Linda Messana	Lenox Selectboard
Greg Federspiel	Lenox Town Manager
Mark Moore	MassDOT, District 1
Peter Frieri	MassDOT, District 1
Peter Niles	MassDOT, District 1
George Shippey	Stockbridge Selectboard
Jorja-Ann Marsden	Stockbridge Town Administrator
Robert Gorden	Town of Becket
Stephen LaBelle	Town of Becket
Mark Webber	West Stockbridge Town Administrator

- Three Public Meetings were held during the course of the study. The first public meeting was held in November 2007 to obtain input from the public on problems and possible solutions. At this meeting, the existing and forecast year 2030 traffic conditions were presented. The initial screening analysis of alternatives was presented at the second public meeting in August 2008, and the preferred alternatives and preliminary Study recommendations were presented at the final meeting in January 2009.
- BRPC staff also presented existing and projected traffic conditions and preliminary Study recommendations at the Towns of Lee and Stockbridge Select Boards' meetings.

Summary of Study Findings

At the outset of the Lee Area Traffic Study, a determination was made that the Study be comprehensive in the scope of transportation alternatives to be evaluated. **The most important conclusion of the Study process is the alternatives that did not advance through the final screening phase are not viable solutions to the area's traffic problems.** Among the 'screened out' alternatives are:

- Improvements to the existing Exit 1 Interchange, which does not serve the predominant flow of study corridor traffic between the Berkshires and eastern Massachusetts
- New local connector roads between Route 102 and Route 7 that would bypass downtown Lee. Travel times for these alternate routes would not compete with Route 20, and the out-of-direction travel required to access them results in their low potential for diverting Route 20 traffic.
- New 'eastside Lee' local roads that would bypass downtown Lee. These routes all had significant environmental, residential, and business impacts.
- A new I-90 Interchange on the eastern side of Berkshire County. This group of alternatives all had significant environmental and residential impacts. In addition, major improvements would be required to the north-south roads that would connect to a new eastern I-90 interchange. Finally, the grade changes along these north-south roads would be a significant impediment to truck usage.

Of the alternatives that remained at the end of the screening process, none stand out as an ideal solution. All of them face opposition from a variety of community interests. Given the multi-million dollar costs involved for any of the alternatives, finding funding to implement them will be a significant constraint in the context of the limited financial resources available to meet basic regional transportation needs.

In formulating the recommendations of this Study, BRPC staff and its planning partners acknowledge that the macro level analysis undertaken in this report is only the starting point for the next steps in a more focused project feasibility analysis. A more focused feasibility analysis of the remaining alternatives would have to consider:

- Specific roadway alignments and alignment alternatives, as opposed to the more conceptual alignments evaluated in this study
- Quantification of property impacts, including right-of-way requirements and potential acquisition/demolition/adaptive reuse of specific properties
- A more complete assessment of environmental impacts and potential mitigation measures
- Development of preliminary cost estimates and an analysis of financial feasibility
- A detailed description of required steps in the project development process, including anticipated project schedules and milestones. Incorporated in this description would an explanation of the Federal Highway Administration requirements for an Interchange Justification Report (IJR), and conditions and findings necessary before an IJR could be undertaken in the Berkshire region

In sum, the main finding of the Lee Area Traffic Study is that further and more focused study is needed before the next steps in project development are taken for any of remaining transportation alternatives. Furthermore, the recommendations presented below should given equal consideration for their implementation.

Recommendations

Based on findings from their technical analysis and input received from study Public Meetings and Working Group members, BRPC staff developed the following recommendations for the consideration of the Commission, the Metropolitan Planning Organization and the Towns of Lee, Lenox, and Stockbridge.

- 1. Implement Alternative 1, Transportation System Management (TSM) along Route 20 from the Mass Turnpike to the intersection of Routes 7 and 20 in Lenox.**
 - a. Seek inclusion of the TSM alternative in the 2011 Regional Transportation Plan;
 - b. Actively monitor traffic conditions at these three intersections along Route 20 in Downtown Lee,
 - i. Center St @ Main St;
 - ii. Main St @ Park St;
 - iii. Park St @ Housatonic St;
 - c. Carry out an analysis of traffic operations at the above three intersections and propose actions to address excessive side street delay and other traffic operations issues. These actions may include:
 - i. Widening of the side street approaches to provide separation for right and left turning vehicles
 - ii. Provision of additional storage for left turning vehicles
 - iii. Left turn prohibitions from the side streets with provision of downstream U-Turn opportunities for vehicles desiring to turn left
 - iv. Traffic signal warrant analysis
 - v. Feasibility analysis for rotaries
 - d. Monitor traffic at High St @ Park St for future analysis should conditions deteriorate;
 - e. Monitor pedestrian activity and make provisions for improved pedestrian flows in the Downtown; including modifications to sidewalks, consolidation of crosswalks, and installation of pedestrian actuation buttons at future signalized cross streets;
 - f. As part of a broader strategy to enhance roadway capacity in downtown Lee
 - i. Evaluate on-street parking modifications on Main Street (Route 20);
 - ii. Evaluate expansion of off-street parking opportunities and directional signage to improve motorists' ability to locate parking
 - iii. Evaluate implementation of Motorist Information Systems and similar ITS measures that can address parking and circulation issues
 - iv. Evaluate implementation of turn restrictions
 - v. Initiate a more comprehensive Route 20 Corridor Study, that will examine opportunities and constraints for all of the above, as well as additional access management controls and revisions to the downtown circulation system
 - g. Identify other improvements to Route 20 (Laurel St and Lee Road) north of central Lee that will improve traffic flow and safety. These improvements could include provision of wider lanes, shoulders, improved sight lines, signage and traffic controls, and similar measures that will allow the road to better accommodate high volumes of automobile and truck traffic.

TSM actions often are short term measures intended to mitigate traffic problems while long term solutions are under consideration. Not all potential TSM actions would be beneficial to the traffic flow on mainline Route 20. Adding traffic signals at the three Route 20 intersections in the Downtown would reduce peak hour traffic delays for the side street approaches and improve overall intersection Level of Service (LOS). It would, however, increase the amount of delay experienced by Route 20 through traffic which is contrary to one of the two study objectives.

2. Advance Alternative 5/10, a new I-90 Interchange connecting to Route 7 close to the Lee/Stockbridge Town Lines, to the next phase of a project feasibility analysis.

This recommendation is for a planning study to provide a more detailed assessment of conceptual design, project cost, environmental impacts, and the required next steps in the implementation process of a new I-90 Interchange. The analysis required for Recommendation 2 should be undertaken in coordination with the analysis for Recommendation 1. There is an interrelationship between the feasibility of a new Interchange and the feasibility of improvements that are more focused on the Route 20 Corridor.

In the context of this current study, Alternatives 5 and 10 provide similar transportation benefits. They also have a comparable level of environmental and community impacts. Therefore, these two study alternatives have been combined into one study recommendation. One requirement of the project feasibility analysis would be to specifically identify a new I-90 interchange location between West Road in Lee and Route 7 in Stockbridge that provides the associated transportation benefits while minimizing environmental and community impacts.

Adding a new exit on I-90 that connects to Route 7 meets these two Lee Study objectives:

1. Decrease through traffic in Downtown Lee
2. Improve Regional Access to the Turnpike.

A new interchange would be a project of high cost and complexity in relationship to other highway projects in Berkshire County, although not in comparison to some projects undertaken in other parts of the Commonwealth. A transportation improvement of this scope has not been completed in Berkshire County for many decades. The interchange would face significant obstacles, including opposition from factions in the adjoining communities. The detailed project feasibility analysis recommended herein will provide essential information on project costs and project impacts to better inform future debate on Lee Area transportation solutions. It is also important to understand the feasibility analysis is just the first step in what would be a fairly lengthy process of requisite planning and environmental studies. The full process of planning, designing, and constructing a new Interchange on the Interstate system can easily be 15 to 20 years in duration.

The feasibility analysis should also address design measures to restrict the traffic flow between the new interchange and Stockbridge. Traffic to or from the south of Stockbridge is already adequately served by Rte. 102, and there is no evidence of access problems from that orientation (except in the middle of Stockbridge itself, a situation that is beyond the scope of this study). Also, additional traffic coming south on Rte. 7 turning onto Rte. 7/102 in Stockbridge could potentially create problems at that intersection. A new interchange could incorporate design features that would funnel traffic to a northern orientation, so that it exclusively serves traffic heading to/from Lenox and central/northern Berkshire County.

During the Lee Study's public involvement process, it was firmly established that no community wants to see land use changes occur along Route 7. The area between the Turnpike and the Lenox Bypass is scenic and contains one of the largest working farms remaining in Berkshire County, High Lawn Farm. Any proposed transportation project that could lead to increased development pressure or changes in land use should be accompanied by strongly protective land use controls in all three towns. Strict access controls should be put in place as part of any roadway project by MassDOT. As mitigation for any proposed project, adjoining properties, particularly High Lawn Farm, should have conservation restrictions purchased from the property owners to ensure that the area remains as one of the most scenic agricultural views in the Berkshires

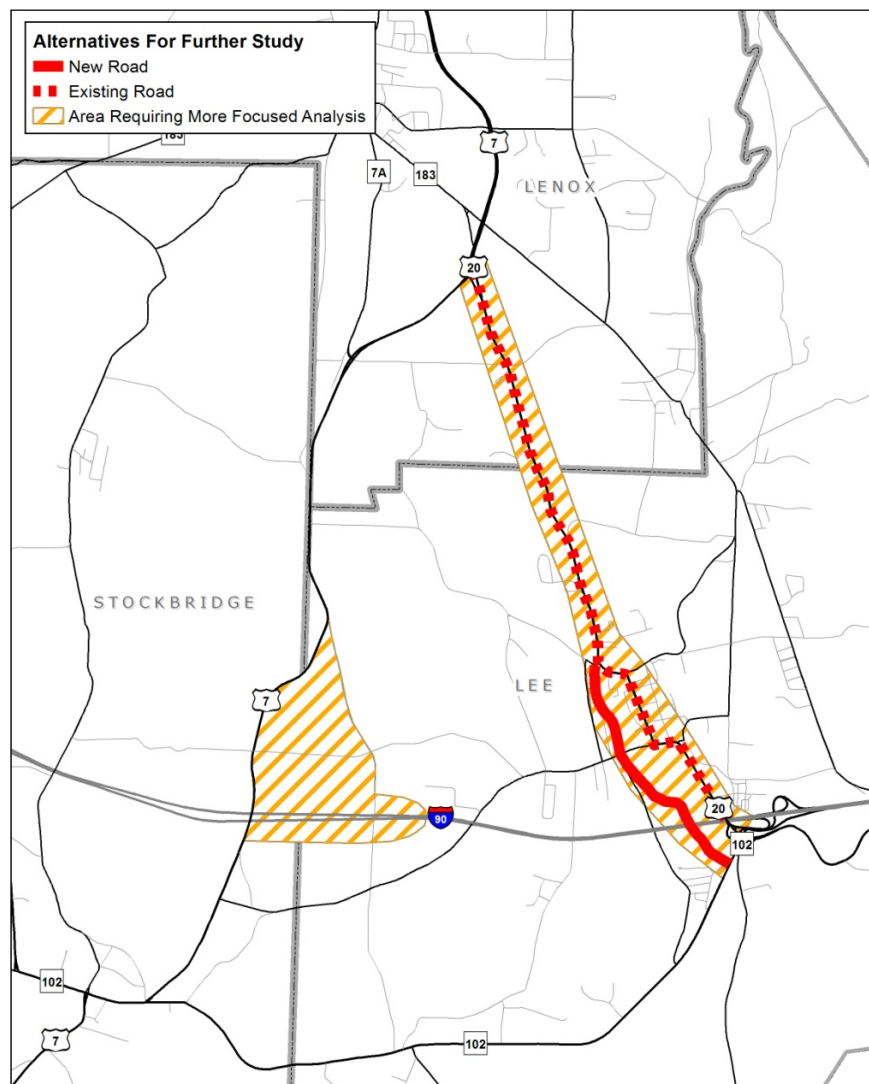
3. Advance Alternative 3A, a new road on the west side of the Housatonic River from Old Pleasant Street (Route 102) to Laurel Street (Route 20) to the next phase of a project feasibility analysis.

Given its proximity to Route 20 in downtown Lee, the west Lee bypass road is one of the options that would be analyzed as part of the more focused Route 20 Corridor Study discussed under Recommendation 1.

4. Conduct additional analysis of truck traffic in the Downtown Lee area.

Throughout the study process, public input emphasized that truck traffic through the downtown is of significant concern. This recommendation calls for a more focused analysis of Lee area truck traffic, including collection of vehicle classification counts for a defined cordon around the downtown.

Figure 6: Study Recommendations



Source: BRPC