The Needham Street Corridor plays a critical role in the future prosperity of Newton and the region. This roadway, and its extension into Highland Avenue in the Town of Needham, connects significant business and mixed-use districts in both communities. Newton and Needham are collaborating and are actively engaged in roadway redesign, review of zoning, and evaluation of opportunities to expand economic development, create affordable housing, and provide a much-needed facelift for this corridor. With an exceptional location between Route 9 and Route 128/I-95, recreational amenities and natural resources, and a strong commercial and residential base, this is a prime area for more compact, sustainable mixed-use development. Our challenge in the corridor is in addressing the congestion issue by offering greater transportation choice, expanding the options available to people in the corridor, and creating an environment that can welcome thousands of new employees and housing opportunities.

As the Comprehensive Plan suggests, the fortunes of Needham Street affect all of Newton. I would like to acknowledge the hard work and dedication of the hundreds of Newton residents and businesspeople who have met over the years to discuss this important corridor of the City. I invite you to review the following pages, participate in upcoming meetings, and work with my dedicated staff to be a part of this process in helping us sift through the challenges and realize the tremendous opportunities on Needham Street.

Very truly yours,

[Signature]

Setti D. Warren
Mayor, City of Newton
Introduction: Destination Needham Street

Needham Street is poised for transformation. It has the potential to be a center for jobs and shopping, a place with cutting-edge environmental design, with a sense of place that distinguishes the City of Newton. The opportunity exists to redefine the corridor as a vibrant and prosperous place where people live and businesses thrive. Needham Street is one of the few places in Newton that can realize significant new development that will translate into new tax revenue to support the qualities that already make Newton a great place to live.

Planning for the future of Needham Street will rely on three overarching principles:

- Newton is a Green City.
- Newton is a City that respects its past as it looks to the future.
- Newton is a City that recognizes that quality of life is a product of place excellence.

Ultimately, the planning process will culminate in the Needham Street Master Plan, which will provide a guide to public and private decisions made for this critical corridor. The plan will provide direction to the City in infrastructure and regulatory improvements and advice to property owners and businesses as they make investment decisions for land in the study area. This document details the analysis and planning that have happened thus far, setting the stage for the development of a final plan.

Public voice informs the decisions that must be made to realize the future of this corridor and the planning process encourages transparency and public dialogue.

“Intensive, well-planned corridor development is anticipated and welcomed on Needham Street … as long as it is integrated with and helps produce transportation and other enhancements to make the impact of that development a positive one.” Newton Comprehensive Plan

Planning Need

The City of Newton has long recognized the importance and value of Needham Street, and the corridor has been the subject of a number of plans and studies over the years. A variety of interest groups, consultants, and City staff have looked at different facets of this place, including its zoning, transportation infrastructure, and environmental features, but it is probably fair to say that, thus far, this work has not coalesced into a single vision and strategy for Needham Street as a whole.

The current planning effort will be different. The outcome will be a Master Plan for Needham Street that will serve to guide the decisions of the City across a range of considerations, including infrastructure improvements, zoning, and discretionary land use reviews, aimed at creating a place that lives up to the expectations and values of Newton and realizes its economic development potential. Needham Street presents an unprecedented opportunity that can only be realized where there are partners working together behind a shared vision for the corridor.


This plan recognized many of the same issues identified today along the corridor. Interestingly, it found roughly the same vehicles per hour as was found in more recent studies conducted in 2009 despite significant development on the corridor and in the region.

The conclusion of the study was that land use on the corridor should be steered towards office uses and the result was the adoption of the Mixed Use 1 and Mixed Use 2 zoning districts.


Led by the Economic Development Commission and representing a range of Needham Street interests, this group created a set of recommendations aimed at reconciling the issues of traffic congestion, development density, and increasing tax revenue. One of the interesting ideas presented was to dedicate a portion of new tax revenues to improvements in adjacent neighborhoods.

Envisioning Needham Street: Needham Street Corridor Plan (2010)

Graduate students in the MIT Department of Urban Studies and Planning produced this plan for Needham Street. The primary recommendation was to promote a “finer grain” of uses in the north end of the street while retaining the larger lots in the southern end. Overall, the plan calls for expanding the list of by-right land uses to include retail, service and multi-family uses; enhancing public open space and environmental features; incorporating urban design features such as buildings fronting on the street; modern roundabouts at key corridor gateways; and a range of streetscaping improvements. This plan won the 2011 Mass APA Student Project Award. More information on this plan can be found on page 21 of this book.

Visioning Sessions (2011)

The City held two visioning sessions on Needham Street in April and June 2011. More information on these can be found on page 22 of this book.
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challenges and opportunities

Through the various plans, studies, and meetings about the Needham Street Corridor, the challenges and opportunities participants have identified have been relatively consistent. At the top of the list of challenges has been traffic congestion. The potential for significant new commercial development is the primary opportunity. Reconciling the benefits of increased development with potential increases in traffic is central to the planning process. This next section presents existing conditions along the Needham Street corridor, focusing on transportation, land use, and urban form through the lens of the challenges and opportunities that these characteristics present to shaping a sustainable future for the corridor.
Regional Connections

Needham Street’s location and street connections provide tremendous access to a high-value workforce and consumer base. The City of Newton itself is an affluent inner-ring suburb with a high quality school system and easy access to some of the most significant job centers in Boston and the Route 128 corridor. These factors create a demographic profile with a population that is highly educated with high income, and exhibiting more urban density of development than found in more outlying areas of the region. The image at the lower left illustrates an interesting scale comparison: not only is Newton located very close to downtown Boston, the land area of the Needham Street Corridor (shown in red) is approximately the same size as that of Boston’s Back Bay neighborhood (shown in orange). Needham Street has the land area and the enviable location to be a significant economic engine for Newton and for the region. Needham Street is a connector, linking three of the most important corridors in the region: Route 9, I-90 (MassPike), and Route 128/I-95. Access adds value and Needham Street has great access to customers, jobs, business partners, and suppliers.

Source: U.S. Census Bureau (2000 Census, 2010 American Community Survey)
challenges and opportunities

Traffic Congestion

Traffic Congestion might be inescapable on Needham Street, but it need not limit future growth and, in fact, might even be considered an indicator of success. Congestion is a manifestation of lack of choice; no one chooses congestion. Travel choices include time of day, mode of travel, and route. The choices people make are based on cost, which includes money, time, and the value of destination. The high value attributed to getting to one’s job, in an environment in which most people’s work day begins and ends at the same time, leads to “rush hour” congestion. People make different transportation choices as congestion (costs) increase and, conversely, if congestion decreases, more people are likely to choose that route. Congestion itself correlates with economic prosperity; for congestion to exist, a lot of people must be willing to pay a high cost (in congestion-induced lost time and frustration) to be in that location.

The trouble on Needham Street, in part, is that the congestion cost is paid locally but much of the benefit in economic productivity is in the origins and destinations of those who travel along Needham Street where more than 40% of the traffic is pass-through. When options are limited, it may not be possible to eliminate congestion; however, it is possible to capture some of its value by transforming Needham Street into a more valuable destination in its own right. This relationship between road capacity (which might improve slightly but not dramatically with the MassDOT road design) and development potential will be explored further through this master planning process.

Vehicles per Hour

“The Needham Street Corridor: Proposals for the Future,” prepared by Lozano, White & Associates in 1984, cites a CTPS traffic study from that year indicating that the Vehicles Per Hour (VPH) for the corridor at peak was 2,210 cars. VPH is a standard measure of traffic congestion with the higher the number, the greater degree of congestion. The most recent study of the corridor is the 2011 Functional Design Report, prepared by Fay, Spofford & Thorndike for MassDOT shows a peak VPH of 1,975 in 2009. From 1984 - 2009, Boston has become a highly prosperous economic center, the regional population has increased, and there has even been some growth on Needham Street, with the Avalon residential development and retail and office improvements. While two points on a continuum are insufficient to be considered a trend, and there were likely differences in the location and manner of the traffic counts, the similar findings are noteworthy. Traffic congestion does not grow indefinitely; it plateaus reaching a balanced point reflective of local tolerance for traffic congestion and the desirability of utilizing a specific route for a specific destination or purpose.

40% of the traffic on Needham Street is through traffic, without a destination on the corridor
challenges and opportunities

Multi-Modal Travel

Newton is fortunate to be connected to the greater Boston region through the Massachusetts Bay Transportation Authority (MBTA) system. Destinations along Needham Street are served by the Newton Highlands station on the MBTA Green Line’s “D line” branch. Additionally, the Route 59 MBTA bus runs down Needham Street, connecting to points in Needham and Watertown Square. Expanding the availability, safety, and ease of non-automobile modes of travel even farther is essential to a more sustainable future for Needham Street.

Who needs to get to Needham Street? Employees need to commute to work on the corridor. The data to the left represents the responses of 53 Needham Street Corridor businesses to questions about employee commuting patterns in a Business Survey (see page 23). Despite the inconvenience, many employees commute to work on the corridor by methods other than driving alone. Of course, those visiting Needham Street for shopping or services and those who live on the corridor also need to travel here, and there is more to be done to make transit options a more attractive alternative to the automobile for these people.

Transportation Demand Management (TDM) strategies are incentives that employers can provide to encourage more of their employees to take transit, carpool, walk or bike, or take other alternative modes. Private shuttle systems, such as those operated by the Route 128 Business Council and by some employers are another alternative that will be explored more fully in the planning process. Improved bicycle and pedestrian accommodations will be a part of MassDOT’s road design (see page 26). Improving conditions for cyclists is a City-wide goal in Newton, which recently received a Bronze rating from the League of American Bicyclists.
challenges and opportunities

Street Network

One of the greatest challenges to traveling on Needham Street is that after one enters the corridor - either from Winchester Street in the north or from the bridge in the south - there are very few opportunities to exit the corridor before reaching the other end. This configuration is more than just frustrating to the driver; the street system through the Needham Street corridor is a significant contributor to the congestion problem, particularly for residents of the neighboring residential areas.

The limitations imposed by the abandoned railroad right-of-ways, wetlands, and incomplete street connections (including numerous private ways and unbuilt streets) channel traffic into a limited set of entrances into the corridor promoting congestion and reducing alternatives available for people to manage their transportation choices. As a result, a person seeking to make a local automobile trip must merge with commuting and through traffic, rather than finding a more direct route from their neighborhood to their destinations.

The Master Plan will investigate options for new parallel roadways and formalizing existing internal street network, as well as increased bicycle and pedestrian accommodations, all with the aim of providing more choices for traveling between origins and destinations throughout the corridor.

As this figure illustrates, a street system with greater connectivity (B) allows for the same vehicle lane miles as the more sparse system (A), but, since it offers more choices, it has greater capacity. Adding street network is often a more effective way to reduce congestion than widening a road. Furthermore, the more fine grain network (B) is also more pedestrian friendly and offers more options for creativity and visibility for new development.

Image source: Glatting Jackson, Inc.
challenges and opportunities

Streetscape

Good urban design brings order to the human environment, inviting people to enter a place, to stay there, and to interact with the businesses and amenities that populate it. Where do people walk? What are public versus private spaces? Where does one park a car? The answers to these questions are not clearly evident in the existing Needham Street environment. The MIT report describes the uninviting nature of a streetscape filled with visual clutter: “The lack of cohesive identity begins with the streetscape, where pedestrians and drivers alike first experience the corridor. Aside from the roadway itself, pedestrian accommodations along the corridor are particularly poor, with sidewalks degraded or non-existent in many places, parking lots open to the street, many curb cuts, a lack of street furniture, and no safety buffers to help protect pedestrians from vehicular traffic. The corridor also has an insufficient number of crosswalks, making it extremely difficult to safely cross the street.” It should be noted, however, that many people, particularly office workers at lunchtime, do walk along Needham Street in spite of the poor conditions. The report continues, “without buildings facing the street, proper pedestrian facilities, and inconsistent building setbacks, the ‘edge’ of the street is poorly defined” (page 15).

The design of the Needham Street corridor does not provide order. Further, the large number and variety of signs in different locations, the sagging overhead wires, and the erratic placement of buildings relative to each other and to the street creates distraction and confusion. There is a significant, and perhaps surprising, difference between Needham Street and the well-ordered and attractive urban environment of Newton’s villages. While the form and function of Needham Street is distinctly different from village centers, it should benefit from the same care given to legibility, aesthetics, and quality of place.

Access management refers to the proactive management of vehicular access points to land parcels adjacent to roadways. Techniques for managing access include careful spacing of driveways and curb cuts, location of turning lanes, and management of the right-of-way. These actions aim to balance access and mobility for all users by providing clarity and distinguishing the pedestrian realm (sidewalk), travel lanes, parking lots, and where these areas meet at the driveway or curb cut. These features are part of the MassDOT road design (see page 26).
A simple figure/ground illustration of the Needham Street corridor, as seen in the image at left, highlights two important facts. First, it reinforces the idea that there is a significant difference in scale between the corridor and the surrounding neighborhoods and village centers - a difference that becomes more pronounced as one moves south down the corridor. The village of Newton Highlands, just to the north of the corridor, and the village of Newton Upper Falls, at the southwest corner of the corridor, provide interesting contrasts with their smaller scale, more closely built buildings, and little separation between the village retailers and surrounding homes. It is encouraging that some of the more recent buildings that have been constructed or permitted along the corridor attempt to put buildings closer to the street edge, often with parking in the rear, and allow for pocket parks and outdoor café tables with a more urban and pedestrian-friendly feel to the corridor.

Second, there is a significant amount of space potentially available for development. Even after environmentally sensitive areas, parks, and roadways are excluded, there is still a lot of land with the potential to provide a significant boost to area jobs and tax revenue. The MIT report observes that the pattern of development is a remnant of the corridor’s industrial past. However, “the street’s uncharacteristically large parcels are unique in Newton and represent an opportunity for types of development that could not occur elsewhere in the city (page 14).”
The Newton Comprehensive Plan (2007) identified the Needham Street corridor as the City’s most promising location for commercial and residential development. In fact, on a map showing all additional commercial floor area that might be allowed at build out to current zoning, the Needham Street Corridor stands out as the area in the City with the greatest potential – an additional 3 million square feet.

The Plan observes that, while Needham Street was historically an industrial area, “the City has seen unplanned growth that has included office, retail, and residential uses.” The plan suggests that the City needs to think critically about the future of the corridor, particularly as to whether to let industrial properties transition to retail or residential uses and the consequences that these land use decisions (or, in the absence of decisions, unplanned development) will have on the corridor and the City. Rather than offer a solution, the plan notes that “the Needham Street area lacks a vision for the future” and recommends a corridor-specific visioning and planning process.
Market Demand

There is every indication that the demand for commercial and residential space on Needham Street is very strong. The surrounding area features one of the highest densities of high-income households in the region, the City of Newton has one of the best ranked school systems in the State, and one of the most highly-educated workforces in the country, and the street itself is situated off of Route 128.

Public policy experts have acknowledged that the Greater Boston region faces a demand for housing, particularly multi-family market-rate and affordable housing, that greatly exceeds the current supply in a region where the cost of living is becoming increasingly expensive. Needham Street would likely be an attractive location for housing.

For a number of reasons, office and compatible, low-impact industrial space would be most desirable along this corridor, but potentially faces the most difficult market conditions with considerable competition in other parts of the region. The location does not currently offer the amenities or value that would fully outweigh the congestion costs faced by workers trying to get there. Conversely, for retail, their customers are able to adjust their travel time to avoid the worst of the traffic while the large number of passing vehicles represents a resource of potential new customers. A more detailed market analysis backed up by quantitative data will be a part of the next phase of the planning process.

As illustrated in the images to the left, recent new projects or newly permitted projects include a mix of new retail tenants in older buildings (for example, Michael’s Crafts in the former Filene’s Basement building) and the sale, combining, and redevelopment of parcels (for example, the Village Shops project that will soon replace the former Skipjack’s seafood restaurant and International Bicycle Center buildings).
In community visioning sessions thus far, participants have repeatedly said that one of the aspects they most like about Needham Street today and want to preserve in the future is its mixed-use nature, particularly the business mix. Sentiments expressed at meetings include: small-scale, locally-oriented businesses should continue to be encouraged; retail uses make the corridor a destination; and the retail has a more regional draw which complements the more local draw of the village centers, including larger businesses and manufacturing uses which bring revenue to the City.

The map at left illustrates the types of businesses that are found along the Needham Street Corridor. While the primary use and much of the current proposed development is a mix of retail, restaurant and other food uses, service uses, and banks, shown here in purple, there are notable pockets of other uses. There are two multi-family residential complexes shown in green: the rental apartments at Avalon Bay at Newton Highlands and the condominium building at Oak and Needham Streets. The industrial uses, shown in brown, include H.C. Starck (an affiliate of a German company engaged in metals manufacturing) and Bigelow Oil. Needham Street is also an area of Newton where there is a concentration of auto-oriented uses, shown in yellow, such as gas stations and auto-repair shops. Finally, the corridor has a significant office base, shown in blue. The gray buildings are currently vacant, but have high potential for redevelopment.
Needham Street has been described as the part of the City where businesses go that do not fit anywhere else. Too large for a village center, or inconsistent with regulatory measures or market demand in other areas of the City, these businesses find their way into the mix on Needham Street. What kinds of businesses are these? There appear to be two noteworthy business clusters on Needham Street.

**Design/Build** – From National Lumber to furniture and home design stores, real estate agents to self-storage; some of these businesses require larger building footprints and lots that allow for storing materials, while others are attracted to the area because of the number of builders, contractors, and high-income homeowners passing through.

**Office & Manufacturing** – The large lots and building footprints here also favor large office buildings and modern manufacturing establishments. Given the cost of land and the characteristics of Newton, manufacturing is increasingly rare but corporate headquarters (Clarks Shoes), high tech companies (TripAdvisor), biotechnology uses (New England Cord Blood Bank and Inflexion), and advanced manufacturing (H.C. Starck) are all located here and are among Newton’s largest employers, bringing hundreds of jobs to Needham Street.

Throughout the master planning process, the City is continuing to think broadly about the future of different types of different industries on Needham Street, some of which will be studies in a market analysis during summer 2013, but particular attention will be paid to these clusters and related areas, such as green technology and design, and biotechnology and the life sciences.
challenges and opportunities
Consistency and Change

The Needham Street Corridor is in transition. As the map at left shows, the corridor has vacant buildings (some of which may be filled as is, but may also be torn down and replaced with more modern structures) and development opportunity sites which, while not currently vacant, represent distinct development opportunity sites that are vulnerable to significant change in the years ahead and which should be considered in plans for the road and corridor. Additionally, the map illustrates sites that have recently seen or will soon see a changeover in tenant or in property ownership. It is healthy to see the corridor evolving, and this planning process will work alongside the private decisions of property owners in an ongoing effort to guide positive change.

How long has your business been located on the Needham Street corridor?

<table>
<thead>
<tr>
<th>Duration</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.5 years</td>
<td>median</td>
</tr>
<tr>
<td>13.5 years</td>
<td>average</td>
</tr>
<tr>
<td>20+ years</td>
<td>12 businesses</td>
</tr>
</tbody>
</table>

Results from the 48 businesses who responded to the question on the Planning Department Business Survey, Summer 2011.
challenges and opportunities

Natural Resources and Systems

Despite its feel as a built-out, asphalt-covered commercial corridor, the Needham Street study area is located in an area with a dynamic open space network and rich ecological resources. The image at left, from the MIT report, shows the South Meadow Brook, which runs beneath and across most of the corridor, and other parts of the Charles River Watershed. These resources are currently underutilized, underappreciated, and exist in a degraded condition. The City seeks to improve access to these environmental resources to improve the quality of life in this corridor and to preserve and rehabilitate the natural systems as part of a comprehensive approach to sustainable design and development. The master planning process will identify infrastructure and open space improvements that will enhance environmental benefits and passive recreational opportunities. This “green infrastructure” approach will look for opportunities to realize multiple benefits including flood control, water quality, and recreation while still recognizing the fundamental urban character of the corridor.

There are opportunities to add pedestrian connections between Needham Street and the proposed Upper Falls Greenway on the abandoned rail right-of-way and enhancing connections to other recreational trails along the Charles River. Furthermore, in all of the City’s community engagement work, there has been a great deal of interest in ensuring that there are small “pocket parks” along Needham Street. While most of the greenspace currently along the corridor is ill-defined and un-purposed, many people mention the small spaces in front of Starbucks Coffee and in front of the Avalon Bay apartment building as positive examples of greenspace that they would like to see emulated.
There are a few locations along the Needham Street Corridor where visible connections to Newton’s history can still be seen - areas that will be preserved and may be highlighted in the future. Newton Upper Falls is one of the six founding villages of Newton and much of the area is now a local historic district. The industrial heritage of the area (the “falls” on the Charles River made 19th century manufacturing possible) is evidenced by the mill building at the corner of Needham and Oak Streets, a portion of the former Pettee Machine Works that is currently the American headquarters of the British shoe company, Clarks. The City-owned Evergreen Cemetery at the corner of Winchester and Needham Streets is also known as the South Burying Ground. It dates to 1802, has graves of veterans of the Revolutionary War, and is listed on the National Register of Historic Places.

Image source: Newton History Museum at The Jackson Homestead
What will be the plan for Needham Street? There are a lot of ideas out there; a walkable street, transit accessible, more greenspace, more office space. A final vision is not ready, but there are a number of signposts pointing the way. Work by a group of MIT students, visioning sessions conducted by the Planning Department, a survey, and a range of conversations with various stakeholders in the corridor have all provided input. Now we need to coalesce all of this into one vision of the future, and a strategy to implement it.
Throughout the fall 2010 semester, the Planning Department had the enthusiastic assistance of a class of MIT graduate students from the Department of Urban Studies and Planning studying the Needham Street corridor. In addition to talking with stakeholders, the students held two community meetings at City Hall in October and in December to present their work and seek feedback. As noted on page 8 of their final report, some of the salient concerns that the team grappled with and which are at the root of the ongoing master planning process, include whether: (1) Needham Street’s identity as a commercial strip would change and, if so, what interventions and redevelopment proposals would be necessary to facilitate change; (2) streetscape, use, and form-based planning rules and guidelines are sufficient and appropriate catalysts for the plan’s broader vision; and (3) the street can support the traffic increases generated by the proposed interventions and development projects. The study also had a significant focus on natural systems and public spaces, discussed further on page 19 of this document. Furthermore, the report suggested a 3-lane cross-section including a landscaped median with turning lanes.

“With a more diverse mix of uses, some traffic management and streetscape improvements, and increased attention to site design, Needham Street has the potential to become a dynamic place with a coherent identity all its own.” (page 8)

“Because Needham Street departs from the village center pattern, but plays a crucial economic role in Newton, its future course assumes great importance.” (page 38)

“The ultimate goal is to use new development to complement and highlight existing assets, while responding to current challenges.” (page 75)
On April 14, 2011, over 40 people gathered for a discussion on the future of Needham Street. Attendees broke into randomly-assigned groups facilitated by Planning Department staff for discussion of existing conditions and visions for what Needham Street might become over the next 20 years. A representative from each group presented each group’s vision statement; the statements were then posted on a wall and all attendees had the opportunity to allocate votes (in the form of red dot stickers) to statements that particularly spoke to them. Some of the common themes that emerged and that will be further defined include:

- Transportation. Options should be provided for all modes of travel (pedestrian, bike, transit, automobile) and consideration should be given to reuse of the abandoned rail bed right-of-way for travel parallel to Needham Street.
- Land uses. Future development should include a mix of land uses and open space, which create interest and diversity (such as retail with residential above, offices, entertainment, and pocket parks).
- Connectivity. Master plan should make connections in and around the corridor and should integrate adjacent neighborhoods and connect to nearby villages.
- Destination. Needham Street should be a destination that is safe, has a sense of place, and is youth-friendly.
- Aesthetics. Improvements should be aesthetically pleasing and should balance land uses and open space.
During the Summer of 2011, the Planning Department conducted a survey of businesses on the Needham Street Corridor. While some members of the business community were involved in other public meetings, the City wanted to make a concerted effort to learn about how the businesses on the corridor use the street today, how their employees commute to work, and what types of improvements would be at the top of their list to ensure that Needham Street remains a viable and thriving corridor for many types of businesses. Out of approximately 200 businesses, 53 completed surveys were returned and analyzed. Many businesses have been on the corridor for many years (see image on page 17), and one set of questions sought to understand the factors that attract them to the corridor. To the question, “In locating your business on Needham Street, how important were the following factors?” 92% said that “the public’s awareness of Needham Street” is “important” or “very important;” 88% said that “the availability of parking” is “very important;” the majority also said that “cost/rent,” “space that meets your needs,” and “proximity to customer base” are “very important.” Data about commuting patterns helped inform the transportation alternatives section on page 9.

**How important would the following factors be in helping your business thrive on Needham Street and in attracting other businesses to Needham Street?**

- **Repaving the Street.** 24 said “very important” and 10 cited this as the most important factor in the next 2-3 years.
- **Major Reconstruction to Improve Traffic Flow.** “Improving traffic flow” was the most popular response cited by half of the respondents as the most important factor in the next 2-3 years, while “major reconstruction” was noted by several others.
- **Improving Sidewalks and Crosswalks.** 98% said important or very important, and one noted “encourage walking as if Needham Street to Oak to Winchester is one large plaza.”
- **Adding New Retail/Office with More Density.** While this factor received a range of answers, some respondents noted, “affordable, reasonable places for workers to eat are kept” and “it would be helpful to repair side streets and keep developing retail in those directions as well.”

**What is the peak day and time for your business?** This question led to a variety of responses, and all of the times considered “peak” are shown in the image below.

In addition to morning and evening rush hours, the nature of the businesses on Needham Street, including home improvement and other destination retail, means that there is also significant lunchtime and weekend traffic.

<table>
<thead>
<tr>
<th>Time</th>
<th>a.m. rush</th>
<th>lunch</th>
<th>afternoon</th>
<th>p.m. rush</th>
<th>weekend</th>
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<tbody>
<tr>
<td></td>
<td>13%</td>
<td>36%</td>
<td>45%</td>
<td>30%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Ongoing engagement, advocacy, & planning

2011 - 2013

Property Owner Meetings. The City of Newton Planning and Development staff have been in ongoing, open conversations with property owners along the Needham Street Corridor for many years. The most recent communication has focused on one-on-one meetings with those who might be most directly affected by proposed changes due to the MassDOT road reconstruction to ensure that they have a voice in the process.

Advocating for funds at the State and regional levels. Newton officials are strong advocates for the Needham Street Corridor with the Boston Metropolitan Planning Organization (MPO), MassDOT, and the Massachusetts Executive Office of Housing and Economic Development. The corridor ranks highly as a regional priority for transportation improvements, and the City continues is seeking funding for design and construction from several sources.

Road repaving and restriping. In Summer 2013, MassDOT crews repaved and restriped Needham Street in accordance with their regular paving schedule of State roads.

Outreach and additional input on Design Principles. During Summer 2013, staff are following up on the June 6, 2013 Community Meeting with additional meetings with the Newton Economic Development Commission, Newton Highlands Area Council, Newton Upper Falls Area Council, and Newton Needham Chamber of Commerce.

Studying transportation implications of alternative future land uses. The City has partnered with the Metropolitan Area Planning Council and the Central Transportation Planning Staff to conduct a study and public workshops in summer-fall 2013. This study will examine the interplay between transportation, market demand, and land use and culminate in a scenario planning workshop in early fall. The results will work to create a robust master plan for Needham Street on Newton’s end of the corridor that will maximize its function and create a balance between economic development, housing and infrastructure that meets local and regional needs.
One interesting feature of the Needham Street corridor is the railroad tracks that parallel and bisect the street. The tracks that bisect the corridor at the South Meadow Brook and then parallel the corridor on the south/east side are owned by two private property owners. A second set of tracks parallels the street to the north/west and extends from the Eliot Street Department of Public Works yard very near the active MBTA Green Line down to the Charles River and across to the Town of Needham. This includes an 80-foot wide right-of-way that is owned by the MBTA and that the Commonwealth of Massachusetts reserves the right to retain for future public transportation and not for vehicular use. The existing old rails and ties would not be used for future rail service, in any event.

**Upper Falls Greenway.** The City has been working with local rail trail advocates to pursue the creation of a recreational trail and bicycle path known as the “Upper Falls Greenway.” The City has contracted with Iron Horse, a company that specializes in such work, to remove the rails and ties and leave the right-of-way with a stone dust surface suitable for walking and cycling at no charge to the City. This work is slated to take place in October 2013. After the stone dust trail is in place, additional amenities can be added to help make this an effective “rails-to-trails” project similar to those that have been successful in many other parts of Massachusetts and the nation, while still retaining potential future shuttle bus or rail transit service.

**MAPC Needham/Newton Rail Right-of-Way Transit Concept.** In Winter 2012-2013, the Metropolitan Area Planning Council (MAPC) produced a feasibility study tasked with developing a concept of operations for transit service on the right-of-way to better understand how a bus shuttle service might serve future growth and economic development in the area along Needham Street in Newton and Highland Avenue and the New England Business Center in Needham. The report studied several alternatives and concluded that additional data on ridership estimates, as well as solving some physical challenges of the right-of-way, are needed to fully vet the costs and benefits of a shuttle service.
Concurrently with the Master Plan effort, the design for the roadway reconstruction is proceeding, led by the Massachusetts Department of Transportation (MassDOT). One goal of the design is to reduce conflict points by consolidating driveway openings, adding raised medians, and eliminating the current unsafe condition whereby cars back out at certain driveways onto the street. The plan aims to improve traffic circulation by dedicating well-placed left turn lanes which provide queueing space for cars waiting to turn and allow through traffic to proceed. Pedestrian accommodations will be provided through continuous sidewalks that are both ADA- and MAAB-compliant. Bicycle accommodations will be provided through either a bike lane (5 feet) or shoulder (4 feet).
Development principles serve as an important guidepost for creating and building consensus around a master plan for the corridor, as well as broadly guiding future implementation. They help to define the design intentions of the plan, and to that end, set the stage for the future vision of the corridor. This page describes five proposed development principles based on the MIT “Envisioning Needham Street” study, stakeholder input, and planning analysis.

1: Promote Mixed-Use Development that Accommodates Industrial, Office, and Retail Uses.

The Needham Street corridor should continue to accommodate industrial, office, retail, and residential uses and incorporate vertical mixed-use developments. Multi-family residential uses bring character and vitality to the area. Commercial development should be encouraged, augmenting the income, employment, and commercial real estate tax bases.

2: Create a More Cohesive and Attractive Place.

A variety of regulatory and non-regulatory actions can help create an identity for Needham Street, promote cohesive design, and enhance the aesthetics of the built environment along the corridor. Community conversations around design attributes, density, building height, street frontage, and other urban design metrics can then be codified through changes to the zoning for the corridor.

3: Foster a Safe, Comfortable, and Efficient Streetscape for All Modes.

Given Needham Street’s significant vehicular traffic flows, it is important both to improve multi-modal access and maintain traffic flow. New infrastructure and development will better accommodate bicycles and pedestrians, offer alternative routes to relieve some of the corridor’s vehicular traffic, and create a streetscape that provides safety and a sense of orientation and place.

4: Connect the Built Environment with Surrounding Ecological Systems and Open Space Network.

We Value:
- Newton as a great City to live and work,
- Walkability,
- A mix of land uses,
- Visible connections to our history,
- Protecting and enhancing our natural resources,
- Expanding transportation options.

To foster sustainability, apply Newton’s ecological priorities to this corridor and tie Needham Street into the regional open space network. This will be encouraged both through site-specific strategies on development parcels and along the streetscape and through large-scale plans for the abandoned rail right-of-way and the watershed.

5: Promote Connections between Parcels and Better Integrate the Street with Surrounding Neighborhoods.

Improving connectivity along the Needham Street corridor and better integrating the street with the surrounding neighborhoods can be encouraged through many interventions. Land uses and the scale of the built environment along corridor edges should be sensitive to the existing surrounding neighborhoods.
DESIGN: Shaping the Future of Needham Street

Transportation/Land Use Scenario Study with MAPC/CTPS
“Envisioning Needham Street” Master Plan
MassDOT 25% Design

IMPLEMENTATION: Putting the policy and infrastructure pieces in place

Rezoning Needham Street: regulating for the development we want & codifying urban design goals
Rediscovering the South Meadow Brook Valley: open space and natural resources planning
Infrastructure Financing: generating public-private partnerships to fund development & infrastructure

CONSTRUCTION: Bringing Needham Street into the 21st century

Upper Falls Greenway construction: a new future for an old railroad track
Undergrounding of Overhead Utility Wires (precedes road construction)
Road Reconstruction (timeline dependent on funding)

This report was prepared as a prelude to the forthcoming Master Plan: to update the public on past work and current plans, and to guide City staff as we continue to listen and learn, to vision and to plan for a more sustainable future for the Needham Street Corridor. The goals that have emerged from this work revolve around five overarching Design Principles. The Master Plan will expand on these principles and include recommendations and scopes of work for the three Implementation projects focused on (1) zoning and urban design, (2) natural resources, and (3) infrastructure finance. Woven throughout the fabric of all phases of planning for Needham Street is sustained community engagement. Staff will work with property owners to realize their goals for individual properties.

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