Route 9 Enhancement Study and Plan

Recommendations

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Prepared by
Metropolitan Area Planning Council

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Purpose

The Route 9 Enhancement Study and Plan is comprised of two distinct phases. Phase 1 consisted of an inventory and assessment of existing conditions and the identification of issues and opportunities. Accepted by the Town of Wellesley's Planning Board on March 7, 2016, an *Issues and Opportunities* report identified major issues and opportunities along the Route 9 corridor. The identified issues and opportunities were compiled from a wide range of sources including the *Inventory and Assessment of Existing Conditions* report, recently completed studies prepared for the Town of Wellesley, fieldwork, Stakeholder feedback, a Public Forum held as part of Phase 1, and an on-line survey. This report outlined issues and opportunities within ten key topic areas:

Traffic	Water Management and Natural Resources
Roadway Design	Natural Gas Leaks
Pedestrians and Bicyclists	Maintenance
Specific Sites	Corridor Aesthetics and Identity
Public Transportation	Governmental Collaboration

Phase 1 purposely did not reach conclusions or provide recommendations for the Town of Wellesley. Rather, the *Issues and Opportunities* report serves as a framework to facilitate further discussion and analysis as well as help develop goals and recommendations for Phase 2 of the Route 9 Enhancement Study and Plan. Using the ten key topic areas as a framework, Phase 2 further develops and prioritizes the Town of Wellesley's goals and recommendations for the corridor, addressing issues and capitalizing on opportunities. The recommendations in this report are for the Town to consider when determining improvements along the Route 9 corridor. The following table summarizes the recommendations for each of the ten key topic areas. An implementation-based report, this plan identifies actions necessary to implement goals and recommendations while taking funding sources and ease of implementation into consideration.

The efficient operation of the Route 9 corridor is critical to the vitality of the Town of Wellesley. It is important to be aware that since Route 9 is a state road and under jurisdiction of the Massachusetts Department of Transportation (MassDOT), many of the recommendations outlined in this report will require collaboration and approval from this agency. Implementing the goals and recommendations is expected to benefit both residents and businesses as well as create more vibrancy and activity along a corridor where vehicular travel dominates the landscape.

This plan proposes refocusing Route 9 from its role as a regional traffic conduit to strengthening its role as a residential roadway. The recommendations in this plan are intended to designate a safe and sustainable roadway that supports multiple modes of travel. Traffic and safety improvements and design principles are outlined to accomplish this. In sum, by addressing specific issues created primarily by traffic impacts and reinforcing the corridor's assets, Wellesley's local identity can advance.

Key Topic Areas and Recommendations

Topic Area	Recommendation
1	TRAFFIC
1 a	Implement Traffic Signal Enhancements that Benefit Pedestrians and Bicyclists
1 b	Install Dilemma-Zone Detection Systems at Signalized Intersections
1 c	Utilize Speed Monitoring Trailers or Signs to Inform Drivers of their Speeds
1 d	Develop Ongoing Data Collection and Monitoring Programs
2	ROADWAY DESIGN
2 a	Install and Reconstruct Sidewalks along the Entire Length of Route 9 to the Extent Feasible
2 b	Adjust Guardrail Placement where Feasible and Warranted
2 c	Improve Guardrail Aesthetics by Working with MassDOT to Develop a Consistent Specification for the Route 9 Corridor
2 d	Install Pedestrian Crossing Signs at Crosswalks
2 e	Ensure ADA Compliance by Working with MassDOT to Develop a Transition Plan and Utilize MassDOT's Curb Ramp Assessment Tool
2 f	Clearly Mark Crosswalks at Signalized Intersections
2 g	Add Medians at Intersections with Crosswalks
2 h	Create an Access Management Plan to Enable Safe Access for Pedestrians and Bicyclists
2 i	Apply for Green Community Designation to be Eligible for Green Community Grant Funds to Install LED Lights
2 j	Install LED Streetlights for Route 9 as Part of a Town-Wide LED Streetlight Retrofit
2 k	Explore the Installation of Pedestrian Scale Lighting
2 l	Consider Realigning the Placement of Light Poles in the Event of Relocation
3	PEDESTRIANS AND BICYCLISTS
3 a	Work with MassDOT to Explore Opportunities for Dedicated and Separate Bicycle and/or Multi-Modal Paths
3 b	Expand and Connect the Wellesley Trails Network in the Vicinity of Route 9
3 c	Implement a Vision Zero Program
3 d	Expand Safe Routes to School (SRTS) Programs
4	SPECIFIC SITES
4 a	Route 9/Kingsbury Street Intersection Reconfiguration
4 b	Route 9 Reconstruction Project
4 c	Prioritize Intersections and Sites for Improvements

5	PUBLIC TRANSPORTATION
5 a	To Encourage the use of Public Transportation, Explore Designating Bus Stops along Route 9 to Serve the MWRTA's Bus Route 1
6	WATER MANAGEMENT AND NATURAL RESOURCES
6 a	Advocate that MassDOT be Required to Adhere to the Same Standards of Stormwater Management as the Town
6 b	Work with MassDOT and Developers to Institute Low Impact Development (LID) Techniques along Route 9 to Improve Stormwater Management
6 c	Advance the Boulder Brook Culvert Project
6 d	Make Improvements to Identified Locations with Drainage Issues
7	NATURAL GAS LEAKS
7 a	Review and Advocate for Adopted and Pending Legislation
7 b	Ensure all Gas Leaks along Route 9 are Fixed Prior to Paving
7 c	Lead Coordination of Roadway Work
7 d	Review MAPC's Study of Natural Gas Leaks
8	MAINTENANCE
8 a	Develop a Comprehensive Maintenance Plan for the Route 9 Corridor
8 b	Annually Prioritize a Top List of Specific Maintenance Issues and Convey to MassDOT
8 c	Develop a Sidewalk Maintenance Plan
8 d	Require Landscaping Operations and Maintenance Plans for Large Commercial Developments
8 e	Establish a Restoration and Preservation Plan for Historic Features
8 f	Adhere to Effective Coordination and Timing of Projects
8 g	Implement Adopt-A-Highway Programs
8 h	Organize Community-Run Cleanup Events and Programs
8 i	Utilize Inmate Work Programs
9	CORRIDOR AESTHETICS AND IDENTITY
9 a	Develop a Tree Protection Plan for the Route 9 Corridor
9 b	Install LED Street Lights with Attention to Aesthetics
9 c	Explore Placement of Overhead Wires Underground
9 d	Ensure Prevention of Double Poles
9 e	Pursue the Installation of Multimodal Wayfinding Signs
9 f	Identify Historically Significant Features
9 g	Establish Gateways at the East and West Entrances of Route 9
9 h	Support and Encourage Use of New Roadway Technologies
10	GOVERNMENTAL COLLABORATION
10 a	Develop a Working Strategy among Wellesley's Residents, Business Community, Town Government, and the State
10 b	Undertake a Comprehensive Public Outreach Campaign

TOPIC AREA 1
TRAFFIC

Recommendation 1 a
Implement Traffic Signal Enhancements that Benefit Pedestrians and Bicyclists

Signal timing can have a positive effect on the safety and efficiency of a corridor. Appropriately designed, operated, and maintained, traffic signals can provide for the smooth flow of traffic and reduce accidents for vehicles, pedestrians, and bicyclists. Although traffic signals along Route 9 are under the jurisdiction of MassDOT, the Town can work with the State to encourage implementation of various traffic signal enhancements intended to benefit pedestrians and bicyclists at existing signalized crossing locations along Route 9. These enhancements include:

Installing Countdown Signals
Install countdown signals that provide pedestrians with information about the amount of time remaining at a crossing interval. According to the Manual of Uniform Traffic Control Devices (MUTCD), countdown pedestrian signal indications should be used at traffic signals wherever warranted. Using WALK/DON'T WALK pedestrian signal indications at signal locations are important in many cases; when vehicle signals are not visible to pedestrians, when signal timing is complex (e.g., there is a dedicated left-turn signal for drivers), and for wide streets.

Locating Pedestrian Pushbuttons
Pushbuttons should be easily available for pedestrians. They should be easily activated and conveniently located near each end of the crosswalk, between the edge of the crosswalk line and the side of a curb ramp.

Recommendation 1 b
Install Dilemma-Zone Detection Systems at Signalized Intersections

A technology that can both improve intersection safety and reduce congestion is the installation of Dilemma-Zone Detection Systems[1] at signalized intersections. Dilemma-Zone Detection Systems modify traffic control signal timing by reducing the number of drivers that may have difficulty deciding whether to stop or proceed during a yellow phase. For safety purposes, the timing of the yellow phase may be adjusted to allow a vehicle to pass through the intersection. As a result, the potential for vehicles to illegally continue into an intersection during the red phase is reduced. The decision to adjust the timing of the yellow phase is based on observed vehicle locations and speeds of the detection system's equipment (e.g.; cameras and radar).

Dilemma-Zone Detection Systems:

- Reduce the frequency of crashes. Specifically, rear-end crashes associated with unsafe stopping and angle crashes due to illegally continuing into the intersection during the red phase.

- Reduce the overall delay at an intersection by managing the frequency at which vehicles stop.

There are plans to install a Dilemma-Zone Detection System at the Route 9 and Kingsbury Street intersection. Other signalized intersections along the Route 9 corridor should be evaluated for Dilemma-Zone Detection Systems and, if deemed warranted, be installed.

Recommendation 1 c
Utilize Speed Monitoring Trailers or Signs to Inform Drivers of their Speeds

MassDOT has the authority to designate speed limits over every road in Massachusetts. Chapter 90, Section 18 of the Massachusetts General Laws (MGL) requires posted speed limits to be established through the issuance of special speed regulations. On State Highways, MassDOT is responsible for conducting an engineering study to establish a speed regulation on state highways.

A requirement to establishing speed regulations and posting speed limits is to conduct a comprehensive engineering study at each location where speed control is considered. The purpose of this study is to establish a speed limit that is safe, reasonable, and self- enforcing. An important step of this study is to measure the prevailing speeds of drivers on a particular section of a roadway under ideal conditions. The speed at or below which 85 percent of drivers travel passing a given point – frequently referred to as the 85th percentile speed - is the principle value used for establishing speed control and is the national standard for establishing safe speed limits. The MassDOT Procedures for Speed Zoning on State and Municipal Roadways contains additional information regarding engineering studies and establishing posted speed limits.

The majority of Route 9 is signed for 50 mph with the exception of the vicinity between the Fire House and Oakland Street where the signed speed limit is for 40 mph for both eastbound and westbound traffic. The figure below and the straight line diagrams from MassDOT's Massachusetts Route Log Application provided in *Appendix A* illustrate the changes in speed limits along Route 9 in both directions.

Posted Speed Limits along Route 9

Sources: Google and Bing

Drivers approaching a speed monitoring awareness trailer temporarily set up alongside a roadway will see the posted speed limit displayed, as well as their vehicle's speed as detected by a radar gun within the trailer. Trailers can also record the total number of vehicles and their average speeds during the

times they are monitoring traffic. Determining where to place a trailer can be based on previous accident and speeding locations as well as requests from the public. Speed monitoring signs serve the same purpose as a trailer except that the location is permanent. Both speed monitoring trailers and signs are educational devices that promote driver awareness and safe travel and are proven to reduce driving speeds. Coordination and approval from MassDOT would be necessary if the Town were interested in having a speed monitoring trailer or sign on Route 9.

Speed Monitoring Trailer

Source: Town of Plymouth Police Department

Speed Monitoring Sign

Source: Radarsign.com

Recommendation 1 d
Develop Ongoing Data Collection and Monitoring programs

Placing permanent or temporary sensors along the Route 9 corridor to monitor traffic conditions and obtain modal counts should be explored. Video monitoring should be considered to analyze traffic patterns and better understand interactions between vehicles, pedestrians, and bicycles. Miovision, which has been used by MassDOT, is an example of one such company.

Data collection and monitoring is important for various reasons which include:

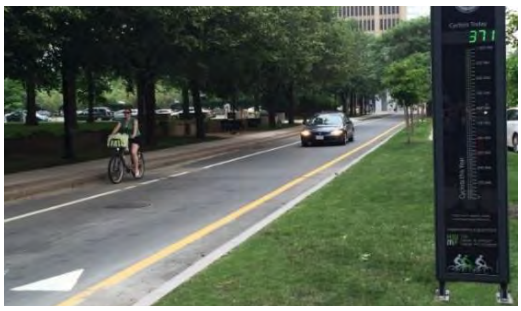
- Measuring pedestrian and bicycle patterns on sidewalks and at intersections.
- Establishing before and after counts to substantiate new investments in roadway projects.

With this information, the Town will be in a stronger position to recommend projects that will improve the efficient and safe movement of all modes along the Route 9 corridor.

Best Practice

Eco-Counter, a Montreal-based company, produces counters which automatically count pedestrians and bicyclists using detectors and publically displays the information on a monitor in 'live-time.' An Eco-Totem counter is located on Broadway in Cambridge. The number of bicycle trips recorded by this Eco Totem counter can be tracked live remotely. The company also manufactures portable, real-time displays which can be used to promote bike to school or work programs.

Totem Bike Counter (Cambridge)



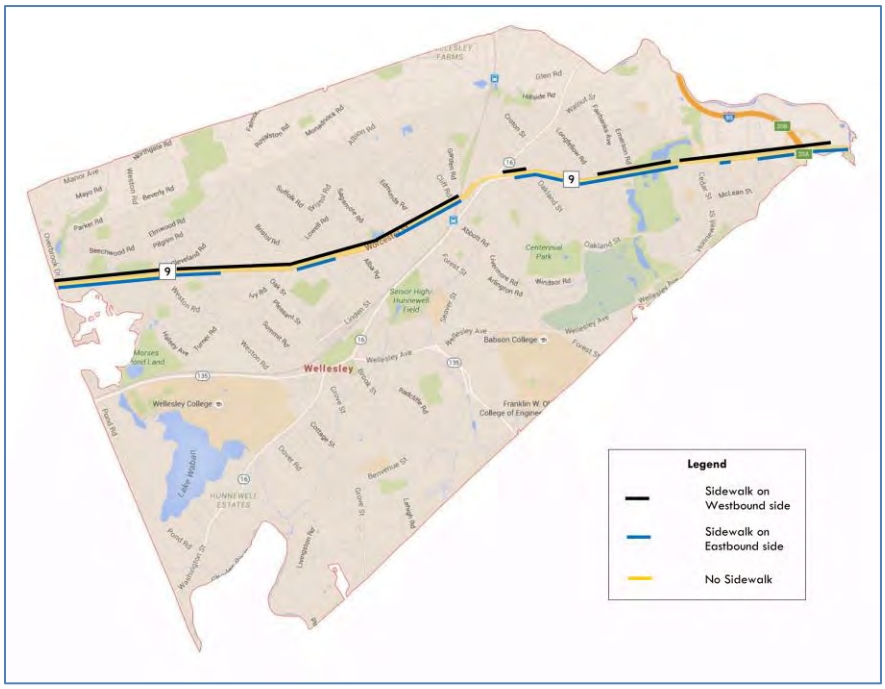
Source: City of Cambridge.gov

TOPIC AREA 2
ROADWAY DESIGN

Recommendation 2 a
Install and Reconstruct Sidewalks along the Entire Length of Route 9 to the Extent Feasible

Sidewalks play a key role in providing critical connections, help create a sense of place, and encourage Pedestrian activity. Sidewalks must be safe and accessible for all users and have unobstructed pathways. According to the figure below, approximately 85 percent of the westbound side of Route 9 has sidewalk coverage whereas the eastbound side is covered to a lesser extent (approximately 70 percent). Coverage along the eastbound side is sporadic. Sidewalk coverage along the westbound side of Route 9 is fairly consistent with the exception of a section between Cliff Road and Longfellow Road. It should be noted that instead of pedestrians and bicyclists can utilize a 'carriage road' as well as the Route 16 bridge on and off ramps which run parallel to Route 9.

Estimated Sidewalk Coverage along Route 9



Sources: Google and Bing

Note: Sidewalk coverage illustrated does not designate sidewalk condition, only if a sidewalk is present.

New sidewalks should be added and old sidewalks replaced in a comprehensive manner along both sides of Route 9 to the extent feasible. Comprehensive sidewalk coverage will encourage safe walking and an alternative for bicyclists to ride either in the shoulder or travel lane. The Town should develop priority locations to add or reconstruct sidewalks.

According to MassDOT's *Project Development and Design Guide* (2006), the minimum width for a sidewalk is 5 feet excluding the width of the curb. MassDOT's *Project Development and Design Guide* states that if a sidewalk is not buffered from vehicular traffic, then the desirable total width for a curb-attached sidewalk is 6 feet in residential areas and 8 feet in commercial areas (15.4 Sidewalks-Clearances).

Recommendation 2 b
Adjust Guardrail Placement where Feasible and Warranted

An important safety feature, the primary purpose of guardrails is to prevent vehicles from leaving a roadway and from colliding with objects that have a greater crash severity potential than the guardrail itself. By redirecting vehicles in a controlled manner, guardrails along a road edge reduce the number of fatalities and serious injuries. However, since guardrails introduce an additional potential object to crash into, their placement should be carefully considered.

The standard guardrail types used by MassDOT are W-Beam or Thrie Beam. W-Beam is usually on the right side (shoulder side) of the roadway but may also be used on the left side (median side) of the roadway, provided there is sufficient impact deflection clearance. In areas where additional coverage is necessary, Thrie Beam guardrail is used. W-Beam and Thrie Beam guardrails are typically constructed from standard galvanized steel and have a corrugated face. The details of MassDOT's standard guardrail types can be found in Section 4, Highway Guard Rail and Fences, of MassDOT Construction Standard Details (June 2014).

Thrie Beam Guardrail (foreground) and W-Beam Guardrail (background)

Route 9 at Willow Street looking west.
Source: Google

The installation of guardrails needs to follow specific criteria, or warrants, that justifies their installation. MassDOT follows the criteria in AASHTO's *A Policy on Geometric Deign of Highways and Streets* (2011) to evaluate whether the installation or removal of a guardrail may be warranted. The Roadside Design Guide also provides detailed information on the selection, design, and installation of guardrails. Guardrails should only be installed where, after careful review, a warrant requires their installation. Once it is determined whether to install a guardrail, design procedures, as detailed in the Roadside Design Guide, need to be followed to ensure the guardrail is installed appropriate for the location. It is important to note that there is no 'one size fits all' approach regarding the installation of guardrails[1].

Guardrails have been placed along the Route 9 corridor with vehicles in mind, not pedestrians. This is why, in many cases, guardrails are not located between the sidewalk and the roadway to protect pedestrians. The Town should collaborate with MassDOT to do a comprehensive overview of the guardrails along the Route 9 corridor. This overview should evaluate whether the guardrails are sited in the most effective locations. Moving forward, Wellesley should:

- Advocate for placement of guardrails between the roadway and sidewalk where feasible and warranted as well as based on existing and anticipated pedestrian activity.
- If a guardrail is not placed between the roadway and the sidewalk, a landscaped buffer should be planted.

[1] *Town of Weston Guardrail Overview Report*, Nitsch Engineering, July 2016.

Recommendation 2 c
Improve Guardrail Aesthetics by working with MassDOT to Develop a Consistent Specification for the Route 9 Corridor

The Town should work with MassDOT to develop a consistent specification for the Route 9 corridor. There are alternative guardrail types that serve the same safety functions, but are considered more aesthetically pleasing compared to W-Beam and Thrie Beam. Two examples of alternative guardrail types are Cor-Ten and Poly-Coated.

Cor-Ten is a weathering steel that rusts to a natural brown finish and had a more subdued look compared to galvanized steel guardrails. Poly-Coated guardrails are essentially painted over galvanized steel via a powder coating process. This type of guardrail can be coated in a wide variety of colors (e.g., gray, brown, green).

It is recommended that maintenance and costs be evaluated prior to investing in any new guardrail type. If the Town is interested in trying a new guardrail type, a small test area should be designated along the corridor for evaluation as a pilot.

Cor-Ten Guardrail

Route 20 (Boston Post Road) in Wayland (westbound)
Source: Google

Poly-Coated Guardrail

Soldiers Field Road in Boston (westbound)
Source: Premier Fence

Recommendation 2 d
Install Pedestrian Crossing Signs at Crosswalks

Considered one of the most common signs used to promote pedestrian safety, pedestrian crossing signs provide visual cues for drivers to decrease speeds and look for pedestrians in crosswalks. Pedestrian crossing signs should be installed close to traffic lights and crosswalks. Solar powered flashing crossing signs that are activated by pedestrians prior to crossing should be considered as an option.

Pedestrian Crossing Sign

Dearborn Street and Route 9 (eastbound) in Wellesley

Recommendation 2 e
Ensure ADA Compliance by Working with MassDOT to Develop a Transition Plan and utilize massDOT's Curb Ramp Assessment Tool

ADA guidelines require all pedestrian crossings be accessible to people with disabilities by providing curb ramps. Curb ramps also benefit people pushing strollers, grocery carts, suitcases, or bicycles. While there are a variety of standard curb ramp designs, curb ramps must include ADA compliant detectable warning strips to alert people who have visual impairments that they are about to enter a roadway. The detectable strips are critical for visually impaired pedestrians to find the location and direction of crosswalks.

MassDOT Transition Plans

MassDOT is undertaking a comprehensive re-evaluation of its policies, programs, services, and facilities to determine the extent to which individuals with disabilities may be restricted in their access to these services and activities. MassDOT's ADA/Section 504 Transition Plan guides the planning and implementation of necessary program, activity, and facility modifications over the next several years.

In the near future, MassDOT and the Federal Highway Administration will be hosting workshops designed to guide municipalities to develop effective ADA transition plans. The workshops will provide resources supporting municipal compliance activities through a federal and state focus on the public right-of-way. Evaluation, collection strategies, transition plans, and funding opportunities will be addressed in these workshops.

MassDOT's Curb Ramp Assessment Tool

It is critical to ensure that curb ramps and sidewalks provide accessible and usable paths of travel for pedestrians with disabilities, especially those in wheelchairs. In an effort to achieve this goal, MassDOT developed a Curb Ramp Assessment Tool which collected information and images of approximately 26,000 pedestrian curb ramps on roadways over which MassDOT has jurisdiction. The data is helping MassDOT to prioritize locations where sidewalks need to be brought up to ADA standards for access.

MassDOT has collected data for almost 200 ramps along Route 9 in Wellesley using the Curb Ramp Assessment Tool. The Town should work with MassDOT to evaluate information from this tool to identify locations where sidewalks should be brought up to ADA standards in order to improve access along the Route 9 corridor. This data can also be utilized to assist Wellesley to develop a prioritization plan as part of a Complete Streets program.

MassDOT is interested in working with municipalities to develop their own ADA Self Evaluation and Transition Plans. MassDOT has applied for a federal Innovation Grant that will enable the agency to continue development of the Curb Ramp Assessment Tool so that it may be shared with all municipalities in an effort to assist them to develop their own ADA Self Evaluation and Transition Plans. If awarded, MassDOT will be looking for several municipalities to pilot the program.

Recommendation 2 f
Clearly Mark Crosswalks at Signalized Intersections

Crosswalks give a clear indication to pedestrians as to where they should cross Route 9 as well as alert drivers of pedestrian crossings. Well designed and maintained crosswalks serve a variety of functions that include: reducing vehicle speeds, improving pedestrian visibility, and creating safer walking environments. Crossings along Route 9 are neither high visibility nor well-maintained.

Crosswalks should be enhanced at the signalized intersections along the Route 9 corridor (entrance to Sun Life Financial and Harvard Pilgrim Health Care, Oakland Street, Cliff Road, Kingsbury Street, and Overbrook Drive). Clearly marked crosswalks will promote safe pedestrian travel across the corridor, as well as help provide connectivity to adjacent neighborhoods.

Measures to implement this recommendation include:

- Stripe crosswalks using the continental style or "ladder" design.
- Contrast the surface treatment with the asphalt by painting crosswalks in a color, pattern, texture, or material (e.g., brick pavers) that stands out against the street.
- Crosswalk markings should consist of non-skid, reflectorized thermoplastic. On new pavement, thermoplastic markings should be recessed when possible so that the surface of the marking is flush with the pavement to reduce maintenance needs and provide a smooth, accessible surface.

Example of a Continental Style or "Ladder: Design Crosswalk

Boston, Massachusetts
Source: US DOT/FHWA

The recent design work by MassDOT at the Route 9 and Kingsbury Street intersection sets a precedent for such crosswalk design.

Recommendation 2 g
Add Medians at Intersections with Crosswalks

Medians can be used to both improve pedestrian crossings and provide opportunities to add landscaping. Medians with crosswalks can serve as safe refuges since they reduce crossing distances by enabling pedestrians to cross roadways in two stages. They can also be designed to absorb stormwater. While this may not be feasible at all intersections, examples include Kingsbury Street and Overbrook Drive.

Recommendation 2 h
Create an Access Management Plan to Enable Safe Access for Pedestrians and Bicyclists

Several commercial properties along Route 9 have wide driveways in and out of their parking lots which serve as conflict points between vehicles and pedestrians/bicyclists. These areas are primarily concentrated along the eastern and western ends of the corridor and in the vicinity of Cedar Street.

As vehicles pull out of parking lots, they often pull into the sidewalk blocking the pedestrian/bicyclist right-of-way. This can result in a situation where a driver may not see a pedestrian/bicyclist leading to a potential accident. The presence of these conflict points can discourage pedestrians and bicyclists from using the Route 9 corridor. An access management plan is intended to improve safety for pedestrians/bicyclists and enhance traffic flow along the roadway.

Access management techniques can be applied to new developments or as retrofits to existing facilities. According to MassDOT, *"access management applies roadway and land use techniques in order to preserve the safety, function, and capacity of transportation corridors. The objective is to ensure roadway safety and efficient operations while providing reasonable access to the adjacent land uses. Access management can also improve the environment for pedestrians, bicycles, and motor vehicles in all settings and on all roadway types by reducing and consolidating driveway conflict points.[2]"* Chapter 15, Access Management, of MassDOT's *Project Development and Design Guidebook,* provides guidelines that address access management techniques and land use controls.

Two measures to implement this recommendation include:

- Providing continuous and clearly delineated pedestrian/bicycle zones across driveways to encourage drivers to yield to pedestrians, as shown in the image below.

Source: http://guide.saferoutesinfo.org/engineering/sidewalks.cfm

- Reviewing legal agreements with owners of adjoining properties to explore the feasibility of sharing private driveways.

One good example of the application of access management techniques along Route 9 was the recent addition of a landscaped median between the sidewalk and parking lot and changes to the parking lot layout at the Dunkin Donuts property east of Overbrook Drive (westbound side).

Source: Bing – July 2015

Source: Google – August 2013

[2] MassDOT's *Project Development and Design Guidebook*, Chapter 15 – Access Management, p 15-1, 2006.

Recommendation 2 i
Apply for Green Community Designation to be Eligible for Green Community Grant Funds to Install LED Lights

All of the approximately 250 streetlights along the Route 9 Corridor in Wellesley are owned and operated by the Wellesley Municipal Light Plant (MLP) and are high-pressure sodium ranging from 150-400 watts. The MLP has $230,000 in approved capital funds to complete a LED (Light-Emitting Diode) retrofit of all existing Route 9 streetlights. The MLP plans to purchase LED fixtures based on a competitive bid.

The benefits of LED lighting include improved safety through enhanced visibility and uniform light quality which contributes to the overall safety of drivers, pedestrians, and bicyclists. LED streetlights can significantly lower municipal electricity consumption and energy bills as well as reduce carbon emissions. LED lights last longer than traditional lighting technologies, meaning they require less overall maintenance, which lowers operating costs. Field tests have shown that, on average, replacing high-pressure sodium street lights with LED lighting can result in energy savings up to 39 percent[3]. LED lighting may also reduce light pollution due to their ability to focus light at targeted areas[4]. In addition, good streetscape lighting lends character to a street, and provides a sense of place and civic pride.

Source: City of Hamilton Ohio's LED Streetlight Master Plan

A funding opportunity the Town of Wellesley can pursue to convert its streetlights along the Route 9 Corridor to LED technology is to first apply for Green Community designation and then apply for a Green Community Grant. Green Communities is a program managed by the Department of Energy Resources (DOER). While it can take approximately a year to attain Green Community designation, once designated, a municipality is eligible to apply for grants for innovative programs that reduce energy usage as well as invest in renewable energy projects. These can range up to $250,000 and the conversion of streetlights to LED is eligible. While the MLP does have plans to complete a LED retrofit of all existing Route 9 streetlights, attaining Green Community designation could allow for future funding opportunities. It is important to note that Green Community designation is currently being explored by the Town.

[3] Based on field data from MAPC's projects, MAPC has seen savings between 50-70% based on differences between the energy use of existing wattages and the replacement LED wattages.

[4] Pacific Northwest National Laboratory. (June 2013). Demonstration of LED Street Lighting. Prepared for the U.S. Department of Energy. Retrieved from: http://apps1.eere.energy.gov/buildings/publications/pdfs/ssl/2013_gateway-msslc_kc.pdf

Currently 155 municipalities in Massachusetts are designated as Green Communities. Several municipalities have utilized funds from this program to fund conversion of streetlights to LED technology. These municipalities include Acton, Arlington, Concord, Dedham, Gloucester, Lincoln, Melrose Salem, Sudbury, and Watertown. Some of these communities, like Melrose, have used Green Communities funding for a portion of the retrofit cost and then used a municipal bond or third-party financing for the remainder of the cost.

To be designated a Green Community space and receive funding, a municipality is required to commit to reducing municipal energy consumption by 20 percent over five years in addition to meeting specific criteria. Although Wellesley was designated by the EPA in 2012 as the first Green Power Community in Massachusetts, it does not yet have Green Community designation[5].

Recommendation 2 j
Install LED Streetlights for Route 9 as Part of a Town-Wide LED Streetlight Retrofit

As 250 streetlights represents a relatively small project, the MLP will be working with the Board of Selectmen regarding the feasibility of a town-wide retrofit. By including the rest of the Town's lights, Wellesley could access third-party financing that would facilitate a retrofit with no upfront cost. Tax Exempt Lease Purchasing (TELP) is the recommended method for paying for LED projects upfront, as it does not affect a municipality's bond rating or debt levy. In most cases, funding comes in the form of a low-cost or market-rate loan that is repaid with project savings over a period of 5-7 years. Municipalities in Massachusetts which have done this include Arlington, Gloucester, Hamilton, Salem, Sharon, Wenham, Winchester, and Winthrop.

If pursuing a town-wide LED streetlight retrofit, it is recommended to hire a professional designer. The designer can perform an inventory assessment of all lights, which includes capturing GPS location, wattage, and other factors relevant to the retrofit design and maintenance. With an accurate inventory and spatial data about the existing streetlights, the designer can then calculate how much illumination different types and wattages of lights will provide along the roads. This information is vital for a municipality to make the final selection of its LED streetlights to install. Additionally, the designer can calculate precise project costs, savings, and paybacks, referred to as an Investment Grade Audit (IGA). The IGA can be used to secure TELP financing.

To execute a town-wide LED streetlight retrofit, the Town has two options:

1) Design & Public Works Construction; or 2) Performance Contracting

<u>1) Design & Public Works Construction</u>
The Town could hire a designer to perform an inventory assessment of the streetlights, design the replacement based on desired light levels, produce an IGA, and, if desired, oversee the installation process. Designs do not typically require stamping by a Professional Engineer, so this service may be procured as a traditional service under M.G.L. c.30B.

The Town could use its own labor for installation, but is not required to. A number of MLPs have used their own labor for installation, such as Reading Municipal Light, Westfield Gas & Electric, and Chicopee Electric Light. Due to limited crews, the projects tend to be phased over a few years. However, hiring an electrical contractor could facilitate installation in as little as a few months. In addition to the MLPs mentioned, the in-progress examples of this option are: Andover, Brockton, Leominster, Warren, Watertown, and Wayland.

[5] In order to attain Green Power Community designation, at least 3% of the electricity must be generated from renewable resources (e.g., wind, solar, geothermal). Wellesley's current community "green power" usage is at 4.12% and has a participation rate of 11%. Participation rate is the percentage of residents and business choosing to use green power for a portion of their electricity use.

2) Performance Contracting

All designer services, IGA, equipment procurement, and installation services can be procured together through a performance contract, under M.G.L. c.25A §11I or §11C. Often called "turn-key" delivery, an energy services company (ESCO) is responsible for all phases of the project. Under the performance contract, the ESCO guarantees savings and performs annual measurement and verification (M&V). The savings guarantee and M&V add value to complex energy efficiency projects, but are generally considered unnecessary for streetlight retrofits. Under this option, it is unlikely that the Town could use its own labor for installation. The ESCO provides the financing and carries the credit and performance risks as well. A variety of options are available, including leasing, depending on the contract[6]. Arlington, Fall River, Gloucester, Hamilton, Melrose[7], New Bedford, Northampton, Salem, Sharon, Somerville, Wenham, and Winchester are examples of municipalities which have implemented streetlight TELP projects using ESCOs.

Procuring Designer or ESCO Services - MAPC LED Street Light Program

Municipalities in Massachusetts have the option to use a collective procurement model to purchase street light fixtures, as well as design and installation services. MAPC assists municipalities with LED street light procurement through an aggregated procurement program. This procurement program involves vendor qualification, development of a street lighting study, and pricing for a comprehensive LED retrofit through a performance contract. Participation greatly reduces administrative time by each municipality and can result in lower prices and increased competition. For further information, refer to http://www.mapc.org/led-street-lighting and MAPC's report, Retrofit Streetlights with LEDs. MAPC has organized five collective procurements on behalf of a total of 27 municipalities that included over 30,000 streetlights.

Recommendation 2 k
Explore the Installation of Pedestrian-Scale Lighting

Explore the installation of pedestrian-scale lighting to illuminate crosswalks, sidewalks, and bus stops. In addition to being decorative, pedestrian-scale lighting conveys to drivers that they should manage their speeds and watch for pedestrians, in turn facilitating their safe movement.

Recommendation 2 l
Consider Realigning the Pedestrian of Light Poles in the Event of Relocation

In the event that a light pole needs to be relocated, consider placing the pole so it aligns with other light poles along Route 9. This will provide a consistent aesthetic look that reinforces sightlines and direction of travel.

[6] http://energy.gov/eere/ssl/financing-options

[7] The City of Melrose recently implemented a townwide Streetlight LED Conversion Project. During the installation, residents were able to follow the LED conversion progress on an interactive map which was updated daily.

TOPIC AREA 3
PEDESTRIANS AND BICYCLISTS

Recommendation 3 a
Work with MassDOT to Explore Opportunities for Dedicated and Separate Bicycle and/or Multi-modal Paths

While the fog line can serve as a recognized accommodation for bicyclists, both MassDOT and the Town are hesitant to encourage bicycle use on Route 9 given vehicle volumes and speeds. However there may be opportunities to accommodate dedicated and separate bicycle and/or multi-modal paths along some areas of Route 9. The Town should work with MassDOT to explore the feasibility of advancing these connections.

Recommendation 3 b
Expand and Connect the Wellesley trails Network in the Vicinity of Route 9

Crosstown Trail

The Crosstown Trail starts at the Wellesley/Natick town line, accesses the Morses Pond Area, and then follows the Cochituate Aqueduct. The Crosstown Trail crosses Route 9 at Overbrook Drive, not at the aqueduct. Although expensive, an overpass or underpass could allow for continuous trail access across Route 9. The feasibility of implementing either an overpass or an underpass (e.g., using the aqueduct tunnel) should be explored further, perhaps by the future developer of 900 Worcester Street.

Town Forest and MassBay Community College

Explore expanding Wellesley's trail network to connect to Town Forest and MassBay Community College.

Costs and land rights issues related to expanding and/or connecting the Wellesley trails network should be reviewed as part of this recommendation.

Recommendation 3 c
Implement a Vision Zero Program

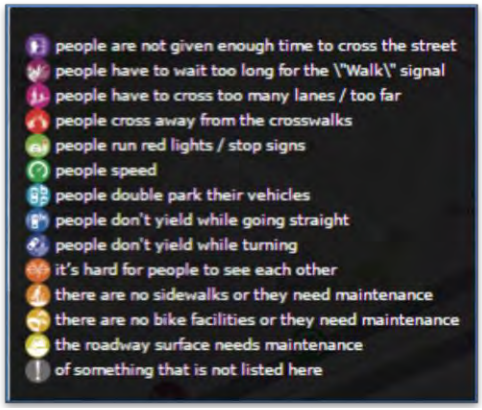
Vision Zero is a multi-national road traffic safety project that aims to achieve a highway system with no fatalities or serious injuries in road traffic. Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all. The concept of Vision Zero originated in Sweden in 1997, when it was adopted as the official road policy by the Swedish parliament. Since that time, Vision Zero has been widely credited by significantly reducing fatal and serious crashes.

Implementing a Vision Zero program can be started by collaborating with the Massachusetts Vision Zero Coalition. In addition to implementing Vision Zero in Boston, the Massachusetts Vision Zero Coalition advocates for the adoption of Vision Zero throughout the state. This new and growing coalition includes community-based organizations, nonprofits, businesses, civic groups and individuals representing communities across the state. Members of the coalition include the Boston Cyclists Union, LivableStreets Alliance, Lyft, Transportation for Massachusetts, and WalkBoston.

Best Practice

In December 2015, the City of Boston launched Vision Zero. Boston's Vision Zero approach to ending fatalities from traffic crashes is based on making streets safer for everyone with a special focus on slowing traffic speeds and improving street crossings. Boston's Vision Zero website contains information including the Vision Zero Action Plan and Core Principles of Vision Zero. Of note, Boston recently launched an interactive Vision Zero safety concerns map. The public is encouraged to use this map by selecting specific locations and submitting comments about their safety concerns. Their responses will be collectively reviewed to inform future Vision Zero efforts. The safety concerns map allows the City of Boston to take proactive steps to improve safety at locations where the public has noted dangerous conditions. The online tool is a critical step toward achieving Vision Zero. It is also worth noting that the Cambridge City Council unanimously passed a resolution[8] to formally adopt Vision Zero in March 2016.

Safety Concerns Map – Issues Identified at Huntington Avenue and Tremont Street



Source: City of Boston's Vision Zero Safety Concerns Map

Recommendation 3 d
Expand Safe Routes to School (SRTS) programs

The Safe Routes to School (SRTS) program promotes healthy alternatives for children and parents in their travel to and from school. The program educates students, parents and community members on the value of walking and bicycling for travel. SRTS practitioners run education and encouragement programs with families and schools as well as advocate for strong municipal policies to support safe walking and bicycling. The most successful SRTS programs incorporate the Six E's: evaluation, education, encouragement, engineering, enforcement, and equity.

SRTS programs can help to reduce traffic congestion and air pollution near schools, while increasing the health, safety, and physical activity of elementary and middle school students. In addition to launching SRTS educational campaigns in elementary and middle schools, participating communities can also use SRTS funds for infrastructure enhancements surrounding schools. These enhancements can include pedestrian and bicycle crossing improvements, secure bicycle parking, and sidewalk improvements.

According to the Massachusetts SRTS website, partner SRTS schools in Wellesley are the Bates Elementary School, Joseph E. Fiske Elementary School, and the Schofield Elementary School. SRTS programs should be expanded to the John D. Hardy Elementary, Sprague Elementary, and the Wellesley Middle Schools. All three schools have connectivity either across or along Route 9.

[8] Resolution starts on page 54.

TOPIC AREA 4
SPECIFIC SITES

Recommendation 4 a
Route 9/ Kingsbury Street Intersection Reconfiguration

MassDOT is planning a roadway resurfacing project for the entire span of Route 9 in Wellesley[9]. Using NHS (National Highway System) funds, this project will focus on pavement resurfacing only (referred to as curb-to-curb). Based on recommendations from past Route 9 studies as well as addressing the Town's longstanding interest in reconfiguring this intersection due to public safety concerns, MassDOT expanded the scope of their resurfacing project to include the reconfiguration of this intersection.

MassDOT and Wellesley collaborated to advance an intersection design that will signalize the turnaround at the existing median. At Town Meeting on April 11, 2016, Wellesley voted to approve $600,000 of Town funds towards this project, approximately 50 percent of the cost to improve the intersection. Improvements to the Route 9/Kingsbury Street intersection are anticipated to commence in the near future, and the resurfacing of the entire corridor is expected to be finalized in 2017. The estimated cost for the entire roadway resurfacing project is $7.3 million.

In working on the design for this project, MassDOT incorporated design improvements, many of which are addressed in this report. These design improvements include dilemma-zone detection signal technology, installation of sidewalks, and the designation of dedicated bus stops for the MWRTA (MetroWest Regional Transit Authority) Route 1 bus. This collaboration has resulted in an intersection design which will be safer for all modes of travel.

It should be noted that the concept of a footbridge across Route 9 has been raised several times by residents as part of the Phase 1 planning process. While there are cost and technical issues (e.g., to be ADA compliant there needs to be enough room for approach ramps), it is not completely unrealistic to implement a footbridge at this location or others sites along the Route 9 corridor. In addition to reducing some vehicular traffic, a footbridge could serve as an impetus for Wellesley to become a model pedestrian and bicycling community.

Recommendation 4 b
Route 9 Reconstruction Project

Currently a conceptual project, the Route 9 Reconstruction project[10] will involve the resurfacing of Route 9 from Dearborn Street to the Natick town line, an approximate project length of 4.8 center miles. The roadway work will include milling and resurfacing, wheelchair ramp upgrades, sidewalk repairs and improvements, signal improvements, new reflectorized lines, and recessed roadway deflectors. Funds to bring this project to 25 percent design or for construction have not yet been identified by MassDOT. When the Route 9 Reconstruction project is underway, there will be additional opportunities for curb relocation, sidewalk widening, and incorporation of landscaping elements.

Recommendation 4 c
Prioritize Intersections and Sites for Improvements

Develop a schedule to prioritize intersection and site improvements along the corridor. As part of the Phase 1 planning process, Kingsbury Street, Oak Street/Westgate Road, and Route 16 (Washington Street), were consistently identified as the top three intersections that should receive priority for intersection improvements. 900 Worcester Street and the Boulder Brook Culvert were identified as specific sites for improvements.

[9] MassDOT ID number 608180 – referred to as Wellesley - *Resurfacing on Route 9, From Limit of Add-A-Lane to East of Overbrook Intersection*

[10] MassDOT ID number 607340

TOPIC AREA 5
PUBLIC TRANSPORTATION

Recommendation 5 a
To Encourage the Use of Public Transportation, Explore Designating Bus Stops along Route 9 to Serve the MWRTA's Bus Route 1

MWRTA Bus Route 1 (Woodland Shuttle) traverses the Route 9 corridor. In spite of strong ridership, there are currently no permanent bus stops along the Route 9 corridor in Wellesley. While the MWRTA plans to designate permanent and protected pick-up/drop-off locations for passengers in the vicinity of the Kingsbury Street intersection, additional pick-up/drop-off locations along the Route 9 corridor should be considered. MWRTA's Bus Route 1 currently operates as a flag down service along Route 9 in Wellesley. Designating bus stops will encourage increased utilization of this bus route.

MWRTA Bus Route 1's ridership should be reviewed on a regular basis to ensure that this route is operating to its fullest potential and determine whether there may be any need for improvements or accommodations. The integration of MWRTA Bus Routes 1 and 8 at Weston Road should also be considered in order to maximize ridership.

Bus stops should be:

- Well-signed and visible.
- Free from obstructions (e.g., sign posts) in the sidewalk area where passengers embark and disembark.
- Placed in turnouts and not interfere with travel lanes.
- Provided equally on both the westbound and eastbound sides of Route 9.
- Accessible and cleared of snow during the winter.

MWRTA Route 1 Bus Stop in Natick

Oak Street and Route 9 (eastbound)

TOPIC AREA 6
WATER MANAGEMENT AND NATURAL RESOURCES

Stormwater is precipitation (rain or snow) that is not naturally absorbed into the ground and "runs off" impervious surfaces such as paved streets, parking lots, driveways, and sidewalks before draining into waterways or waterbodies. Along the way, stormwater runoff can pick up pollutants such as chemicals, dirt, and debris as it travels – untreated - into waterways or waterbodies, contaminating them. The larger the impervious surface area, the more stormwater runoff volume and pollutants impact waterways and waterbodies. Stormwater issues are also created when drainage systems and culverts do not work properly and cause flooding, as a result.

Stormwater runoff is the leading source of pollution to Massachusetts surface waters and groundwater, including recreational and drinking water sources. According to the Town's Drinking Water Consumer Awareness Report for the Year 2014, 78 percent and 22 percent of Wellesley's water comes from local well supplies and the Massachusetts Water Resources Authority (MWRA) respectively. Specifically, Wellesley's local water supply is comprised of ten wells. Four wells tap into the Waban Brook alluvial aquifer (near Morses Pond) and six wells tap into the Rosemary Brook alluvial aquifer. According to the report, the susceptibility of Wellesley's groundwater capture zones is high. Managing stormwater pollution and flooding will significantly protect Wellesley's water and natural resources, particularly, highly sensitive resources including Boulder Brook/Morses Pond, Abbot Pond, and Rosemary Brook.

Recommendation 6 a
Advocate that MassDOT be Required to Adhere to the Same Standards of Stormwater Management as the Town

The Town of Wellesley is subject to the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit for Massachusetts. This permit was newly reissued in April 2016 by the U.S. Environmental Protection Agency. Permit coverage includes municipally-owned or operated stormwater drainage systems and their drainage areas, which includes any impervious surfaces (roads, building rooftops, walkways/sidewalks, driveways, etc.) draining to the system. This reissued permit includes more stringent requirements than the 2003 NPDES permit, such as enhanced education programming, water quality monitoring and pollutant control, and system and drainage area mapping.

While MassDOT is currently subject to the 2003 MS4 permit, the EPA Region 1 website explicitly states that an individual permit will soon be issued for MassDOT with a draft available in the near future. The Town should advocate that when this new permit is issued, MassDOT should be required to adhere to the same standards of stormwater management as the Town.

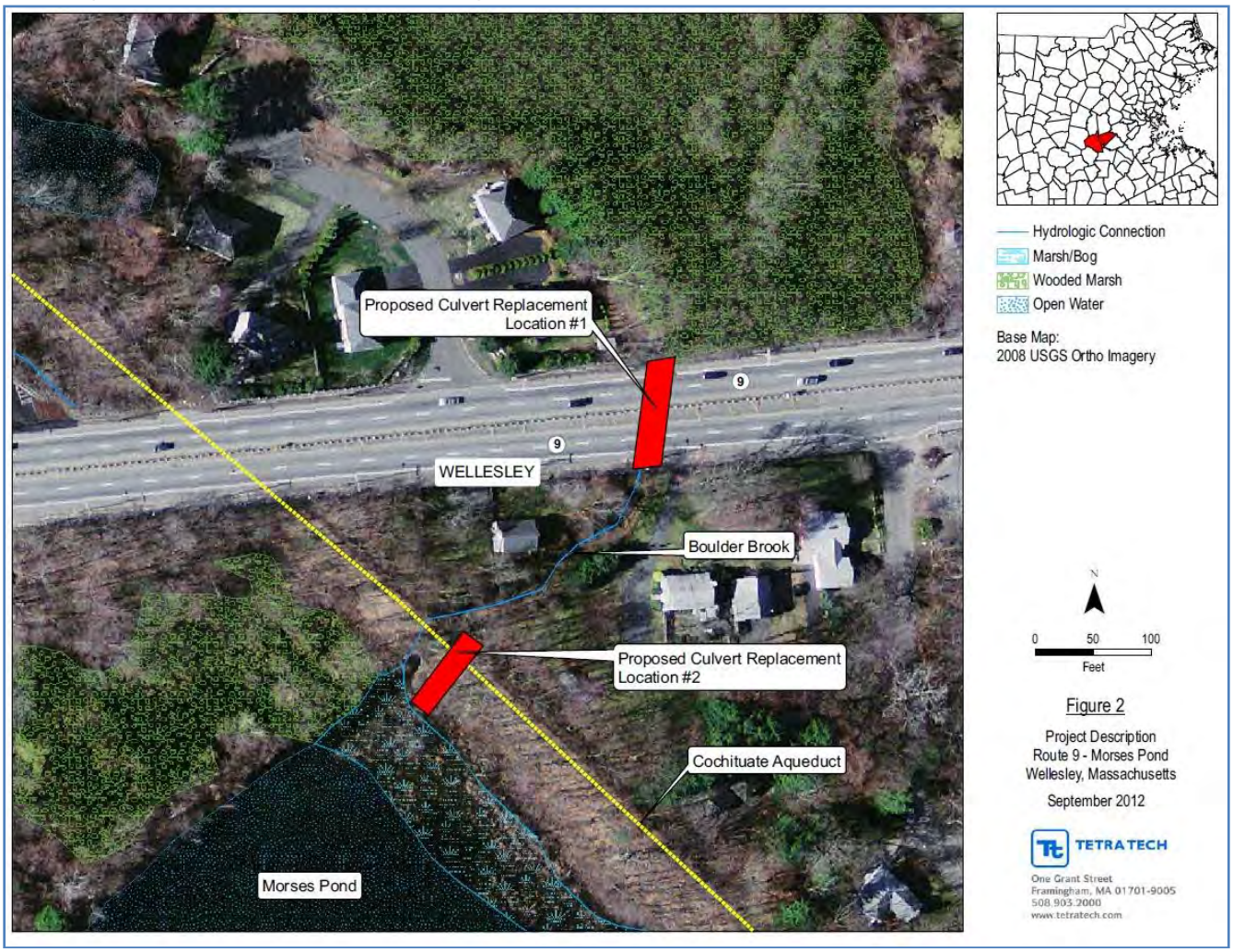
Recommendation 6 b
Work with MassDOT and Developers to Institute Low Impact Development (LID) Techniques along Route 9 to Improve Stormwater Management

The primary principle of Low Impact Development (LID) is to implement better site design strategies that minimize impervious cover and keep water onsite to replenish the local watershed. For example LID techniques include rain gardens, natural swales, and trees. The Town should work with MassDOT to institute LID techniques along the corridor to improve stormwater management. In addition, the Town should incentivize and/or mandate that LID techniques are used in all redevelopment/development proposals. MAPC's Low Impact Development Toolkit contains additional information.

Recommendation 6 c
Advance the Boulder Brook Culvert Project

Drainage improvements along Route 9 Boulder Brook Culvert is a pending MassDOT project[11]. When complete, the drainage improvements will reduce instances of flooding in the neighborhood located proximate to Boulder Brook and Morses Pond primarily between Overbrook Drive and Russell Road. Although 25 percent design plans were submitted in 2013, there has been no design activity since and the project is not on the State's Transportation Improvement Program (TIP) list of projects. When this project advances, MassDOT should utilize the Commonwealth's River and Stream Crossing Standards to ensure that the culvert improvement accommodates fish passage.

Loci Map of the Boulder Brook Culvert Project



Recommendation 6 d
Make Improvements to Identified Locations with Drainage Issues

Areas susceptible to roadway flooding have also been identified along the Route 9 corridor include the vicinity of Town Forest, the Route 16 overpass, and between Shaw Road and Sprague Road.

[11] MassDOT ID number 606530

TOPIC AREA 7
NATURAL GAS LEAKS

Natural gas is sent to homes and businesses through pipes underneath streets for heating. Over time, these pipes can corrode and leak natural gas into the ground, where it percolates up into the atmosphere. Natural gas is primarily methane, a greenhouse gas. It has been determined that over a 20 year period methane is more than 80 times more potent than carbon dioxide as a greenhouse gas, making it a significant contributor to global warming. Natural gas leaks are estimated to account for 10 percent of all greenhouse gases emitted in the state.

In addition to increasing the rate of global warming, methane negatively impacts human health, especially among those with compromised respiratory systems, by polluting the air and contributing to poor air quality. Escaping natural gas also harms the natural environment by suffocating the root systems of plants and trees, which can result in their death. Leaks are also expensive to consumers, who bear the entire cost of the escaped gas. Statewide, unaccounted-for gas exceeds 8 billion cubic feet per year and is valued at 50 million dollars -- all paid for by utility customers.

According to National Grid data reported to the Department of Public Utilities in its 2014 Annual Service Quality Report, Wellesley has 201 unrepaired gas leaks. Of this number, at least 18 are along Route 9. According to the non-profit organization HEET (Home Energy Efficiency Team), the cost to fix an average gas leak is $2,500.

Recommendation 7 a
Review and Advocate for Adopted and Pending Legislation

Adopted Legislation

Bill H.4568, An Act Relative to Energy Diversity

In August 2016, Governor Charlie Baker signed into law an energy bill which for the first time will require the Massachusetts Department of Public Utilities (DPU) and the Department of Environmental Protection (DEP) to evaluate the environmental impact of thousands of leaks throughout the state, and develop a plan for repairing leaks that are determined to be causing significant damage. Utility companies regularly survey pipelines for potentially explosive leaks, but until now, they have not been required to address environmental damage from gas leaks. In conjunction with DEP, the DPU will be developing regulations to determine what the environmental impacts are how they are calculated. The Town should submit comments on these regulations once they are available for public comment.

Pending Legislation

There are two pending bills in the Massachusetts legislature designed to address the issue of gas leaks:

Bill H.2870 - *An Act Relative to Protecting Consumers of Gas and Electricity from Paying for Leaked and Unaccounted for Gas*

This bill would prohibit utilities from passing the cost of wasted gas onto consumers, incentivizing utilities to fix gas leaks as quickly and cost effectively as possible. When a similar bill was passed in Texas, 55 percent of gas leaks were repaired within three years.

Bill H.2871 - *An Act Relative to Gas Leak Repairs During Road Projects*

This bill would require that whenever a street is already open for construction, gas companies check and repair all gas leaks. Repairing leaks before repaving is not only less expensive for utilities, it also decreases the chance a street will need to be reopened afterward for pipeline repairs. As a result, future street repaving needs, costs to the municipality, and disruption to nearby residents and businesses will all be reduced.

Thirty-one municipalities, including Wellesley, have already passed resolutions supporting one or both of these bills. On February 29, 2016, the Town of Wellesley passed a resolution in support of both bills.

Recommendation 7 b
Ensure all Gas Leaks along Route 9 are Fixed Prior to Paving

National Grid has programmed a gas main lining project for calendar year 2017 along Route 9 in Wellesley. It is imperative that there be ongoing coordination between the Town, MassDOT, and National Grid to coordinate all roadway work. The ideal time for National Grid to make utility repairs and upgrades along the Route 9 corridor would be when MassDOT's reconstruction project has commenced and the roadway is 'open.'

Recommendation 7 c
Lead Coordinated of Roadway Work

While it may not be necessary for Wellesley to invest in a centralized database tool, the municipality can act as a 'project manager' to coordinate the needs of utilities to conduct roadway work and the state's responsibility to perform resurfacing or reconstruction work with sufficient lead time.

Recommendation 7 d
Review MAPC's Study of Natural Gas Leaks

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration recently awarded MAPC a federal grant to study natural gas leaks in the region and to assess the approaches municipalities can take to accelerate improvements to the system. In partnership with HEET, MAPC is leading a one-year project to perform independent surveys of gas leaks and collect municipal street repair planning and utility collaboration practices from cities and towns in the MAPC region. By combining leak survey data with municipal coordination practices, MAPC seeks to chart an improved course for municipalities and utilities to work together to reduce methane leakage. MAPC expects to release results from the project, including best practices for street repair planning and utility coordination, during the summer of 2016.

Once released, the Town should review this report. The report's recommendations and best practices should provide further guidance regarding the identification of gas leaks and collaboration with utilities for their repair.

TOPIC AREA 8
MAINTENANCE

Since Route 9 is a State road, overall maintenance of the roadway and its right-of-way is the responsibility of the State[12]. These maintenance responsibilities include: guardrails, landscaping, medians, pavement markings, paving, sidewalks, signage, snow removal, street sweeping, and traffic signals. The Town of Wellesley is responsible for maintaining streetlights along the Route 9 corridor.

While MassDOT District 6 does have a maintenance plan in place, the agency is significantly understaffed and does not have the capacity to effectively implement its maintenance plan. Consequently, MassDOT reacts primarily to complaints resulting in maintenance being carried out on a piecemeal basis. This has resulted in a lack of overall maintenance for the Route 9 corridor. However, there are measures the Town, residents, property owners, and businesses could implement to improve the corridor. In turn, a successful maintenance plan will ensure the safe and efficient operation of the Route 9 corridor.

Recommendation 8 a
Develop a Comprehensive Maintenance Plan for the Route 9 Corridor

A comprehensive maintenance plan should be developed that will ensure the appropriate maintenance of existing infrastructure as well as the implementation of planned improvements for Route 9. The maintenance plan should:

- Continually examine immediate and future funding sources.
- Program, plan, design, and execute road improvements.
- Establish a public relations component to communicate goals and objectives.
- Inform residents who to contact regarding specific maintenance issues (e.g., MassDOT or the Town)
- Strive to achieve a standard and coordinated level of care.

Recommendation 8 b
Annually Prioritize a Top List of Specific Maintenance Issues and Convey to MassDOT

With feedback from residents, property owners and businesses, the Town should annually develop a top list of specific maintenance issues and convey them to MassDOT as part of the comprehensive maintenance plan. Subsequently, Wellesley should work with MassDOT to resolve the identified maintenance issues.

[12] A right-of-way is a type of easement granted or reserved over land for transportation purposes –such as for a highway. MassDOT holds right-of-way wider than the Route 9 roadway itself for several reasons. The extra land is used for public sidewalks, utilities, street lights, and traffic signals. State highway layout information and access to view and download image files of State Highway Layout (SHLO) Plans is available on-line. These maps show the approximate location of state highway layout plans and state highway alteration plans. While these plans are not intended to be used to precisely locate the baseline or the sidelines of highway layouts, they do indicate what is under MassDOT jurisdiction. These plans, maintained by MassDOT's Survey Office, are available on-line at: http://services.massdot.state.ma.us/maptemplate/statehighwaylayouts

Recommendation 8 c
Develop a Sidewalk Maintenance Plan

A maintenance plan for sidewalks along the Route 9 corridor should be developed and supported with adequate financing. Whether the Town or the State is responsible for clearing and maintaining sidewalks (e.g. trash removal and snow clearance) is open to debate. The responsible parties need to be identified and included as part of a maintenance plan.

Recommendation 8 d
Require Landscaping Operations and Maintenance plans for Large Commercial Developers

Require landscaping operations and maintenance plans for commercial developments along the Route 9 corridor, particularly in the eastern and western gateways.

Recommendation 8 e
Establish a Restoration and Preservation Plan for Historic Features

Following an inventory and assessment of the condition of historic features along Route 9, a separate restoration and preservation plan should be advanced. This restoration and preservation plan should take into account Route 9's historic features, including but not limited to the public works projects that created walls, bridges, and retaining walls as well as stairs, grassy medians, and wrought iron railings – features which are integral to the character of Route 9 and the Town as a whole.

Examples of historic features along the Route 9 corridor include, but are not limited to:

- Wrought iron railings in Wellesley Hills (along the southern side of Route 9 adjacent to Elm Park).
- Stone walls west of Rockland Street and near Standish Road.
- Retaining walls near Longfellow Road, Oakland Street, and Westgate Road.
- Grassy medians near Bancroft Road and east of Kingsbury Street.
- Bridges and staircases at Cliff Road and Weston Road.

A successful example of a past preservation effort along the Route 9 corridor is the reconstruction of the Route 9 underpass at Washington Street. Completed about a decade ago, the preservation of this stone work has served as a significant benefit to the Town.

Best Practices

The neighboring Towns of Natick and Framingham require landscaping and maintenance plans for commercial developments. While it is recognized there are differences in zoning and land use between municipalities, Natick's Landscaping Operations and Maintenance Plan and Framingham's process for Site Plan Review are included as best practices. Wellesley could review both in detail and potentially adopt components of either plan to enhance their own.

Town of Natick – Landscaping Operations and Maintenance Plan

The Town of Natick requires a Landscaping Operations and Maintenance Plan for new commercial developments. For reference, the Landscaping Operations and Maintenance Plan along with the Modification of Site Plan and Special Permit and Highway Overlay District Special Permit for MathWorks is included in *Appendix B*.

Codified in Natick's Zoning By-Laws (Section 320), Highway Overlay Districts are districts which overlay nonresidential zoning districts abutting major arterial highways, such as Route 9. The language for landscaping requirements for developments in Highway Overlay Districts is also included in *Appendix B*.

Town of Framingham – Site Plan Review

Most development along Route 9 in Framingham is by Planning Board Special Permit which has conditions that are derived through an extensive site plan review process. Conditions are imposed and then overseen by the Planning Board and Building Commissioner. Typically these conditions involve specific landscaping plans and operational maintenance standards.

Through site plan review (Section VI.F of the Zoning By-Laws), Framingham requires landscaping and sidewalks for properties that front a public way. For reference, the Town of Framingham's Planning Board decision for a Wendy's drive-thru facility is included in *Appendix C*. Landscaping and maintenance requirements for the project are summarized on pages 12-13. Framingham also has codified Highway Overlay District Regulations as part of their Zoning By-Laws (Section III) which are also included in *Appendix C*.

Recommendation 8 f
Adhere to Effective Coordination and Timing of Projects

Effective long-term maintenance will ensure that improvements, once made, will remain permanent and advance long-term cost savings. For example, to ensure project longevity and effective investments, underground work (e.g.; culverts, placement of overhead utility lines underground) should take place prior to any at-grade roadway work. The fact that MassDOT currently does not utilize a centralized database to coordinate roadway reconstruction and utility work underscores the need for effective coordination.

Best Practice

Centralized Database Tool – COBCUS (City of Boston Utility Coordination Software)

Use of the City of Boston's COBCUS (City of Boston Utility Coordination Software) centralized database tool is an example of a best practice that facilitates the effective coordination of roadway reconstruction and utility work. Essentially a reservation system, COBCUS enables streamlined coordination with utility companies, private contractors, and other agencies to develop a resurfacing and reconstruction program that does not conflict with the various major programs each agency plans to perform. All entities, including the City of Boston, must reserve their future work in the COBUCS program. No permits are issued without the project first being submitted through the COBUCS program for review, including utility work and roadway resurfacing or reconstruction.

The COBUCS tool allows for major utility companies and the City of Boston to establish long-term capital programs that can be successfully coordinated allowing all work to take place without the need to cut into newly paved roadways. Since August of 2009, the COBUCS program has assisted the City in avoiding over 1,700 conflicting utility projects that may have otherwise caused excavation on a newly paved roadway. Currently, the City of Boston is one of the few cities in the country that mandates all entities wishing to perform excavation work to use a coordination program for clearance prior to obtaining a permit.

Recommendation 8 g
Implement Adopt-A-Highway Programs

If Wellesley wants to designate specific areas along Route 9 for clean up or roadway enhancements, they will need to work with MassDOT. Specific programs offered by MassDOT include Adopt-a-Highway, Adopt-a-Visibility Site, or Sponsor a Highway. According to MassDOT, these three volunteer programs combined have removed about 98,000 tons of litter from Massachusetts highways and roadways in 2013.

Adopt-A-Highway

Adopt-A-Highway is a public service program that utilizes volunteer teams to pick-up litter along state roadways in Massachusetts. Each volunteer team "adopts" a two mile section of highway and is responsible for removing litter at least once a month between April 15th and November 15th. This program provides an opportunity for environmentally conscious groups and corporations to participate in keeping Massachusetts roads litter-free. Adopt-A-Highway groups must have at least six members.

Adopt-A-Visibility Site

The Adopt-A-Visibility Site program is designed to encourage environmentally conscious school, business, and community groups to assist in beautifying their community by supplying volunteer resources to upgrade and maintain high visibility areas and off-ramps on state highways. MassDOT provides safety training and guidelines, safety vests, and plastic litter bags for clean-up projects. Volunteers usually remove litter, mow and trim vegetation, as well as manage plantings.

Adopt-A-Visibility Site
Squire Road and Brown Circle
Revere, Massachusetts

Source: Google

Participants of this program usually include local interest groups such as garden clubs, environmental clubs, chambers of commerce, youth groups and landscape companies. An increasing number of businesses have chosen to participate in Adopt-A-Visibility Site programs. The area of responsibility is smaller under this program compared to the Adopt-A-Highway or Sponsor-A-Highway programs. Adopt-A-Visibility Sites require permit agreements with MassDOT where a benefactor (e.g., a private company) will be responsible for the maintenance of landscaping. One example is at Squire Road and Brown Circle in Revere as shown in the image above. The landscaped median Kingsbury Street could be a good candidate for an Adopt-A-Visibility Site program.

Sponsor-A-Highway

The Sponsor-A-Highway program provides civic-minded companies an opportunity to enhance Massachusetts's roadways by 'sponsoring' segments of highways. Companies who utilize this program pay a fee to (Sponsor-A-Highway) SAHI or Adopt-A-Highway Litter Removal Service of America (AAHLRSA) to perform litter removal in two-mile portions of a roadway. Sponsor-funded maintenance providers conduct 24 clean-ups per year.

In recognition of volunteer efforts, MassDOT installs signs recognizing the adopting group for their contribution and work toward keeping the roadway clean. Since these signs can be distracting to drivers and contribute to sign clutter, the Town could look into other ways to recognize the volunteers who may choose to participate in Adopt-A-Highway programs along Route 9.

Recommendation 8 h
Organize Community-Run Cleanup Events and Programs

Organize a cleanup group for homeowners along Route 9. A Homeowner's Association or similar group could assist with assembling such a group.

Best Practices

Boston Shines

Boston Shines is a neighborhood cleanup program in the City of Boston and includes streets, sidewalks, parks, school yards, or city properties. Each year, volunteers (e.g., residents, business volunteers, public organizations, public agencies) participate in a citywide clean up and beautification event by planting flowers, sweeping, raking, and picking up trash. Boston Shines takes place over three weekends in the spring and focuses on four service areas: physical service, university engagement, youth development, and expanding volunteer opportunities that help unite neighbors and communities. The City of Boston is responsible for picking up the trash and supplies when the cleanup is over.

Valley Pride Day

Intended to be a fun community effort, Valley Pride Day is an annual litter clean up day throughout New Hampshire's Mount Washington Valley and western Maine that takes place the first Saturday of May. On this day, community members clean litter from stretches of road between 8:30am-11:30am. Afterwards, there is a celebration with food, prizes, and entertainment. Valley Pride Day completed its 16th year. Several tons of trash are collected each year.

Recommendation 8 i
Utilize Inmate Work Programs

The state relies on inmate work crews to remove litter along highways. According to MassDOT, between 1,900 and 2,700 inmate crews perform this service[13]. Using inmate labor saves tax dollars and allows projects to advance that would have otherwise been postponed. The Norfolk County Correctional Center does offer a Community Service program. Notification of residents in the area prior to inmate work crews performing clean-up services and additional supervision of inmate work crews is recommended.

[13] Roadside Litter Persists in Mass. What's the Solution?, ecoRI News, September 8, 2013.

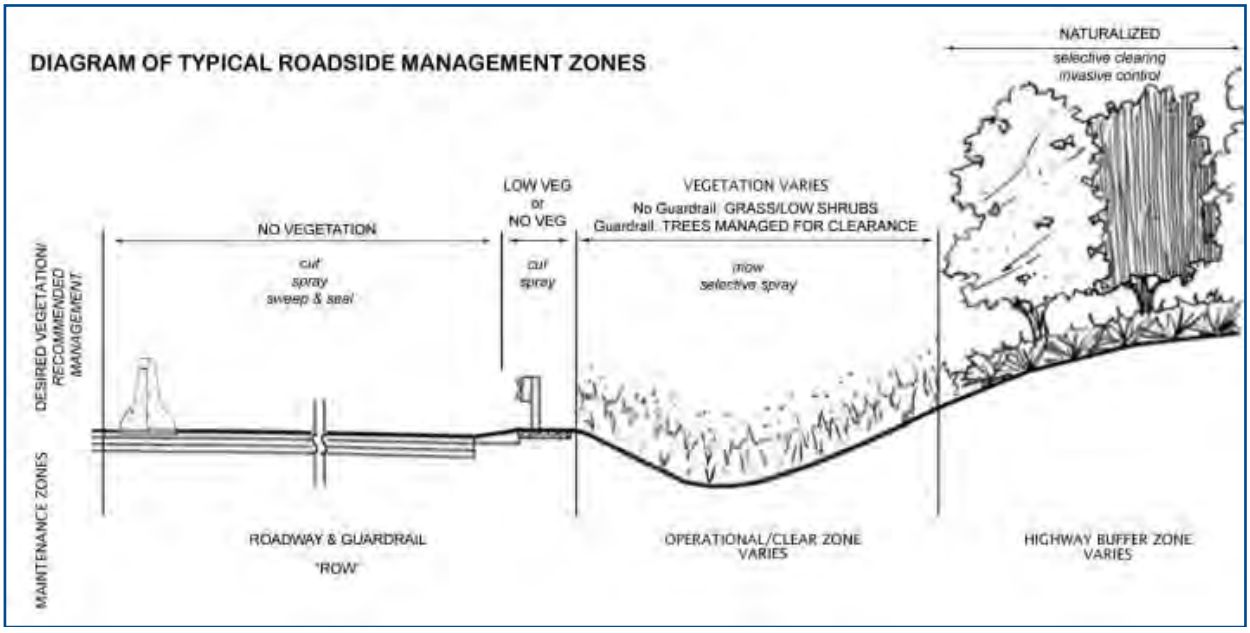
TOPIC AREA 9
CORRIDOR AESTHETICS AND IDENTITY

MassDOT controls vegetation along state roads and highways in compliance with the Rights of Way Management Regulations (333 CMR 11.00) as promulgated by the Massachusetts Department of Agricultural Resources (MDAR). MassDOT is primarily responsible for mowing and periodic tree maintenance along the Route 9 corridor in Wellesley.

MassDOT is required to submit a Vegetation Management Plan (VMP) covering a five year period. The purpose of the VMP is to establish MassDOT's vegetation management practices, provide guidelines for Integrated Vegetation Management, and ensure that work is in compliance with the Rights of Way Management Regulations. Subject to approval of the VMP by MDAR, MassDOT is also required to prepare an annual Yearly Operational Plan (YOP). The YOP provides information about the vegetation management program to be carried out for that year.

According to MassDOT's 2014-2018 VMP: *The primary objective of roadside vegetation management is to provide safe use of and access to roadways, sidewalks and facilities, and to preserve the integrity of highway infrastructure. Integral to achieving this primary objective is providing stormwater control through proper management and use of plant material, maintaining slope stabilization, protecting habitat and resource area, preserving and enhancing the scenic quality of the roadside, and controlling invasive and noxious plants. Uncontrolled roadside vegetation can impede normal maintenance operations, obstruct motorists' line of vision, block safe access to roadways and sidewalks, and can cause damage to structures such as median barriers, pavements, shoulders, guard posts, drainage lines, and waterways. Uncontrolled invasive species exacerbate maintenance problems and cause degradation of right of way land and of abutting land (p 1).*

MassDOT approaches vegetation management based on three zones: Roadway and Guardrail Zone, Operational/Clear Zone, and Highway Buffer Zone as depicted in the following illustration:



Source: MassDOT - Vegetation Management Plan – 2014-2018

Roadway & Guardrail Zone

Guardrails, curbs, sidewalks, median barriers, and medians comprise this zone. Work in this area is specific to the needs of maintaining the roadway and roadway infrastructure. The management goal for this zone is to keep hard surfaces (i.e., curbs, sidewalks, median barriers) free of vegetation. With an area free of vegetation, sight distance requirements can be met and visibility enhanced. In addition, a vegetation free area will promote safe vehicle and pedestrian access, proper stormwater drainage, and the preservation of infrastructure.

Operational/Clear Zone

The Operational/Clear Zone extends from the end of the Roadway and Guardrail Zone to a 20-30 foot setback. Controlling vegetation, maintaining signage visibility, and allowing for stormwater drainage and infiltration are the primary management goals for this zone.

Highway Buffer Zone

The Highway Buffer Zone extends from the edge of the Operational/Clear Zone to the right-of-way limit. This area is typically not managed except for tree cutting and controlling invasive plant species. Maintaining and preserving a self-sustaining plant community, a protective buffer for wetlands and water bodies, and providing stormwater and habitat benefits are the primary management objectives for this zone.

In addition to purifying air, enhancing aesthetics, and improving environmental conditions, research has determined that trees and landscaping are central both to health and psychological well-being[14]. Tree lined streets greatly enhance the appearance and comfort of a corridor and can serve to calm traffic by narrowing the apparent width of the roadway. Trees and landscaping provide numerous environmental, economic, and social benefits as outlined in the table below[15].

Benefits of Street Trees and Landscaping

Environmental	Economic	Social
Produces oxygen	Reduces demand on infrastructure (e.g., sewer, energy)	Improves streetscape aesthetics
Filters air pollution (e.g., remove carbon dioxide and UV radiation)	Reduces building heating/cooling costs	Improves public health (e.g., physical, mental)
Improves air quality	Increases property values	Fosters civic pride and identity
Reduces stormwater runoff		Can slow traffic
Abates noise		
Creates habitat for plants and animals		
Improves soil quality		
Heat absorption		

[14] The (Pretty Much Totally) Complete Health Case for Urban Nature, City Lab, Eric Jaffe, October 20, 2015.

[15] Sustaining America's Urban Trees and Forests, United States Department of Agriculture, June 2010.

In spite of the positive benefits of trees and landscaping, they face a variety of dangers. For example, roots can be damaged by construction, severed by concrete, or impeded by sidewalks, curbs, gutters, and street pavement. Trees and landscaping are vulnerable to insects, diseases, invasive plants, and severe weather events – all of which could be exacerbated by climate change.

Recommendation 9 a
Develop a Tree Protection Plan for the Route 9 Corridor

The Town and MassDOT should collaborate to inventory and assess the health of trees along Route 9. A tree protection plan designed to maintain and monitor the health of trees should be developed following the inventory and assessment. The overall goal of a tree protection plan is to provide a consistent and healthy tree canopy along the Route 9 corridor.

The tree protection plan should address appropriate planting and replacement of trees as deemed necessary. As landscaping can supplement tree planting and conceal land uses (e.g., parking lots) without obstructing sight lines, landscaping should also be incorporated as part of the plan. It is important that trees establish a rhythm and create a consistent, inviting character along the corridor. For seasonal interest and overall longevity, various tree species are encouraged. A tree protection plan will enable Wellesley and MassDOT to make informed decisions on where to focus resources. An effective plan should yield considerable efficiencies such as facilitating maintenance work and ultimately helping to manage costs.

The environmental benefits of trees and landscaping equates to significant economic benefits. In addition to enabling Wellesley to think more strategically about the health and sustainability of trees, assessing their value can help bring attention to their importance and economic value. For example, the U.S. Forest Service offers a free software program referred to as i-Tree. By using GIS, satellite imagery, and algorithms, i-Tree enables municipalities to produce detailed inventories of their tree canopies and quantify their environmental and monetary value. It should be noted that MassDOT does not have a tree inventory and does not have immediate plans to develop one.

Best Practices

A 2014 i-Tree analysis of Austin, Texas determined that the city's estimated 33.8 million trees save the city nearly $19 million annually in reduced building-energy use and approximately $5 million in reduced carbon emissions. The i-Tree analysis concluded that trees and landscaping is worth $3 million per year due to their reduction of air pollution and nearly $12 million per year in the amount of carbon the trees remove[16].

The City of Tampa 2011 Urban Forest Analysis concluded that trees save the city nearly $35 million annually in reduced costs for public health, stormwater management, energy savings, prevention of soil erosion, along with other savings[17]. Portland, New York City, Milwaukee, and Atlanta are among the cities that have also quantified the benefit of street trees.

The University of South Florida has begun mapping individual trees. In addition to providing dimensional information; stormwater interception, energy conservation, the estimated annual payoff is calculated for each tree.

[16] What are Trees worth to Cities?, CityLab, Laura Bliss, April 21, 2016.

[17] City of Tampa 2011 Urban Forest Analysis, September 2013.

Recommendation 9 b
Install LED Street Lights with Attention to Aesthetics

The spacing, color, intensity, and glare of LED lighting should all be carefully taken into consideration prior to installation. It is important to note that the MLP's bid specification for LED fixtures will require street lights to minimize light pollution or be "dark sky" compliant.

It should be noted that replacing existing aluminum (silver colored) lights with different colored poles and fixtures (e.g., black or green) is costly and, if for aesthetic purposes only, not considered to be cost beneficial. That said, if funds were made available, the MLP would be willing to make these changes.

Recommendations 9 c
Explore Placement of Overhead Wires Underground

Since the cost to underground overhead wires is very expensive[18], the Town should stay appraised of any potential grant or funding opportunities to do this work. The Town should require any significant commercial or redevelopment projects to include placing overhead wires underground along their site frontage. If Wellesley is strongly interested in undergrounding overhead wires, adding a surcharge to utility bills to cover this expense could be explored.

The Edison Electric Institute (EEI), a Washington-based association of shareholder-owned electric companies, conducted a 2012 study on the undergrounding of overhead power lines, *Out of Sight, Out of Mind*, and concluded that the most significant obstacle to converting above-ground systems to underground systems is cost, which is about five to 10 times the cost to install overhead lines. EEI polled electric customers concerning their willingness to pay for undergrounding and concluded that the majority of customers have a limited tolerance for higher costs for utility services to pay for undergrounding. Brookline, Chelmsford, Duxbury, Newton, and Randolph have all completed limited projects to bury their overhead wires[19].

In addition to improving aesthetics, undergrounding overhead wires are less vulnerable to high winds, falling trees, ice, and snow. The removal of overhead wires can allow tree canopies to grow and removal of telephone poles can enhance safety by improving sight lines. Potential drawbacks to undergrounding overhead lines include susceptibility to flooding and lightning. It should be noted that the reliability benefits between overhead and underground wires are currently not much different.

As shown in the figure below, approximately half of the Route 9 corridor is contains overhead wires, with slightly more along the westbound side. Overhead wires are concentrated in the eastern and western sections of the corridor.

[18] MLP broadly estimates that placing overhead wires underground could cost between $10 and $20 million. This estimate just includes utility costs and does not include costs for excavating manholes and duct banks.

[19] CBS Boston, Patrick: $1 Trillion to Bury Power Lines Underground, 10/31/11.

Estimated Overhead Wire Coverage along Route 9

Sources: Google and Bing

Recommendation 9 d
Ensure Prevention of "Double Poles"

"Double poles" occur when utility companies fail to remove obsolete utility poles after they have been replaced and lines attached to them (power, cable, phone, etc.) are transferred to the new pole. The presence of "double poles", a new utility pole and an obsolete utility pole typically side-by-side for prolonged periods is not aesthetically-pleasing and presents safety concerns. While "double poles" are currently not an issue along the Route 9 corridor, MLP should continue to work proactively with utility companies to ensure their prevention.

State law currently requires utility companies that own the poles to remove them within 90 days. However, there is no strong enforcement mechanism and the poles are not always removed. Legislation was recently passed that, in addition to requiring utility companies to create a timeframe for removing "double poles", they are required to file an annual report to the state which inventories "double poles", summarizes the average number of days between the erection of a second pole and the takedown of the original obsolete utility pole, and provide a timeline for the projected removal of existing "double poles"[20]. Upon receipt and review of the 2016 annual report, the state may endeavor to propose a fine structure for failure to remove outstanding "double poles". It is important to note that this legislation only pertains to "abandoned" poles (e.g., poles that have no utilities attached).

[20] The Commonwealth of Massachusetts, House Bill 4565, Section 239.

Recommendation 9 e
Pursue the Instillation of Multimodal Wayfinding Signs

MassDOT is responsible for furnishing adequate directional and informational signage on the state highway system. General guidance for this responsibility is found in Chapter 85, Sections 2 and 2D[21] of the General Laws of Massachusetts. MassDOT also uses a standardized a Guide Sign Policy (MassDOT Guide Sign Policy for Secondary State Highways (2005 edition)) for use on all secondary state highways, and other roads and streets (except for expressways and freeways) within Massachusetts[22]. The purpose of the Guide Sign Policy is to outline the current standards and guidelines for the design and application of guide signs (designated as the D6-, D8-, and G-series). These signs are consistent with the principles and standards established in the MUTCD. The Guide Sign Policy directs and informs drivers of intersecting routes, to direct them to cities, towns, or other important destinations, and to provide this information in the most simple and consistent manner possible.

Existing Wayfinding Signage in Wellesley Hills

Since Route 9 is controlled by MassDOT, Wellesley's ability to dictate signage along Route 9 is limited whether mounted on sign poles or overhead on mast arms. Signage proposed by the Town will need to be coordinated and approved by MassDOT. The philosophy of MassDOT's Guide Sign Policy, consistent with that of the MUTCD, is that only signs directing drivers to well defined geographical locations should be permitted on the state highway system. It should be noted that, in rare instances, exceptions have been made which allow special types of signing on the state highway system.

In addition to serving as a way to 'brand' or identify a community, multimodal wayfinding signs provide directions that enable vehicles, pedestrians, and bicyclists to locate destinations (e.g., commuter rail stations, Linden Square, MassBay Community College, Wellesley College, Wellesley Hills, Wellesley Square). Wayfinding signage can include distance information and times to walk or bike to specific destinations. It should be noted that the Town of Wellesley already has wayfinding signage in the Wellesley Hills neighborhood which could be expanded.

Where appropriate, the installation of multimodal wayfinding signage at streets approaching and intersecting with Route 9 not under state jurisdiction should be considered.

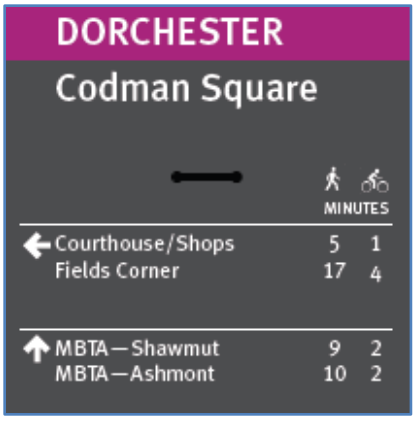
Best Practices

The Cities of Springfield, Pittsfield, and Boston have all recently implemented wayfinding signs. The City of Springfield is in the midst of implementing a wayfinding program as part of an initiative to improve public health and make the downtown a more attractive destination for pedestrians. The signage is funded by a grant from the Centers for Disease Control and State Department of Public Health. The City of Pittsfield has installed signage as part of a two mile walk referred to as the 'Downtown Loop', a program created to encourage healthier lifestyles. The City of Boston recently installed a wayfinding system for Dorchester's Codman Square neighborhood. This wayfinding program is designed to highlight resources as well as encourage walking and bicycling.

[21] MGL Chapter 85, Section 2 – Traffic Signs or Devices; Erection and Maintenance; Rules and Regulations
MGL Chapter 85, Section 2D – Signs on State Highways; Indicating Availability of Certain Services

[22] http://www.massdot.state.ma.us/highway/Departments/TrafficandSafetyEngineering/PoliciesandDesignGuidelines/GuideSignPolicyforSecondaryStateHighways.aspx

Wayfinding Signs in Springfield, Pittsfield, and Boston (left to right)



Sources: The Reminder, Springfield Unveils New Wayfinding Program, 4/28/16; Pedestrian Infrastructure: Strategies for Improving Pedestrian Safety through Low-Cost Traffic Calming, WalkBoston, 2015.

Recommendations 9 f
Identify Historically Significant Features

Ensure preservation and publicly recognize sites along Route 9 that are of historic significance through interpretive signage or a sidewalk medallion program. Sidewalk medallions are ornamental emblems that are set or stamped into sidewalks along a streetscape, usually at intersection corners. These medallions can be bronze, tile, or precast concrete.

Best Practices

Points of Light Monument

Located on sidewalks in downtown Washington, D.C., The Points of Light Monument honors the service of pioneers who have transformed the nation and world in the country's volunteer movements (e.g., Susan B. Anthony, Dr. Martin Luther King, Jr.). To date, 33 medallions have been installed in city sidewalks. The pathway of bronze circular medallions will eventually stretch one mile and include 70 medallions. Each medallion includes portraits of the honorees, descriptions of their activities, and inspirational quotes. Each medallion has a corporate sponsor.

Sources: Sierra Club and theageofgrace.com

The High Bridge: Historic Medallions

Nine 36 inch cast bronze historical medallions, depicting a timeline of New York City's High Bridge, were commissioned by the New York City Department of Parks and Recreation. The High Bridge is the oldest standing bridge in New York City and currently serves as a pedestrian walkway connecting Manhattan and the Bronx.

Source: andrewslefevre.wordpress.com

Recommendation 9 g
Establish Gateways at the East and West Entrances of Route 9

Gateways, or defined access points, should be developed for both the east and west entrances of Route 9. Well-defined gateways serve as welcoming entries to the Town as well as a source of pride and identity. Many of the recommendations outlined in this report (e.g., wayfinding signage, landscape design, identification of historic features) serve to establish successful gateways, which should be considered priority locations. Gateways can be either physically constructed or natural in their design. The Town should work with the developer 900 Worcester Street to advance a gateway for the west entrance of Route 9.

Recommendation 9 h
Support and Encourage Use of new Roadway Technologies

New roadway technologies are currently under development which could potentially be implemented in the future. While the implementation of these new technologies is several years away, the Town should be open to their use. These technologies could include installing thin photovoltaic panels on roads to power streetlights and buildings or enhanced traffic signal systems that can identify when a pedestrian is crossing a roadway. Other technologies, referred to as Dynamic Wireless Power Transfer (DWPT), could involve exploring options that can transmit electricity to charge electric cars while they are driving[23]. Since the Town is responsible for the transmission and supply of electricity to its residents and businesses, there is potential to earn revenue from these types of technologies.

[23] Coming Soon to France: Hundreds of Miles of Solar-Powered Roads, Julian Spector, CityLab, 2/9/16.

TOPIC AREA 10
GOVERNMENTAL COLLABORATION

Recommendation 10 a
Develop a Working Strategy among Wellesley's Residents, Business Community, Town Government, and the State

The resolve to plan the future of the Route 9 corridor needs to be the result of a working strategy among Wellesley's residents, business community, Town government, and the state. The recommendations outlined in this plan build the foundation for cooperative action based on continued involvement and collaboration. The working strategy will develop and advocate for recommendations as well as pursue funding opportunities.

Recommendation 10 b
Undertake a Comprehensive Public Outreach Campaign

To raise awareness of the importance to make successful and long lasting changes along the Route 9 corridor, a comprehensive and inclusive public outreach campaign is a crucial step. To help build support, a public outreach campaign should outline proposed programs, benefits to residents and businesses, and convey anticipated challenges.

Complete Streets

The Town of Wellesley should pursue steps to develop Complete Streets policies and programs. Complete Streets practices will assist the Town with advancing recommendations that will improve the Route 9 corridor outlined in the previous section. This section contains resources and identifies best practices to implement Complete Streets policies and programs.

According to MassDOT, a *Complete Street is one that provides safe and accessible options for all travel modes – walking, biking, transit and vehicles – for people of all ages and abilities. Complete Streets improvements may be large scale such as corridor wide improvements or focused on the needs of a single mode*[24].

The benefits of Complete Streets include:

- Improved Health
- Improved Safety
- Increased Economic Development
- Reduced Personal Transportation Costs
- Reduced Congestion
- Improved Environment and Air Quality
- Improved Connections

When implementing Complete Streets policies or programs, municipalities need to take into account not only vehicles but also pedestrians, bicyclists and public transportation access as part of the planning, design and operational procedures undertaken for construction or renovation of streets. It is important to note that many Complete Streets considerations are low-cost and may be as straightforward as restriping existing crosswalks or improving markings for all road users. Implementation of Complete Streets can promote and improve public health, reduce traffic congestion, make places safer and more livable, as well as reduce environmental impacts.

According to Smart Growth America/National Complete Street Coalition, a *Complete Streets approach integrates the needs of people and place in the planning, design, construction, operation, and maintenance of transportation networks. In doing so, streets become safer for people of all ages and abilities and better support overall public and economic health. Complete Streets redefines what a transportation network looks like, which goals a transportation agency is going to meet, and how a community prioritizes its transportation spending. The Complete Streets approach breaks down the traditional separation between planning and designing for driving, transit, walking, and bicycling*.[25]

<u>Massachusetts' Complete Streets Funding Program</u>
Authorized by the 2014 Transportation Bond Bill, the Complete Streets Funding Program offers Massachusetts municipalities incentives to adopt policies that promote safe and accessible roadways. Specifically, MassDOT has initiated a funding program for cities and towns that have enacted Complete Streets policies. After attending a training and adopting a Complete Street policy, municipalities can apply for two funding sources: technical assistance to develop a prioritization plan (up to $50,000) and construction funding (up to $400,000, not including design as an expense). The two-year pilot program has been extended for five years in the state's 2017-2021 Capital Investment Plan.

[24] MassDOT Complete Streets Funding Program PowerPoint and Complete Streets Funding Program Guidance, 2015.

[25] The Best Complete Streets Policies of 2015, Smart Growth America/National Complete Street Coalition, p 1.

In addition to funding, MassDOT offers training and design guidance as part of this program. MassDOT's Complete Streets website and interactive web portal is designed to assist municipalities through the policy development, prioritization planning, and project approval steps of a Complete Streets application process. Moreover, a *Complete Streets Funding Program Guidance* document outlines program requirements, a model policy guidance and scoring system, in addition to types of eligible infrastructure. The *Complete Streets Funding Program Guidance* document describes the full requirements of the program, including guidance on best practices in Complete Streets Policy development and implementation.

According to the document, designing complete streets contributes toward the safety, health, economic viability and quality of life in a community by providing safer, more accessible and comfortable means of travel between home, school, work, recreation, and retail destinations for all modes. In sum, integrating Complete Streets principles in policy and practice helps to advance more livable communities.

The creation of Complete Streets encourages an active transportation lifestyle and is supported by the United States Centers for Disease Control and the Massachusetts Department of Public Health as a way to decrease obesity and reduce risk for chronic diseases (heart disease, arthritis, diabetes, etc.). Also inherent in the development of a Complete Street is meeting the most current accessibility guidelines outlined by the Americans with Disabilities Act (ADA) and the Massachusetts Architectural Access Board (AAB), which are upheld by Code of Massachusetts Regulations 521 (521 CMR).

Complete Streets improvements may be large scale, such as corridor-wide improvements that include a separated bicycle lane, new crosswalks and new bus stops; or small scale incremental improvements, such as a new bus shelter to encourage transit use. Other Complete Street project examples include improved street lighting, minor changes to traffic signal timings, new bicycle or pedestrian facilities, median refuge islands, or improved connection to transit.

The design of a Complete Street should be context sensitive and incorporate improvements or treatments that fit with the need and within the character of a community. The FHWA defines context sensitive solutions as a *collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions*.

The following are considered eligible infrastructure elements as part of MassDOT's Complete Streets Funding Program. All of these elements have been identified as issues and opportunities as part of the Route 9 Phase 1 Enhancement Plan. These elements include:

Street lighting	**ADA/AAB compliant curb ramps**
Intersection improvements	**Pedestrian buffer zones**
Pedestrian signal timing	**Pedestrian refuge islands**
New sidewalks, sidewalk widening, and/or repairs	**Crosswalks**
New or improved crossing treatments at intersections	**Accessible pedestrian signals**
Pavement markings or signage that provides guidance for alternative modes	**Designated bicycle lanes**

Massachusetts' Complete Streets Policies

Adopting a Complete Streets policy is the first step in planning, designing, operating, and maintaining streets that are safe, convenient, and comfortable for all users and modes of travel[26]. According to Smart Growth America/National Complete Streets Coalition, the *policy elements refine a community's vision for transportation, provide for many types of users, complement community needs and establish a flexible approach necessary for an effective Complete Streets process and outcome*. A Complete Streets policy directs decision-makers and stakeholders to consistently incorporate complete streets principles.

The Best Complete Streets Policies of 2015, a report prepared by Smart Growth America/National Complete Streets Coalition, reviewed and scored each Complete Streets policy adopted in 2015 and recognized 16 municipalities nationwide for Complete Streets policies. Seven of these municipalities were in Massachusetts. The seven municipalities, including links to their adopted Completes Streets policies, are Ashland, Framingham, Longmeadow, Lynn, Natick, Norwell and Weymouth. Framingham's and Natick's Complete Streets policies are also included in Appendix D. The table on the next page identifies all 27 Complete Street policies adopted in Massachusetts.

[26] MGL Chapter 90I, Section1.

Complete Streets Policies Adopted in Massachusetts

MUNICIPALITY		ENACTMENT DATE	TYPE OF MEASURE	2010 POPULATION
1.	Acton*	7/28/14	Policy Approved by BoS/PB	22,599
2.	**Beverly***	3/9/15	Policy Approved by CC	40,286
3.	**Boston***	N/A	Design Manual Guide	636,479
4.	**Cambridge***	1992-2013	Exists in Multiple Plans	106,471
5.	**Everett***	3/10/14	Resolution Approved by CC	42,567
6.	Framingham*	1/6/15	Policy Approved by BoS	70,068
7.	**Holyoke***	12/16/14	City Ordinance	40,135
8.	**Lawrence**	12/8/15	Policy Approved by CC	77,657
9.	Littleton*	12/16/13	Policy Approved by BoS	9,132
10.	**Lowell**	2015	Policy Approved by CC	108,522
11.	**Lynn**	12/15/15	Policy Approved by CC	91,589
12.	**Marlborough**	10/19/15	Policy Approved by CC	39,414
13.	Maynard*	11/5/13	Resolution Approved by BoS	10,106
14.	Middleton*	11/18/14	Policy Approved by BoS	8,987
15.	Natick	3/23/15	Policy Approved by BoS	33,760
16.	**Northampton***	2005	Transportation Plan	28,549
17.	Norwell	5/13/15	Policy Approved by BoS	10,574
18.	Reading*	7/29/14	Policy Approved by BoS	24,747
19.	Plymouth	5/7/13	Policy Approved by BoS/PB	56,468
20.	**Salem***	6/28/14	Policy Approved by CC	41,340
21.	**Somerville***	5/8/14	City Ordinance	75,754
22.	Spencer	9/28/15	Policy Approved by BoS	11,766
23.	**Springfield**	10/6/15	Resolution Approved by BoS	153,703
24.	Stoughton*	10/7/14	Policy Approved by BoS	26,962
25.	**Waltham**	9/18/14	Departmental Administrative Policy	61,918
26.	Westwood	10/1/15	Policy Approved by BoS	14,876
27.	**Weymouth**	11/9/15	Policy Approved by PB	55,419

POPULATION TOTAL: 1,939,262 (29.6% of state's 6,547,629 residents) **Cities in Bold**

* listed on the Smart Growth America/National Complete Streets Coalition website

CC = City Council ---- BoS = Town Board of Selectmen ---- PB = Planning Board **12/16/15**

Source: MassDOT, Complete Streets Funding Program PowerPoint

Complete Streets Directives

MassDOT's Healthy Transportation Policy Directive (P-13-0001) and Engineering Directive E-14-006 provide more specific guidance on Complete Streets design standards. Included in *Appendix E*, these Directives require MassDOT projects to be designed and built so that all MassDOT *customers have access to safe and comfortable healthy transportation options at all MassDOT facilities and in all the services [MassDOT] provides*, and add specific design requirements related to sidewalk presence, sidewalk width, and bicycle accommodation[27].

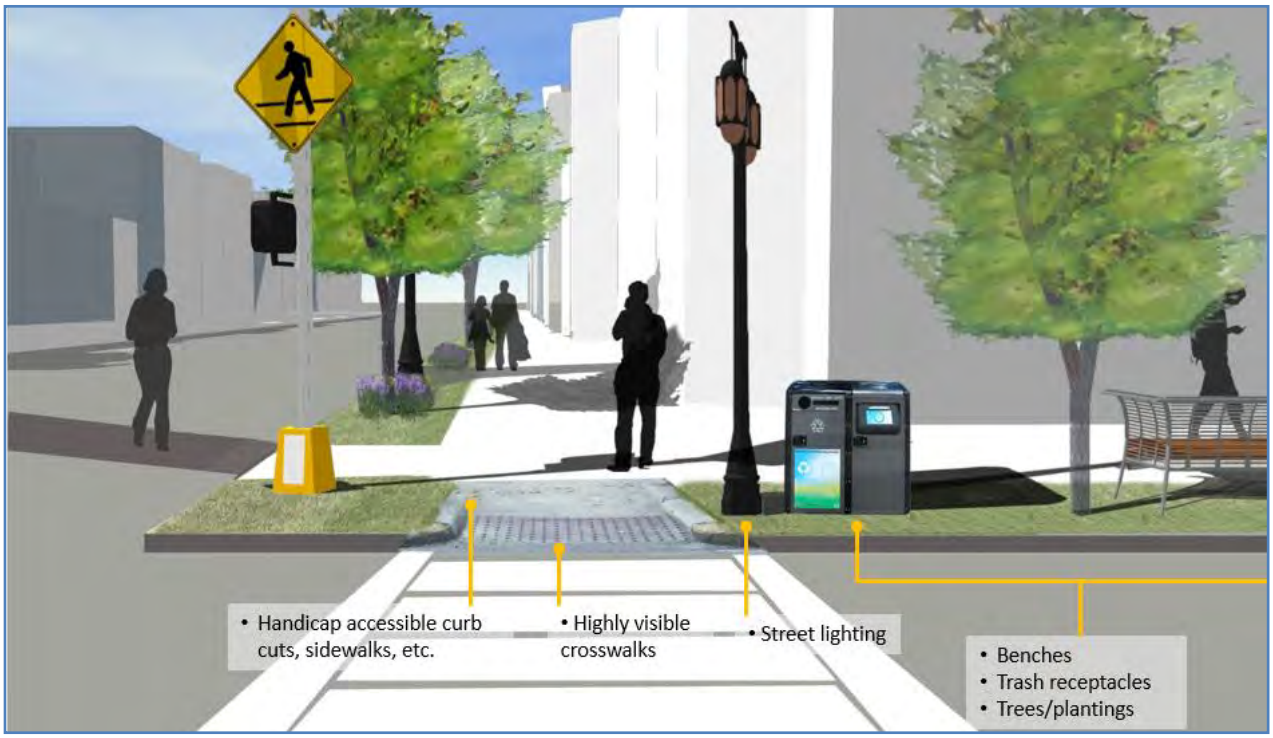
Illustrative Examples of Specific Complete Streets Components

Below are renderings of roadway components that contain illustrative examples of Complete Streets improvements:

Massachusetts Ave in Arlington

Source: MassDOT, Complete Streets Funding Program PowerPoint

[27] Complete Streets Funding Program Guidance, MassDOT, 2015, p 1.


• Handicap accessible curb cuts, sidewalks, etc.
• Highly visible crosswalks
• Street lighting
• Benches
• Trash receptacles
• Trees/plantings

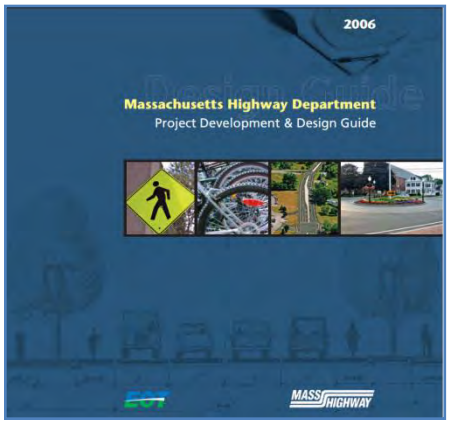

• Countdown clocks
• Audible cross signals
• Pedestrian warning signs
29
16
• Walkable pavements
• In good condition, free of cracks and holes

Source: MAPC

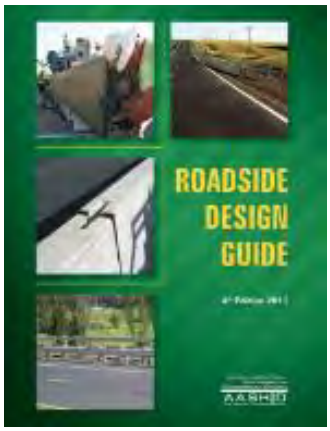
Complete Streets Resources

The design guidance, standards, and recommendations outlined in the following resources should be used in the implementation of Complete Streets and design/infrastructure changes along the Route 9 corridor.

Project Development and Design Guidebook, MassDOT, 2006



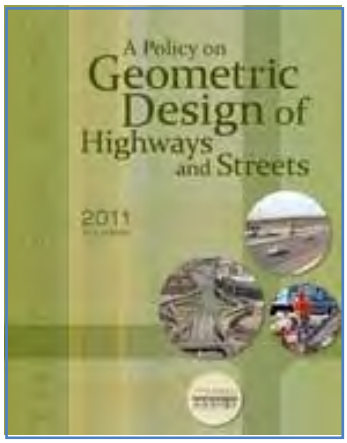
In 2006, MassDOT adopted a Complete Streets approach with the release of the Project Development and Design Guidebook and is the guiding design manual for roadway projects under MassDOT jurisdiction or oversight. The Project Development and Design Guidebook takes a flexible and accommodating approach to the construction and design of roadways in Massachusetts. By integrating multi-modal planning and design into every chapter, the Design Guide strives to support a transportation system providing seamless, functional and safe access for all users. The Design Guidebook explicitly incorporates community setting as a design factor, and supports early planning and coordination with all stakeholders to create safe and attractive roads.



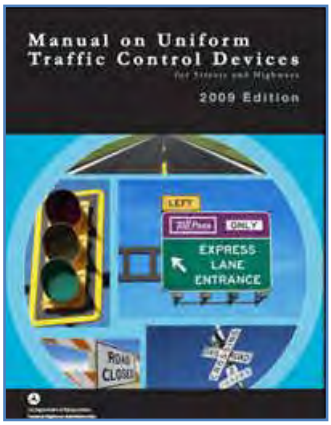
Roadside Design Guide
American Association of State Highway and Transportation Officials (AASHTO), 2011

The Roadside Design Guide presents a synthesis of current information and operating practices related to roadside safety. The guide is intended to be used as a resource document from which individual highway agencies can develop standards and policies.

A Policy on the Geometric Design of Highways and Streets
American Association of State Highway and Transportation Officials (AASHTO), 6th Edition, 2011

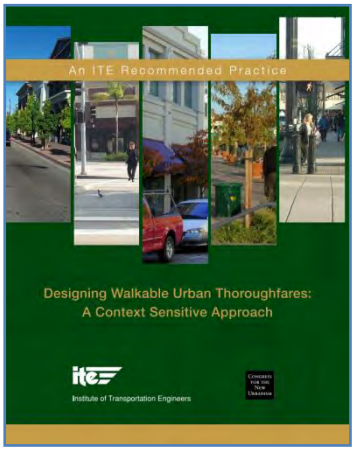


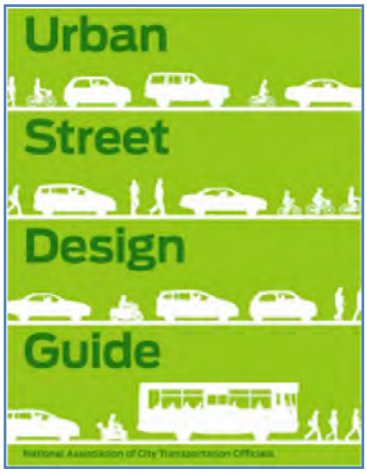
Commonly referred to as the "Green Book," this manual contains the current design research and practices for highway and street geometric design. The document provides guidance for highway engineers and designers who endeavor to make unique design solutions that meet the needs of highway users while maintaining the integrity of the environment. The "Green Book" is also intended to be used as a comprehensive reference manual to assist in the administrative, planning, and educational efforts pertaining to design formulation.



Manual on Uniform Traffic Design Control Devices
United States Department of Transportation Federal Highway Administration, 2009
The Manual on Uniform Traffic Control Devices, or MUTCD, defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic.

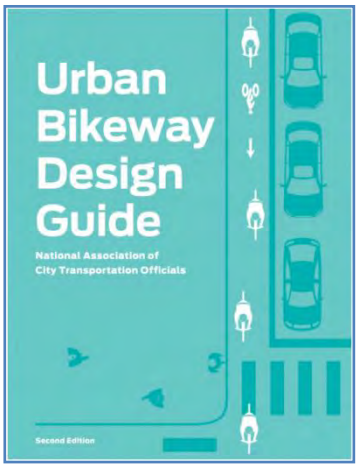
Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, Institute of Transportation Engineers (ITE), 201
Designing Walkable Urban Thoroughfares: A Context Sensitive Approach is a resource that provides guidance for practitioners to design major urban streets to support walkable and bikeable communities, compact development, and mixed land uses. The report includes chapters on incorporating context sensitive solutions into transportation planning and project development, specific design criteria, and case studies where these approaches have been successfully applied.





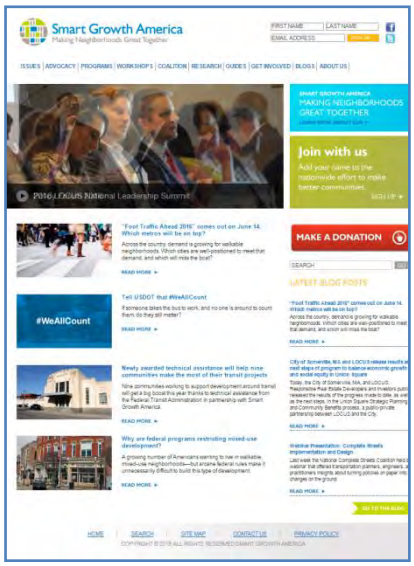
Urban Street Design Guide
National Association of City Transportation Officials (NACTO),2013
The NACTO Urban Street Design Guide shows how streets of every size can be reimagined and reoriented to prioritize safe driving and transit, biking, walking, and public activity. The core principle that urban streets are public places and have a larger role to play in communities than solely being conduits for traffic is emphasized in the Design Guide. The Design Guide contains blueprints of street design from multiple perspectives, includes national studies from around the country, and provides guidance on how to implement best practices. Direction for municipalities seeking to improve street design to create more inclusive, multi-modal environments is also outlined in the Design Guide.

Urban Bikeway Design Guide
National Association of City Transportation Officials (NACTO), 2014
The purpose of the NACTO Urban Bikeway Design Guide is to provide cities with state-of-the-practice solutions that can help create complete streets that are safe and enjoyable for bicyclists. Three levels of guidance (required, recommended, and optional) are provided for each treatment outlined in the Design Guide.



Separated Bicycle Lane Planning and Design Guide, MassDOT, 2015
In 2015, MassDOT released a *Separated Bike Lane Planning and Design Guide*. The Design Guide is a resource for considering, evaluating and designing separated bike lanes as part of a Complete Streets approach for providing safe and comfortable accommodations for all roadway users. The Design Guide provides a framework for determining when separated bike lanes are appropriate and feasible, presents design guidance for separation strategies, bike lane configuration, as well as considerations for transit stops, loading zones, utilities, drainage, parking and landscaping.

Smart Growth America/National Complete Streets Coalition Website
The Smart Growth America/National Complete Streets Coalition's website is a resource for municipalities looking to implement Complete Streets policies and programs. Specifically, the Complete Streets A-Z and Fundamentals pages contain comprehensive information.



Pedestrian Infrastructure: Strategies for Improving Pedestrian Safety through Low-Cost Traffic Calming, WalkBoston, 2015

Low-Cost Traffic Calming utilizes data drawn from local projects to inform Massachusetts communities interested in implementing small, incremental infrastructure improvements intended to calm traffic and enhance safety on municipal streets and state roads. The report is a compilation of information describing recent projects, with examples including stand-alone installations of traffic calming features and corridor-level retrofit projects. All suggested strategies address at least one of four different goals associated with pedestrian infrastructure improvements—safety, speed reduction, placemaking, and walking encouragement.

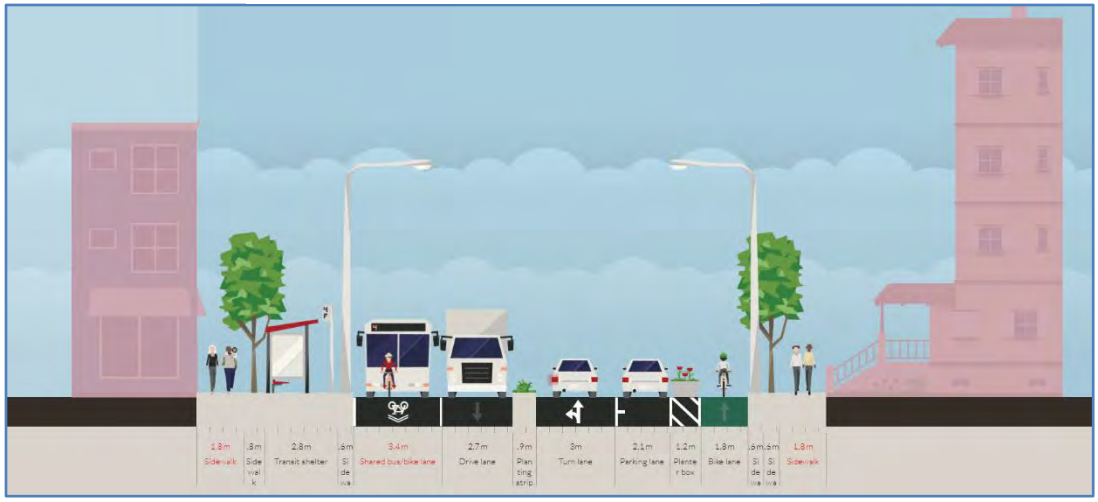
Boston Complete Streets, 2013

Considered a national leading example, Boston Complete Streets provide a road map for retrofitting Boston's streets and sidewalks and include new street types, guidance on multimodal intersection design, the integration of transit and bicycling and sustainable and smart design solutions.

Streetmix.net

Designed by Code for America, Streetmix is an educational tool that enables users to better understand how various aspects of roadway design can impact a community. The program enables users to design, remix, and share street designs for multiple modes. For example, users can add bike lanes, widen sidewalks or traffic lanes and include transit elements such as buses. Streetmix.net enables users to adjust the width of lanes and buildings to various heights, in addition to adding intersecting roads. Street features such as wayfinding signs, transit shelters, and landscaping can also be incorporated.

Example of a Streetmix Street Design



Source: Streetmix.net

The Green Highways Partnership

The Green Highways Partnership (GHP) is dedicated to transforming the relationship between the environment and transportation infrastructure. The GHP serves as a voluntary public-private collaborative that advances environmental stewardship in transportation planning, design, construction, operations and maintenance while balancing economic and social objectives. The GHP was initiated by the US Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA) out of a realization that building safe, sound transportation systems and protecting and sustaining a clean and healthy environment were not mutually exclusive, particularly in light of their common denominator, serving the "public good." A number of publications, case studies, and media resources are located on the GHP website: http://www.greenhighwayspartnership.org/index.php

Recommendations for Regulatory Changes

This section reviews Wellesley's existing land use and zoning documents and develops recommendations for how the Town might implement changes to promote smart growth consistent with the community's goals in this corridor.

The starting point for the review is the Wellesley Comprehensive Plan 2007-2017 Update. This is the fourth Comprehensive Plan the Town has produced. Wellesley is currently preparing to update this Plan. Because of the timing, some of these recommendations may need to be confirmed as continuing community priorities. This was done for the 2007-2017 Plan, with the 1994 Plan providing the starting point to produce the goals and priorities for the current Plan.

The elements that will be considered in this section include recommendations for:

- Identifying smart growth redevelopment nodes along the Route 9 Corridor
- How smart growth redevelopment might be implemented in the identified nodes, to include other elements of the Comprehensive Plan such as housing affordability
- Streetscape and architectural design guidelines that would govern redevelopment of private properties along Route 9, including an illustrative example of elements

What is "smart growth"?

Smart growth is a relatively new term for what New England has done from the beginning: cluster compatible uses to conserve resources. As the Massachusetts Executive Office of Energy and Environmental Affairs Smart Growth website states:

Smart growth is development that protects natural resources, enhances quality of life, offers housing choices, reduces energy consumption, and improves municipal finances by considering the location, design and long-term costs of development[28].

Smart growth patterns exist in Wellesley: in Linden Street and Wellesley Square. It is not necessary to have a mix of uses (such as residential and retail) in a series of buildings. Smart growth embodies walkable neighborhoods within close proximity to pedestrian-scaled retail. A car is not necessarily required to go to a grocery store or pharmacy. Ironically, the current speeds and conditions of Route 9 frustrate the opportunities for some Wellesley residents to enjoy the existing smart growth nodes.

[28] *http://www.mass.gov/envir/smart_growth_toolkit/pages/intro-to-SG.html*

IDENTIFY SMART GROWTH NODES

The first task is to identify potential smart growth nodes along Route 9. A node in this report refers to location that is already developed, but that could be a candidate for re-development, and/or re-use. The land may have obsolete buildings, uses that are no longer viable, or be "underdeveloped" relative to newer development. To identify the nodes, MAPC started with the Comprehensive Plan goals and recommendations, and then reviewed existing zoning and land use.

The Comprehensive Plan 2007 – 2017 Update included these statements relevant to Route 9:

Land Use Recommendations:

- "Create a detailed Natick Gateway Plan, including gateway improvements, mixed use development overlay district; affordable housing, open space connections, streetscape and pedestrian environment, underground parking."
- This area was also identified for town house or multi-family housing potential.
- "Complete the Cedar Street Commercial Area Plan, promote redevelopment with higher value buildings."
- "Create mixed use development frameworks for commercial district sites with potential for housing and mixed use development in order to understand the options for appealing design alternatives."

2005 Land Use Goals and Objectives

- Improve the appearance of town gateways that need enhancement
- Promote a mixture of land uses, including diverse types of residences in commercial areas

10 Key Comprehensive Plan recommendations that can shape Wellesley's future:

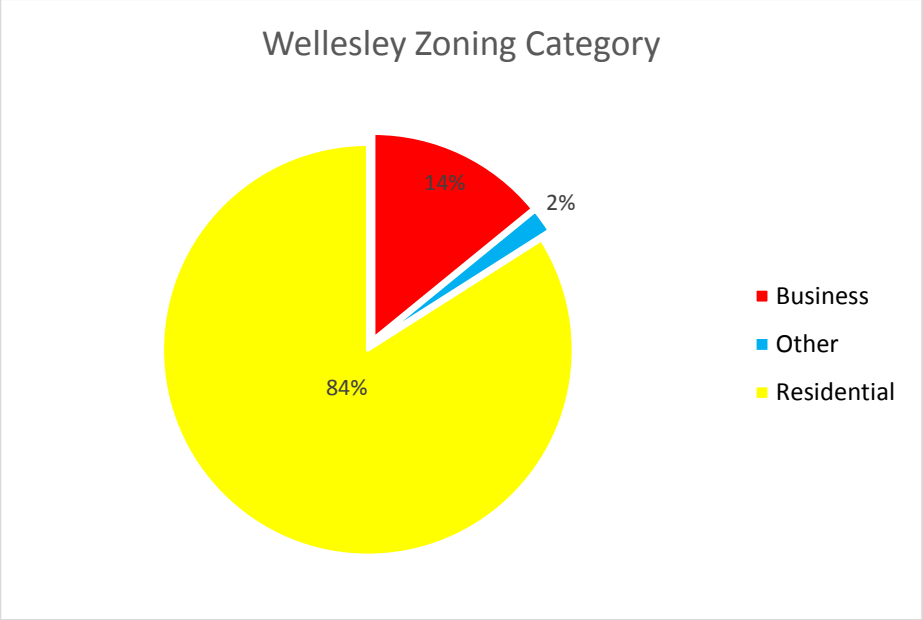
- At the Natick line: "Encourage the creation of townhouses, condos, and multi-family housing types in commercial areas in order to create a mixed-use, mixed-income environment for residents who will support local businesses".
- At the Newton line: "Study the potential for allowing additional development capacity in existing office parks in order to increase non-residential tax revenue if adverse effects on surrounding neighborhoods can be avoided."

Zoning and Land Use Analysis

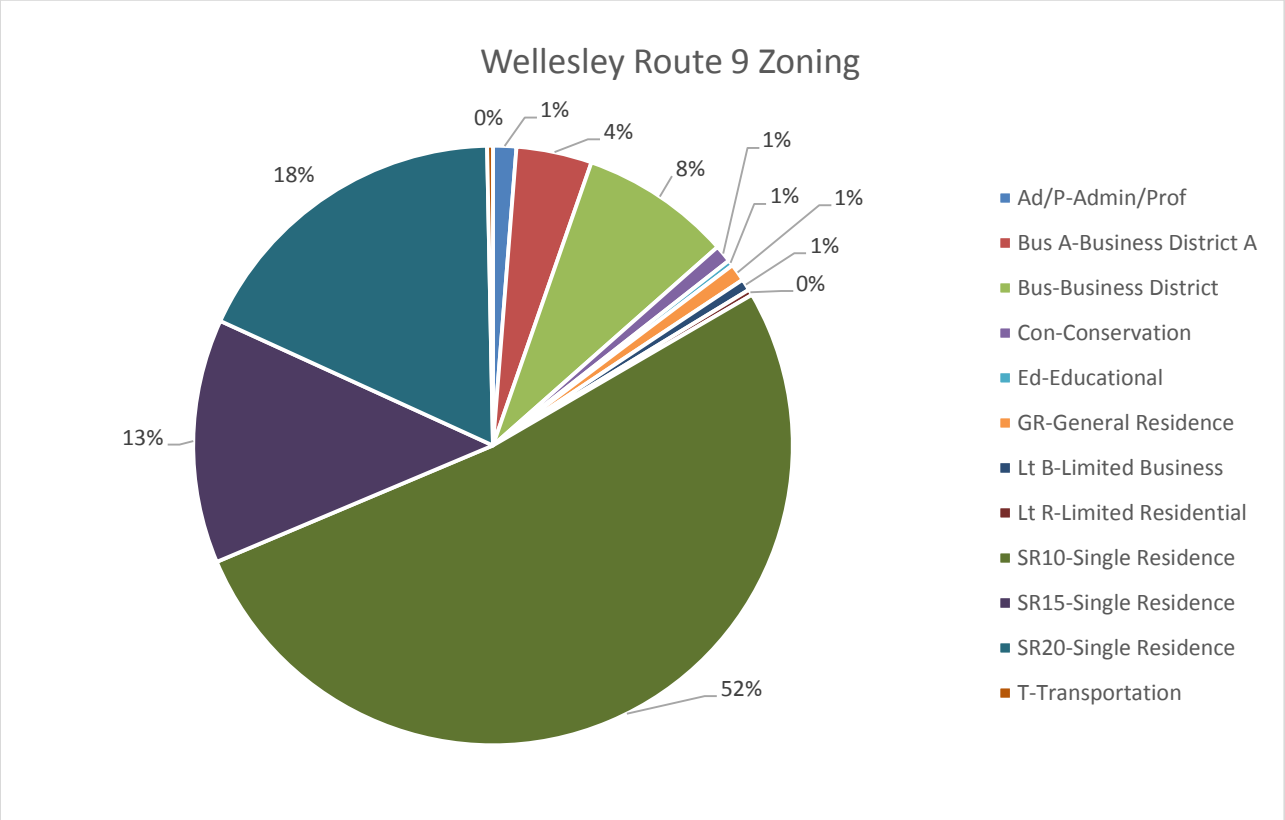
The corridor includes 318 parcels ranging in size from the Wellesley Town Forest (owned by the Water Department) at 272 Worcester Street (6.8 acres) to a Town-owned parcel on Cliff Road at 462 sq. ft.

As shown in the pie charts on the next page, the area is zoned and predominantly used for residences (84% of the parcels). The Route 9 Study Area is bookended by commercial development at the eastern boundary with the City of Newton and the western boundary with Town of Natick. Forty-five parcels are commercially zoned, from the Administrative and Professional uses in the vicinity of Routes 9/I-95 Interchange at the eastern gateway, and the Business and Business A Districts in the vicinity of Cedar Street and at the western gateway near Overbrook Street. There are three large town-owned parcels zoned for Conservation in the Study Area, the Massachusetts Bay Community College property zoned for

Education; a Massachusetts Bay Transportation parcel zoned for Transportation, and the vast majority zoned for Residential Use (269 parcels). The zoning matches the actual land use.



A more detailed analysis is shown below. The parcels are grouped by the specific zoning district they are in.

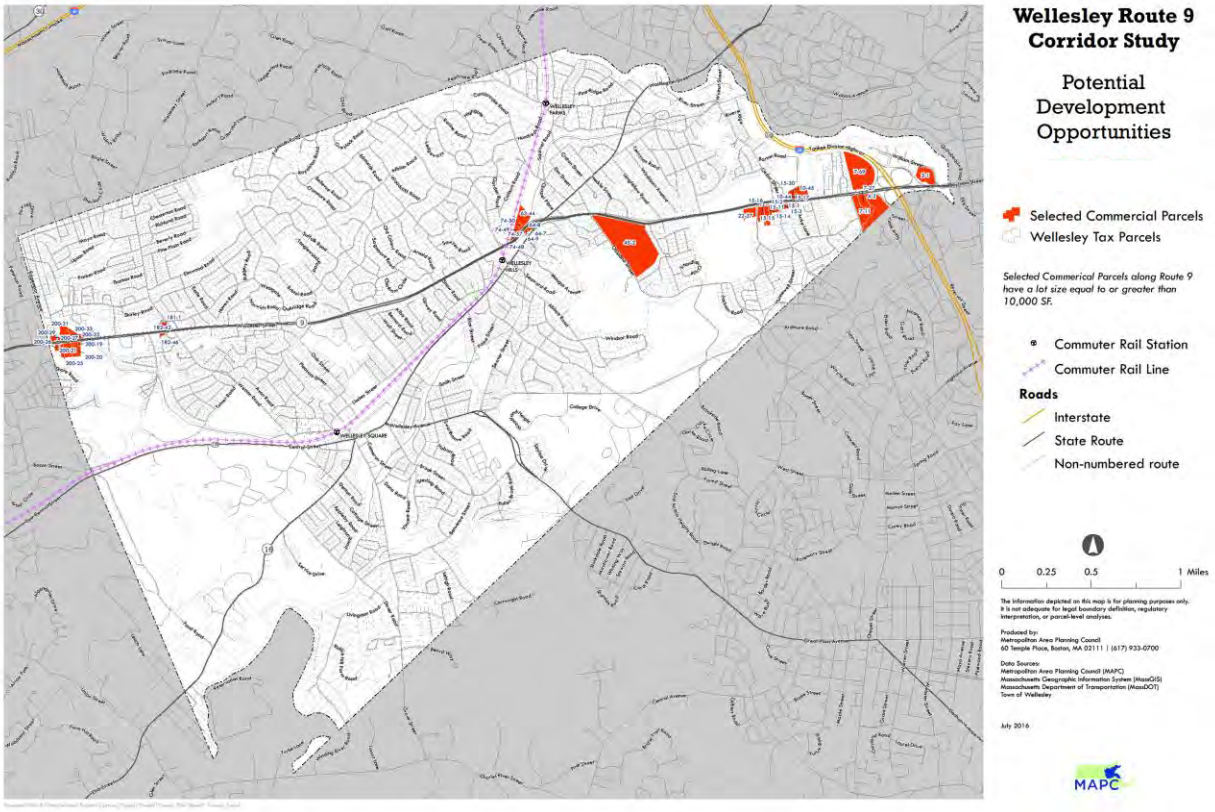


As noted in the Comprehensive Plan, owners of commercial properties need to redevelop more often in order to stay competitive and attract customers. Once the commercial/residential break-down was confirmed, MAPC then mapped non-residentially-zoned parcels greater than 100,000 sf.

The 100,000 sf limit was selected because these parcels are large enough to be good candidates for development of a scale that could accommodate a mix of uses. MAPC then mapped these parcels along Route 9 of 100,000 sf or larger that are zoned for commercial uses, including Administrative/Professional; Business, Limited Business and Business A. These are shown in red on the accompanying map.

Non-Commercially-zoned parcels

MAPC also identified two other parcels over 100,000 sf of land: the National Guard Armory and Bay State College. We understand that the Armory is in active use and unlikely to become available in the near future. However, the Comprehensive Plan identifies Mass Bay Community College as a location that should be re-zoned to include a mandatory cluster zoning overlay. In the event part of the land is sold, the zoning would require buildings (presumably residential) to be clustered in order to preserve open space. The land is currently zoned as Education.



Analysis

The development at the interchange with Route I-95 is developed with newer and substantial office buildings. They are unlikely to be re-developed in the near term.

The best opportunities for smart growth development on Route 9 are in the Cedar Street area and at the boundary with the Town of Natick. This confirms the analysis from the last Comprehensive Plan.

FACILITATING SMART GROWTH

The second element of this section recommends ways in which to implement smart growth in the identified nodes. Consistent with the Comprehensive Plan, the western gateway is one node. The Cedar Street area is another.

Zoning

Zoning are the laws that regulate land use. Because they are adopted locally, there is great flexibility in how a community zones the land within its boundaries. This section evaluates potential changes to the Wellesley Zoning Bylaw in order to facilitate developing smart growth nodes at these two locations.

Define Mixed-Use

Currently, there is no definition of mixed-use in the Zoning Bylaw.

One definition MAPC suggests is:

Mixed Use

A combination of uses*, on the same lot, arranged vertically in multiple stories of a structure or horizontally adjacent to one another in one or more buildings.

The mix of uses shall be balanced and compatible and shall contribute to a vibrant pedestrian atmosphere, including a combination of ground floor street front uses such as retail, and restaurants.

Ground floors of buildings fronting streets or public access ways shall be reserved for non-residential uses, except as specified below:

Dwelling units shall be allowed on ground floors of buildings if:

a) The building is set behind another building that has commercial uses on the ground floor.
OR
b) The residential portion of the ground floor of a building is set behind street-front non-residential uses within the same building.

* Wellesley, could list uses it wishes to include in a mixed-use development.

Create an Overlay or Develop a New Zoning District

Wellesley has a lot of specificity in its zoning, including Educational and Conservation Districts. The Town may not wish to develop another specific zone. An overlay could be a preferred solution. An optional overlay would be at the property owner's choice. An optional overlay decreases the number of uses that would become lawful pre-existing non-conforming uses, but it may not create the incentive the community wants to spur the redevelopment of the identified areas.

As noted previously in the report, and in the Comprehensive Plan, the joint Framingham/Natick overlay for Route 9 is one example to review.

Are there existing Districts that could be modified to meet the goal?

Evaluating the zoning for existing districts that might form the foundation for the overlay is a sound approach because Town officials and local developers are familiar with the Zoning Bylaw.

There are two potential mechanisms: The Planned Development District (PDD) and the Residential Incentive Overlay (RIO). The PDD permits a mix of uses, but requires a minimum of 10 acres. This could be adjusted to 100,000 sf to capture parcels in the identified nodes. The RIO is an overlay that is tailored for residential re-use, but it has a 2 acre minimum. Additional uses could be added, or another overlay modeled after the RIO could be developed.

Considerations

If Wellesley decides to pursue re-zoning these nodes, the following issues need to be addressed:

1. Should be create an overlay or a new district for the nodes?

2. Can we modify an existing technique? RIO? PDD?

3. How do we define mixed use? What uses should be included?

4. Should use percentages (such as in PDD) be required, or should we let the market determine the mix?

5. Are there parcels within these nodes that the Town could envision as redeveloped solely for multi-family housing? Should a small number of housing units be allowed as of right?

6. Should we make sure we can qualify for 40R Housing density?

7. For the nodes, ensure that Inclusionary Zoning provisions apply, and consider increasing the required number.

8. Should we allow some townhouse development, particularly at the rear of the parcel, with retail in a separate building in the front of the lot? If so, should the definition be amended for more flexibility? Should we allow ground floor parking in the townhouses, particularly off of a larger lot where an access road separate from Route 9 exists, or could be constructed?

9. Should the height limit be increased to 45 feet to accommodate underground parking?

10. How should these projects be permitted? Special Permit by the Planning Board or Zoning Board of Appeal?

11. Could we include shared parking provisions and parking reduction for car sharing (Zipcar)?

Project Review

Wellesley requires several project review processes: Project Approval for all except one and two family dwellings (there is now a Large House Review). Within Project Approval there is Design Review and Site Plan Review as well as requirements for Projects of Significant Impact. The Town should consider revising and re-writing the process for clarity. A combined Site Plan and Design Review could simplify the review and address all site and design issues comprehensively. Also, include the Drainage Review with Site Plan Review.

STREETSCAPE AND ARCHITECTURAL GUIDELINES

It has been MAPC's experience that most communities desire mixed use developments, at least in areas served by transit and/or in traditional town centers. It really is a "return to our past." Once a community decides to create a mixed use bylaw, and settles on uses and dimensions, the real concern becomes "What will it look like?" There is almost a universal desire to have new mixed use developments respect the best of what the community offers architecturally. Wellesley is no exception, but the Town goes further to emphasize design as a key development element, both in its Comprehensive Plan and in its zoning.

MAPC evaluated the existing Wellesley Design Guidelines, consistent with the Comprehensive Plan goal of creating design guidelines tailored to specific neighborhood areas.

REVIEW OF CURRENT DESIGN GUIDELINES HANDBOOK, TOWN OF WELLESLEY, NOVEMBER 9, 1989

Community Character

In the review of community character, the current Design Guidelines identify four commercial areas which are part of the Route 9 Corridor. Two of these commercial areas have been identified as smart growth nodes.

- Worcester Street at the Natick Town Line is a small commercial are at the Natick town line on Route 9 characterized by buildings and signage oriented to vehicular traffic. Buildings are set back form the street with parking lots located in front, to the side, and in the rear. Larger signage is allowed for businesses fronting Route 9 because the Town recognizes that this differs in orientation from the others discussed. Facades exhibit a variety of materials and styles, with most buildings constructed during the 1950's and 1960's. There is limited pedestrian traffic and the business have provided minimal on-site landscaping. This business area merges with a larger one with a similar character in Natick, forming a long strip of business activity on Route 9.

- Worcester Street at Cedar Street is a mixed commercial center at the intersection of Route 9 and Cedar Street that contains a variety of uses including medical offices, automobile dealerships, and general office uses in a mix of building styles of various ages that appears to lack an overall definitive character. Most are oriented to Route 9 traffic and although surrounded by residential uses, do not serve neighborhood shopping needs. The area is adjacent to the Rosemary Brook Town Forest.

Character Summary

- Town dominated by residential character.
- Village scale of older commercial areas is compatible with residential uses.
- Encourage use of existing landforms and landscaping to enrich open spaces and screen and enhance parking lots and buildings
- Creatively blend proposed buildings into surroundings.
- Proposed signage conforms to the scale and character of the building and the Town.
- Intent is not to prescribe styles of architecture or signage.

Design Criteria Comments

In terms of the categories and organization of the current Design Guidelines, the Guidelines could be refocused to address the following for Route 9 nodes:

Current Design Criteria

Preservation and Enhancement of Landscape

- Expand guidelines for expectations of pedestrian connections and crossings – within and from all parking areas to building entries, between adjacent properties, to Route 9 frontage where sidewalks exist.

- Expand guidelines for integration of bicycle amenities.

- Most successful commercial property design in the nodes today can be described as large pockets of parking set within an overall landscape punctuated by the buildings – an example of this approach is the Sun Life Financial property. Less successful site designs are paved indiscriminately with no definition of parking area, building entry, service area, landscape, plazas or other open space or amenities.

Relation of Buildings to Environment

- Current guidelines are focused on a sense of scale that relates to the surrounding neighborhood, this is not likely appropriate given the likely scale of commercial redevelopment on Route 9 – creating visual buffers through robust landscaping may be more appropriate than limiting scale to that of surrounding single family residential.

- Expand guidance to reinforce relationships between adjacent parcels, buildings and parking lots. Often, patterns on adjacent parcels have no relationship to one another and are even fenced off from one another. Create relationships between adjacent uses and reinforce the ability to walk from one parcel to another, without having to reenter Route 9 in a car.

Open Space

- Expand guidance relative to the provision of small parks or open spaces – where they should be positioned, relationship to buildings, parking, pedestrian connections, Route 9 frontage.

- Discussion potential function of open spaces – potential amenities, bicycle storage, lighting, public art, etc.

Signs and Advertising Devices

- Sign visibility and building visibility from Route 9 is one of the major reasons why landscaping is so limited at Route 9 frontages in commercial nodes – signage guidelines could create a balance between signage in the frontage that is integrated with landscaping and tree-lined buffers that allow for business visibility, but continue a more consistent tree cover as found in adjacent residential neighborhoods.

- Directory signage for multi-tenant properties or shared signs between adjacent properties.

- Define different approaches for Route 9 signage, building signage oriented to parking areas or pedestrians and on-site wayfinding and directional signage.

New Design Criteria

Site Frontage

- The relationship of buildings and sites to Route 9 – and the incremental adaptation of Route 9 frontage – do not orient buildings to Route 9 frontage, create landscape buffer, bring pedestrian connectivity and walkability into the depth of a site, connecting parking areas and building entries
- Current guidelines do not define design expectations for curb cuts and vehicular access into the site from Route 9 or adjoining connections to adjacent parcels apart from Route 9.
- The residential portions of Route 9 are defined by old growth trees overhanging both sides of the highway with homes hardly visible from Route 9, setback and accessed via side streets off of Route 9; Commercial zones are often paved from property line to property line with hardly any tree frontage.

Site Design

- Current guidelines do not define site design expectations and the urban design relationships between street, building, active frontage, open space, parking and landscape.

Maximizing Use/Circulation

- The adaptation of sites that have already been developed to improve visual appeal and pedestrian environment.
- Current guidelines do not define design expectations for structured parking.
- Current guidelines do not define design expectations for multi-modal circulation internal to a site or across abutting sites.
- Current guidelines do not define expectations for shared parking.

Fencing

Currently, many fences along the Route 9 corridor are falling down and are made of disparate materials. Design Guidelines should call for consistently designed residential fences that address height, style, materials, and maintenance. Wellesley should also consider the requirement of a permit prior to the installation or repair of a fence or wall.

The City of Pomona, California has developed a handout that addresses fences and walls within residential zones. The handout, included as *Appendix F*, outlines fence and wall permit requirements, prohibited materials, height requirements, design standards, as well as maintenance and repair.

EXAMPLE OF NODE REDEVELOPMENT

As described in the community character section of the Design Guidelines, the predominant character of Wellesley is residential. Along the Route 9 corridor, this majority land use is evident and is associated with a relatively consistent and canopy of trees and old growth trees that line both sides of Route 9. The aerial photograph below shows this type of pattern. It is a very pleasant frontage along Route 9. The characteristic trees of the residential portion of the Route 9 corridor are starkly missing from the commercial nodes and the transition into the nodes in marked by this absence of greenery. One of the commercial nodes at the town line with Natick is shown below and highlights this contrast.

An approach that could impact the overall look and feel of the Route 9 corridor in Wellesley would be to even this stark contrast, by adding more landscape, specifically trees, to the commercial nodes. While certainly this addition needs to be balanced with the often contrasting needs of business visibility and vehicular circulation, the frontage of the commercial nodes could be dramatically improved through a reconsideration of the approach to site access, signage and landscaping as highlighted in the comments about the Design Guidelines below.

This type of approach to Route 9 frontage for non-residential property could be piloted at the new Recreation Center. The design could include a modest sign at Route 9, near the site entry that is integrated with a robust landscape at the property frontage that includes many trees. The site plan would then be more internally oriented to provide convenient parking, pedestrian access and a building orientation that defines a building entry plaza and other small open spaces with amenities.

A Google Earth snapshot of Route 9 in Wellesley in a predominantly residential portion of the corridor:

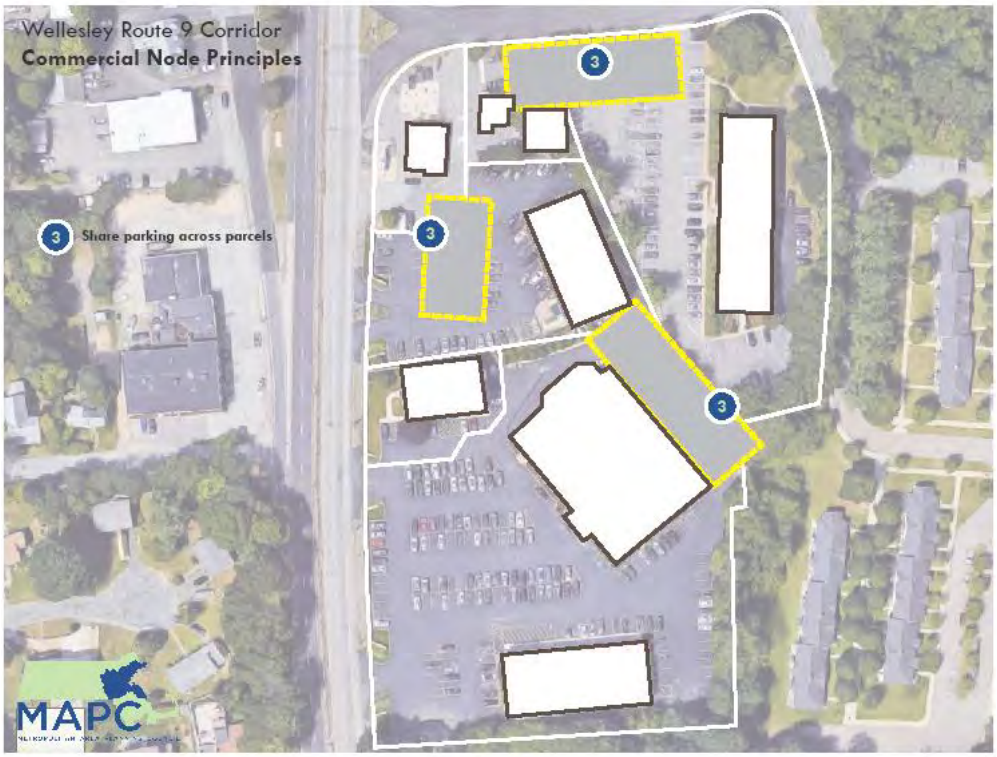
A Google Earth snapshot of Route 9 in Wellesley of a commercial node and the stark contrast of less trees and more paving and parking at the frontage of Route 9:

MAPC also created the following to illustrate redevelopment at the Cedar Street node. The first picture is existing conditions:

Next are a series of graphics illustrating how the above site could be successfully redeveloped using the design guidelines previously discussed. The first graphic combines all the techniques; it is followed by illustrations showing the individual strategies.

Eight techniques or strategies are illustrated:


Wellesley Route 9 Corridor
Commercial Node Principles
2 Strengthen continuous pedestrian routes to building entries
2
2
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
3 Share parking across parcels
3
3
3
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
4 Improve Route 9 frontage
4
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
5 Define building relationships with shared entry plazas
5
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
6 Identify and encourage structured parking locations
6
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
7 Encourage infill of new buildings
7
MAPC


Wellesley Route 9 Corridor
Commercial Node Principles
8
8
Use long term conversion and redevelopment to strengthen node building and site relationships
MAPC

Appendices

Appendix A
Designated Speed Limits for Route 9

Appendix B
Town of Natick - Landscaping and Operations & Maintenance Plan and Highway Overlay District

Appendix C
Town of Framingham – Planning Board Decision and Highway Overlay District

Appendix D
Complete Streets Policies

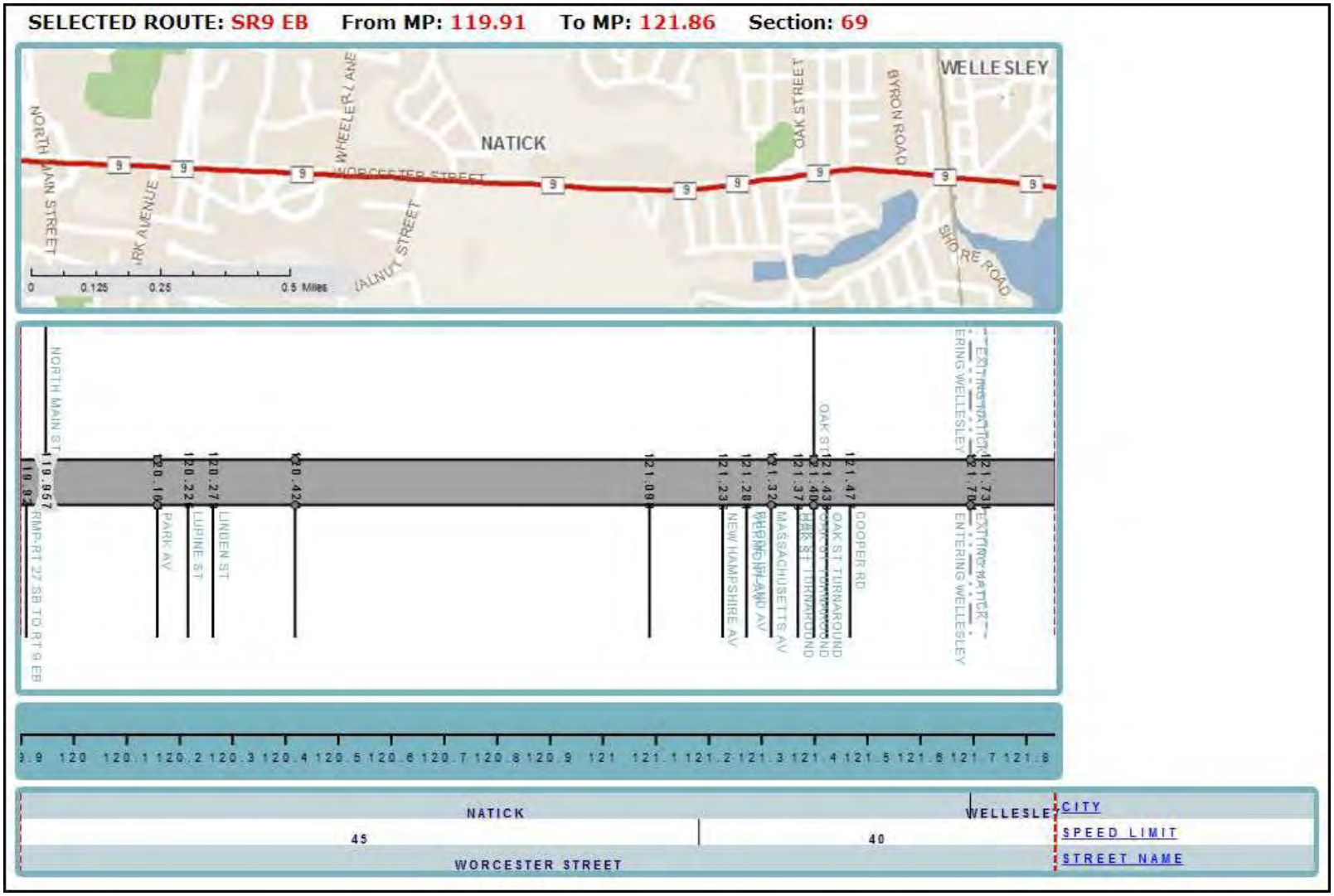
Appendix E
Complete Streets Directives

Appendix F
City of Pomona – Fences, Walls & Arbors on Residential Streets

Appendix A

Designated Speed Limits for Route 9

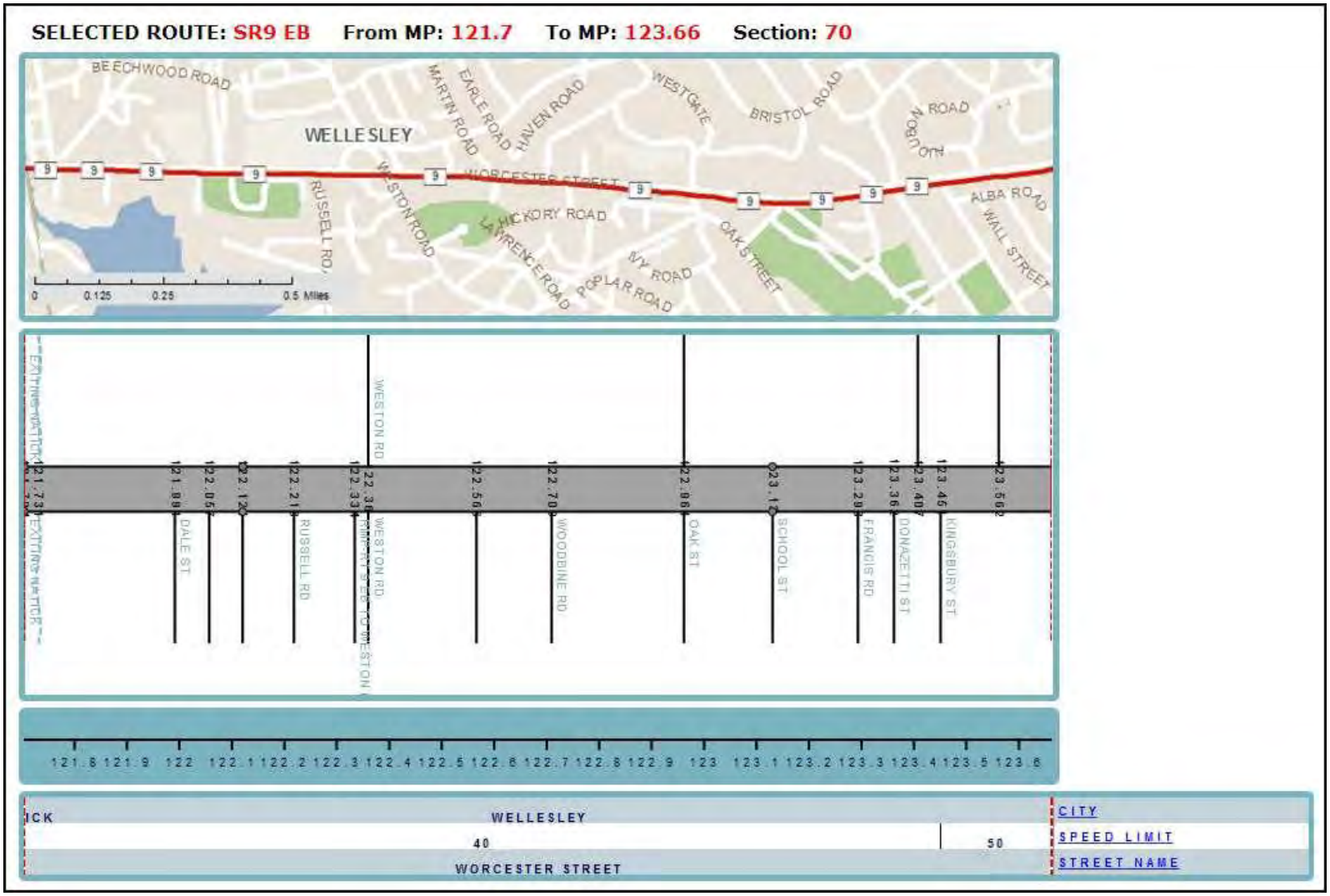
Designated Speed Limits for Route 9 Eastbound in Wellesley



Source: [MassDOT's Massachusetts Route Log Application]

The location of the boundaries and features shown are approximate and are intended for planning purposes only. This information is not intended to be used for survey, engineering or legal purposes.

Designated Speed Limits for Route 9 Eastbound in Wellesley

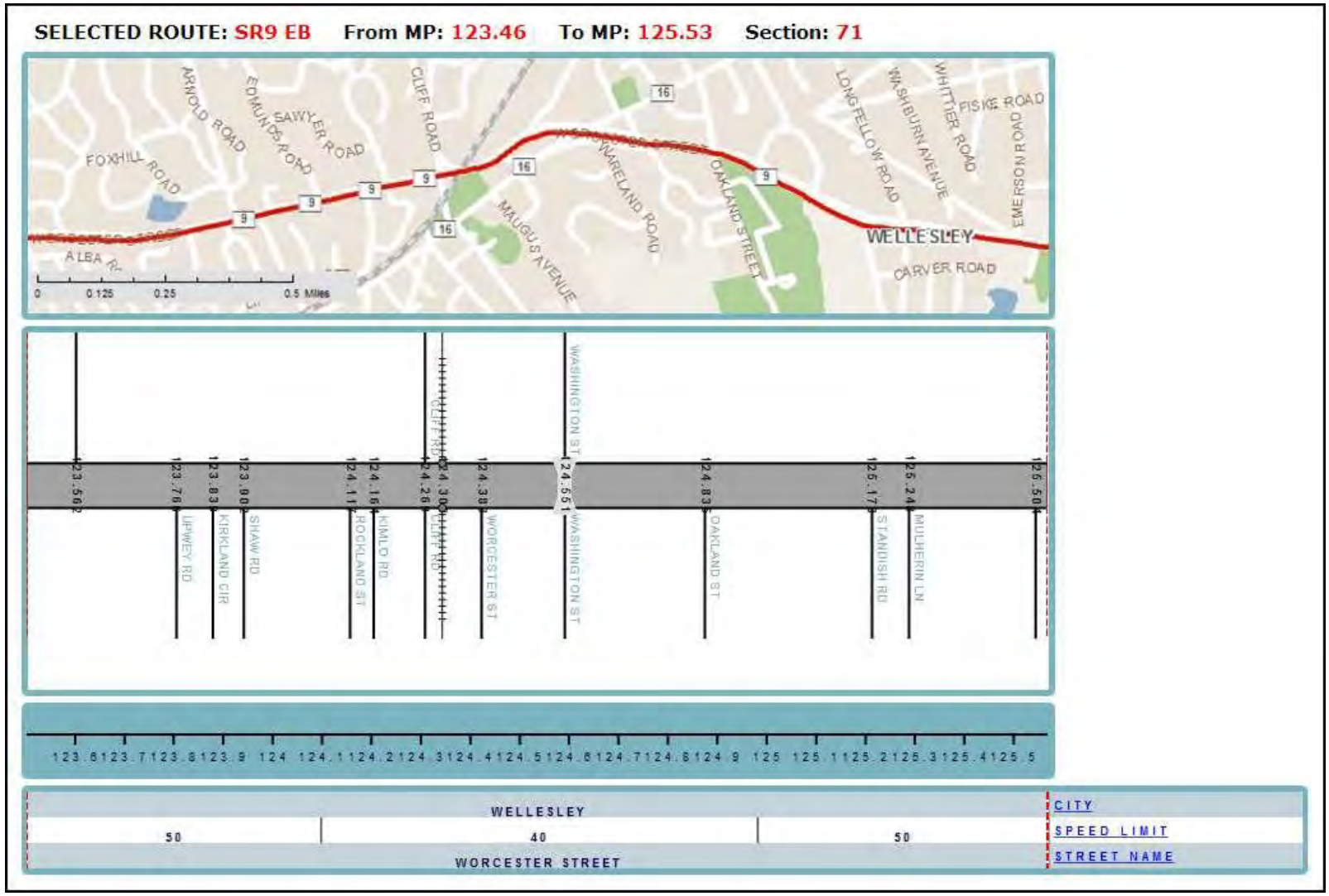


Source: [MassDOT's Massachusetts Route Log Application]

Note: The straight line diagram inaccurately indicates that the speed limit for Route 9 eastbound between the Natick Town line and Kingsbury Street is 40 mph. According to Special Speed Regulation No. 7480, the designated speed limit for this section of roadway is 50 mph. The roadway is correctly signed for 50 mph.

The location of the boundaries and features shown are approximate and are intended for planning purposes only. This information is not intended to be used for survey, engineering or legal purposes.

Designated Speed Limits for Route 9 Eastbound in Wellesley

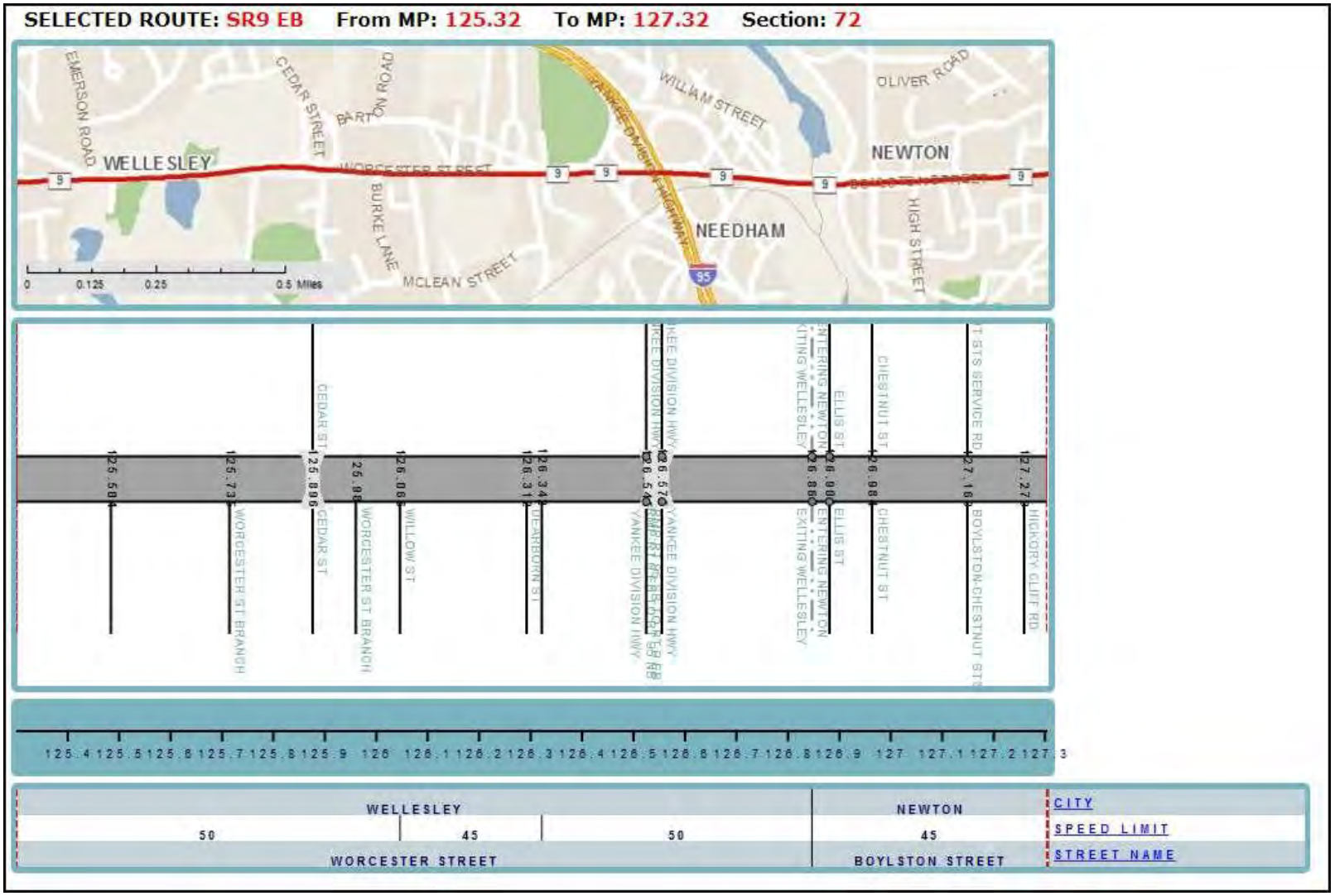


Source: [MassDOT's Massachusetts Route Log Application]

Note: The straight line diagram inaccurately indicates that the speed limit for Route 9 eastbound between the Natick Town line and Kingsbury Street is 40 mph. According to Special Speed Regulation No. 7480, the designated speed limit for this section of roadway is 50 mph. The roadway is correctly signed for 50 mph.

The location of the boundaries and features shown are approximate and are intended for planning purposes only. This information is not intended to be used for survey, engineering or legal purposes.

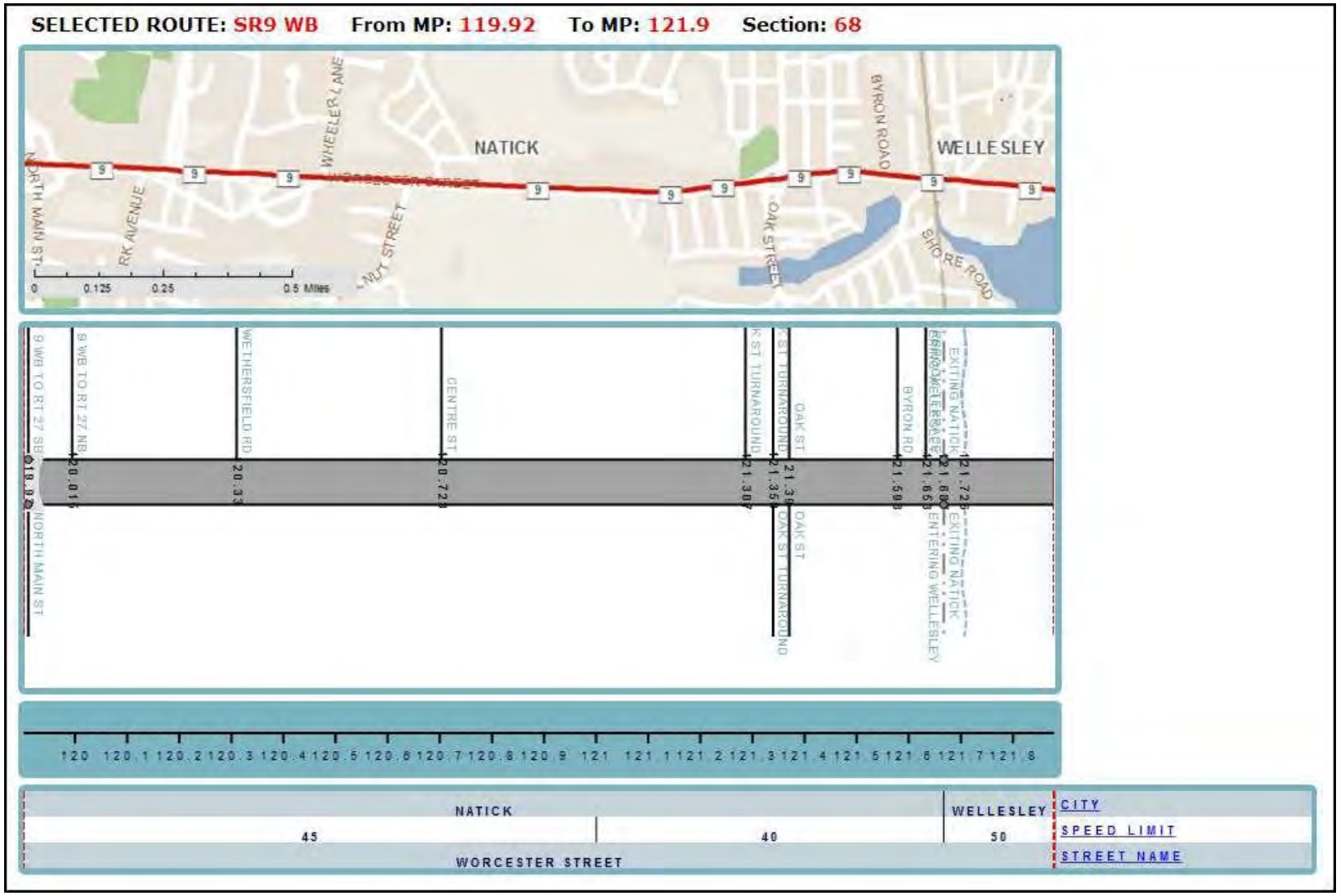
Designated Speed Limits for Route 9 Eastbound in Wellesley



Source: [MassDOT's Massachusetts Route Log Application]

The location of the boundaries and features shown are approximate and are intended for planning purposes only. This information is not intended to be used for survey, engineering or legal purposes.

Designated Speed Limits for Route 9 Westbound in Wellesley



Source: [MassDOT's Massachusetts Route Log Application]

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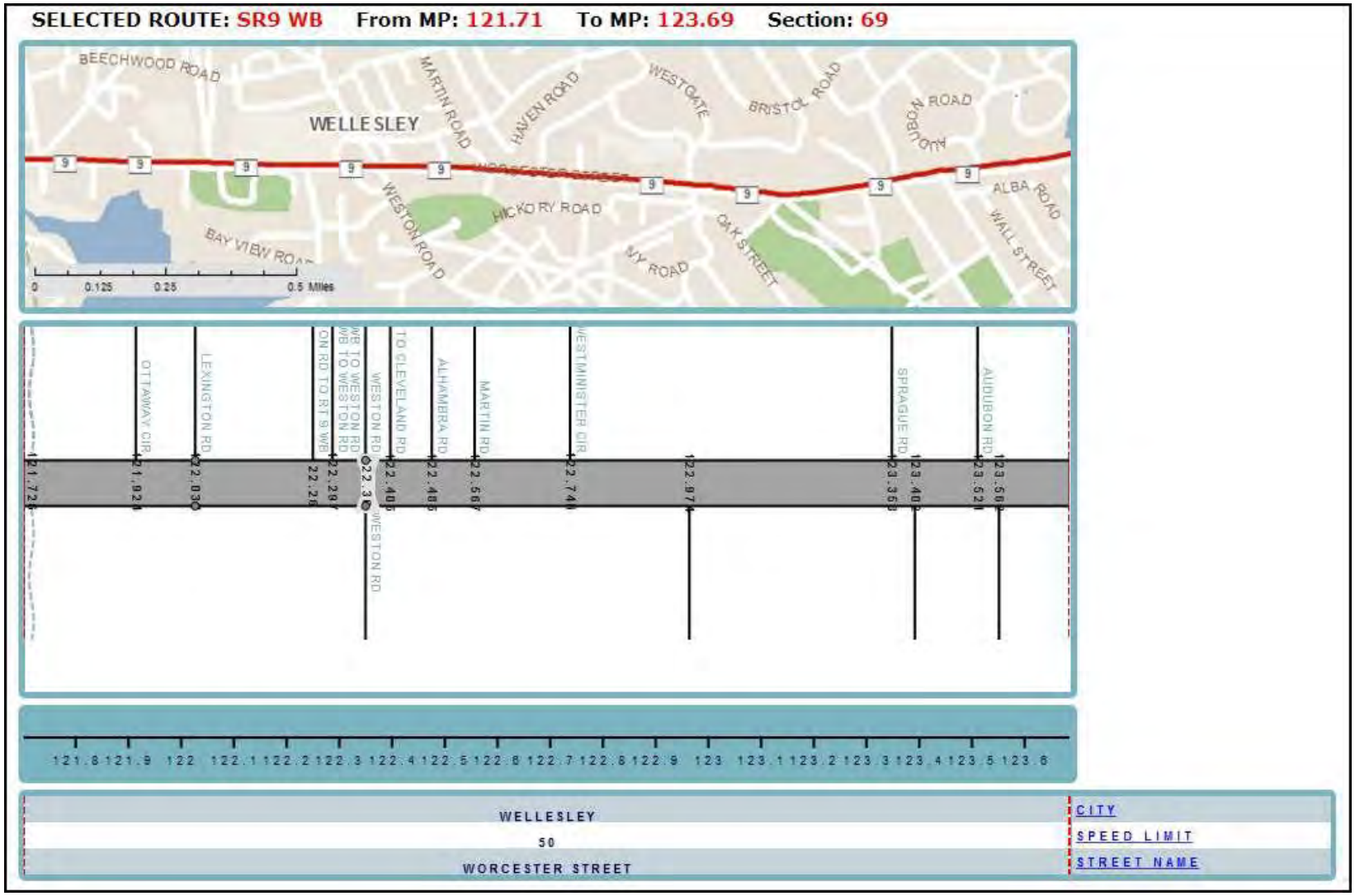
Designated Speed Limits for Route 9 Westbound in Wellesley



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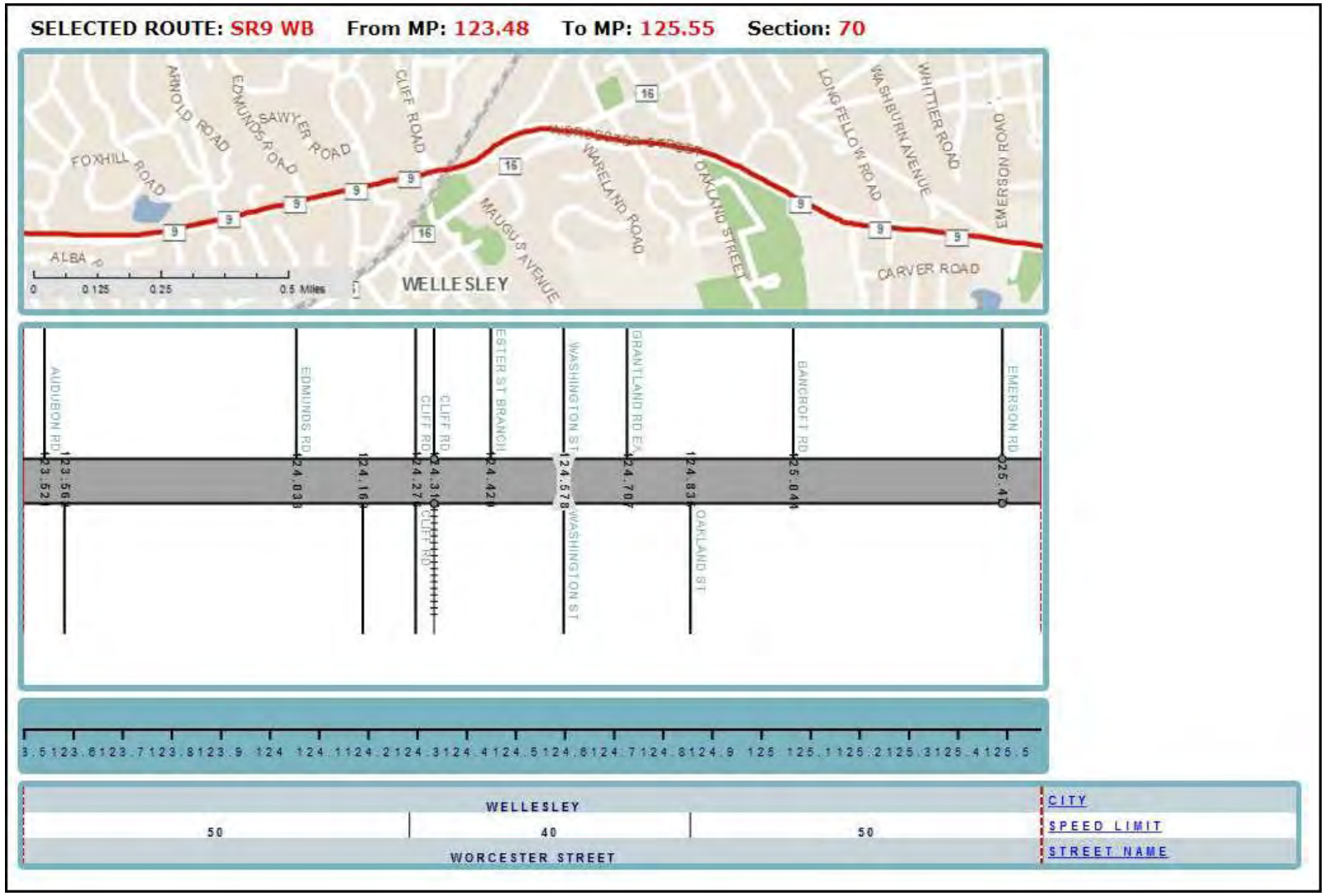

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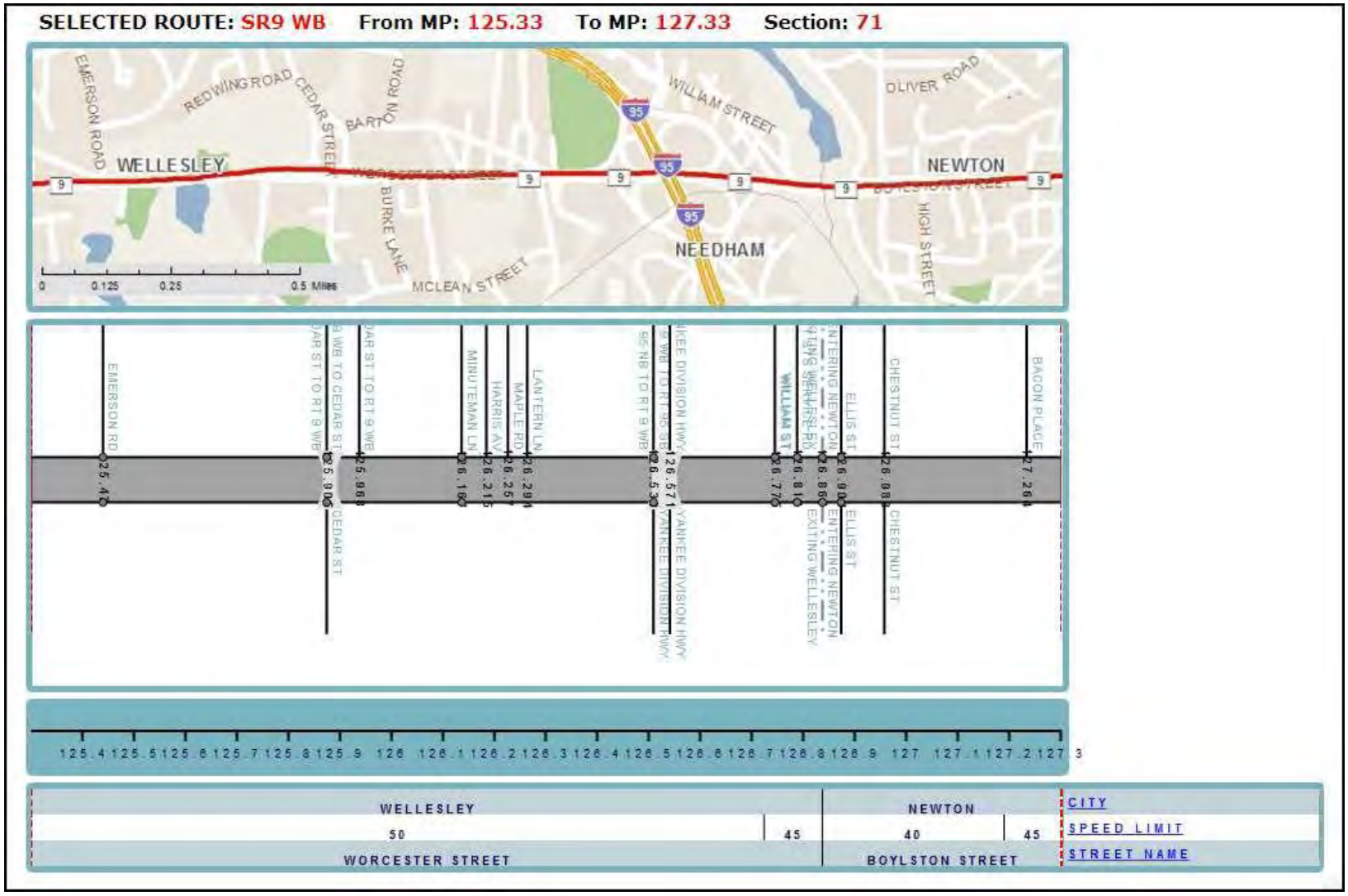

Source: [MassDOT's Massachusetts Route Log Applicati]

The location of the boundaries and features shown are approximate and are intended for planning purposes only. This information is not intended to be used for survey, engineering or legal purposes.

Appendix B

Town of Natick

Landscaping and Operations & Maintenance Plan and Highway Overlay District

RECEIVED
2008 JUL 23 PM 12:04
TOWN CLERK-NATICK

BUILDING
PLANNING
ZONING
CONSERVATION

COMMUNITY DEVELOPMENT

BEFORE THE NATICK PLANNING BOARD

In Re: The MathWorks, Inc.,
and Atlantic-Philadelphia Realty LLC
Parcel: Assessors' Map 19 Lots 7 & 8
Assessors' Map 27 Lots 239 & 258

July 16, 2008

Decision 29 - 08

MODIFICATION OF SITE PLAN AND SPECIAL PERMIT

AND HIGHWAY OVERLAY DISTRICT SPECIAL PERMIT

Statement of Facts:

This Decision relates to the redevelopment and expansion of Apple Hill, as described in Decision 6-82, by The MathWorks, Inc. and Atlantic-Philadelphia Realty LLC (hereafter collectively the "Applicant") who have requested permits and approvals, including approvals of site plans, for the construction and use of (1) an additional office building, (2) parking garage, (3) redevelopment of an existing retail-office building (Apple Hill 1), (4) redevelopment of the Apple Hill 3 building, (5) upgrade and additions to the existing easterly garage, and related improvements (the "Project," such Project sometimes designated as "Phase IIc") on the parcel. The owners of the property are The MathWorks, Inc. and Atlantic-Philadelphia Realty LLC. The property is being developed on behalf of The MathWorks, Inc. This request seeks modification of the Final Site Plan and Special Permit granted under the provisions of Sections III-G and VI-DD (through Decision 6-82, as amended and modified by Decisions 15-96 and 2-98) of the Natick Zoning By-Law (the "By-Law" – all references to "Section" or "Sections" herein are to Sections of such By-Law), and a Special Permit with Site Plan Review, under the provisions of Section 329, from the Natick Planning Board (the "Board") acting as the Special Permit Granting Authority (SPGA) under Section VI-EE.

The Project is part of a phased development known as Apple Hill on Worcester Street (Rt. 9), as described in Decision 6-82, under an overall site plan for a site of approximately 35 acres (the "Parcel") consolidated from a number of lots pursuant to the provisions of Section III-G.2.B and

said Decision. By Decision 6-82, the Board granted Site Plan Approval and a Special Permit, subject to conditions, for the construction of Phase I, a mall having both retail and office space and at-grade parking, as shown on the Final Site Plan. By its Decision 15-96, the Board approved modification of the Site plan, Site Plan Approval and Special Permit previously granted to allow for, subject to conditions, the construction of Phase II, an office building with at grade parking, as shown on the Final Site Plan accompanying Decision 15-96. By its Decision 2-98, the Board approved modification of the Site Plan, Site Plan Approval and Special Permit previously granted under Decision 6-82, as modified and amended by Decision 15-96, for the site, to allow for, subject to conditions, the construction of Phase IIB, providing an additional office building, parking garage and related improvements as shown on the Final Site Plan approved by Decision 2-98.

The Project is shown on the following plans submitted by the Applicant entitled:

Title: The MathWorks - Phase IIc,
Apple Hill Drive
Natick, Massachusetts 01760

Architect's Plans:
Spagnolo, Gisness & Associates, Inc.
200 High Street
Boston, Massachusetts 02110

Sheet #	Drawing Title	Drawing Date	Last Revision
A-1.0	Cover Sheet	December 1, 2006	March 13, 2008
A1.1	Building Floor Plan	December 1, 2006	March 13, 2008
A1.2	Building Roof Plan	December 1, 2006	March 13, 2008
A1.3	Building Elevations	December 1, 2006	March 13, 2008
A1.4	West Garage Elevations	December 1, 2006	March 13, 2008
A1.5	East Garage Elevations	December 1, 2006	March 13, 2008
A1.6	Site Section	December 1, 2006	March 13, 2008
A1.7	Proposed Project Specifications		March 13, 2008

Engineer's Plans:
Tetra Tech Rizzo
One Grant Street
Framingham MA 01760

Sheet #	Drawing Title	Drawing Date	Last Revision
C-1	Existing Conditions Plan	December 1, 2006	March 13, 2008
C-2	Layout and Materials Plan	December 1, 2006	March 13, 2008
C-3	Grading and Drainage Plan	December 1, 2006	March 13, 2008
C-4	Utility Plan	December 1, 2006	March 13, 2008
C-5.1	Erosion & Sedimentation Control Plan Phase 1	February 13, 2008	March 13, 2008
C-5.2	Erosion & Sedimentation Control Plan Phase 2	February 13, 2008	March 13, 2008
C-5.3	Erosion & Sedimentation Control Plan Phase 3	February 13, 2008	March 13, 2008
C-5.4	Erosion & Sedimentation Control Plan Phase 4	February 13, 2008	March 13, 2008
C-5.5	Erosion & Sedimentation Control Plan Details	February 13, 2008	March 13, 2008
C-6.1	Construction Details Sheet 1 of 3	December 1, 2006	March 13, 2008
C-6.2	Construction Details Sheet 2 of 3	December 1, 2006	March 13, 2008
C-6.3	Construction Details Sheet 3 of 3	February 13, 2008	March 13, 2008

Landscape Plans:
Copley Wolff Design Group
160 Boylston Street
Boston, Massachusetts 02116

Sheet #	Drawing Title	Drawing Date	Last Revision
L1-	Existing Plant Materials	December 1, 2001[sp]	October 31, 2007
L-2	Landscape Buffer Program Phases 1-3	December 1, 2006	March 13, 2008
L3	Site Landscape Proposal Phase 4		March 13, 2008
L-4	Layout and Materials Plan		March 13, 2008
L-5	Landscape Planting Plan		March 13, 2008
L-6	Landscape Irrigation Plan		March 13, 2008
L-7	Landscape Photometric Plan		March 13, 2008
L-8	Landscape Details		March 13, 2008
L-9	Irrigation Plan		
L-10	Lighting Plan		

Traffic Plans:
VHB
101 Walnut Street
Watertown, Massachusetts 02471

Sheet #	Drawing Title	Drawing Date	Last Revision
T-1	Route 9 U-Turn		

Said plans, as approved by the Board, are hereinafter referred to as the "Phase IIc Plans".

Hearings:

Notice of the Public Hearing by the Board on this matter was published in the Middlesex News on December 22, 2006, and again on December 29, 2006. Notice of the hearing was also sent to all "parties of interest" as certified by the assessor of the Town of Natick and posted in the Town Hall as required by Chapter 40A, section 11, Mass. Gen. Laws.

The Public Hearing was commenced on January 10, 2007 and was continued for hearings to March 7, 2007, April 11, 2007, April 24, 2007, June 6, 2007, June 27, 2007, July 18, 2007, October 3, 2007, November 7, 2007, December 5, 2007, January 30, 2008, March 5, 2008, April 16, 2008, April 30, 2008, May 21, 2008, June 4, 2008, June 25, 2008, and to July 16, 2008 when it was concluded.

Reports/Decisions of Town Agencies:

Reports or Decisions were received by the Board from the following Town Agencies:

1. Correspondence dated January 8, 2007 from town Engineer (Mark Coviello);
2. Correspondence dated April 11, 2007 from Town Counsel (John P. Flynn, Esq.);
3. Correspondence dated January 18, 2008 from Town Engineer (Mark Coviello);
4. Correspondence dated March 31, 2008 from Natick Fire Department;
5. Correspondence dated February 28, 2008 from Natick Police Department; and
6. Conservation Commission: Land Disturbance Permit Decision (LPD#2) dated June 4, 2008, Natick Conservation Commission in accordance with the Stormwater Management and Erosion Control By-Law.

Reports of Consultants:

Reports were received from the following consultants hired by the Board:

1. BETA Group, Inc., 315 Norwood Park South, Norwood, MA dated February 14, 2007, July 12, 2007, October 17, 2007, November 30, 2007 and December 5, 2007 concerning traffic issues.

2. Michael P. Sinesi, AIA, 85 Kendall Avenue, Framingham, MA dated July 31, 2007, December 7, 2007 and March 25, 2008 concerning architectural issues;

3. Cosmos Associates, 5 Longview Street, Natick, MA dated March 21, 2008 concerning landscaping issues.

Reports/Documents from State/Municipal Agencies:

Correspondence or reports were received from the following state/municipal agencies:

1. Commonwealth of Massachusetts, Executive Office of Business Development: Correspondence dated July 27, 2007 from the Undersecretary of Business Development granting $1,300,000.00 from the Massachusetts Opportunity Relocation and Expansion (MORE) Jobs Capital Program pursuant to applications by the Town of Natick and The MathWorks, Inc. in respect to infrastructure improvements in connection with the Project.

2. Commonwealth of Massachusetts, Massachusetts Highway Department: Correspondence received by Town from Luisa Paiewonsky, Commissioner of Massachusetts Highway Department dated October 15, 2007 regarding consideration of the benefits of a signalized U-Turn on Route 9 (Worcester Road) for traffic mitigation in connection with the Project and the region.

3. Town of Wellesley, Massachusetts: Correspondence received by Town from Hans Larsen, Executive Director of General Government, Board of Selectmen's Office for the Town of Wellesley dated February 22, 2008 regarding Intersection Improvements at Route 9 (Worcester Road) and Overbrook Drive.

4. Commonwealth of Massachusetts, Executive Office of Business Development: Memorandum of Understanding dated March 4, 2008 by and among The Massachusetts Executive Office of Housing and Economic Development (EOHED), Town of Natick and MathWorks, Inc. relative to the Massachusetts Opportunity Relocation and Expansion (MORE)

Jobs Program grant of $1,300,000.00 with an effective Receipt of Grant Date of December 31, 2008.

Reports/Documents of Other Parties:

Reports or documents were received by the Board from the following parties:

1. Timothy J. Foulkes, Cavanaugh Tocci Associates, Inc. dated July 9, 2007 concerning noise issues ;
2. Erich Thalheimer, Thalheimer Associates dated January 25, 2008 concerning noise issues;
3. Jonathan H. Avery, Avery Associates dated January 25, 2008 concerning valuation issues; and
4. John Connery, Connery Associates dated March 5, 2008 concerning a fiscal impact issues

all of which are retained in the files of the Board.

Findings:

After considering all of the information and materials that it has received, including the Plans, the prior Decisions, reports of the Applicant's consultants, correspondence and documents it has received, comments made at the Public Hearing, as well as reports from the Board's Consultants, and reports from other sources, the Board makes the following findings:

1. The site which is the subject of this Decision, known as Apple Hill, consists of lots which have been developed by the owners, The MathWorks, Inc. and Atlantic-Philadelphia Realty LLC., or their predecessors. The site, consisting of 35.039 acres, was developed under the provisions of Section II-G.2.B. as Phase I, a mall having both retail and office space and at-grade parking; Phase II, an office building with additional parking; and Phase IIB, an additional office building, a parking garage, and related improvements. This final phase, Phase IIc, will add an office building, a West parking garage, redevelop the Apple Hill I and III buildings and the East Garage, and make changes to the site layout. The existing Gross Floor Area ("GFA") for Phase I (Apple Hill 1) is 173,000 sq. ft.; the GFA for Phase II (Apple Hill 2) is 123,000 sq. ft., and the GFA for Phase IIB (Apple Hill 3) is 172,000 sq. ft. After reductions and additions to existing buildings and the addition of 142,519 sq. ft. of GFA for Phase IIc, the GFA for the Overall Site Plan will be 610,519 sq. ft.

Following the completion of the Project, the number of parking spaces located on the site shall be 2,344, which meets the parking requirements of the Natick Zoning By-Laws, including, without limitation, Section V-D 3. d) thereof.

2. The Project necessitates changes in the existing conditions for the site in order to redevelop and construct the buildings and the parking garage and, thus requires modification of the site plan approval and special permits previously granted in the Decision 6-82, as amended. This constitutes a material change of the overall site plan, which requires a public hearing.

3. The site is located in the Highway Planned Use (HPU) District as well as the Highway Corridor (HC) Overlay District. The proposed use of the building for business or professional offices and research and/or development and parking are permitted upon site plan review and the grant of a special permit in the HPU and HC Districts.

4. The Project proposes to change the Final Site Plan in a material respect and therefore requires a modification of the Site Plan Approval and Special Permit previously granted in Decision 6-82, as amended and modified by Decisions 15-96 and 2-98, pursuant to, inter alia, Section VI-DD. 3. In accordance with Section III-G.2.B., VI- DD.2.a. and Section 329.12 of the Natick Zoning By-Laws, the Planning Board is the Special Permit Granting Authority (SPGA) for the Project.

5. The Project requires the following special permits which the Board as special permit granting authority under the Zoning By-Laws is authorized to issue: (a) a special permit with site plan review, under Section III-G.2.B. to develop a parcel under an Overall Site Plan; (b) a special permit under Section 324.2 to increase the Base Floor Area Ratio (FAR) above 0.32 to a maximum FAR of 0.40 for parcels in the Highway Corridor Overlay District, subject to provision of public benefit amenities in accordance with Schedule I of bonuses for increased floor area; and (c) a special permit and site plan approval under Section 329.1 to exceed a FAR of 0.32, because its floor area will exceed the applicable FAR requirements of the Highway Overlay District.

6. The Project shall comply (subject to the Phase IIc Plans and waivers, modifications or exceptions granted) with the following requirements of the Zoning By-Law: the Criteria for Approval of a Final Site Plan set forth in Section VI-DD. 5; the Standards for Site Plan Review set forth in Section VI-DD.6; the Standards of the Highway Overlay Districts set forth in Section 320 et seq. (as applicable in the HPU District); and the Off Street Parking and Loading Requirements set forth in Section V-D.

7. Intensity Regulations. With respect to the intensity regulations for the Parcel, set forth in Section III-G. 3. For the HPU Zoning District, as modified by Sections 324 and 326 for the HC District, the following findings are made:

A. The Parcel has not been reduced in size and still consists of 35 +/- acres, which is greater than the 25 acre minimum required.

B. The continuous frontage for the Parcel is 1,641.03 feet along a four lane divided highway, which is greater than the minimum 1,500 feet required.

C. The setback from Worcester Road (Route 9) is 85.0 feet, which is equal to the minimum 85 feet required.

D. The minimum side and rear setbacks for buildings in the HPU district is 200 feet. The closest side or rear setback for the new Phase IIc additional office building is approximately 279 feet westerly. The minimum side and rear setbacks for the proposed new parking garage in the HPU district is 150 feet. The closest side or rear setback to the new parking garage is approximately150 feet westerly. The proposed building and garage setbacks meet or are greater than the required minimums.

E. The landscaped buffer strip requirement of 100 feet in width at all side and rear boundaries of the Parcel was established by means of a conservation restriction and is not modified by the Phase IIc Plans. A continuous berm was provided along the westerly side and rear boundaries of the Parcel, except where the Parcel abuts land of 275 feet in depth which has been preserved by a conservation restriction. The said berms within such strip are upgraded by the Phase IIc Plans as well as the landscaping along the easterly bound as shown on said Plans. Screening was provided under prior Decisions and will not be disturbed except that said berms shall be upgraded with additional landscape screening as shown on the Plans and subject to an Operation and Maintenance Plan approved by this Board.

F. The access to the Parcel is to be constructed as shown on the Final Site Plan by reconstructing the entrance and exit lanes into a combined main entrance/exit with a single curb cut on the Parcel and adding a deceleration lane to the said main entrance. The existing egress from the Parcel to the east is retained. This design complies with the access and egress requirements of Section III-G.3.B.h.

G. The parking arrangement complies with the requirements of the By-Laws and Decisions 6-82, 15-96, and 2-98. The HPU District By-Laws permit up to 50% of the minimum number of required parking spaces to be compact spaces. We find that of

the spaces required on the Parcel by the By-Law, approximately 26% are compact spaces (such spaces being between 7.5 and 9 feet wide and/or less than 18 feet long).

8. With respect to the requirements of Section 320, et. seq., the following findings are made:

A. FAR Calculation The Parcel (as prior consolidated from a number of lots) is 35.039 acres or 1,526,298.84 sq. ft. in area. In regard to Floor Area Ratio requirements, the existing building Gross Floor Area ("GFA") for Phase I (Apple Hill 1) for such purposes is 173,000 sq. ft., the GFA for Phase II (Apple Hill 2) is 123,000 sq. ft., and the GFA for Phase IIB (Apple Hill 3) is 172,000 sq. ft. The Applicant will reduce GFA of Apple Hill 1 by 40,080 sq. ft.; add GFA to Apple Hill 3 by 6,316 sq.ft. and the proposed building GFA for Phase IIc (Apple Hill 4) is 176,283 sq. ft. Thus, the FAR for the Overall Site Plan (which is the maximum permitted FAR with Bonus under Section 328.3 as permitted by and subject to the requirements of Section 324.2) will be 610,519(173,000 + 123,000+ 172,000 – 40,080 + 6,316 + 176,283) /1,526,298.84 = 0.40 FAR.

The computations for the compliance with the Schedule I of Bonuses under Section 328.3 of the Natick Zoning By-Laws are set forth in Table 1 attached to this Decision. As reflected therein, the Project, at a FAR ratio of 0.40, will be required to satisfy the Schedule of Bonuses to the extent of 142,519 square feet. To the extent the final architectural drawings disclose a lesser area the computation in Table 1 will be adjusted accordingly.

The Schedule I of Bonuses under Section 328.3 of the Natick Zoning By-Laws will be satisfied through provisions of the Public Benefit Amenities including the payment of the amounts identified and at the times and to the parties set forth in Table 1.

B. LSR Calculation. The Parcel presently includes retail and office uses. The Applicant proposes, upon completion of the Project, to discontinue the retail use and use the Parcel entirely for business or professional offices and research and/or development use. Pursuant to Section 325.1.1, the minimum required Landscape Surface Ratio ("LSR") = 0.40. The minimum required Landscape Surface Ratio for Bonus Projects in any Highway Overlay District pursuant to Section 325.1.2 shall be the sum of: (the base LSR determined by Section 325.1.1) + (one-half of the difference between the proposed FAR and 0.32) The total FAR on the Parcel, including the proposed Phase IIc building is 610,519 sq. ft. (.40 FAR). The minimum required LSR is therefore (0.40) + (1/2 x 0.40 – 0.32) = 0.40 + 0.04 = 0.44. The total landscaped or pervious area for the Parcel, when the Phase IIc improvements are

built, will be 810,102.89 sq. ft. (exclusive of non-countable wetland area). The actual LSR that will exist when the Project is built will be 810,102.89/1,489,697.04 (exclusive of non-countable wetland area) = 0.544 LSR. The Project will exceed the minimum required LSR.

C. Dimensional Regulations (Height). The proposed 54 foot height of the proposed office building is under the 75 foot maximum allowable for a building located greater than 400 feet from a Residential Use District, as permitted by Section 326.1. It is noted that certain limited architectural features facing Worcester Road, Route 9, as developed through the peer review process, reach but do not exceed the 75 foot maximum only in the limited area in the front area of the proposed office building. The proposed height of the westerly parking structure varies according to the distance from the adjoining residential district to the West and the South but at 20 feet is substantially under the 40 foot maximum allowable for a building located greater than 50 feet but less than 200 feet from a Residential Use District as permitted by Section 326.1.

D. Dimensional Regulations (Setback). The Project meets all the setback requirements of the underlying HPU District as well. All structures are set back a minimum of 30 feet from residential districts and existing residential uses, as required by Section 326.3.

E. Final Site Plan- Landscaping Requirements. The Final Site Plan is consistent with the general purpose and intent, set forth in Section 327.3, and the objectives, set forth in Section 327.4, for landscaping in Highway Overlay Districts. The Final Site Plan complies with the general standards for landscaped buffer strips specified in Section 327.51 and the specific standards specified in Section 327.52, as discussed below, and has been prepared by a registered Landscape Architect, as required by Section 327.2. The 85 foot buffer along Route 9 shown on the Final Site Plan is unchanged from the present Site Plan except as upgraded along Rt 9 in the area of the new office building which is carried through to the westerly lot line of the Parcel and the same meets or exceeds the Specific Standards for Depth of Section 327.521, except as upgraded. The berm adjoining the residential district is unchanged from the prior approved berm, other than as upgraded as shown on said plans, and continues to meet or exceed the requirements of Section 327.525. The buffer strip adjoining the residential district is unchanged, other than as upgraded as shown on said plans, from the prior approved opaque screen and satisfies the requirement as specified in Section 327.524.

F. Landscaping within Off-Street Parking Areas. The proposed parking area is broken into sections and contains terminal islands and a divider island as specified in Section 327.6.

G. Landscaping Adjacent to Buildings. Except for areas on the east and southern sides of the new office building (sometimes designated AH 4); the landscaping adjacent to the building is 10 feet deep. The landscaping area adjacent to the building is less than 10 feet along the eastern face, along the southern face and at (the southwest corner of the building.) The Board waives the 10 foot landscaped depth requirement in these areas, finding that sufficient landscaped areas and pedestrian sidewalks to be provided as shown on the plans submitted by the Applicant to insure pedestrian safety and an appropriate design for the building and site.

H. Pedestrian Access. The Applicant proposes a pedestrian walkway across the Site as shown on said plans, continuing through part of the buffer in front of the Project, which will connect with a proposed walkway easterly from the Project easterly to Walnut Street and westerly to Linden Street. The sidewalk will be of the same materials and width as the existing walkway along Route 9. The Board finds that the sidewalks, pedestrian access, and crossings as proposed are appropriate to the Site and area and will provide a benefit to the Site and neighborhood by, among other things, the proposed connection to Walnut Street. The Board finds that the pedestrian access complies with Section 327.81.

I. Parking Lot Layout. The proposed parking lot layout, curbing, walks, markings, and ramps maximize the safety and convenience of pedestrians walking between parked cars and the proposed office building as per Section 327.82.

J. Walkways. The Board waives the requirement of Section 327.83 for a 6 foot wide walkway, on the basis that, in general, the proposed 5-foot wide walkways, will not create conditions which are substantially more detrimental to the site and the neighborhood than a 6-foot wide walkway and are sufficient.

K. Buffers and Screening. Landscaped buffers and screening do not restrict sight distances at driveway entrances.

L. FAR Increase. In respect to the findings required for FAR increase pursuant to a Bonus project, so called, under 324.9, the Applicant, among other things, has proposed:

a. In respect to traffic mitigation, there is a Traffic Management Project for a signalized U-Turn approximately 1300 feet westerly of Oak Street on Route 9 to relieve the burden of site traffic as well provide regional benefits to this area of Route 9. More specifically, this signalized U-Turn which will be in the area known as the "sunkaway" and provides a U-Turn capacity for a westerly U-Turn only, will be coordinated to Oak Street lights located further easterly on Route 9 and will not interrupt the East Bound traffic flow. This will result, among other things, in a reduction of Site traffic in the region on the local neighborhood roads and the substantial diminishment of Site traffic in the certain immediate neighborhoods southerly of Route 9, such as Bacon Street, (more than a 50% reduction of past traffic) for people using Route 9 who wish to reverse direction using the "loop" through the neighborhood side streets (Walnut, Bacon Street and Route 27). It is further noted that the Applicant, after substantial review with the Planning Board Traffic Subcommittee, has submitted documentation to MassHighway for its approval of this proposed measure and that MassHighway issued a letter dated October 15, 2007 indicating that it supports this infrastructure concept in connection with the Applicant's Project. (Letter of Commissioner Paiewonsky dated October 15, 2007 referenced above.) This Traffic Management Project would be undertaken by the Applicant.

b. The Applicant has proposed Traffic Management Projects for certain mitigation including a Program for assistance in the engineering, design work and permitting in respect to the upgrading of the intersection at Route 9/Oak Street. The Route 9/Oak Street intersection is on the Commonwealth's Traffic Improvement Project ("TIP") list but requires design effort. The Project proposed by the Applicant for this intersection will provide substantial mitigation and benefit to the Town of Natick and region.

c. The Applicant has proposed a Traffic Management Project for certain study and design work in respect to the intersection at Route 9/Route 27.

d. As prior noted, the Applicant along with the Town, has submitted MORE Grant Applications to the Commonwealth of Massachusetts MOBD and a Grant in the amount of $1,300,000 has been made by the MORE Program to promote infrastructure projects in connection with The MathWorks job growth. The Applicant has conformed its application to the request of Mass Highway regarding allocation of such funds.

e. In addition, the Applicant has agreed to a Traffic Management Project to provide certain traffic controlling measures at the five way intersection of Walnut

and Bacon Street which will provide substantial benefit to the residents nearby and the Town of Natick.

f. Also, the Applicant has agreed to the remaining Traffic Management Projects as specified in Schedule A - Exhibit 1 attached hereto.

9. With respect to the content of Phase IIc Plans and other submittals required by Section VI-DD. 3. b., the Board finds that the Phase IIc Plans comply with the requirements of this section.

10. With respect to the Criteria for Approval required by Section VI-DD. 5., the Board finds that the Criteria are met and makes the following specific findings:

A. Compliance with Zoning Bylaws. The Phase IIc Plans comply with all provisions of the By-Laws; in particular, the provisions of Sections III-G, 320, et seq., V-C and V-D, or such provisions have been specifically waived as authorized by the By-Laws.

B. Protection the Adjoining Premises. The proposed landscaping and site layout for the Project provides protection and screening from objectionable features, and, along with the construction and Operation and Maintenance Plans, buffers against light, sound, dust, noise, and vibration, protecting the adjoining premises against seriously detrimental or offensive uses on the Parcel.

C. Circulation. The Project's circulation system adequately provides for improved pedestrian and vehicular movements on the Parcel.

D. Disposal of Wastes. The proposed office building will be connected to the public sewer.

E. Adequacy of Stormwater System. The Project's proposed stormwater system, as approved adequately deals with increased volume of runoff associated with the Project and will not impact existing groundwater conditions on or off the Parcel.

F. Protection of Significant Features. Other than upgrading the detention basin and adding landscaping materials and improving existing berms, there are no significant features on the site which will be altered.

11. With respect to the Standards for Site Plan Review required by Section VI-DD. 6., the Board finds that the Standards have been addressed to its satisfaction and makes, without limitations, the following specific findings:

A. Preservation of Landscape. The finished contours on the Phase IIc Plans will depart only minimally from the previously existing site contours, and will be consistent with the site contours of Phase I, Phase II, Phase IIB and the surrounding properties. Tree and soil removal will be minimal and will be reused so far as possible.

B. Relation of Buildings to Environment. The placement, scale, and materials of the proposed office building on the Parcel have been designed to be compatible with Phase I, Phase II, and Phase IIB of the development so as to minimize disruption of the topography.

C. Open Space. The Project's open space has been arranged in a way to add to the visual amenities of the Parcel, and, to the extent possible in the context of the existing surrounding area, it will be attractive to persons passing the open space and will be well screened to those who may be overlooking it from nearby properties.

D. Circulation. The Project's vehicular and pedestrian circulation is consistent with that of the Parcel. However, the effects on several intersections in the area require certain mitigation in accordance with the findings of the Applicant's and the Town's traffic consultants' traffic improvements. These findings regarding the Traffic Improvements are adopted, in part, by the Board pursuant to the conditions made part hereof.

E. Surface Water Drainage. The Applicant has appeared before Natick Conservation Commission and a Land Disturbance Permit Decision dated June 4, 2008, has been issued by the Natick Conservation Commission in accordance with the Stormwater Management and Erosion Control By-Law with which the Applicant shall comply. Site surface drainage will be adequate in conjunction with said Decision and the existing detention basin as approved in prior Decisions as well as the additional drainage systems and modifications to existing systems as shown on the Phase IIc Plans. The Board finds that the Project complies with all applicable regulations and standard engineering practices and, as such, will not pose a negative impact.

F. Ground Water Discharge and Quality Preservation. The Applicant has appeared before Natick Conservation Commission and a Land Disturbance Permit Decision (LPD #2) dated June 4, 2008, has been issued by the Natick Conservation Commission in accordance with the Stormwater Management and Erosion Control By-Law with which the Applicant shall comply. With respect to groundwater quality preservation, the Board finds that the Project complies with all applicable regulations

and standard engineering practices and, as such, will not pose a negative impact. It is noted that the Landscape Surface Ratio (LSR) exceeds 0.54.

G. Utilities. The placement of Project utilities is underground and so located as to provide no adverse impact on the groundwater levels and to be coordinated with other utilities on the Parcel.

H. Advertising. Any future changes in signs and outdoor advertising shall be considered to be changes which are an integral element in the design and development of the site which shall be subject to approval by the board as provided below. The Board finds that such signage changes are a minor modification to the Final Site Plan, which do not require a public hearing.

I. Other Features. The proposed Heating Ventilation and Cooling (HVAC) units, and ventilation fans, as well as diesel generator and transformer for the Project will not increase sound levels above existing Massachusetts Department of Environmental Protection ("MDEP") guidelines.

J. Safety. The Project, as planned, facilitates building evacuation, properly provides for accessibility by fire, police and other emergency personnel and does not have exposed storage areas, machinery installation, service areas and similar accessory areas or structures that are hazardous or visually incongruous with the surrounding properties.

12. Off-Street Parking. The Project complies with the requirements of Section III G.3.B i. and Section V-D for off-street parking, including the landscaping requirements for off-street parking.

13. Based on and in consideration of the foregoing findings, the Site Plan, the record of this public hearing, and the conditions of this decision, including but not limited to the Traffic Management Projects as specified in Schedule A – Exhibit 1 to be undertaken by the Applicant, the landscaping and screening as shown on the Site Plan, and the Landscape Operations and Maintenance Plan, it is found that the proposed Project is not substantially more detrimental to the neighborhood than the existing structures or use, that the increase in FAR to 0.40 shall result in a development that shall not be substantially more detrimental to the neighborhood than the project at the base FAR of 0.32, and such development will achieve the goals, objectives and intent of these Highway Overlay District Regulations and the increase will achieve compliance with these Highway Overlay District Regulations to a substantially greater degree as compared to development at the base FAR of 0.32, as well as meets the criteria and standards of Site Plan Review as herein indicated.

Decision:

After deliberation and consideration of all the foregoing, the Board at its meeting of July 16, 2008, voted to modify its 1982, 1996 and 1998 Decisions granting Site Plan approvals and Special Permits for the Parcel, under the provisions of Sections III-G and VI-DD, and to grant a Special Permit with Site Plan Review for the Project, under the provisions of Section 329, to grant all necessary waivers, including those as specified herein, and to approve the Phase IIc Plans subject to the following conditions:

1. The Phase IIc Plans (as endorsed by the Board this date) shall be added to the Final Site Plan previously approved and shall supersede same to the extent that said Plans conflict with such Final Site Plan approved under prior Decisions. The resulting combination of plans shall be thereafter referred to as the "Final Site Plan."

2. The Board's endorsement of approval on the revised Phase IIc Plans shall be considered to be its determination that all conditions of this Decision which require amendment of such Phase IIc Plans have been satisfactorily met.

3. All construction shall be carried out in accordance with the Phase IIc Plans in all material respects. All utilities are to be located underground, except the existing utility poles and lines along Route 9.

4. A photographic Mylar together with three copies of the approved Phase IIc Plans and a digital file copy in a format acceptable to the DPW shall be provided to the Board following endorsement by the Board.

5. The Applicant shall comply with the Section 327 findings regarding landscaping requirements, as set forth in this Decision regarding landscaping in the Project; and more specifically shall do the following:

> A. In conjunction with the Board's consultants, the Applicant's Landscape Architect shall finalize the list of plantings to be installed as part of the landscaping for the Project and once such list is finalized, the same shall filed with the records of this Decision. With such list of plantings, the landscaping shall be installed as described in the Final Site Plan. In the event the Applicant has not installed all or any portion of the landscaping material at the time of requesting an occupancy permit, 200% of the Applicant's cost for the portion of the landscaping material that is not then purchased and/or installed shall be posted as security for installing such landscaping at a later time, such sum to be secured in a manner acceptable to the Board.

B. In conjunction with the Board's consultants, the Applicant's Landscape Architect shall confirm supply to the irrigation system from well(s) and/or cistern(s) and/or other non-municipal sources and in the pump(s) which operate(s) it, to irrigate the landscaping.

C. For a period of two (2) years after the final certificate of occupancy the Planning Board shall have the right to require the site lighting system to be modified to correct deficiencies in its operation.

D. The Applicant shall maintain, and shall enter into a covenant entitled "Covenant for Operations and Maintenance Plans" with the Town, consistent with the form attached hereto and made part hereof as Schedule B, requiring the maintenance, in good condition, of all landscaped open space and buffer strips. The Applicant shall provide a Letter of Credit in the amount of 10% of the cost of the landscaping to ensure that required landscape plantings are maintained and survive for three growing seasons following completion of planting.

E. No temporary or permanent occupancy permit shall be issued by the Building Inspector until the Board has approved the installation of all landscaping and buffer strips in conformance with the approved landscape plan and planting schedule, or thirty (30) days has elapsed since the filing of a written request for such approval with the Board and the Building Inspector, or the Applicant has posted the security as required pursuant to paragraph 5.A. above.

F. Notwithstanding the foregoing, no occupancy permit shall be issued prior to the completion of Site Landscape Proposal Phase 4 as shown on Sheet L-3. Berms and landscaping shown on the site plan shall be constructed concurrently with the construction of the east and west garages.

6. A. The Applicant shall undertake or pay the required amounts as determined pursuant to the Traffic Management Projects and Other Mitigation as specified in Schedule A-Exhibit 1 attached to this Decision and made part hereof, as well as pursuant to the timing of such projects indicated therein. No final occupancy certificate shall be issued if any required construction or contributions to be undertaken or made by the Applicant pursuant to said Schedule A-Exhibit 1 prior to such issuance of said Certificate of Occupancy have not been completed or undertaken consistent with this Decision, as the case may be. The Planning Board shall retain authority to specify the manner in which such sums are to be made available and allocated for the specific Traffic Management Projects and consistent therewith and shall retain the right, after notice and public hearing, to reasonably

modify the allocation of such funds in respect to projects based on the nature and extent of their relationship to the proposed Project.

No occupancy certificate shall issue prior to the submission of surety for $65,000 escrow for the possible augmentation of Schedule A-Exhibit 1, item 13. Such amount shall be held for supplemental mitigation, should it be found necessary, after notice and public hearing, by the Planning Board, and shall be retained for 3 years following the issuance of a final occupancy certificate.

Preliminary plans consistent with the requirements of the Massachusetts Highway Department for Schedule A-Exhibit 1, items 1, 2, 3, 5, 12, and 19 shall be submitted to the Planning Board for approval prior to the issuance of building permits. Dimensional and material plans for Schedule A-Exhibit 1, items 7 and 13 shall be approved by the Planning Board prior to construction.

B. The final design of Traffic Management Projects and Other Mitigation that is contemplated will be determined in conjunction with the Department of Public Works and, where the Massachusetts Highway Department has jurisdiction, the Massachusetts Highway Department as well as other state agencies and municipalities as the case may be. It is recognized that a number of such projects require joint efforts over time by a number of parties. Such projects include, but are not limited to, the redesign of the Route 9/Oak St. intersection for which the applicant has provided a Program, attached to and made part of Schedule A, Exhibit 2 thereto, for its continued involvement in such efforts. The applicant shall provide copies of all sent and received correspondence and submissions pertaining to this section to the Clerk of the Planning Board for inclusion in its records. The provision of Section 15 of this Decision shall be applicable to the efforts and design of such projects.

C. The Applicant shall sustain its membership in a regional transportation management agency, as approved by the Planning Board, and to such conditions that such agency may reasonably assess to projects of this scope.

7. The Applicant obtained a Decision from the Natick Conservation Commission dated May 15, 2008 in accordance with the requirements of the Stormwater Management and Erosion Control By-Law and shall comply with all terms thereof or as the same may be modified hereafter.

8. All retail use at the property shall cease prior to the issuance of an occupancy permit and no retail use shall be permitted at the property after the issuance of the occupancy permit

under this decision except as to one retail lease of 2900 square feet to April 30, 2014 which shall terminate at the latest on April 30, 2014 and shall not be renewed after termination.

9. The proposed office building will be connected to the public sewer. The Project's proposed sanitary flows, as approved, adequately deal with the increased volume associated with the Project. In addition, the Applicant shall pay $118,000 to the Town in regard to relining and rehabilitation by the town of approximately 1500 linear feet of existing sewer main located in Route 9 fronting the site. Such payment shall be made upon the start of construction of the Project or thereafter, upon the determination of the Town Engineer in connection with the timing of the award of such contract, but in any event, no later than the issuance of a Certificate of Occupancy for the Project.

10. No occupancy permit shall be issued by the Building Inspector until the Applicant has submitted and the Planning Board approved (a) the garage louver design and detailing; (b) site and any other exterior building signage; (c) decorative/feature lighting at AH4 in regard to lighting fixture; (d) design of the bus shelter; (e) signage for the deceleration lane and entrance to the property , and (f) design for the stair canopy on the top floor of the westerly garage.

11. Payments and actions on account of FAR will be made by the Applicant prior to the issuance and effective date of the building permit in accordance with Table 1 attached hereto and made part hereof, unless otherwise determined herein. To the extent the final architectural Plans disclose a lesser floor area, the computations in Table 1 shall be adjusted accordingly.

12. No occupancy permit (other than a temporary occupancy permit which the Building Inspector shall have the authority to issue) shall be issued by the Building Inspector until (1) the Applicant has provided the Town with as-built plans in accordance with Town of Natick Department of Public Works specifications, and (2) the fence along the easterly bound of the site has been replaced with a new fence.

13. No occupancy permit shall be issued by the Building Inspector until the Applicant has provided the Town of Natick Department of Public Works (DPW) a sewer entrance fee based on the increase sewer flows from this site. The amount of the sewer entrance fee shall comply with the DPW requirements.

14. Whenever the Applicant is required to submit revised drawings, design details, or other information to the Board, the provisions of the Board's rules and regulations regarding the Applicant's obligation to provide funds for the hiring of consultants to review such submissions shall apply, and the Board shall retain jurisdiction of the matter in order to assure that these submissions are in compliance with the foregoing conditions.

15. No occupancy permit (other than a temporary occupancy permit which the Building Inspector shall have the authority to issue) shall be issued by the Building Inspector until the Applicant has provided to the Board copies certified by the Registry of Deeds of all easements, covenants and conservation restrictions, and modifications thereto, as the case may be, required by this approval. In the event the Applicant is unable to provide such certified copies at the time the Project is ready for occupancy, because of the failure or inability to act of others, the Applicant may apply to the Board for modification of this condition and such request shall be considered to be a minor modification of this Decision not requiring a public hearing.

16. With respect to any changes in the Final Site Plan that may be requested by the Department of Public Works or other state or municipal agencies in connection with their issuance of permits for the Project which are inconsistent with the Final Site Plan, the Board shall retain the authority to determine whether such changes constitute a minor modification to this Decision. Any such determination by the Board shall not require a public hearing.

17. No occupancy permit (permanent or temporary) shall be issued by the Building Inspector until such time as the applicant has granted to the Town of Natick and properly recorded at the Registry of Deeds an easement for the relocation of the existing Town of Natick water main through this site or otherwise provided for such easement to the satisfaction of the Town of Natick Department of Public Works. The relocation of the water main and the associated final easement plan shall meet with the requirements of the Town of Natick Department of Public Works. Further, the applicant shall be required to abandon the existing water main easement in accordance with the requirements of the Town of Natick.

18. The Applicant has indicated on the Phase IIc Plans (i) the total number of parking spaces on the Parcel and (ii) that the number of compact parking spaces does not exceed 50 percent of the minimum number of parking spaces required by the By-Laws.

19. The Applicant, its successors, and assigns shall annually request all employees working on the Parcel not to travel southbound on Walnut Street between Worcester Street (Route 9) and Bacon Street between the hours of 4:00 p.m. and 7:00 p.m., Monday through Friday, except for those employees residing in or traveling to the area bounded by Worcester Street (Route 9) on the north, North Main Street (Route 27) on the west, West Central Street (Route 135) on the south, Marion Street on the east, northerly to Bacon Street, Bacon Street easterly to Oak Street, and Oak Street northerly to Worcester Street (Route 9), or areas southerly of Route 9. The Applicant, its successors, and assigns shall certify annually to the Community Development Director that it has complied with this condition, said certification to be delivered no later than the first Monday of April of each year.

20. Other than as modified herein above, Decisions 6-82, 15-96, and 2-98 shall remain in full force and effect.

21. The Board shall be the administrative authority on behalf of the Town of all of the conditions set forth in this Decision. The Board shall be the sole judge of completion and satisfactory performance of the conditions of this Decision.

NATICK PLANNING BOARD

Member	Vote
Robert W Ewenmenge	Yes
Robert Baston	Yes
Andy Meyer	Yes
Jean M Olivier	YES

Member	Vote
Jules Manning	YES

Date July 17, 2008

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SCHEDULE A-EXHIBIT 2

OAK STREET-ROUTE 9 PERMITTING PROGRAM

The MathWorks support of the Oak Street / Route 9 highway project, in conjunction with the approved MORE JOBS GRANT by the Commonwealth of Massachusetts, shall incorporate both executive level and consultant support (including the designation of a Project Manager from The Mathworks on an as-needed basis) in respect to tracking the process as well as attendance at meetings at the state level in furtherance of the project and the MEMORANDUM OF UNDERSTANDING between the Town of Natick and MassHighway dated March 4, 2007.

As further assurance to its commitment to the completion of the MassHighway recommended improvements to the Route 9/Oak Street intersection, prior to obtaining the building permit for their proposed expansion, The MathWorks will provide a $100,000.00 letter of credit for the benefit of the Town of Natick from a commercial bank satisfactory to the Town. The letter of credit will have a stated duration of one year and will be renewed annually until construction begins on the highway project subject to the additional provisions indicated below.

The letter of credit will include a provision allowing for the reduction of the amount of the letter of credit upon the achievement of certain highway project milestones.

Milestone I: "25% Design Phase Completed"

The milestone subcategories include: (a) Selection of a design consultant by MassHighway; (b) the selected consultant begins the 25% design process and brings it through preliminary design; (c) MassHighway reviews preliminary design plans and, in conjunction with the design consultant, MassHighway, with the Town and applicant's support, conducts the required local public hearings; and, (d) upon completion of the public comment process, MassHighway issues its 25% design review comment to the consultant and authorizes the development of 75% design plans.

Letter of Credit requirement reduced to $75,000.00

Milestone II: "75% Design Phase Completed"

The milestone subcategories include: (a) Secure movement of the project on the state's Transportation Improvement Project to an acceptable date; (b) the design consultant completes 75% design; and, (c) MassHighway issues comments on 75% design and authorizes commencement of 100% design.

Letter of Credit requirement reduced to $50,000.00

SCHEDULE A- EXHIBIT 2 (Oak Street- Route 9 Permitting Program) Continued:

Milestone III: ""100% Design Phase Completed"

The milestone subcategories include: (a) MassHighway formally initiates the necessary right of way takings; (b) the design consultant addresses MassHighway 75% design comments and submits 100% plans; and, (c) MassHighway reviews final plans and authorizes the preparation of Plans, Specifications and Estimates, i.e. final bid documents.

Letter of Credit requirement reduced to $25,000.00

Milestone IV: "Construction Begins"

The milestone subcategories include: (a) MassHighway completes the right of way takings; and, (b) contractor is selected: and (c) construction begins.

Letter of Credit requirement reduced to $0

TABLE 1

THE MATHWORKS

FAR COMPUTATIONS

A. PROPOSED TOTAL (FAR) FLOOR AREA POST BUILD OUT 610,519 sf

Total existing FAR floor area (468,000 sf)

Net additional floor area available for The MathWorks Project 142,519 sf

B. CREDITS

C. TOTAL BONUS FAR FLOOR AREA REQUIRED FROM SCHEDULE I 142,519 sf

D. SCHEDULE OF BONUS CALCULATION:

Traffic Related Combinations: (ESTIMATED) Credit @100%

Traffic Management Projects:		FAR Credit Amounts
1.	Proposed Route 9 U-turn	
2.	Route 9/Oak Street (Interim Improvements)	
3.	Route 9/Oak Street (Emergency Pre-emption)	
4.	Route 9/Oak Street & Overbrook (Final Improvements: Design only)	
5.	Route 9/27 (Interchange) (Interim Improvements)	
6.	Route 9/27 (Interchange) (Final Improvements: Planning Study & Design only)	
	(1-6 Total:)	$532,800
7.	Walnut Street/Bacon Street (Intersection safety improvements & curbing)	$44,250
8a.	Route 27/Bacon Street (Upgrade signal & add southbound lane)	$0
8b.	Route 27/Bacon Street (Emergency Pre-emption)	$51,000
9.	Route 27/Rutlege Street (New signal)	$0
10.	Route 27/ 9/27 Shopping Center (Upgrade signal)	$50,250
11.	Route 27/ 9/27 Shopping Center (Emergency Pre-emption)	$12,000
12.	Route 9 (Sidewalks: Walnut Street to site)	$12,500
13.	Wethersfield Road (Granite curbing)	$52,000
14.	Park Street (Traffic calming)	$33,750
15.	Walnut Street neighborhood (Traffic calming)	$55,500
16.	Bacon Street neighborhood (Traffic calming)	$39,750

TABLE 1(FAR Computations) Continued:

17a.	TDM	$15,000
17b.	Bus shelter	$20,000
18.	Traffic Monitoring (2 events)	$0
19.	Linden Street (Regrade; provide drainage; repave & sidewalk) $63,000	
21.	Ped. Connection east of Walnut Street	$980,000
22.	Right of way dimensional acquisition	$285,000
23.	Affordable Housing 3 unit	$240,000
	Total Credit:	$2,486,800

TOTAL SQUARE FOOT CREDITS:	$2,486,800.00		
	÷ $20.00 =		124,340 sf
E. (24) OPEN SPACE (CONTRIBUTION TO OPEN SPACE FUND)	$363,580.00		
	÷ $20.00 =		18,179 sf
			142,519 sf

TABLE I – CONTINUE

INSTALLMENT PAYMENT PARAGRAPHS

As reflected in Schedule A attached to this document, the satisfaction of Schedule I of Bonuses shall be satisfied, in part, by the payment of money and, in part, by the work that the Owners will undertake.

As reflected in Schedule A, Items 21-24, the Owners shall pay certain sums to the Town for the Town's use in constructing certain improvements listed in Schedule A Items 21-24 consistent with the terms and time specified therein except as follows.

The contribution to the Open Space Fund and for all Items 21-24 on Schedule A, such contributions shall be made in three (3) installments in the following portions and prior to the occurrence of the following events: Twenty-five (25%) 6 months after the effective date of the final Building Permit; twenty-five percent (25%) 12 months after the effective date of the final Building Permit; and the balance upon the issuance of the Final Occupancy Permit.

LANDSCAPING OPERATIONS AND MAINTENANCE PLAN

THE MATHWORKS, INC.

Re: Landscape Operations and Maintenance Plan for The Mathworks, Inc., Natick, MA, pursuant to the Landscape Plan approved by the Natick Planning Board and dated July 16, 2008.

1. Objectives

The objective of this document is to insure the on-going maintenance of the landscape for the safety and enjoyment of its inhabitants and neighbors. Much study and resources are being invested to develop this landscape. This investment needs to be well managed and maintained over time to reach fruition. The site contains landscapes requiring varying levels of maintenance. Natural/ conservation areas, landscape buffers and highly maintained areas adjacent to user facilities will require different levels of regular maintenance. A landscape plan should be developed in greater detail as part of the maintenance contract for this facility. This document is intended to provide general guidelines and goals for the site.

2. Notification of Work Landscape Operations to be performed:

Notification of work to be performed within landscape buffers or areas adjacent to residences shall include Community Development Director & abutters adjacent to said landscape buffer area a minimum of 7 days in advance of any operations other than emergencies. Notification shall include scope of work and contact person.

3. Plant Material Maintenance:

A. Trees:

1. Removal of dead materials from trees shall only be executed under the supervision of a Massachusetts licensed arborist in accordance with the National Arborists Association Standards.

2. Removal of dead trees shall be done as required. All trees shall be guaranteed and replaced with material that is specified within the Buffer Plant List as shown on the approved Landscape Plan.

3. Plants transplanted on-site shall be replaced with the specimen material as noted below, if they fail to establish or subsequently die. All plantings shown on the approved Landscape Plan shall be maintained & replanted as required to maintain the intent of screens, buffers or ornamental purposes.

Shade trees 3.5"-4" caliper
Evergreen trees 12'-14' Ht. B&B

4. Clearing of dense growth to encourage healthy plant development in wooded buffers shall be considered an on-going maintenance requirement. The screening of adjacent residences shall *not* be compromised in order to further this goal. A Licensed Arborist or Landscape Architect shall mark all trees and notify the Town, pursuant to the notification requirements in Section 2 hereinbefore, prior to removing trees within landscape buffers.

B. *Shrubs & groundcovers:*

1. Pruning of shrubs shall not be done in a manner which changes the natural character and appearance of the shrub. Shrubs shall be pruned in accordance with the National Arborists Association Standards.

2. Groundcovers shall be maintained and controlled to prevent covering trees & shrubs.

3. Clippings and debris shall be cleaned up and removed properly. No burning shall be allowed.

C. *Mulching, raking, fertilizing & watering as shown on the approved Landscape Plan:*

1. Mulch shall be placed in plant beds to a depth of approximately (4) inches after settlement. Mulch depth shall not exceed 4 inches and shall not be higher than natural root crown.

2.Beds shall be weeded, edged and cultivated; soil conditioners such as peat moss or composed leaf material shall be added.

3.Fertilization shall be done at least once a year in early spring.

4. Irrigation Systems shall be maintained functional throughout the growing season May through October. Systems shall be winterized by blowing out all lines prior to freezing temperatures.

5. Raking, blowing and leaf collection shall be performed as required in landscape areas. Leaf litter may be allowed in landscape buffers or naturalized areas. However these areas shall not be used to dump grass clippings or leaves collected from other areas. Catch basins, manholes and other drainage structures shall be cleaned as per the Conservation Commission's approved Stormwater Operations and Maintenance Plan.

D. Invasive Species Control

Control of invasive species shall be an on-going operation within all landscaped areas. In areas requiring annual maintenance for these purposes a control plan shall be provided to the Town with annual reports.

E. Insect/ Pest Control

Treat all plant materials as required to maintain good health and pest free conditions. Manufacturer's recommendations, State requirements for spraying and handling shall be followed during spraying/ treatment operations. Applying pesticides should occur at times when exposure to residents or pedestrians are minimized. Environmental factors such as wind and air temperatures should be observed. Signs shall be posted in accordance with State regulations.

4. Site amenities, Lighting, Benches, Trash Receptacles, Bike Racks

A. All site amenities shall be maintained and operational and in good condition.

B. Lighting shall not reflect off the site in any circumstances. All complaints shall be answered in writing to the Town as to the solution if any is required.

C. Trash and litter shall be picked up prior to mowing. Complete trash and litter clean up of all paced and planted areas to maintain the site in a clean, orderly condition.

D. All paved areas including perimeter walks shall be swept clean of all dirt and debris as part of the regular site maintenance.

E. Fencing, walls and other site features shall be maintained in good condition and free from physical defects.

5. Procedures

A. At the end of the 3 year (Growing Season Security) term in which security by Letter of Credit is required to ensure that such Landscaping survives for three (3) growing seasons, the Landowner shall provide a Letter of Credit for the benefit of the Town of Natick in the amount of $100,000.00 from a commercial bank satisfactory to the Town (the "Letter of Credit") pursuant to the terms hereof. The Letter of Credit shall have a duration of one year and shall be renewed annually as of the date of the yearly site visit set forth in subparagraph B.

B. The Town of Natick shall make a yearly site visit on the first Monday in April of each year. Abutters shall be given 7 days' notice of the time and place of the site visit and are welcome to attend, provided there are no federal or other governmental restrictions in respect thereto.

C. A property contact person will be designated by the landowner and the name and contact information for the designated contact person shall be provided to the Office of Community Development annually as of the date of the annual site visit. The Landowner will notify the Community Development Director of any change in the name or contact information of the designated contact person within 7 days. Abutters are encouraged to contact the designated contact person and provide information in respect to any reasonable concerns as to the landscaping aspects of the Site Plan, this Landscaping Operation and Maintenance Plan, or the operation and maintenance of the landscaped buffer areas so as to resolve any issues at the earliest stages.

Present contact:

Name Joseph M. Joyce

Title	Director of Real Estate and Facilities
Address	The Mathworks, Inc.
	3 Apple Hill Drive, Natick, MA 01760
Telephone	508-647-7975
Fax	508-647-7001
Email	jjoyce@mathworks.com

The property contact person shall display a copy of this Landscaping Operations and Maintenance Plan at the site of his or her office as the premise property.

If there is concern regarding any substantial unresolved issues, abutters shall have the right to provide a written statement outlining the issues to the Office of Community Development with a copy to the Landowner and its designated contact person. The Community Development Office will make reasonable effort to reach a consensus in regard to any such issues, including by site visit with reasonable Town peer review at Landowner's cost, if appropriate. Such Office may consolidate multiple comments received, utilize resolution efforts consistent with its duties with respect to such Office's remaining obligations to the Town and as such Office deems reasonable and efficient. If such issues are of a non emergency nature, the town may schedule a site visit in a manner reasonably convenient to all parties. If such matter is in the nature of an emergency immediately affecting public health or safety, the town may call for an immediate site visit.

D. If after such procedures there remains issues unresolved concerning the Landowner's compliance with the Site Plan or this Landscaping Operations and Maintenance Plan, the matter may be brought before the Planning Board for its review and determination after notice and public hearing. The Planning Board shall have the authority to issue an order to the Landowner for maintenance or remediation of any noncompliance with the Site Plan or this Landscaping Operations and Maintenance Plan.

E. After all resolution procedures hereinbefore defined, if the Landowner has failed to comply with its obligations pursuant

to said Plans and the determination and order of the Planning Board in regard thereto, the Town shall have all rights regarding enforcement pursuant to the Covenant for Operations and Maintenance Plans including its lien provisions thereunder, dated July 17, 2008 (hereinafter "Covenant") and, in addition, shall have the following security and rights for immediate remedial action:

1. Provided the procedures herein and in said Covenant have been adhered to and have failed to resolve the issues in a reasonable manner, the Planning Board may, if the Landowner has failed to institute such maintenance or remediation pursuant to the order of the Planning Board, after notice and public hearing vote its approval of the expenditure of such funds from the Letter of Credit to remediate a failure to reasonably comply with such Landscape Buffer Plan by the Landowner as well as contract for such work consistent with the Site Plan or this Landscaping Operations and Maintenance Plan.

2. If such funds from the Letter of Credit are so utilized, they shall be replenished within 30 days of notice to the Landowner.

3. After 10 years of operation and maintenance of such landscaped buffer areas, the Landowner shall have the right to petition the Town of Natick for a release and elimination of such security requirements based upon a finding that the Landowner has reasonably complied with its obligations in regard to said Landscape Buffer areas. The town shall have the right to reasonably eliminate, modify or reinstate such security requirements consistent with past performance, but only after notice and public hearing.

F. Notice pursuant to subparagraph D, to be valid and effective to any party, shall be required to be in writing and transmitted by US mail, postage prepaid with a copy to the landowner contact/manager at said address noted hereinbefore as the same may be updated. Electronic transmittals shall not be deemed to be valid or effective notice. Such notice shall reasonably explain the issues and

scope of problem being raised and provide name, address and fax number if available for return contact.

G. Rights of review or appeal of any action, determination or order shall be governed by the applicable statutory authority of such Board, Commission, or Governmental Authority issuing same.

H. If the Landowner shall be in default of any terms hereunder after notice, the Town shall have all rights and remedies to enforce the terms hereof and collect payment hereunder by commencement of an action or claim at law or in equity, and such rights shall include, without limitation, the right to recover from the Landowner all reasonable attorneys fees and costs of such enforcement.

Natick Zoning By Laws

Zoning – Section 320 – Highway Overlay Districts

The Highway Overlay Districts are established as districts which overlay nonresidential zoning districts abutting major arterial highways.

Section 327. LANDSCAPING REQUIREMENTS
The Planning Board shall adopt Rules and Regulations which implement the General Purpose and Intent, as well as the Objectives of this Section 327. Those Rules and Regulations shall provide a guide to good landscaping practices and shall set forth the desired standards which are intended to achieve specific performance objectives. However, the Planning Board may approve alternative plans where the applicant desires to deviate from the specific requirements of such Rules and Regulations, if the Board finds that such alternative is clearly more feasible and/or preferable, and that the proposed arrangement meets the general purpose, intent, and objectives of Section 327.

327.1 Applicability:
The requirements of this section 327 shall apply to any new structure, and to any major alteration, to any change of use of an existing structure, or as may be required in connection with site plan review under the zoning regulations applicable in the underlying zoning district.

327.2 Technical Requirements:
All site plans and special permits required hereunder shall include a landscape plan and planting schedule prepared by a registered landscape architect, unless waived in accordance with Section 329.2.

327.3 General Purpose and Intent:

The requirements and standards set forth in this Section 327 are intended to achieve specific performance objectives, as described below, to enhance the visual quality of the areas within the Highway Overlay Districts, to encourage the creation and protection of open space, to avoid expansive development of impervious surfaces, to protect and preserve the area's ecological balance and to ensure that landscaping is an integral part of development.

327.4 Objectives:
In order to accomplish the General Purpose and Intent of this Section 327 specific objectives shall be accomplished by landscape plans, which shall include the following:

> 327.41 Buffer strips at the front of lots shall contribute to the creation of tree-lined roadways and shall create a strong impression of separation between the street and the developed area of the site without necessarily eliminating visual contact between them.
>
> 327.42 Buffer strips adjoining or facing residential zoning districts or uses shall provide the strongest possible visual barrier between uses at pedestrian level and create a strong impression of spatial separation.

327.43 Landscaping within parking areas shall provide visual and climatic relief from broad expanses of pavement and shall be designed to define logical areas for pedestrian and vehicular circulation and to channel such movement on and off the site.

327.44 All required landscaping shall be located entirely within the bounds of the parcel.

327.45 To the greatest feasible extent, existing healthy, mature vegetation shall be retained in place or transplanted and reused on site.

327.5 Landscaped Buffer Strips:

327.51 General Standards: In the highway corridor and regional center areas, a landscaped buffer strip shall be provided separating all buildings, parking areas, vehicular circulation facilities, or similar improvements from the right-of-way line of any public street, or any private way which is adjudged by the Planning Board to perform an equivalent function. Plantings in landscaped buffer strips shall be arranged to provide maximum protection to adjacent properties and avoid damage to existing plant material. The landscaped buffer strip shall include the required planting as set forth herein or in the Rules and Regulations of the Planning Board, and shall be continuous except for required vehicular access points and pedestrian circulation facilities, including sidewalks. All required landscaping amenities shall be located within the bounds of the parcel. All signs to be constructed in any development subject to Site Plan Review under the Highway Overlay District Regulations shall be subject to the issuance of a special permit by the Planning Board.

327.52 Specific Standards:

327.521 Depth: Unless a greater depth of landscaping is required in the underlying zoning district, landscaped buffer strips shall be one-third (1/3) of the distance between the street right of way and any building line, but shall not be less than fifteen (15) feet in depth, and need not be greater than fifty (50) feet in depth. Sidewalks shall be excluded from calculation of the buffer depth, unless required by the development plan and not located in the public right of way. Landscaped buffer strips adjoining or facing residential districts or uses shall be a minimum of fifteen (15) feet in depth.

327.522 Composition: The buffer strip shall include a combination of deciduous or evergreen trees and lower- level elements such as shrubs, hedges, grass, groundcover, fences, planted berms, brick or stone walls. When necessary for public safety or to prevent adverse impacts on neighboring properties, the Planning Board may require that the buffer strip contain opaque screening.

327.523 Arrangement: Arrangements may include planting in linear, parallel, serpentine, or broken rows, as well as the clustering of planting elements.

327.524 Opaque Screens: An opaque screen may be comprised of walls, fences, berms, shrubs or evergreen plantings, or any combination thereof. Opaque screens shall be opaque in all seasons of the year. For developments adjoining or facing residential districts or residential uses, or when necessary for public safety or to prevent adverse impacts on neighboring properties, a buffer strip shall contain opaque screens.

327.525 Berms: When berms are used to meet the requirements for a buffer strip they shall be planted with living vegetation. The minimum top width of a berm shall be three (3) feet, and the maximum side slope shall be 3:1. No more than twenty-five per cent (25%) of the coverage of a planted berm shall be mulch or non-living material.

327.526 Mulches: When used in required landscaping or buffers, mulches shall be limited to bark mulch and decorative stone, or equivalent materials. No more than twenty-five per cent (25%) of the coverage of the landscaped area shall be mulch or non-living material.

327.6 Standards for Landscaping within Off-Street Parking Areas:
Parking areas shall be broken into sections. Sections shall be separated by landscaped buffers to provide visual relief. At a minimum, the buffers shall consist of islands which shall be a combination of "divider islands" and "terminal islands". Terminal islands shall be used either to separate parking spaces from driveways and other vehicular travel lanes, or to break up large numbers of parking spaces in a single row of spaces. Landscaped terminal islands shall be provided at the ends of rows of parking where such rows are adjacent to driveways or vehicular travel lanes.

327.7 Landscaping Adjacent to Buildings:
Landscaped areas at least ten (10) feet in depth shall be provided adjacent to buildings on every side of such buildings that has a public access point. This requirement may be waived by the Planning Board in cases where it is impractical to provide the specified depth of landscaped area due to the size, shape or other characteristics of the parcel; however, in no case shall any parking space or vehicular travel lane be located less than five (5) feet from the building.

327.8 Design for Pedestrian Circulation

327.81 Pedestrian Access Through Buffers and Screens:
Landscaped buffers should, to the greatest extent possible, serve as usable open space, providing an environment for pedestrian access between uses. Therefore, buffers shall be designed to include appropriate means of pedestrian access and crossing, both along the landscaped area (i.e., in a parallel direction with the property line) and across the buffer (i.e., providing pedestrian access to the site, separate from vehicular access points). Buffers and screens shall provide for appropriate hard-surfaced pedestrian access points and walkways where property lines abut existing or planned public streets, whether or not such streets have been constructed.

327.82 Pedestrian Circulation in Parking Facilities
Parking facilities and appurtenant driveways shall be designed so as to gather pedestrians out of vehicle travel lanes and to maximize the safety and convenience of pedestrians

walking between parked cars and business entrances as well as between external points and locations on site. Pedestrian walkways shall be integrated, to the maximum extent possible, into the interior and/or perimeter landscaping of parking lots; and shall be constructed with a paved or similarly firm surface, separated from vehicular and parking areas by grade, curbing and/or vegetation, except for necessary ramps.

327.83 Pedestrian Circulation Adjacent to Buildings
A pedestrian walkway having a minimum width of six (6) feet shall be integrated into, and shall be in addition to, any required landscaped area adjacent to buildings.
(Art. 8 S.T.M., 6/13/95)

327.9 Pervious Landscaping:
Up to five (5) per cent of the area counted as pervious landscaping may include pedestrian circulation components such as walkways. Parking areas surfaced with porous pavement shall not be considered pervious landscaping.

327.10 Maintenance:

327.101 The owners and developers of any lot shall be responsible for the maintenance of all landscaped open space and buffers. Landscaping shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.

327.102 Appropriate water management procedures shall be followed to serve all landscaped areas.

327.103 The Planning Board may require a bond to ensure that required landscape plantings are maintained and survive for up to two (2) growing seasons following completion of planting.
(Art. 5, S.T.M. #2, 10/10/00)

327.11 Intersection Sight Distance Restrictions: Landscaped buffers and screening shall not restrict sight distances at intersections or driveway entrances. Site distance requirements, location and specification of site zones shall be determined by reference to the current edition of the Commonwealth of Massachusetts Department of Public Works Highway Design Manual, or any successor publication. As a guide, no fence or other structure may be erected, and no vegetation may be maintained, between a plane two and one-half (2-1/2) feet above curb level and a plane seven (7) feet above intersecting roadway levels within the zone required for site distance, subject however to actual roadway profiles of the intersecting streets and/or driveways.

327.12 Occupancy Permits:

327.121 No occupancy permit, whether temporary or permanent, shall be granted by the Building Inspector, until the Planning Board has voted its approval that all landscaping and buffer strips conform to the approved landscape plan and planting schedule, or thirty

(30) days has elapsed since the filing of a written request for such approval with the Building Inspector and Planning Board.

327.122 In cases where, because of seasonal conditions or other unforeseen circumstances, it is not possible to install or complete landscaping prior to initial occupancy of the building(s), an occupancy permit may be granted by the Building Inspector, upon the approval of the Planning Board, provided that the owner shall make a payment to the Town, to be held in escrow by the Planning Board, to ensure that required landscape planting is installed and maintained. The amount of the escrow payment shall be set by the Planning Board and shall be equal to the full remaining estimated cost of materials and installation, with allowance for escalation and contingencies.

327.123 Release of any escrow amounts, or approval of issuance of an occupancy permit, shall be conditioned upon the receipt by the Planning Board of written certification by a registered landscape architect that the specified plant materials to be included in the project landscaping have been installed according to the approved landscape plan.

The Planning Board shall be the Special Permit Granting Authority for all special permits granted under these Highway Overlay District Regulations.

Appendix C

Town of Framingham

Planning Board Decision and Highway Overlay District

Framingham Planning Board
Memorial Building ▪ Room B-37 ▪ 150 Concord Street
Framingham, MA 01702-8373
(508) 532-5450 ▪ planning.board@framinghamma.gov

PERMIT | FRAMINGHAM
plan ▪ build ▪ grow

2015 JUN 19 P 1:52
TOWN CLERK
FRAMINGHAM

TOWN OF FRAMINGHAM
PLANNING BOARD

Notice of Decision
Regarding the Application of The Wendy's Company
For Site Plan Review, Special Permits for Use, Drive-thru Facility, and Reduction in the Required Number of Off-street Parking Spaces, and Public Way Access Permit
1699 and 1701 Worcester Road, Framingham MA

On February 26, 2015, the Applicant, The Wendy's Company, filed with the Planning Board, and on February 26, 2015, the Planning Board filed with the Town Clerk and Town Departments, applications pursuant to the Framingham Zoning By-Law, for Site Plan Review (Section VI.F.), Special Permits for Use (Sections II.B.5.K., III.E., and VI.E.), Drive-thru Facility (Sections II.B.5.L.,V.J. and VI.E.), and Reduction in the Required Number of Off-street Parking Spaces (Sections IV.B.1.c. and VI.E.), and a Public Way Access Permit pursuant to Article VI., Section 8 of the Town of Framingham General By-Laws. The Application was filed to allow for demolition of the existing structure and the construction of a new 3,825 square foot Wendy's Restaurant with a dual order station drive-thru facility and associated site improvements (hereinafter referred to as the "Project" or "Project Site"). The Project is located at 1699 and 1701 Worcester Road, within the General Manufacturing (M) Zoning District and the Highway Corridor (HC) Overlay District. Furthermore, the Project Site is shown on Framingham Assessor's Sheet 463, Block 9, Lots 28A and 28B.

After the notice of the public hearing was published in "The Metrowest Daily News" on March 9, 2015 and March 16, 2015, and mailed to parties of interest pursuant to the By-Law and M.G.L. c. 40A, the Planning Board opened the public hearing on March 26, 2015 at 7:00 pm in the Ablondi Room, Memorial Building, Framingham. Continued sessions of the public hearing were held on April 9, April 27, May 4, May 18, June 4, and June 18, 2015.

On June 18, 2015 the Planning Board **APPROVED** with conditions said Applications for Site Plan Review, Special Permits for Use, Drive-thru Facility, and Reduction in the Required Number of Off-street Parking Spaces pursuant to the Framingham Zoning By-law, and Public Way Access Permit pursuant to the Framingham General By-laws for the Project located at 1699 and 1701 Worcester Road and a **DECISION** was filed in the office of the Town Clerk on June 19, 2015.

Christine Long, Chair
FRAMINGHAM PLANNING BOARD

Any appeal from the Decision shall be made pursuant to G.L. Ch. 40A, Sec. 17 and must be filed within twenty (20) days after the date of filing of the Decision in the office of the Town Clerk.

Decision of the Framingham Planning Board on the Application of The Wendy's Company For Site Plan Review, Special Permits for Use, Drive-thru Facility, and Reduction in the Required Number of Off-street Parking Spaces, and Public Way Access Permit 1699 and 1701 Worcester Road, Framingham, MA

Date of Decision: June 18, 2015

STATEMENT OF FACTS

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The Planning Board voted to approve the Application for Site Plan Review, Special Permits for Use, Drive-thru Facility, and Reduction in the Required Number of Off-street Parking Spaces, and Public Way Access Permit, with conditions on June 18, 2015.

The Applicant has filed with the Planning Board various plans and reports required under the By-Law for Site Plan Review (Section VI.F.), Special Permits for Use (Sections II.B.5.L., III.E., and VI.E.), Drive-thru Facility (Sections II.B.5.L., V.J., and VI.E.), and Reduction in the Required Number of Off-street Parking Spaces (Sections IV.B.1.c. and VI.E), and for the Public Way Access Permit pursuant to Article VI, Section 8 of the Town of Framingham General By-Laws. During the review process, the Applicant and its professional consultants also submitted revisions to plans in response to requests by the Planning Board and by the various departments within the Town of Framingham that reviewed the Project. These plans, reports and correspondence are contained in the Planning Board's files and are hereby incorporated into this Decision by reference. Included with the Applicant's submittals were the following:

1. Form A – Application Cover Letter for the Project located at 1699 & 1701 Worcester Road, stamped by the Town Clerk on February 26, 2015;
2. Form E – Site Plan Review for the Project located at 1699 & 1701 Worcester Road, stamped by the Town Clerk on February 26, 2015;
3. Form F – Public Way Access Permit for the Project located at 1699 & 1701 Worcester Road, stamped by the Town Clerk on February 26, 2015;
4. Form L – Special Permit for the Project located at 1699 & 1701 Worcester Road, stamped by the Town Clerk on February 26, 2015;
5. Development Impact Statement for The Wendy's Restaurant located at 1699 & 1701 Worcester Road, prepared for The Wendy's Company, 40 General Warrant Blvd., Malvern, PA, 19335, prepared by Engineering Alliance, Inc., dated February 9, 2015;
6. Traffic Impact Study, proposed Wendy's Restaurant, prepared by Conley Associates, dated December 2014;
7. Drainage Calculations and Stormwater Management Plan for The Wendy's Restaurant located at 1699 & 1701 Worcester Road, prepared for The Wendy's Company, 40 General Warren Blvd., Malvern, PA, 19335, prepared by Engineering Alliance, Inc., dated February 9, 2015;
8. Site Plans for the Proposed Wendy's Restaurant, 1699 & 1701 Worcester Road, Framingham, Massachusetts, prepared for The Wendy's Company, 40 General Warren Blvd., Malvern, PA, 19335, prepared by Engineering Appliance, Inc., dated February 9, 2015, revised April 7, May 11, and May 27, 2015;
9. Architectural renderings for the Project located at 1699 & 1701 Worcester Road, received on February 10, 2015, revised on April 24, May 18, May 27, and June 2, 2015;
10. Sign renderings: Wendy's Site #11468, 1699 Worcester Road, Framingham, MA 01701, dated February 4, 2015;
11. PowerPoint Presentation entitled: Wendy's – 1699 Worcester Road, Framingham, MA, presented by Attorney Brian Levey on April 9, 2015;
12. Letter of response from Jennifer Conley, PE, PTOE, RE: Response to Peer Review Comments – Proposed Wendy's Restaurant, Framingham, Massachusetts, dated April 9, 2015;
13. Letter of response from Engineering Alliance, Inc., RE: EAI Project #: 14-49001, Proposed Wendy's Restaurant, 1699 & 1701 Worcester Road, Framingham, MA, dated May 1, 2015;
14. Letter from Attorney Brian Levey, RE: Wendy's – 1699 Worcester Road, Framingham, dated May 8, 2015;
15. Landscape Waiver and Waiver from requirements to Post a Community Notice Sign; and
16. Email from Rick Salvo, P.E., Engineering Alliance, Inc. Subject: ADA, dated June 4, 2015;

The Planning Board received correspondence from the Framingham Department of Building & Wire, the Framingham Conservation Commission, the Framingham Fire Department, the

Framingham Planning Board, the Framingham Police Department, the Framingham Department of Public Works, and Peer Review Traffic Consultant: Vanasse & Associates, Inc. The aforesaid correspondence is contained in the Planning Board files and is incorporated herein by reference.

1. Special Permit and Site Plan Review Checklist for Application Submittal for the Project located at 1699 & 1701 Worcester Road, dated February 26, 2015, stamped by the Town Clerk on February 26, 2015;
2. Public Way Access Permit Checklist for Application Submittal for the Project located at 1699 & 1701 Worcester Road, dated February 26, 2015, stamped by the Town Clerk on February 26, 2015;
3. ACCELA comment from the Framingham Police Department, received on March 2, 2015;
4. ACCELA comment from the Department of Building & Wire, received on March 11, 2015;
5. ACCELA comment from the Framingham Fire Department, received on March 11, 2015;
6. Email of comment from the Framingham Police Department, Subject: 1699 Worcester Road, Framingham, received on March 12, 2015;
7. Letter of comment from the Framingham Conservation Commission, Subject: 1699 Worcester Road – Conservation Review, dated March 25, 2015;
8. Letter from Jeffery Dirk, PE, PTOE, FITE, RE: Traffic Engineering Peer Review, Proposed Wendy's Restaurant – 1699and 1701 Worcester Road, Framingham, Massachusetts (Ref: 6981), dated March 25, 2015;
9. Letter of comment from the Framingham Department of Public Works, RE: Wendy's Restaurant - #1699-1701 Worcester Road, Framingham, dated April 6, 2015;
10. Letter of comment from the Framingham Community & Economic Development department, RE: 1699 Worcester Road, dated April 7, 2015;
11. Letter from Jeffery Dirk, PE, PTOE, FITE, RE: Supplemental Traffic Engineering Peer Review, Proposed Wendy's Restaurant – 1699 and 1701 Worcester Road, Framingham, Massachusetts (Ref: 6981), dated April 20, 2015;
12. Letter from Jeffery Dirk, PE, PTOE, FITE, RE: Supplemental Traffic Engineering Peer Review, Proposed Wendy's Restaurant – 1699 and 1701 Worcester Road, Framingham, Massachusetts (Ref: 6981), dated May 12, 2015;
13. Letter of comment from the Framingham Department of Public Works, RE: Wendy's Restaurant - #1699-1701 Worcester Road, Framingham, dated June 4, 2015; and
14. Letter of review, from the Planning Board Administrator, RE: Final Review of the Proposed 1699 Worcester Road Project, dated June 2, 2015.

The Planning Board received written comments from the Bose and the MetroWest Chamber of Commerce, correspondence has been incorporated into the Planning Board Project file and is incorporated herein by reference.

1. Letter of public comment from BOSE, dated April 24, 2015;
2. Letter of public comment from BOSE, dated June 4, 2015;

3. Letter of public comment from the Technology Park, dated June 17, 2015; and
4. Letter of public comment from the MetroWest Chamber of Commerce, RE: Special Permit for Wendy's – 1699 and 1701 Worcester Road, Framingham, MA, dated June 18, 2015.

HEARING

The Framingham Planning Board held a total of 7 public hearings during the review of the Project located at 1699 and 1701 Worcester Road: March 26, April 9, April 27, May 4, May 18, June 4, and June 18, 2015. Framingham Planning Board Members present during the public hearings held for the Project were Christine Long, Chair, Stephanie Mercandetti Vice-chair (absent on May 18, 2015 and filed the appropriate documents with the Town Clerk in accordance with the Mullin Rule), Lewis Colten, Clerk, Thomas Mahoney, and Victor Ortiz. The Town's Traffic Peer Review, Jeffery Dirk, Vanasse & Associates, Inc. was also present at the public hearing process. Furthermore, during the course of the public hearing, the following individuals appeared on behalf of the Applicant: Attorney Brian Levey, Beveridge & Diamond, Chad Adams, The Wendy's Company, Rick Salvo, Alliance Engineering, Inc., Robert Goldman, The Chesapeake Design Group, and Jennifer Conley, Conley Associates.

During the course of the public hearing process, the Planning Board took under advisement all information received from all members of the public that provided input during the review of this Project. The Planning Board developed this Decision for this Project based on the Framingham Zoning By-law, the Framingham General By-law, information submitted by the Applicant, the Town's Peer Review Consultant, and members of the public, which resulted in the development of the conditions contained within this Decision.

All public hearings were captured and broadcasted on the Town's Local Government Access Channel. Meeting minutes were taken for each of the public hearings and were voted upon during the subsequent public hearing; the approved meeting minutes were subsequently recorded with the Town Clerk. Both the captured public hearing broadcast and the public hearing meeting minutes are accessible on the Town of Framingham's website and are incorporated into this decision by reference.

FINDINGS

Having reviewed all plans and reports filed by the Applicant and its representatives, having considered the correspondence from various Departments within the Town of Framingham that have reviewed the Project, as well as comments received from the public during the public hearing, and having viewed the site, the Planning Board determines that the Application with the following conditions complies with all applicable provisions of the By-Law including the requirements for Site Plan Review (Section VI.F.), Special Permits for Use (Sections II.B.5.L, III.E., and VI.E.), Drive-thru Facility (Sections II.B.5.L., V.J. and VI.E.), and Reduction in the Required Number of Off-street Parking Spaces (Sections IV.B.1.c. and VI.E), and for the Public Way Access Permit pursuant to Article VI, Section 8 of the Town of Framingham General By-Laws. Specifically, the Board makes the following findings:

A. Traffic Impact Standards and Absence of Vehicular Hazard of the Framingham Zoning By-law: §§ VI.F.6.a and VI.E.3.a.(3)

The Applicant's Traffic Engineer, Conley Associates provided the Planning Board with a Traffic Report dated December 2014, and supplemental materials during the public hearing process. The Planning Board contracted a Traffic Engineer through Vanasse & Associates, Inc. to serve as the Town's Peer Review during the review of the Project.

The proposed Project is expected to generate approximately 65 new vehicle trips during weekday pm peak hour (35 trips in and 30 trips out). The Project is expected to generate 115 new trips (60 trips in and 55 trips out) during the Saturday midday peak hour. The intersection at Route 9 (Worcester Road) and California Avenue currently operates at a Level of Service (LOS) C during weekday pm peak hours and at a LOS B during the Saturday midday peak hour. Based on a build scenario the intersection of Route 9 (Worcester Road) and California Avenue is expected to operate at a LOS D during weekday pm peak hour and a LOS B during the Saturday midday peak hour.

The Framingham Police Department states that there have been 3 pedestrian accidents that can be directly tied with the crossing the main thoroughfare of Route 9 (Worcester Road) near this location. The 3 pedestrian accidents occurred at 10:00pm crossing from the Hess Gas Station at 1701 Worcester Road, 2:00pm in the Hess Gas Station Parking Lot at 1701 Worcester Road, and at 3:00pm from the Hess Gas Station at 1701 Worcester Road headed eastbound at the MassDOT Park and Ride. The Applicant has agreed to reconstruct the sidewalk along the property frontage of Route 9 (Worcester Road) and California Avenue. Furthermore, the Applicant has provided sidewalks and crosswalks throughout the site for safe pedestrian access to the proposed Wendy's Restaurant.

The access point of the Project at California Avenue is of concern during peak pm hours. Currently, traffic queuing extends past the entrance/exit of 1699 Worcester Road and the abutting Evolve Fitness at 2 California Avenue. During the public hearing, the Applicant provided proof of courtesy gaps allowing for left turns in and out of the Project Site. The Applicant has agreed to install and maintain appropriate signage that notifies motorist not to block the intersection. At this time the Town does not permit do not block the intersection pavement markings, however, in the event the Town permits these markings at a later date the Applicant agrees to install and maintain the markings in accordance with the requirements of the Department of Public Works. Furthermore, during the public hearing process the Planning Board discussed with the Applicant the potential of consolidating driveways between the properties at 1699 Worcester Road, 1701 Worcester Road, 2 California Avenue, and 4 California Avenue, which are all under the same ownership. At this time the Owner declined to consolidate these driveways.

Based upon the Applicant's Traffic Report, Peer Review Letters, and responses to peer review comments made by Conley Associates and Vanasse & Associates, Inc. for the construction of a Wendy's Restaurant located at 1699 and 1701 Worcester Road, the Planning Board finds that, subject to the conditions of this Decision, the Project ensures the safety and welfare of the pedestrians and vehicles within the Project area, the proposed Project meets this criteria. The Town's Peer Review completed the review of this Project, noting that all issues have either been

addressed or resolved or a condition in this decision has been made to ensure the degrade in LOS from a LOS C to a LOS D is properly mitigated and pedestrian safety has been provided. Therefore, based on the required improvements of this Decision the Project complies with Section VI.F.6.a. and VI.E.3.a(3) including meeting all mitigation requirements of the Framingham Zoning By-law.

B. Environmental Impact Standards and Consistency with Intent of the Framingham Zoning By-law: §§ VI.F.6.b. and VI.E.3.(a).(4).

The principal use of the Project is a Fast Food Restaurant, which shall not result in adverse environmental impacts to the area. Based on the Applicant's Development Impact Statement and representations made during the public hearing process, the Project is not expected to create significant emission of fumes, noxious gases, radiation, water pollutants or other airborne environmental hazards, except for some noise and dust during construction activities. Furthermore, the Property is located along a heavily traveled section of Route 9 (Worcester Road) in a predominantly office and manufacturing area; it is not anticipated that the automobile emissions associated with the Project will be detrimental to air quality.

The demolition of the existing building will be done so, as to not cause detriments to the health of the environments and/or public safety. The use of mitigation procedures shall be taken to reduce the impacts of short-term air quality impairment. In the event that hazardous materials are found on the site, the Applicant shall take all appropriate courses of action to remediate the hazard in accordance with local, state, and federal laws.

The demand on both water and sewage disposal shall be significantly less for the Project. The existing restaurant was a sit down service with 234 seats, with limited take out service. The proposed Project provides significantly less seating, and provides an increase in food in takeout containers which reduces the amount of water used by the restaurant. The Project expects to use 2,000 gallons per day (gpd), based on 20 gpd per seat (existing restaurant used 8,190 gpd). As a result of the decrease in the number of seats and the use of disposable containers, the Project will decrease previously discharged sewer flows. Furthermore, the Project will install a new 6" PVC (SDR-35) sewer service and 1,500 gallon grease trap.

The Project will contract a private waste disposal company to remove all waste from the site. The dumpster as shown on the plans will be screened. Litter is often associated with Fast Food Restaurants when food is delivered in disposable containers. Therefore, the Applicant shall pick up all waste and litter daily within the property and along the frontage of the property. Furthermore, the Applicant shall develop and utilize a recycling program for all disposable waste products generated by the fast food service. The Applicant further agrees to develop and utilize a food waste compost program for all food waste associated with the Project.

The Project significantly decreases the amount of impervious surface on-site. The existing site is roughly 90 percent impervious and does not comply with the landscaping requirements of the Highway Overlay District. The Project proposes to provide 32 percent of the site as pervious area with a significant increase in landscaping throughout the site. The Project's parking lot shall be designed to accommodate best management practices and provides a minimum of 80 percent Total Suspended Solids (TSS) removal. Stormwater will be collected and treated on-site through

a series of deep sump hooded catch basins and CDC water quality inlets prior to discharge into the municipal system.

Based on the findings as shown in submitted documentation and presented during the public hearing process it can be concluded that the Project does not create any new or exacerbate existing environmental concerns on the site or to the immediate area. Therefore, the Planning Board finds that the Project as proposed complies with the requirements of §§ VI.F.6.b. and VI.E.3.(a).(4) of the Framingham Zoning By-law.

C. Fiscal Impact Standards and Municipal Services consistent with Intent of the Framingham Zoning By-law: §§ VI.F.6.c. and VI.E.3.(a).(5).

The Project is located on a property with a building in need of renovation. The razing of the existing building and construction of a new building will increase the value of the real estate thereby increasing the tax base for the Town. Therefore, as shown below the Project is expected to create a positive increase in commercial tax revenue for the Town.

- The Property has an assessed value of $429,200.00
- The proposed improvements are valued at $803,250.00
- The current total local tax revenue for the site, according to the Applicant is $16,734.00
- The post development taxes are expected to be $31,318.00

The removal of the existing building and the construction of the new building, in addition to the increase in landscaping is expected to bring major improvements to the site and the area. The estimated five-year Project increase for the redevelopment of this property is estimated to be approximately $73,000.00.

The Project Site is currently served by adequate municipal services such as sewer, water, and other facilities. Since all utilities are presently located on California Avenue there will be no cost to the Town to bring these services to the property. There will be costs associated with providing water and sewer services to the site, however, these costs are passed down by the Town to property owners through property taxes and user fees. Due to the proposed change in use of the Property from a full service restaurant to a Fast Food Restaurant, it is anticipated that there will be a decrease in the amount of water used and impacts on Town sewer.

During the construction phase of this Project, the Project is expected to create roughly 100-150 construction jobs. Upon final completion of the Project, the Project is expected to create roughly 12 full-time positions and 38 part-time positions.

Based on the findings as shown in submitted documentation and presented during the public hearing process it can be concluded that the Project will have a positive impact on the surrounding neighborhood and the Town. Therefore, the Planning Board finds that the Project as proposed complies with the requirements as set forth in §§ VI.F.6.c. and VI.E.3.(a).(5) of the Framingham Zoning By-law.

D. Community Impact Standards and Site Appropriateness: §§ VI.F.6.d. and VI.E.3.a.(1).

The Project Site is located within the General Manufacturing (M) Zoning District and the Highway Corridor (HC) Overlay District. The Planning Board finds that the Project as proposed

is allowed under the Framingham Zoning By-Law by a Special Permit for Use and a Drive-thru Facility.

The property contains an older restaurant building which is proposed to be razed prior to the construction of the proposed Wendy's Restaurant. The existing building was not found to be of historic significance, nor are there any historically significant buildings within the immediate vicinity of the Property that would be impacted by this Project.

The Project does not trigger a Special Permit for Land Disturbance. The property contains no steep slopes pre- or post-construction. Furthermore, the Project will not result in earth removal or earth fill of more than 400 cubic yards, nor will there be earth moving activities of more than 1,000 cubic yards.

Therefore, the Planning Board finds that the Project satisfies the Community Impact Standards and Site Appropriateness as forth in §§ VI.F.6.d. and VI.E.3.a.(1) of the Framingham Zoning By-law.

E. Parking Standards and Appropriate Facilities: §§ IV.I.6.e. and V.E.3.a.(2) of the Framingham Zoning By-law.

The Project provides a cohesive parking plan to serve the proposed use. The Project consists of 100 seats for a fast food use within the dining room, and 16 seats within the outdoor seating area. Based on the requirements for off-street parking, set forth the in the Framingham Zoning By-law the Project is required to provide 62 off-street parking spaces. The Applicant has applied for a Special Permit in the Required Number of Off-street Parking spaces. The Applicant proposes to provide 56 off-street parking spaces, including 3 handicapped accessible spaces, which is a reduction of 6 off-street parking spaces. The Applicant has provided a statement declaring that a Wendy's Restaurant requires at most 35 off-street parking spaces per location nationally. Therefore, the Applicant requests that 17 off-street parking spaces be land banked to increase the amount of green space on-site. As a result the Applicant proposes to construct 39 off-street parking spaces which will provide adequate service to the Project.

The parking lot has been designed to comply with the dimensional requirements of the Framingham Zoning By-law, as shown on Plan Sheet C-3, dated February 9, 2015, revised through May 27, 2015. The parking lot, sidewalks, and crosswalks within the site have been designed to meet the needs of the proposed use and create connectivity with abutting properties. Furthermore, the parking lot was designed to be safe for bicyclist, pedestrians, and vehicles and provide safe maneuvers throughout the site without any adverse impacts to abutters, residents, and businesses within the Project area. The parking lot conforms to the character of the neighborhood and maximizes landscaped areas and minimizes internal traffic conflicts.

As part of the Project, the Planning Board required the installation of bicycle parking on-site, for those who choose to use alternative modes of transportation to access the site. Furthermore, the Planning Board requires the construction of sidewalks from the property at 1701 Worcester Road throughout the site to allow for safe and easy access throughout the site.

Based on the findings as shown in submitted documentation and presented during the public hearing process it can be concluded that the request for the reduction of 6 off-street parking spaces, and further reduced by the land banking of 17 off-street parking spaces will provide enough off-street parking for the proposed use. Therefore, the Planning Board finds that the Project as designed, including the decrease in the number of parking spaces on-site satisfies the Parking Standards and Appropriate Facilities standards as set forth in §§ VI.F.6.e. and VI.E.3.a.(2). of the Framingham Zoning By-law.

F. Drive-thru Facility: §§ V.J and VI.E. of the Framingham Zoning By-law.

The Applicant proposed to construct a dual order board station drive-thru, serviced by one cash window and one pickup window as shown on plan sheet C-3, dated February 9, 2015, revised through May 27, 2015. The proposed drive-thru facility is separated from the parking area, which minimizes potential conflicts between the drive-thru and parked vehicles and pedestrians. The drive-thru facility further provides an emergency exit lane, which allows patrons to exit the drive-thru facility prior to paying and picking up their orders.

The proposed dual order board drive-thru lane as shown provides 11 stacking spaces (10'x20' for each stacking space) prior to the dual order boards; and 5 stacking spaces between the dual order boards and the pay window. According to the Applicant's statement in the provided Development Impact Statement "The side by side ordering stations effectively cut the ordering time in half, which results in vehicles moving more efficiently through the drive-thru. Additional efficiencies are realized by the separation of the cash window and pickup window, with a stacking space provided between the two." Based on this statement made by the Applicant, it can be assumed that the dual order station will increase the amount of turn over much more quickly during peak hours of operation. The Planning Board found that dual drive-thru order boards do not work as designed and often result in no decrease in time spent in the drive-thru facility. Therefore, the Planning Board finds that the dual order board station is excessive and not necessary for this site. Furthermore, the Planning Board did not find that the removal of the second order board station would result in the back up of queuing onto California Avenue since the length of the drive-thru and the distance from the entrance of the drive-thru facility was significant enough to prevent this. This Finding can be further supported through the Applicant's Traffic Report and the Town's Peer Review Traffic Consultant.

The Planning Board further finds that the removal of the second order board station will allow for future connectivity between the properties located at 1699 Worcester Road, 1701 Worcester Road, 2 California Avenue, and 4 California Avenue if permitted by the property owner. During the public hearing process the Planning Board questioned the Applicant about the need for the second order station and how it would prevent future consolidation of the driveways within this congested area of Town. The Planning Board further stated their concerns regarding the width of the emergency exit lane, which varies between 9 feet and 10 feet. The Planning Board finds that the narrow emergency lane can be difficult to maneuver for large vehicles, box trucks to maneuver out of the drive-thru facility. The Planning Board further found that even smaller vehicles have difficulty maneuvering out of tight areas when other factors such as buildings, pedestrians, and other vehicles were within the same area.

The Planning Board further found that the connectivity of the properties at 1699 Worcester Road, 1701 Worcester Road, 2 California Avenue, and 4 California Avenue can be accomplished if the second order station was not constructed. The removal of the second order station would allow for the extra space to be utilized for the consolidation of these four parcels and potentially decrease the number of curb cuts on Route 9 (Worcester Road) and California Avenue.

To ensure the safety of pedestrians, within the site, especially along the drive-thru, the Applicant agreed to install a sidewalk along the drive-thru. The sidewalk and the drive-thru shall be separated by a decorative black metal fence to provide pedestrians to move throughout the site and reduce potential conflicts between pedestrians moving between 1699 Worcester Road and 1701 Worcester Road. Further, the Applicant has provided a crosswalk at the exit of the drive-thru facility to help establish the pedestrian presence and movements within the site. The Applicant agrees to maintain the black decorative fencing and the pavement markings in perpetuity.

Based on the findings as shown in submitted documentation and presented during the public hearing process the Planning Board finds that the drive-thru facility as modified at the June 18, 2015 public hearing to be designed with a single order board drive-thru facility will allow for the connectivity of the parcels located at 1699 Worcester Road, 1701 Worcester Road, 2 California Avenue, and 4 California Avenue, decrease potential conflict between vehicles within the drive-thru facility, and will further decrease vehicle and pedestrian conflicts between the patrons of the site and the users of the drive-thru facility. Therefore, the Planning Board finds that the Project designed with one order board station, satisfies the Drive-thru Facility standards as set forth in §§ V.J. of the Framingham Zoning By-law.

G. Public Way Access Permit: Article VI, Section 8 of the Town of Framingham General By-Law

The Project includes two curb cuts. One of the curb cuts is located on Route 9 (Worcester Road), by an access easement from the property located at 1701 Worcester Road. The 1701 Worcester Road access is subject to a MassDOT public way access permit. The second access point is located off California Avenue and is an entrance/exit. The access point off California Avenue falls under the Town's jurisdiction.

The access point off California Avenue currently exists, and was constructed for the prior use of the property. This access point will be modified for the construction of the new Wendy's Restaurant. The proposed modification shall include a 20' radius on the northern side of the access point and a 30' radius on the southern side of the access point, which are appropriate for the site. The width of the driveway mouth is 30' which allows the entrance and exit to be constructed at 15' each.

Furthermore, the modifications to the 1701 Worcester Road access driveway shall be addressed during the MassDOT Public Way Access Permit. The Applicant agrees to work with MassDOT to acquire the necessary approvals for this Project.

The Board finds the proposed Project to be in compliance with Article VI, Section 8 of the Framingham General By-laws regarding a Public Way Access Permit.

CONDITIONS OF APPROVAL

The Board finds that the Application and Plans submitted by the Applicant comply with all applicable provisions of the By-Law including the requirements for Site Plan Review (Section VI.F.), Special Permits for Use (Section II.B.5.L, III.E., and VI.E.), Drive-thru Facility (Section V.J. and VI.E), and Reduction in the Required Number of Off-street Parking Spaces (Section IV.B.1.c. and VI.E), and for the Public Way Access Permit pursuant to Article VI, Section 8 of the Town of Framingham General By-Laws.

Accordingly, the Board votes, pursuant to relevant provisions of the By-Law, to approve the Application for Site Plan Review (Section VI.F.), Special Permits for Use (Section II.B.5.L, III.E., and VI.E.), Drive-thru Facility (Section V.J. and VI.E), and Reduction in the Required Number of Off-street Parking Spaces (Section IV.B.1.c. and VI.E), and for the Public Way Access Permit pursuant to Article VI, Section 8 of the Town of Framingham General By-Laws, subject to the following conditions:

General Provisions

1. Prior to the commencement of authorized site activity, the Applicant and the general contractor shall meet with Planning Board Administrator to review this approval.
2. Prior to the commencement of authorized site activity, the Planning Board Office shall be given 48 hour written notice. If activity on the Property ceases for longer than 30 days, 48 hour written notice shall be given to the Planning Board Office prior to restarting work.
3. Prior to the commencement of authorized site activity, the Applicant shall provide to the Planning Board Office the name, address and emergency contact telephone number of the individual or individuals who shall be responsible for all activities on site and who can be reached 24 hours a day, seven days a week.
4. A copy of this Decision shall be kept on the Property.
5. Prior to the issuance of any building permit, an electronic copy of the approved Site Plan shall be provided to the Planning Board Office for distribution to Departments, in order to be reviewed for compliance with this Decision. The Site Plan shall be revised if necessary to reflect the conditions of this Decision. In the event of a discrepancy between the Decision and the Site Plan, the Decision shall take precedence.
6. No material corrections, additions, substitutions, alterations, or any changes shall be made in any plans, proposals, and supporting documents approved and endorsed by the Planning Board without the written approval of the Planning Board. Any request for a material modification of this approval shall be made in writing to the Planning Board for review and approval by the Planning Board or the Planning Board's Administrator and shall include a description of the proposed modification, reasons the modification is necessary, and any supporting documentation.
7. Following notice to the project manager for the Project, members or agents of the Planning Board shall have the right to enter the Site and to gather all information, measurements, photographs or other materials needed to ensure compliance with this approval. Members or agents of the Planning Board entering onto the Site for these purposes shall comply with all safety rules, regulations and directives of the Applicant and the Applicant's contractors.

8. The Applicant shall record this Decision with exhibit(s) at the Middlesex South Registry of Deeds and provide the Planning Board with proof of said recording within thirty days after the required appeal period has lapsed in accordance with MGL, Chapter 40A, Section 17, or within thirty days of the final disposition of any appeal of this decision filed under MGL Chapter 40A, Section 17. Notwithstanding the foregoing, nothing in this condition prevents the recording of the special permit with the Registry of Deeds while an appeal is pending and, thereafter, the issuance of a building permit.
9. This approval for Site Plan Review, Special Permit for Use, Drive-thru Facility, and Reduction in the Required Number of Parking Spaces, and a Public Way Access Permit shall lapse within two years from the date the Decision is recorded at the Middlesex South Registry of Deeds, not including such time required to pursue or await the determination of an appeal from the grant thereof, if a substantial use thereof has not sooner commenced except for good cause as determined by the Planning Board.
10. The failure to comply with the Town General or Zoning By-laws (By-laws) and/or the terms of this Decision may result in revocation of the Site Plan Review, Special Permit for Use, Drive-thru Facility, and Reduction in the Required Number of Parking Spaces, and Public Way Access Permit issued hereunder. The Planning Board shall by first class mail send the owner written notification of any failure to comply with the By-laws and/or the terms of this Decision. If the owner believes that it is not in violation, it may request and will be granted an opportunity to attend a Planning Board meeting to try to resolve the alleged violation. If within 30 days from the date of mailing of said notice, the owner has not resolved the matter with the Planning Board, or remedied the alleged violation, it shall be grounds for revocation of the approvals issued hereunder. At the expiration of the 30 day period, the Planning Board after a duly noticed public hearing, including notice to the owner by first class mail, may revoke the approvals issued hereunder if it finds by a four-fifths vote that there has been a violation of the By-laws and/or the terms of this Decision and that the owner has failed to remedy it; alternatively, the Planning Board may continue the public hearing, or by a four-fifth vote extend the time period in which the violation may be corrected.
11. Prior to the issuance of the building permit, the Applicant shall provide all documents and information requested by the Planning Board or Planning Board Administrator demonstrating that the Applicant has complied with, or will comply with, all conditions of this approval.

Infrastructure/Site Design/Landscaping

12. Prior to the issuance of a use and occupancy permit, the Applicant shall either substantially complete the landscaping improvements shown on the approved landscaping plan or post a performance guarantee in accordance with this decision. All on-site landscaped buffer areas shall be maintained in good condition in perpetuity so as to present a healthy and neat appearance. The Applicant shall follow regularly scheduled routine maintenance. The Applicant shall submit a landscape maintenance plan to the Planning Board Administrator for approval and implementation upon issuance of this Decision.
13. The Applicant will provide regular maintenance of all facilities. The Applicant shall maintain all on-site drainage in working condition at its own expense, which shall include inspecting the catch basins twice annually (spring and fall) and cleaning, if necessary, to remove sediment.

14. Parking pavement markings shall be in white. Fire zone and traffic markings shall be as per the applicable code.
15. Any dumpster or dumpster enclosure, as shown on the Final Approved Site Plan shall remain closed and locked except when trash deposit, removal and pickup operations are being conducted.
16. The Applicant shall provide and maintain in good condition decorative fencing for outdoor seating in perpetuity to protect safety on site. The Applicant shall maintain in perpetuity the black decorative fence along the drive-thru and the outdoor seating area. In the event that the fence becomes damaged, the Applicant shall install a temporary safety fence immediately until the black decorative fence can be permanently replaced within a reasonable amount of time.
17. The Applicant will clean and keep the adjacent sidewalk free from litter on a daily basis, in perpetuity.
18. The Applicant shall maintain the landscaping in perpetuity to ensure lines of sight are not blocked on Route 9 (Worcester Road) and California Avenue.
19. The Applicant shall construct all improvements in compliance with all applicable state and federal regulations with respect to the design of any architectural access features required under the Americans with Disabilities Act (ADA) and with 521 CMR Architectural Access Board Rules and Regulations.

Site Construction

20. The Applicant shall perform daily cleanup of construction debris, including soil, on Town streets within 200 yards from the entrance of the site driveways, caused by the site construction.
21. Outside construction hours are to be between 7:00 AM and 5:30 PM Monday through Friday and 8:00 AM and 4:00 PM on Saturday. Absent emergency conditions, no construction is permitted on Sunday or holidays. No equipment on-site shall be started and allowed to warm up prior the start of the allowed construction hours. No vehicles are to arrive at the construction site before the designated construction hours, which includes no vehicle parking, standing or idling on adjacent public streets.

Environment

22. The Applicant shall minimize the use of salt in the parking area to reduce any negative impacts to vegetation and ground water.
23. The stormwater drainage system for the Project shall be in accordance with the Massachusetts Department of Environmental Protection Stormwater Policy relating to water quality and flood control using Best Management Practices as the standard of performance.
24. In order to preserve public safety, snow storage shall be on-site in the snow storage areas designated on the Final Approved Site Plan. Snow storage shall not be located within off-street parking spaces or obstruct sight lines for persons operating vehicles on and adjacent to the site. The Applicant will remove excess snow from the site as may be necessary within forty-eight hours after the snow fall ends, in order to preserve public safety.

Department of Public Works

25. The Applicant shall install and maintain signage stating "Do not block the entrance/exit" at the California Avenue entrance/exit. Striping on the roadway shall not be permitted, unless requested by the Department of Public Works. If after the approval of this

Project, the Department of Public Works permits the installation of roadway striping to discourage motorist from blocking the intersection, then Applicant shall install and maintain in perpetuity the striping within the roadway which has been approved by the Department of Public Works.

26. The Applicant shall comply with the requests in the correspondence from the Department of Public Works dated April 6, 2015.

Fire Department & Public Safety

27. The Applicant shall comply with the requests in the correspondence from the Fire Department dated March 11, 2015.
28. The Applicant shall install a new Master Box, which shall be tied to the Town's Municipal Fire Alarm System. Furthermore, the Master Box will be installed in compliance with the Framingham Fire Department's Fire Alarm Standards. The applicant shall install sprinkler system within the building as per Fire Department regulations.
29. The Applicant will have a police detail for any work within the roadway or right-of-way during construction.

Traffic Mitigation

30. The Applicant shall trim and/or remove existing vegetation along the site frontage on Route 9 (Worcester Road), and shall design and maintain proposed signs and landscaping so as not to impede lines of sight to and from the Hess Express (1701 Worcester Road) driveways along Route 9 (Worcester Road). In addition, all proposed landscaping along California Avenue within the sight triangle area of the Project driveway shall not exceed 2.5 feet in height as measured from the surface elevation of the Project driveway. Further, the Applicant shall promptly remove snow windrows within the sight triangle area of the Project driveways that inhibit sight lines
31. All Signs and pavement markings to be installed within the Project shall conform to the applicable specifications of the current edition of the Manual on Uniform Traffic Control Devices (MUTCD); Federal Highway Administration; Washington, DC.
32. Deliveries to the site by large tractor semi-trailer vehicles (WB-62 or larger) are allowed only when the restaurant is closed to customers.
33. The Applicant will conduct post development parking monitoring in order to determine if and when the "land banked" parking should be constructed. The parking monitoring program shall consist of the collection of parking demand data within Site on a weekday and a Saturday between 11:30 AM and 1:30 PM. The parking monitoring program shall be conducted once per year in April/May/June or September/October commencing 6-months after the issuance of a use and occupancy permit for the Project and repeated thereafter on an annual basis for a period not to exceed 2-years. The results of the parking monitoring program shall be summarized in a report provided to the Planning Board Administrator within 2-months after the collection of the data that forms the basis of the report. If the results of the parking monitoring program indicate the need to construct all or a portion of the "land banked" parking, the Applicant shall undertake the necessary actions to construct the required parking.
34. The Applicant shall conduct a post-development traffic monitoring program in order to validate the trip projections for the Project and to evaluate operating conditions at the

Route 9 (Worcester Road)/ California Avenue intersections and at the Project driveways. The monitoring program will include the following elements:

i) Obtaining traffic volume information over a continuous seven day, weeklong period at the driveways serving the Project;
ii) Performing manual turning movement and vehicle classification counts during the weekday evening (4:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak periods at the following locations: Development driveway intersection with California Avenue; Route 9 (Worcester Road) at the Hess Express east driveway; (hereafter referred to as the "monitored locations");
iii) Evaluating motor vehicle crash data at the monitored locations; and
iv) Performing a traffic operations analysis (Level of Service, motorist delays and vehicle queuing) at the monitored locations for the weekday evening and Saturday midday peak hours.

The monitoring program will commence six months after issuance of the Certificate of Occupancy for the Project. The results of the monitoring program will be summarized in a report provided to the Planning Board Administrator within 2-months after the completion of the data collection effort. The report will document the traffic volumes associated with the Project and will include operating conditions and the motor vehicle crash history at the monitored locations. If the measured traffic volumes associated with the Project exceed the traffic volume projections in the Applicant's Traffic Impact Study by more than 20 percent on a regular and sustained basis during the monitoring period and/or there is a material increase in the number of motor vehicle crashes occurring at the monitored locations that can be attributed to the Project, the Applicant will identify and undertake reasonable corrective measures in conjunction with the appropriate parties including other property owners on California, New York and Pennsylvania Avenues and The Mountain Road and subject to receipt of all necessary rights permits and approvals. These reasonable corrective measures may include without limitation:

- Sign and pavement marking installation
- Adjustments to the traffic signal timing at the Route 9 (Worcester Road)/California Avenue intersection (if approved by MassDOT)
- Modifications to on-site circulation
- Consideration of access restrictions at the Project driveways

To the extent that the reasonable corrective actions are necessitated exclusively by Wendy's increased traffic volumes, the Applicant shall fund such additional mitigation measures, which cost shall include fees for an independent peer review of the traffic monitoring report if the Planning Board Administrator is of the opinion that such a review is required. In allocating funding for reasonable corrective measures, the Planning Board will consider whether and the extent to which it will seek funding from other property owners on California, New York and Pennsylvania Avenues and The Mountain Road which have caused the needed reasonable corrective actions.

The identified additional mitigation measures, if any, will be documented in the transportation monitoring and reporting program report, and will identify the appropriate

parties responsible for implementation, required approvals, and the timeline for implementation. The status of implementation of the identified improvement measures will be documented in the subsequent monitoring report.

The Applicant will perform the same monitoring program one year after the initial vehicle counts were taken. Notwithstanding the foregoing, in no event shall the corrective measures include the closure of the drive-thru and/or restrict, limit and/or nullify the Special Permit for Use or Special Permit for Drive-thru Facility permit.

35. The Applicant shall provide a copy of the State Highway Access Permit application and supporting plans and documents submitted to MassDOT for the Project, and any subsequent related documentation thereafter, to the Planning Board Administrator simultaneously with the transmittal of said information to MassDOT.
36. Recognizing the potential for the Project to induce pedestrian crossings of Route 9 (Worcester Road) where such accommodations are not presently provided, the Applicant agrees to make all reasonable efforts to pursue the following improvements at the intersection of Route 9 (Worcester Road) at California Avenue:
    a. Reconstruct the intersection and the traffic signal system to provide a pedestrian crossing of Route 9 (Worcester Road) with the requisite pedestrian traffic signal equipment and phasing.
    b. In conjunction with the modifications to the traffic signal system, design and implement optimal traffic signal timing and phasing plan.

    If approved by MassDOT, the Applicant shall design and construct said improvements within an appropriate amount of time as provided by MassDOT. The Applicant shall provide copies of all plans and supporting documentation submitted to MassDOT concerning the pedestrian crossing improvements to the Planning Board Administrator simultaneously with the transmittal of said information to MassDOT. The initial plans and documents shall be submitted to MassDOT and the Planning Board Administrator simultaneously, and shall be incorporated into the Project file for this Project filing.

    If MassDOT determines that the installation of a pedestrian crossing of Route 9 at California Avenue is not advisable , the Applicant shall provide the Planning Board Administrator with an accounting of the monies spent to pursue the crosswalk. Upon review by the Planning Board Administrator and administrative review by the Planning Board, the Applicant shall remit to the Town the difference (if any) between the Site Plan Mitigation Fee assessed to the Project ($25,000.00) and the monies spent by the Applicant to pursue the pedestrian crossing improvements for use by the Town to fund the planning, design and/or construction of transportation improvements in the area of the Project.

Special Provisions/ Periodic Conformance Reporting and Review

37. The Applicant shall provide the following performance guarantees for the Project.
    a. Prior to the issuance of any final use and occupancy permit, the Applicant shall post a performance guarantee satisfactory to the Planning Board for all improvements including landscaping, which are incomplete or not constructed, in an amount of at least the cost of such improvements.

b. Upon completion of the project and prior to the request for a final use and occupancy permit, the Applicant shall provide the Planning Board with "As Built Plans" which shall be reviewed by the Planning Board Administrator, for certification that the landscaping has been planted substantially in accordance with the approved Landscape Plan, at which time a Landscape Maintenance Bond shall be required.
c. The Applicant shall provide to the Town of Framingham a Landscape Maintenance Bond (letter of surety or other form) in the sum of 20 percent of the total landscape cost to replace any trees which are improperly pruned or dead trees, shrubs or lawn areas, as shown on the approved Landscape Plan, which shall be posted for a period of two years commencing with the completion of the landscaping and certification of the Landscape Plan, as required above.

38. Prior to the issuance of a final use and occupancy permit, the Applicant shall submit an as-built plan stamped by a Professional Engineer registered in the Commonwealth of Massachusetts certifying that all improvements are completed in accordance with the approved Site Plan in a form acceptable to the Town of Framingham, Department of Public Works, Engineering & Transportation Division (DPW). The as-built plan shall be submitted in both hard copy and electronic formats (PDF and AutoCAD). The AutoCAD file must conform to the current form of the Mass GIS Standard for Digital Plan Submission to Municipalities or other standard requested by the Town of Framingham DPW. The plan shall include but not be limited to site utility improvements and tie-in dimensions to all pipes and connection points. The as-built information shall be delivered to DPW a minimum of 5 business days in advance of the Applicant seeking a final certificate of occupancy sign-off to allow time for DPW review and approval of submitted information. The Applicant shall also submit a statement certifying that all conditions of approval of this decision have been met and site improvements are complete.
39. The Applicant shall install fully operationally security cameras within outdoor seating area and within the drive-thru. The Framingham Police Department shall have access to the security cameras to the extent permitted by law.
40. The Applicant shall install a bicycle rack on the Project Site, in a location that is not in conflict with vehicles and pedestrian activities. In addition the Applicant agrees to place three benches on-site in an area free of vehicular conflicts. Unless the bicycle rack is gifted to the Town for use elsewhere in the Town, the Applicant agrees to install bicycle racks on-site, in an area free of vehicle and pedestrian conflict. Bicycle racks shall not be located within designated vehicle parking spaces.
41. All signs and pavement markings to be installed within the Site shall conform to the applicable standards of the Manual on Uniform Traffic Control Devices (MUTCD).
42. The Applicant agrees to install and maintain signage on the property along Route 9 (Worcester Road) stating that standing of vehicles on state highway is not permitted.
43. The Applicant shall reconstruct the sidewalk along Route 9 (Worcester Road) and California Avenue that runs along the property boundary as part of the project. Furthermore, the Applicant shall install ADA compliant warning panels at each side of the property entrances/exits.
44. The Applicant shall join the MetroWest Transportation Management Association. The Applicant shall designate a Transportation Coordinator to implement a Transportation

Demand Management Program to promote vehicle trip reduction measures including, but not limited to, ridesharing, bicycle use, public transportation, and monetary incentives. The Transportation Coordinator shall provide an annual report to the Planning Board on the effectiveness of the Transportation Demand Management Program identifying specific actions which have been taken and will be taken in the future to increase participation in the program and to reduce single occupancy vehicle trips. The Transportation Coordinator shall also provide copies of the TDM Report filed with the Commonwealth of Massachusetts.

45. The Applicant shall prohibit pedestrians or persons not in motorized vehicles to be served via the drive-thru window. All persons attempting to utilize the drive-thru not in a motorized vehicle will be directed to utilize the inside order stations within the building.
46. The hours of operation are limited as follows: the dining room may be open from 10:00am to 10:00pm daily, the drive-thru may be open from 10:00am to 2:00am daily. Deviation from these hours will require Planning Board approval through a public hearing.
47. The Applicant shall monitor the outside eating area during all hours of operation.
48. The Applicant is required to obtain approval from the Sign Officer regarding the proposed sign package. If modifications to the proposed sign locations are required the Applicant must seek a minor modification to this Decision.
49. The Applicant shall incorporate a recycling program for all non-reusable food containers.

WAIVERS

1. The Applicant has requested a waiver from the Planning Board requirement to post a Community Notice Sign.

2. The Applicant has requested a waiver from Section III.E.8.f.2.c.2 of the Framingham Zoning By-law, which requires four shrubs to be planed per 100 square feet of buffer area. Based on the amount of buffer area, this would require 270 shrubs. The Applicant requests a waiver from this requirement, and requests that 211 shrubs as shown on the revised plan sheet LS-1, dated February 9, 2015, and revised through May 27, 2015.

3. The Applicant has requested a waiver from Section III.E.8.h.2.d of the Framingham Zoning By-law, which requires two trees be planted per Terminal Island. The proposed plan depicts three Terminal Island trees and two parking lot trees within the parking lot as shown on the revised plan sheet LS-1, dated February 9, 2015, and revised through May 27, 2015.

4. The Applicant has requested a waiver from Section III.E.8.i of the Framingham Zoning By-law, which requires that a landscaped area ten feet wide along all sides of the building providing public access be provided. The Applicant states that landscaping is proposed around the proposed building, however, a strip of 10 feet wide is not provided. The Planning Board may waive this requirement in cases where it is impractical to provide the specified depth of landscaped area due to the size, shape, or other characteristics of the parcel.

The vote five in favor and zero opposed to granting the requested waivers for the posting of a Community Notice Sign, and for the requirements of Sections III.E.8.f.2.c.2., III.E.8.h.2.d., and III.E.8.i. of the Framingham Zoning By-law.
Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....yes
Thomas F. Mahoney.....yes
Victor Ortiz.....yes

VOTE

Public Way Access Permit (Section VI., Article 8 of the Framingham General By-laws)

The Planning Board voted four in favor, zero opposed, and one abstention to grant approval for a Public Way Access Permit pursuant to pursuant to Article VI, Section 8 of the Town of Framingham General By-Laws to allow the Applicant, The Wendy's Company, to access the property at 1699 & 1701 Worcester Road as shown on the Site Plan for 1699 & 1701 Worcester Road.

Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....yes
Thomas F. Mahoney.....abstain
Victor Ortiz.....yes

Special Permit for Use (Sections II.B.5.K., III.E., and VI.E. of the Framingham Zoning By-law)

The Planning Board voted four in favor and one opposed to grant approval for a Special Permit for Use pursuant to Sections II.B.5.K., III.E., and VI.E. of the Framingham Zoning By-Law to allow the Applicant, The Wendy's Company, to use the Property as a new 3,825 square foot Wendy's Restaurant with a drive-thru service window and associated site improvements, at the property located at 1699 & 1701 Worcester Road.

Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....no
Thomas F. Mahoney.....yes
Victor Ortiz.....yes

Special Permit for Drive-thru Facility (Sections II.B.5.L., V.J. and VI.E. of the Framingham Zoning By-law)

The Planning Board voted five in favor and zero opposed to grant approval for a Special Permit for a single order board station Drive-thru Facility pursuant to Sections II.B.5.L., V.J., and VI.E. of the Framingham Zoning By-Law to allow the Applicant, The Wendy's Company, to raze the existing structure and the construction of a new 3,825 square foot Wendy's Restaurant with a drive-thru service window at the property located at 1699 and 1701 Worcester Road.

Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....yes
Thomas F. Mahoney.....yes
Victor Ortiz.....yes

Special Permit for Reduction in the Required Number of Off-street Parking Spaces (Section IV.B.1.c and VI.E. of the Framingham Zoning By-law)

The Planning Board voted five in favor and zero opposed to grant approval for a Special Permit for a Reduction in the Required Number of Off-street Parking Spaces pursuant to Section IV.B.1.c and VI.E of the Framingham Zoning By-Law to allow the Applicant, The Wendy's Company, to raze the existing structure and the construction of a new 3,825 square foot Wendy's Restaurant with a drive-thru service window and associated site improvements for the property located at 1699 and 1701 Worcester Road.

Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....yes
Thomas F. Mahoney.....yes
Victor Ortiz.....yes

Site Plan Review (Section VI.F of the Framingham Zoning By-law)

The Planning Board voted five in favor and zero opposed to grant approval for a Site Plan Review Application pursuant to Site Plan Review (Section VI.F) of the Framingham Zoning By-Law to approve the Site Plan submitted by the Applicant, The Wendy's Company, to raze the existing structure and the construction of a new 3,825 square foot Wendy's Restaurant with a drive-thru service window and associated site improvements, at the property located at 1699 & 1701 Worcester Road.

Christine Long.....yes
Stephanie Mercandetti.....yes
Lewis Colten.....yes
Thomas F. Mahoney.....yes
Victor Ortiz.....yes

By:_____
Christine Long, Chairperson Framingham Planning Board

Date of Signature: June 19, 2015

E. HIGHWAY OVERLAY DISTRICT REGULATIONS

1. Purpose and Intent

The purpose of this Section E is to manage the intensity of development and the quality of design along major highway corridors so as to protect the public health, welfare and safety and to enhance the economic vitality of the area. In particular, the provisions of this Section E are designed to limit congestion, to preserve environmental qualities, to improve pedestrian and vehicular circulation, and to provide for mitigation of any adverse impacts resulting from increased development in a complex regional center. In addition to these purposes, the open space and landscaping provisions of this section are designed to foster development that is of high visual and aesthetic quality.

Furthermore, it is a specific purpose of this Section E to establish parallel and consistent zoning regulations for highway corridor areas which are shared by the Towns of Framingham and Natick, in order to achieve a unified development character for such areas and to avoid substantive and procedural conflicts in the regulation and administration of land uses within such areas.

This Section E establishes a system whereby a development may attain a greater density than allowed by right, in return for providing public benefit amenities which compensate for one or more specific effects of increased density. These amenities may include traffic improvements (to accommodate increased traffic), pedestrian or transit improvements (to reduce traffic generation), creation of additional open space and public parks (to compensate for increased congestion and concentration of economic activities), provision of public assembly areas (to foster more balanced development and a sense of community).

The provision of increased development density in return for such amenities is specifically authorized by MGL Ch. 40A, Sec. 9, with respect to open space, traffic and pedestrian amenities, and is also generally authorized for other amenities.

2. Definitions

The following terms shall be specifically applicable to these Highway Overlay District regulations and shall have the meanings provided below.

Bonus: The construction of floor area in excess of that permitted as of right by the applicable FAR maximum.

Bonus Project: A project for which the applicant is seeking any one or more of the bonuses provided in Section 9of these Regulations.

Change In Use: A change in part or all of an existing structure from one use category or purpose to another use category or purpose. In a mixed or multi-use facility, an exchange or rearrangement of principal use categories or components shall not be construed as a change in use unless the net change in any of the factors in the [Table of Off-Street Parking Regulations, Subsection IV.B.1(a)], requires an addition of 10 or more parking spaces to the amount required by this By-Law prior to the change in use.

Divider Island: A landscaped element running in a direction parallel to a vehicular travel lane, used to separate parallel rows of parking spaces.

Excess Pervious Landscaping: Pervious landscaping exclusive of wetlands, as defined herein, in excess of the amount required by the applicable LSR.

Floor Area Ratio (FAR): The ratio between (1) the gross floor area of all buildings on a parcel, including accessory buildings, and (2) the total area of the parcel.

Landscape Surface Ratio (LSR): The ratio between (1) the area of a parcel devoted to pervious landscaping or natural vegetated areas and (2) the total area of the parcel. Both components of this ratio shall exclude any wetland resource area, as defined in M.G.L. Ch. 131, Sec. 40, except for wetland areas that are located within one hundred feet of an upland area adjoining a developed area of the project.

Major Alteration: An alteration or expansion of a structure or group of structures, on the same lot or contiguous lots, that results in an increase in gross floor area equal to or greater than 15% over the gross floor area in existence on January 1, 1992; or which is equal to or more than eight thousand (8,000) square feet, or, if the parcel on which the subject structure is located is within two hundred (200) feet of a residential district, more than five thousand (5,000) square feet, which ever is the lesser amount.

Minor Alteration: An alteration or expansion of a structure or group of structures, on the same lot or contiguous lots, that results in an increase in gross floor area of less than 15% over the gross floor area in existence on January 1, 1992; or which is less than eight thousand (8,000) square feet, or, if

the parcel on which the subject structure is located is within two hundred (200) feet of a residential district, less than five thousand (5,000) square feet, which ever is the lesser amount.

Nonbonus Project: A project for which the applicant is not seeking a bonus.

Open Space Public Benefit Amenity: A public benefit amenity in the form of a park or excess pervious landscaping, available for passive or active recreation, or leisure use, by the public.

Parcel: All lots utilized for any purpose in connection with creating a development, e.g. buildings, parking and detention basins.

Park: A continuous area of open space which is directly accessible to the public for scenic, recreational or leisure purposes.

Pedestrian Circulation Improvement: A public benefit amenity in the form of a pathway, off- site sidewalk or pedestrian bridge designed to facilitate pedestrian movement.

Pedestrian Bridge: A structure designed to convey pedestrians over a watercourse, railroad, or public or private right of way.

Pedestrian Tunnel: A structure designed to convey pedestrians under a watercourse, railroad, or public or private right of way.

Pervious Landscaping: Area that is principally covered with natural materials such as grass, live plants or trees.

Public Assembly Space: A room or facility, such as a meeting room, theater, amphitheater or auditorium, which is available on a not-for-profit basis for use by members of the public for civic and cultural events.

Public Benefit Amenity: An improvement, facility or financial contribution for the benefit of the general public, provided in connection with a development in order to qualify for an increase over the Base FAR.

Public Transit Endowment: A contribution to a trust fund, maintained by the Town of Framingham or another governmental body designated by the Board of Selectmen, established for the purpose of providing long-term financial support for local or regional transit systems serving the Regional Center district.

Service Road: A road that is designed to provide access to abutting properties so that the volume of traffic entering onto or exiting from major roadways is reduced.

Terminal Island: A landscaped element running in a direction parallel to individual parking spaces and having a minimum length equal to the length of any abutting parking space found at the end of a row.

Transit Amenity: A public benefit amenity which contributes to the use and/or long-term availability of public transit and is either a transit-related lane widening or public transit endowment.

Transit-Related Lane Widening: A new or expanded lane on an existing street, designed and reserved for use by high occupancy vehicles, such as buses and vans.

3. Establishment Of Districts

a. General

The Highway Overlay Districts are established as districts which overlay nonresidential zoning districts abutting major arterial highways. There are two such overlay districts: the **REGIONAL CENTER** (**RC**) District and the **HIGHWAY CORRIDOR** (**HC**) District.

b. Regional Center (RC) District

1) The RC district shall be bounded as follows:

- Easterly by the Framingham-Natick Town line;
- Southerly by the boundary line between the General Business district and the R-1 Single Residence district on the southerly side of Worcester Road (State Route 9);

- Westerly by the intersection of Worcester Road and Cochituate Road (Route 30);
- The Northerly boundary shall include all parcels, or groups of contiguous parcels serving a common use, whether or not in common ownership, which are used for non-residential purposes as of January 1, 1992 and any portions of which are located within 200 feet of that portion of the northerly right-of-way of Cochituate Road, between Worcester Road (Route 9) and the Framingham-Natick Town line.

2) If, as of January 1, 1992, any portion of the area of a parcel falls within the RC district, then the entire parcel shall be deemed to fall within the district.

c. Highway Corridor (HC) District

The HC District shall include all parcels, or groups of contiguous parcels serving a common use, whether or not in common ownership, which are used for non-residential purposes as of January 1, 1992 and any portions of which are located within 200 feet of the right-of-way of Worcester Road (Route 9), but excluding (a) parcels that are included in the RC district as set forth above; (b) parcels located on the northerly side of Worcester Road between Edgell Road and the westerly ramp leading onto Route 9 (the Framingham Center); (c) the parcels known as the Framingham Industrial Park; and (d) and the parcels known as 9/90 Crossing.

d. Relationship to Underlying Districts

1) The Highway Overlay Districts shall overlay, all underlying districts, so that any parcel of land lying in a Highway Overlay District shall also lie in one or more of the other zoning districts in which it was previously classified, as provided for in this Zoning By-Law.

2) All regulations of the underlying zoning districts shall apply within the Highway Overlay Districts, except to the extent that they are specifically modified or supplemented by other provisions of the applicable Highway Overlay District.

3) Requirements for off-site contributions under Site Plan Review:

a) For non-bonus projects, the requirements of Sections VI.F.6(a) and VI.F.8.(c) regarding contributions for off-site improvements shall apply.

b) For bonus projects which comply in all other respects with the requirements of this Section E. and other provisions of the By-Law, the provisions of this Section E. regarding contributions for off-site improvements and public benefit amenities shall supersede and replace the requirement for off-site improvements under Section VI.F.6.(a) and VI.F.8.(c).

4. Use Regulations

a. General

1) The Highway Overlay Districts are herein established as overlay districts. The underlying permitted uses are permitted. However a developer must meet the additional requirements of this Section E.

2) Lots in a Highway Overlay District exclusively used or zoned for single or two family residential development are exempt from these regulations, regardless of the underlying Zoning District classification.

b. Multiple Use Developments

Multiple use developments are specifically allowed in a Highway Overlay District to the extent that each individual use is allowed in the district.

5. Intensity Regulations

a. Base Floor Area Ratio (FAR) for Nonresidential Development

For any nonresidential development, the floor area ratio (FAR) shall not exceed 0.32, except as modified below in this section.

b. Increase in FAR for New Construction with Public Benefit Amenities in the RC District
The Planning Board may, by Special Permit, grant an increase in the maximum floor area ratio above 0.32, up to a maximum FAR of 0.40, for parcels located in the Regional Center (RC) zoning district, subject to the following requirements:

1) Increased pervious landscape surface shall be provided in accordance with Section 6(b) of these Highway Overlay Districts Regulations.

2) Public benefit amenities shall be provided as required herein, and the increase in permitted floor area shall be determined in accordance with the schedule of bonuses set forth in Section 9 of these Highway Overlay Districts Regulations. A FAR increase shall be granted only if the Board makes the Findings required in sub-paragraph g. of this Section 5.

c. Increase in FAR for Consolidation of Lots in the RC or HC Districts
In order to encourage consolidation of lots, the Planning Board may, by special permit, grant an increase in the floor area ratio above 0.32. Such increase shall not exceed 20% of the combined gross floor area of the buildings on the lots to be consolidated, or 12,000 square feet, whichever is lesser, up to a maximum FAR of 0.40.

A FAR increase shall be granted only if the Board determines that the proposed consolidation will achieve, to the maximum extent feasible, the Objectives and Standards set forth in sub-paragraph c. 1) below and makes the Findings required in sub-paragraph g of this Section 5.

1) Objectives and Standards

a) The coordinated development shall be designed to provide access improvements and reduce the number of curb cuts as well as improve signage, unify landscaping, and achieve a higher standard of site design than would be possible with separate development of the individual lots.

b) Only lots which were in separate ownership as of January 1, 1992 may be consolidated for purposes of qualifying for a FAR increase in a Highway Overlay District.

c) The coordinated development need not involve consolidation of ownership. However, the continued use of improvements achieved through consolidation must be guaranteed through appropriate mechanisms (such as easements).

d. Increase in FAR for Projects Involving Minor Alterations in the RC or HC Districts
The Planning Board may, by Special Permit, grant an increase in the existing FAR over 0.32 for minor alteration up to a maximum FAR of 0.40. Such increase shall be granted only if the Board makes Findings required in sub-paragraph g. of this Section 5. A special permit, under this Section, is not required for a minor alteration which does not exceed a FAR of 0.32.

e. Areas Excluded from FAR Computation
The floor area of the following types of facilities shall *not* be included in the gross floor area of a structure or structures for the purposes of computing the floor area ratio on a parcel in the HC or RC district:

1) Day care facilities licensed by the State Office for Children
2) Off-street parking facilities and associated ramps and aisles;
3) Facilities dedicated to public or private transit facilities, or to trip reduction activities such as carpooling and van pooling. Such facilities may include waiting areas, ticket offices or offices for the administration of transportation management and trip reduction activities.
4) Cafeterias for the primary use of the employees who work at the site.

f. Density on Parcels Where Portion Dedicated to Town or Commonwealth
Subject to the other provisions of this section, if the owner of a parcel, with the concurrence of the Planning Board, dedicates to the Town or the Commonwealth a portion of the parcel for public

ownership of a bonus facility, then the permissible density at which the remainder of the parcel may be developed shall be based on the total parcel area including the area so dedicated.

g. Findings Required for a FAR Increase

In granting a FAR increase the Planning Board shall make a specific Finding, in writing, that the increase shall not be substantially more detrimental to the neighborhood than the existing structure or use, and in the case of new construction, that the increase shall not be substantially more detrimental to the neighborhood than the project at the Base FAR, and that all of the conditions set forth below are met. As the basis for its decision, the Planning Board shall consider factors which shall include, but not be limited to, the impact of the waiver on traffic; municipal services and facilities; the character of the neighborhood including environmental and visual features. It shall be the responsibility of the applicant to demonstrate conformance with the following standards as part of the request for a FAR increase.

1) The increase will achieve the goals, objectives and intent of these Highway Overlay District Regulations.

2) The increase will achieve compliance with these Highway Overlay District Regulations to a substantially greater degree as compared with the degree of compliance present in the existing development. In the case of new construction, the increase will achieve compliance with these Highway Overlay District Regulations to a substantially greater degree as compared to development at the Base FAR.

3) The proposed development complies with all other applicable requirements set forth in the Town of Framingham Zoning Bylaw, including, when required, site plan review (Section VI.F) and/or off-street parking requirements in Section IV., thereof, subject to the following exception:

That such requirements are specifically superseded by these Highway Overlay Districts Regulations,

6. Open Space Requirements

a. Base Landscape Surface Ratio (LSR)

The base landscape surface ratio (LSR) shall be 0.20 for retail, consumer service and manufacturing uses, and 0.40 for office, research and development and other similar non-retail, nonresidential uses.

b. Increased LSR for Bonus Projects

For bonus projects, the minimum required landscape surface ratio shall be the sum of (1) the base LSR specified above for the applicable use, and (2) one-half of the difference between the proposed FAR and 0.32.

c. Multiple Use Projects

The minimum required LSR for multiple use developments shall be computed as a blended ratio of the LSR requirements applying to the individual components of the development, as follows:

1) Non-bonus projects:
Minimum LSR= (Retail, service or manufacturing floor area percentage x 0.20) + (Office, R&D or other similar non-retail, non-residential uses floor area percentage x 0.40)

2) Bonus projects:
Minimum LSR=[(Retail, service or manufacturing floor area percentage x 0.20)
+ (Office, R&D or other similar non-retail, non-residential uses floor area percentage x 0.40)]
+ (one-half of the difference between the proposed FAR and 0.32)

d. Applicability

The requirements of this Section 6 shall apply to any new structure which requires ten or more parking spaces, and to any major alteration, or change of use of an existing structure which requires the addition of ten or more parking spaces.

7. Dimensional Regulations

a. Height:

1) Height limitations shall be as specified for the underlying zoning district(s).

2) The maximum height of new structures or altered structures where building height is increased, which are located adjacent to residential zoning districts shall be as follows:

DISTANCE FROM RESIDENTIAL DISTRICT	BUILDING HEIGHT
less than **50** feet	**30** feet
equal to or greater than **50** but less than **200** feet	**40** feet.
equal to or greater than **200** but less than **300** feet	**50** feet.
equal to or greater than **300** but less than **400** feet	**60** feet.
equal to or greater than **400** feet	**80** feet

b. Setbacks:

1) Minimum front setbacks shall be as specified for the underlying zoning district(s).

2) Structures shall be set back a minimum of fifteen feet from all side and rear property lines, or the setback required by the underlying zoning, whichever is greater, except as modified by subparagraph c., below.

c. Where Abutting Residential Districts

The minimum setbacks for structures located adjacent to residential districts shall be thirty feet.

8. Landscaping Requirements

a. General Purpose and Intent

The requirements and standards set forth in this Section 8 are intended to achieve specific performance objectives, as described below, to enhance the visual quality of the areas within the Highway Overlay Districts, to encourage the creation and protection of open space, to avoid expansive development of impervious surfaces, to protect and preserve the area's ecological balance and to ensure that landscaping is an integral part of development. In the event the applicant desires to deviate from the specific standards set forth below, the Planning Board may approve alternative plans if it finds that such alternative is clearly more feasible and/or preferable and that the proposed arrangement meets the general purpose, intent, and objectives of this Section 8.

b. Objectives

In order to accomplish the General Purpose and Intent of these Highway Overlay Districts Regulations specific objectives shall be accomplished by landscape plans, which shall include the following:

1) Buffer strips at the front of lots shall contribute to the creation of tree-lined roadways and shall create a strong impression of separation between the street and the developed area of the site without necessarily eliminating visual contact between them.

2) Buffer strips adjoining or facing residential uses or residential zoning districts shall provide the strongest possible visual barrier between uses at pedestrian level and create a strong impression of spatial separation.

3) Landscaping within parking areas shall provide visual and climatic relief from broad expanses of pavement and shall be designed to define logical areas for pedestrian and vehicular circulation and to channel such movement on and off the site.

4) All required landscaping shall be located entirely within the bounds of the parcel.

5) To the greatest feasible extent, existing healthy, mature vegetation shall be retained in place or transplanted and reused on site.

c. Applicability

The requirements of this Section 8 shall apply to any new structure which requires ten or more parking spaces, and to any major alteration, or change of use of an existing structure which requires the addition of ten or more parking spaces.

d. Technical Requirements

All off-street parking site plans and special permits required hereunder shall include a landscape plan and planting schedule prepared by a registered landscape architect unless waived in accordance with Section 10.b.

e. Occupancy Permits

1) No occupancy permit, whether temporary or permanent, shall be granted by the Building Commissioner, until the Planning Board has voted its approval that all landscaping and buffer strips conform to the approved landscape plan and planting schedule, or thirty days shall have passed since the request was submitted to the Planning Board.

2) In cases where, because of seasonal conditions or other unforseeable circumstances, it is not possible to install or complete landscaping prior to initial occupancy of the building(s), an occupancy permit may be granted by the Building Commissioner, upon the approval of the Planning Board, under the following conditions:

a) the owner shall make a payment to the Town, to be held in escrow by the Planning Board, to ensure that required landscape planting is installed and maintained

b) the amount of the escrow payment shall be set by the Planning Board and shall be equal to the remaining estimated cost of materials and installation, with allowance for escalation and contingencies.

3) Release of any escrow amounts, or approval of issuance of an occupancy permit, shall be conditioned upon the receipt by the Planning Board of written certification by a registered landscape architect that the specified plant materials to be included in the project landscaping have been installed according to the approved landscape plan.

f. Landscaped Buffer Strips

1) General Standards

In the highway corridor and regional center areas, a landscaped buffer strip shall be provided separating all buildings, parking areas, vehicular circulation facilities, or similar improvements from the right-of-way line of any public street, or any private way which is adjudged by the Planning Board to perform an equivalent function. Plantings in landscaped buffer strips shall be arranged to provide maximum protection to adjacent properties and to avoid damage to existing plant material. The landscaped buffer strip shall include the required planting as set forth herein, and shall be continuous except for required vehicular access points and pedestrian circulation facilities. All required landscaping amenities shall be located within the bounds of the parcel. Signs shall be designed to be integrated into the landscaping.

2) Specific Standards

a) Depth

Unless a greater depth of landscaping is required in the underlying zoning district, landscaped buffer strips shall be one-third of the distance between the street right-of-way and any building line, but shall not be less than fifteen feet in depth, and need not be greater than fifty feet in depth. Sidewalks may be considered in the calculation of the buffer depth. Landscaped buffer strips adjoining or facing residential districts or residential uses shall be a minimum of fifteen feet in depth.

b) Composition
The buffer strip shall include a combination of deciduous and/or evergreen trees and lower-level elements such as shrubs, hedges, grass, ground cover, fences, planted berms, brick or stone walls. When necessary for public safety or to prevent adverse impacts on neighboring properties, the Planning Board may require that the buffer strip contain opaque screening.

c) Arrangement
Arrangements may include planting in linear, parallel, serpentine, or broken rows, as well as the clustering of planting elements. The following provisions set forth the form of arrangement of plantings. The form of plant arrangement is as follows:

1) At least one tree shall be provided per twenty-seven linear feet of street frontage or portion thereof. There shall be a minimum of three trees in the entire buffer strip. Trees may be evenly spaced or grouped. Groups of trees shall be spaced no further apart than fifty feet.

2) At least four shrubs shall be provided per one hundred square feet of landscaped area in the buffer strip.

d) Opaque Screens
An opaque screen may be comprised of walls, fences, berms, or evergreen plantings, or any combination thereof, providing that the Planning Board may require evergreen trees or shrubs instead of fences when deemed appropriate. Opaque screens shall be opaque in all seasons of the year. For developments adjoining or facing residential districts or residential uses, or when necessary for public safety or to prevent adverse impacts on neighboring properties, a buffer strip shall contain opaque screens as follows:

1) The screen shall be opaque from the ground to a height of between two and one-half to six feet when planted or installed as determined by the Planning Board.

2) Walls or fences exceeding four and one-half feet in height shall have plantings on the side facing the residential district, and may be required to have plantings on both sides.

3) Evergreen trees or shrubs shall be spaced not more than five feet on center.

4) The Planning Board may require ornamental or shade trees in addition to an opaque screen, planted in conformity with the standards set forth in Section 8.f.2) c) above, depending upon the type, size and proximity of adjoining residential uses.

e) Berms
When berms are used to meet the requirements for a buffer strip they shall be planted with living vegetation. The minimum top width of a berm shall be three feet, and the maximum side slope shall be 3:1. No more than twenty-five per cent (25%) of the coverage of a planted berm shall be mulch or non-living material.

f) Mulches
When used in required landscaping or buffers, mulches shall be limited to bark mulch or decorative stone. No more than twenty-five per cent (25%) of the coverage of the landscaped area shall be mulch or non-living material.

g. Intersection Sight Distance Restrictions
Landscaped buffers and screening shall not restrict sight distances at intersections or driveway entrances. Site distance requirements, location and specification of site zones shall be determined by reference to the current edition of the Commonwealth of Massachusetts Department of Public Works Highway Design Manual, or any successor publication. As a guide, no fence or other structure may be erected, and no vegetation may be maintained, between a plane two and one-half

feet above curb level and a plane seven feet above intersecting roadway levels within the zone required for site distance, subject however to actual roadway profiles of the intersecting streets and/or driveways.

h. Landscaping within Off-Street Parking Areas

1) Standards for Landscaping Within Parking Area**s:**

a) Parking areas shall be broken into sections not to exceed one hundred forty cars per section. Sections shall be separated by landscaped buffers to provide visual relief. At a minimum, the buffers shall consist of islands which shall be a combination of "divider islands" and "terminal islands".

b) Each landscaped island shall have a minimum area of one hundred fifty square feet and shall consist of pervious landscaping. Landscaped islands may be curbed or without curbing as follows: Curbing, at least five inches in height, shall surround each landscaped island as protection from vehicles. No tree shall be planted less than four feet from the curbing. Rain gardens shall be designed to meet LID standards and other applicable stormwater management Best Management Practices (BMP's) and may be designed without curbing where appropriate.

1) Divider Islands: The following additional design standards shall apply to divider islands:

(a) At least one landscaped divider island shall be provided for every four parallel rows of parking.

(b) Trees shall be spaced not more than twenty-seven feet on center.

(c) At least one shrub shall be provided for every five linear feet, or one shrub per thirty-five square feet of ground area, whichever results in a greater number of shrubs.

2) Terminal Islands: The following additional design standards apply to terminal islands:

(a) Terminal islands shall be used either (1) to separate parking spaces from driveways and other vehicular travel lanes, or (2) to break up large numbers of parking spaces in a single row of spaces.

(b) Landscaped terminal islands shall be provided at the ends of rows of parking where such rows are adjacent to driveways or vehicular travel lanes. In addition, terminal islands shall separate groups of parking spaces in a row, such that no continuous line of adjoining spaces contains more than twenty-five parking spaces.

(c) As an alternative to separating groups of parking spaces with small internal terminal-islands, additional landscaped area may be provided. Such additional landscaped area shall be provided as additional depth in the buffer strip (above the minimum depth otherwise required in Section 8.b. above), terminal and divider islands adjacent to rows exceeding twenty-five spaces, and shall be provided at a ratio of at least 1.2:1.0. However, no more than thirty-five adjoining parking spaces may be provided in a row of spaces, regardless of the size of the landscaped islands at the ends of the row.

(d) Terminal islands shall contain at least two trees when abutting a double row of parking spaces.

(e) Landscaped terminal islands shall contain evergreen shrubs planted three feet or less on center, in order to prevent damage due to pedestrian traffic.

(f) Grass or ground cover may be substituted for shrubs in divider islands and terminal islands with the approval of the Planning Board.

2) Increase of impervious areas: Notwithstanding the limitation on paved areas set forth elsewhere in Section 8.h.1)b), a landscaped island may be up to thirty-three per cent (33%) impervious surface, provided that all such area is used for pedestrian walkways and that such walkways are adequately buffered from the parking areas.

3) Use of porous paving materials: In order to minimize the amount of storm water runoff from paved areas, the use of porous paving materials is encouraged where feasible.

i. Landscaping Adjacent to Buildings

Landscaped areas at least ten feet in depth shall be provided adjacent to buildings on every side of such buildings that has a public access point and shall contain trees and shrubs. This requirement may be waived by the Planning Board in cases where it is impractical to provide the specified depth of landscaped area due to the size, shape or other characteristics of the parcel; however, in no case shall any parking space or vehicular travel lane be located less than five feet from the building.

j. Standards for Plant Materials

1) All trees, shrubs and hedges must be species that are hardy in Plant Hardiness Zone 5, as defined by the American Standards for Nursery Stock and shall be resistant to salt spray and urban conditions where appropriate.

2) Plantings shall be selected and designed so as not to require high water use for maintenance.

3) Deciduous trees must be at least two and one-half to three inches caliper, six inches above the top of the root ball, at the time of planting; and must be expected to reach a height of at least twenty feet within ten years, when considering the expected normal growth patterns of the species.

4) Evergreen trees must be at least eight feet in height at the time of planting.

5) Ornamental or specimen trees must be at least eight feet in height at the time of planting.

6) Shrubs and hedges must be at least three and one-half feet in height or have a spread of at least twenty-four inches at the time of planting.

7) Shade or canopy trees shall be provided within parking lots, and within buffer strips.

k. Design for Pedestrian Circulation

1) Pedestrian Access Through Buffers and Screens

Landscaped buffers should, to the greatest extent possible, serve as usable open space, providing an environment for pedestrian access between uses. Therefore, buffers shall be designed to include appropriate means of pedestrian access and crossing, both along the landscaped area (i.e., in a parallel direction with the property line) and across the buffer (i.e., providing pedestrian access to the site, separate from vehicular access points). Buffers and screens shall provide for appropriate hard-surfaced pedestrian access points and walkways where property lines abut existing or planned public streets, whether or not such streets have been constructed.

2) Pedestrian Circulation in Parking Facilities

a) Parking facilities and appurtenant driveways shall be designed so as to gather pedestrians out of vehicle travel lanes and to maximize the safety and convenience of pedestrians walking between parked cars and business entrances as well as between external points and locations on site.

b) Pedestrian walkways shall be (i) integrated, to the extent possible, into the interior and/or perimeter landscaping of parking lots; (ii) constructed with a paved or similarly firm

surface, at least six feet in width; and (iii) separated from vehicular and parking areas by grade, curbing and/or vegetation, except for necessary ramps.

l. Maintenance

1) The owner(s) and/or developer(s) of any lot shall be responsible for the maintenance of all landscaped open space and buffers. Landscaping shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.

2) A permanent water supply system, sufficient in the Planning Board's determination, shall be provided by the installation of a sprinkler system and/or hose bibs placed at appropriate locations. Whenever possible, "gray" or re-used water, or wells, shall be used as the water source.

3) Maintenance bond: The Planning Board may require a bond to ensure that required landscape plantings are maintained and survive for up to one growing season following completion of planting.

m. Pervious Landscaping

Up to five per cent of the area counted as pervious landscaping may include pedestrian circulation components such as walkways. Parking areas surfaced with porous pavement shall not be considered pervious landscaping.

9. Bonus Density Provisions

a. Eligibility for Bonus Floor Area

If a proposed improvement or facility in the Regional Center district complies with the standards set forth in Section 5.b. above, it shall be eligible for bonus floor area in accordance with the requirements set forth in paragraphs b through f of this Section 9.

b. Public Benefit Amenity

To qualify for bonus floor area a public benefit amenity must be specifically listed in the Schedule of Benefits below. A public benefit amenity that is a physical space shall be one to which the public is assured access on a regular basis, or an area that is dedicated to and accepted by the Town for public access purposes. Furthermore, to be considered a public benefit amenity, a specific improvement or facility must be determined to provide a public benefit and to be appropriate to the goals and character of the area. In addition, the following requirements must be met:

1) Parks

To be eligible as a public benefit amenity a park must meet all of the following standards:

- be at least 2,500 square feet in area;
- have a minimum width of 50 feet;
- be buffered and/or screened from nearby roads, parking areas and other vehicular circulation facilities; and
- not be located within the landscape buffer strip required under Section 8.f.

For purposes of computing bonus credits, no more than one-third of the area of the park shall consist of wetlands, water bodies, steep slopes (over 25%), or other areas not usable for public recreation or leisure activities. On-site park area which meets the above standards and which is not wetlands may be used to satisfy the minimum landscape surface ratio (LSR) requirement. On- or off-site park area may be used to qualify the project for bonus floor area.

2) Pedestrian Circulation Improvement

Such improvements shall be directly accessible to the pedestrian circulation system, and shall where possible connect with existing pedestrian circulation improvements on adjacent parcels

and/or provide for connection to such improvements which can reasonably be expected to be developed on adjacent parcels. The following standards shall also be applicable:

a) Pathway (Off-Site)
A pathway shall be at least fifty feet from a vehicular circulation improvement for at least ninety per cent of its length.

b) Sidewalk (Off-Site)
A sidewalk shall not be on land owned by the applicant or on public or private right-of-way immediately adjacent to frontage of land owned by the applicant.

c) Pedestrian Bridge/Tunnel
Bridges or tunnels should have clear functional relationships to adjoining commercial properties and/or public open space amenities. To be eligible as a public benefit amenity, a pedestrian bridge or tunnel shall not be located entirely on the applicant's property, nor shall it connect a principal use with an accessory use such as a parking structure.

3) Service Roads
Driveways and other facilities which principally serve the internal circulation needs of a project, and which provide only a marginal public benefit, shall not qualify as service roads under the provisions of this Section 9.

c. Schedule of Bonuses
Bonus floor area shall be available in accordance with the bonus ratios listed in the following "Schedule of Bonuses", up to the maximum FAR permitted in this Section 9 if the Planning Board deems that the amenity offered by the applicant accomplishes the objectives of this Section E. The bonus ratio is the ratio of (1) the unit of public benefit amenity provided to (2) the floor area permitted for bonus projects in excess of a FAR of 0.32. For example, a bonus ratio of one to three (1:3) and an amenity unit of "Square Foot" means that for each square foot of the amenity the project shall be eligible for three additional square feet of floor area for permitted uses.

SCHEDULE OF BONUSES

PUBLIC BENEFIT AMENITY	AMENITY UNIT	BONUS RATIO*
Open Space Amenities		
Park	Square foot	1:1
Excess Pervious Landscaping	Square foot	1:0.5
Pedestrian Circulation Improvements		
Off-Site Sidewalk	Square foot	1:1
Pathway/Bikeway	Square foot	1:1
Pedestrian Bridge/Tunnel	Square foot	1:1
Public Assembly Space	Square foot	1:5
Traffic Improvements		
Service Road (24-30 foot paved width)	Square foot	1:3
Transit Amenities		
Transit-related Lane Widening	Square foot	1:2
Public Transit Endowment	Dollar ($)	20:1

***Note: BONUS RATIO= Amenity: Floor Area**

d. State-Mandated Amenities
The Planning Board may grant bonus floor area for a public benefit amenity that is not specifically listed in paragraph b above, only when the cost of such amenity exceeds 3% of the total cost of the project and if:

1) the provision of such amenity has been mandated as part of a State approval process; and,

2) the provision of the alternative improvement furthers the objectives of this Section 9; and,

3) the improvement is at least equivalent in value and effect to a listed public benefit amenity which would qualify the development for the proposed amount of bonus floor area.

e. Prospective Bonus Agreements

A project in the RC district, which proposes to provide a public benefit amenity but not to use the full FAR increase which the amenity makes possible, may enter into a prospective bonus agreement (PBA) with the Planning Board as a condition of the Board's granting of a Special Permit and/or Site Plan Approval. The PBA shall define the specific nature of the public benefit amenity and the amount of FAR and additional floor area for which the parcel shall become eligible as a result of provision of the improvement. The maximum term of a PBA shall not exceed five years, following which the rights to any unused FAR increase shall become null and void. If, for any reason, a change of use of a parcel that has been approved for an FAR increase which is in whole or in part unused is proposed within the affective term of a PBA, the owner must obtain the approval of the Planning Board to take advantage of such remaining increase.

The only effect of a PBA shall be to increase the allowable FAR of the development, subject to all other requirements of this Section 9. The approval of a PBA by the Planning Board shall not be deemed to supersede or waive any of the other provisions of this Section, nor shall such approval be considered to represent the granting of site plan approval or special permit approval for any future development.

f. Continuing Obligation for Bonuses

1) Where a bonus is granted, the applicant shall covenant to ensure the continued use of the bonus facility or improvement for the purpose for which the bonus was granted. Such covenant shall be recorded as a condition of the special permit and shall run with the land.

2) An applicant who constructs a pedestrian circulation improvement shall be responsible for the maintenance, upkeep and provision of insurance for the improvement, unless it has been dedicated to and accepted by the Town. If the improvement is not maintained, the Town may, at its sole option, place a lien on the property, maintain the improvement, and seek reimbursement from the owner.

10. Administration

The review procedures set forth herein are intended to apply to the ***RC*** and ***HC*** districts, in addition to the requirements of the underlying zoning district. In administering such procedures and requirements, the Planning Board shall apply the standards of the underlying zoning district if such standards, procedures and requirements are more restrictive than set forth in these Highway Overlay District Regulations.

The Planning Board shall be the SPGA for all special permits granted under these Highway Overlay District Regulations.

a. Thresholds for A Special Permit for Non-Bonus Projects

A development which requires site plan review and a special permit in conformance with the underlying zoning shall be required to conform with the additional requirements of these Highway Overlay Districts Regulations. No additional special permit or site plan review shall be required.

b. Thresholds for A Special Permit for Bonus Projects

1) An additional special permit is required for any proposed development which will exceed the base Floor Area Ratio (FAR) of 0.32, as described in Section 5, hereto.

2) Procedure:

a) When required, the procedures for site plan submission, review and approval shall be as set forth under Section VI.F. of this By-Law, except that the traffic impact standards of Section VI.F.6.(a) and VI.F.8.(c) including the requirements for off-site traffic improvements, are superseded by the provisions of Section 3.d.3) and 5.b. herein. In the

event that multiple special permits are required either by these Highway Overlay District Regulations or by these Regulations and the Underlying Regulations, the review process employed shall occur simultaneously, with a separate vote recorded for each, to minimize, to the greatest feasible extent, the decision-making time period.

b) The calculation of a major or minor alteration shall be determined by the Building Commissioner.

c. Modifications and Waivers

The Planning Board may modify and/or waive strict compliance with one or more of the standards, regulations and objectives set forth in these Highway Overlay District Regulations in accordance with the following procedures.

1) Findings Required for a Waiver: The Planning Board shall make a specific Finding, in writing, that a waiver and/or modification will not create conditions which are substantially more detrimental to the existing site and the neighborhood in which the site is located, than if the waiver and/or modification were not granted. As the basis for its decision, the Planning Board shall consider factors which shall include, but not be limited to, the impact of the waiver on traffic; municipal services and facilities; the character of the neighborhood including environmental and visual features; and whether the objectives of these Highway Overlay Districts Regulations are achieved.

2) Performance Standards for Waivers: The applicant will be required to demonstrate that the waiver, if granted, will accomplish the following design and performance objectives, as are applicable:

a) Landscaped buffer strips which create a strong impression of separation between developed areas and adjacent streets and/or residential areas.

b) Landscaped parking areas and landscaped areas adjacent to buildings to provide shade and visual relief from large expanses of impervious surfaces.

c) Improved pedestrian circulation within the subject site and, where possible, create pedestrian access to adjoining sites.

d) Maintenance of all landscaped spaces and buffer areas.

e) Improved vehicular access, reduced curb cuts for access drives, improved on-site circulation.

f) Improved building architecture and facade to achieve compatibility and harmony with the surrounding neighborhood.

g) Improved site signage.

d. Mutual Review

It is the intent of this Section to provide an opportunity for regional review of proposed developments in the Regional Center district as described below: Review and comment by the Planning Board of the Town of Natick is specifically encouraged. In its review of a site plan, the Planning Board shall consider any comments submitted by the Planning Board of the Town of Natick.

1) If the size of the proposed structure is equal to or greater than 50,000 square feet, the applicant shall submit one complete set of application documents to the Town of Natick and shall meet with the Planning Board of Natick to describe the project, if requested by the Natick Planning Board.

2) If the size of proposed structure is less than 50,000 square feet, the applicant shall submit one complete set of application documents to the Town of Natick. The Planning Board of Natick shall be notified of the dates of all public hearings regarding the project.

F. COMMERCIAL GROUND-MOUNTED SOLAR INSTALLATIONS

1. Purpose and Intent

The purpose of this By-law is to provide a permitting process and standards for the creation of new Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations. This By-law provides standards for the placement, design, construction, operation, monitoring, modification and removal of such installations; while protecting public safety, protecting against undesirable impacts on residential property and neighborhoods, protecting scenic, natural and historic resources and protecting and/or providing for wildlife corridors. Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations shall not diminish abutting property values and provide adequate financial assurance for the eventual decommissioning of such installations.

The provisions set forth in this section shall apply to the construction, operation and/or repair of Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations.

2. Definitions

Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations: A solar photovoltaic system that is structurally mounted on the ground and is not roof-mounted, and has a minimum nameplate capacity of 250kW Direct Current (DC).

Designated Locations: The locations designated by the Town Meeting, in accordance with General Laws Chapter 40A, Section 5, where Commercial Ground-Mounted Solar Photovoltaic Installations may be sited as-of-right, but are subject to site plan review under Section VI.F. Said locations are shown on the Framingham Zoning Map pursuant to General Laws Chapter 40A, Section 4. This map is hereby made a part of this Zoning By-law and is on file in the office of the Town Clerk.

Rated Nameplate Capacity: The maximum rated output of electric power production of the Photovoltaic system in Direct Current (DC).

3. Applicability

Commercial Ground-Mounted Solar Installations is an overlay district that may be superimposed by a vote of any annual or special Town Meeting on a parcel or parcels of land. Designating land that requires significant tree cutting is discouraged. Land in industrial or commercial zoning districts, or vacant, disturbed land is encouraged for designation. Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations are prohibited in all Residential Zoning Districts.

No Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations shall be erected or installed except in compliance with the provisions of this section and other applicable sections of the Zoning By-law, as well as state and federal law. Such use shall not create a nuisance by virtue of noise, vibration, smoke, dust, odors, heat, glare and radiation, unsightliness or other nuisance as determined by the Planning Board under Site Plan Review, Section VI.F.

The construction and use of a Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations within any overlay zoning district designated by a vote of annual or special Town Meeting as set forth in the immediately preceding paragraph shall be as-of-right and shall undergo Site Plan Review prior to construction, installation or modification as provided in this section.

4. General Requirements

A Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation may be permitted on a lot which contains a contiguous area of not less than four acres and meets the setbacks and maximum lot coverage under Any Other Principal Use of the Table of Dimensional Regulations Section IV.E.2 for the underlying zoning district.

a. Visual Impact

The visual impact of the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation, including all accessory structures and appurtenances shall be mitigated. All accessory structures and appurtenances shall be architecturally compatible with each other.

Structures shall be shielded from view and/or joined and clustered to avoid adverse visual impacts as deemed necessary by and in the sole opinion of the Planning Board. Methods such as the use of landscaping, natural features and opaque fencing shall be utilized.

b. Compliance with Laws and Regulations
The construction and operation of Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations shall be consistent with all applicable town regulations and by-laws, and state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements. All buildings and fixtures forming part of a Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation shall be constructed in accordance with the State Building Code and approved by the Building Commissioner.

c. Utility Notification
No Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation shall be constructed until evidence has been given to the Planning Board that the utility company that operates the electrical grid where the installation is to be located has been informed of the owner or operator's intent to install an interconnected customer-owned generator. Proof of a fully executed mutual agreement with the utility company shall be provided to the Planning Board. Off-grid systems shall be exempt from this requirement. If the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation goes on grid, it shall be required to immediately comply with this requirement, and proof of such compliance shall be provided to the Building Commissioner within seven days.

d. Maintenance
The Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the Fire Chief, Police Chief and Public Works Director and Planning Board. The owner or operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s), unless said access road(s) is/are accepted as a public way(s).

e. Emergency Services
The Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation owner or operator shall provide a copy of the project summary, electrical schematic, and the approved site plan to the Fire Chief. The owner or operator shall provide an emergency response plan to the Planning Board, Fire Department, Police Department, and Public Works Department. The emergency response plan is subject to the review and approval of the Planning Board, Fire Department, Police Department and Public Works Department, and shall include at a minimum, explicit instructions on all means of shutting down the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation, which shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation and immediately notify the aforementioned parties of any change to the responsible person and/or his/her contact information.

f. Safety and Security
Safety and measures of security shall be subject to the approval of the Planning Board, Fire Department, Police Department and Public Works Department. The owner or operator shall be required to provide emergency services with training on all equipment and procedures referenced in the emergency response plan or which might otherwise be necessary for emergency services to operate or perform.

The owner or operator shall be required to provide a Knox Box (a secure, tamper-proof storage box for keys or other access tools) at each locked entrance to the facility and maintain a complete set of all keys or devices required to gain emergency access to all areas, buildings and equipment of the facility in each Knox Box.

g. Design Standards

(a) Lighting
Lighting of the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation, including all ancillary structures and appurtenances, shall not be permitted unless required by the Planning Board or State Building Code. Where used, lighting shall be subject to the standards of Section VI.F.

(b) Utility Connections
All utility connections from the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations shall be underground unless specifically permitted otherwise by the Planning Board. Electrical transformers, inverters, switchgear and metering equipment to enable utility interconnections may be above ground if required by the utility provider.

(c) Land Clearing, Soil Erosion and Habitat Impacts
Clearing of natural vegetation and trees shall be limited to that which is necessary for the construction, operation and maintenance of the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation or otherwise prescribed by applicable laws, regulations and by-laws.

(d) Structures and Panels
All structures and panels and all associated equipment and fencing including Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation shall be subject to all applicable By-laws for the underlying Zoning District concerning the bulk and height of structures, lot area setbacks, open space, parking and building and lot coverage requirements, and may not exceed 50% of the total lot area.

(e) Modifications
All material modifications to a Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation made after issuance of the site plan decision shall require modification to the decision in compliance with Section VI.F.

(1) Abandonment
Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation shall be considered abandoned when it fails to operate for more than one year without having obtained the Planning Board's written consent to so suspend operation. If the owner or operator of the Commercial Solar- Photovoltaic Renewable Energy Installation fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning the town may enter the property and physically remove the installation.

(2) Removal Requirements
Any Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation, which has reached the end of its useful life or has been abandoned, shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of abandonment or the proposed date of decommissioning. The owner or operator shall notify the Building Commissioner by certified mail of the proposed date of discontinued operations and plans for removal.

Decommissioning shall consist of:

i. Physical removal of all Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installations, structures, equipment, security barriers and transmission lines from the site.

ii. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.

iii. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Building Commissioner may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

i. Financial Security

The owner or operator of Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation projects shall provide a non-cancellable surety bond or other form of surety approved by the Planning Board to cover the cost of removal in the event the town must remove the installation and remediate the landscape. The amount and form of the surety bond or other form of surety shall be determined by the Planning Board, but in no event shall exceed more than 150 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the Planning Board. The applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.

Before issuance of any building permits for the Commercial Ground-Mounted Solar Photovoltaic Renewable Energy Installation, such construction and installation shall be secured in accordance with this By-law and/or any regulations adopted pursuant to this By-law for this purpose.

Appendix D

Complete Streets Policies

Town of Framingham
Board of Selectmen

Policy on Complete Streets

Issue date: January 6, 2015
Type of policy: New (x) Amendment ( )
Effective date: January 6, 2015

Level: Department ( ) Division ( ) Town Wide (x)

Policy Statement

Complete Streets principles will contribute toward the safety, health, economic vitality, and quality of life in the Town of Framingham by providing accessible and efficient connections between residential, educational, commercial, recreational, civic, and retail destinations by improving multi-modal environments throughout the Town's urban, suburban, and rural neighborhoods. Complete Streets are designed and operated to provide safety and accessibility for all users of Framingham's roadways, trails, and transit systems, including pedestrian, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles and for people of all ages and of all abilities. The use of Complete Streets has been shown to have a positive impact on public health concerns, including improvements in air quality, promotion of physical activity, and enhanced access to healthier food options.

The purpose of Framingham's Complete Streets Policy is to enhance existing, create new, and strengthen connections between all transportation modes to accommodate all users through implementation of physical elements. The Town of Framingham will formalize the plan, design, operation, and maintenance of streets so that they are safe for all users of all ages and abilities. This Policy shall direct decision-makers to consistently plan, design, and construct streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and freight and commercial vehicles. In short, all transportation and development projects shall incorporate a Complete Streets philosophy that expands transportation choices for all users.

References

1. Massachusetts Department of Transportation (MassDOT) Project Development & Design Guide (latest edition)
2. National Association of City Transportation Officials Urban Bikeway Design Guide (latest edition)
3. National Association of City Transportation Officials Urban Street Guide (latest edition)

4. Institute of Transportation Engineer's (ITE) Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (latest edition)
5. Institute of Transportation Engineer's (ITE) Street and Highway Design Manual, (latest edition)
6. American Association of State Highway and Transportation Officials (AASHTO), A Policy on The Geometric Design of Highways and Streets (latest edition)
7. Town of Framingham Master Land Use Plan (2014)
8. Town of Framingham Open Space and Recreation Plan (2013)
9. Board of Selectmen Policy on Traffic Calming Measures (2013)
10. Town of Framingham Department of Public Works Construction Standards, (latest edition)
11. Other resources may be consulted

Special Terms

The following words and phrases, whenever used in this policy, shall have the meanings defined in this section unless the context clearly requires otherwise:

"Complete Streets" is the planning, scoping, design, implementation, operation, and maintenance of roads in order to reasonably address the safety and accessibility needs of users of all ages and abilities. Complete Streets considers the needs of motorists, pedestrians, transit users and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings in a manner that is sensitive to the local context and recognizes that the needs vary in urban, suburban, and rural neighborhoods.

"Complete Streets Infrastructure" means physical street features that contribute to a safe, convenient, or comfortable travel experience for users, including but not limited to features such as: sidewalks; shared use paths; bicycle lanes; automobile lanes; paved shoulders; street trees and landscaping; planting strips; curbs; accessible curb ramps; bulb outs; crosswalks; refuge islands; pedestrian and traffic signals, including countdown and accessible signals; signage; street furniture; bicycle parking facilities; public transportation stops and facilities; transit priority signalization; traffic calming devices such as rotary circles, traffic bumps, and surface treatments such as paving blocks, textured asphalt, and concrete; narrow vehicle lanes; raised medians; and dedicated transit lanes. Other Complete Streets elements include: street and sidewalk lighting; sidewalks and pedestrian safety improvements such as median refuges or crosswalk improvements; bicycle accommodations including bicycle storage, bicycle routes, shared-use lanes, wide travel lanes as appropriate; boulevard landscaping; and reduction in the number of travel lanes or modification of on-street parking.

"Street" means any right of way, public or private, including arterials, connectors, alleys, ways, lanes, and roadways by any other designation, as well as bridges, tunnels, and any other portions of the transportation network.

Policy Description

The Town of Framingham Master Land Use Plan recommends the Town adopt a Complete Streets Policy. The Town believes that all surface road systems should provide safe and adequate access so that cars, trucks, transit, bicyclists, and pedestrians of all ages and abilities are safely accommodated in the transportation system to reach any destination throughout all of the Town's neighborhoods. The Town

recognizes that all projects (new, maintenance, or reconstruction) are potential opportunities to apply Complete Streets design principles. The Town will, to the maximum extent practical, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities.

The Framingham Open Space and Recreation Plan sets an objective to create and complete corridors for non-motorized passage that serve as greenways and provide access to recreation facilities, place of work, school, public transportation connections, and other points of interest in town.

In order to meet the goals and objectives of the Master Land Use Plan and the Open Space and Recreation Plan and honor the Town's commitment to Complete Streets, the Town shall:

1. Recognize that Complete Streets may be achieved through single elements incorporated into a particular project or incrementally through a series of smaller improvements or maintenance activities over time.

2. Integrate Compete Streets planning into all types of projects, when practical, including new construction, reconstruction, rehabilitation, and repair or other changes of transportation facilities on streets and additional projects under Town review.

3. Incorporate Complete Streets elements into public transportation projects in order to provide appropriate accommodation for bicyclists, pedestrians, transit users and person of all abilities, while promoting safe operation for all users, in comprehensive and connected networks in a manner consistent with, and supportive of, the surrounding neighborhood.

4. Approach every newly designed transportation project as an opportunity to improve the streets and the transportation network for all users.

5. Follow the aforementioned references, which provide guidance on basic design controls and achievement of Complete Streets.

   At a minimum, the following shall be considered:
   a. In urbanized areas, continuous sidewalks should be provided on both sides of a roadway, minimizing the number of pedestrian crossings required.
   b. On the streets with sidewalks on one side, the sidewalk should be provided on the side that minimizes the number of pedestrian crossings.
   c. Pedestrian requirements must be fully considered in the design of intersections, including taking into consideration the following concerns: crossings and pedestrian curb cut ramp locations; minimizing curb radius at corners; walking speed; pedestrian flow capacity; traffic control; yielding; and delays.
   d. All new and reconstructed sidewalks must be accessible to and usable by persons with disabilities in accordance with the Americans with Disabilities Act (ADA) and the Massachusetts Architectural Access Board (MAAB).
   e. Along roadway segments, greater separation of motor vehicle and non-motorized users should be considered by implementing cycle tracks, buffered or conventional bicycle lanes, bicycle boxes, shoulders, or buffered sidewalks.

f. Where motorized and non-motorized users cannot be separated, driver attentiveness should be improved and traffic calming should be prioritized to implement a low-speed shared street [not to exceed 30 mph or the posted speed] compatible with bicycle and pedestrian speeds on non-federal aid eligible roads.

6. Incorporate, when applicable and practical, bicycle, pedestrian, and transit facilities, in street reconstruction and rehabilitation projects, except in the following circumstances to be approved by the Town Engineer in consultation with the Department of Public Works, Highway Division.:
    a. Facilities or areas where bicycles or pedestrians are prohibited by law from using the facility.
    b. The cost of establishing bikeways or walkways as part of the project would be disproportionate in cost or to anticipated future use (not the current use).
    c. The existing right of way is constrained in a manner that inhibits simple addition of transit, bicycle, or pedestrian improvements. In this case, the Town shall consider alternatives such as lane reduction, lane narrowing, on-street parking relocation or reduction, shoulders, signage, traffic calming, pavement markings, or enforcement.
    d. Where such facilities would constitute a threat to public safety in the determination of the Town Engineer in consultation with the Department of Public Works, Highway Division.

7. Make an effort to (1) evaluate the effect of the proposed project on safe travel by all users, and (2) identify measures to mitigate any adverse impacts on such travel that are identified in all initial planning and design studies, health impact assessments, environmental reviews, and other project reviews for projects requiring funding or approval by the Town.

8. The design of new or reconstructed facilities should anticipate and support likely future demand for bicycling, walking and transit facilities.

9. A multi-disciplinary group comprised of Town staff will be organized to review Complete Streets opportunities, completed projects, and other topics regarding Complete Streets on a quarterly basis.

10. The Town, in working with community stakeholders, will produce a Bicycle and Pedestrian Plan in order to prioritize locations throughout Town for Complete Streets infrastructure.

11. Success of this policy will be evaluated by the number of new miles of Complete Streets infrastructure created. Complete Streets amenities that cannot be measured in miles, such as signs, bicycle racks, crosswalks, etc…, will be measured based on the quantity of each type of amenity.

TOWN OF NATICK
COMPLETE STREETS POLICY
APPROVED March 23, 2015

Vision and Purpose:

Complete Streets are designed and operated to provide safety and accessibility for all the users of our roadways, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles and for people of all ages and abilities. Furthermore, Complete Streets principles contribute toward the safety, health, economic viability, and quality of life in a community by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities. The purpose of Natick's Complete Streets policy, therefore, is to accommodate all road users by creating a road network that meets the needs of individuals utilizing a variety of transportation modes. It is the intent of the Town of Natick to formalize the planning, design, operation and maintenance of streets so that they are safe for all users of all ages and abilities as a matter of routine. This policy directs decision-makers to consistently plan, design, and construct streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and freight and commercial vehicles.

Core Commitment:

The Town of Natick recognizes that users of various modes of transportation, including, but not limited to, pedestrians, cyclists, transit and school bus riders, motorists, delivery and service personnel, freight haulers, and emergency responders, are legitimate users of streets and deserve safe facilities. "All Users" includes users of all ages and abilities.

The Town of Natick recognizes that all projects, new, maintenance, or reconstruction, are potential opportunities to apply Complete Streets design principles. The Town further recognizes that many Natick roads are substandard, unaccepted, scenic, and/or constrained by natural features or other limitations. The Town will, to the maximum extent practical, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities. Repair and maintenance projects as defined by Massachusetts Department of Transportation Engineering Directive E-14-006, "Design Criteria for MassDOT Highway Division Projects" are exempt from this policy.

Complete Streets principles and design elements shall be considered for all publicly and privately funded projects, and incorporated as appropriate. All transportation infrastructure and street design projects requiring funding or approval by the Town of Natick, as well as projects funded by the state and federal government, such as the Chapter 90 funds, Town improvement grants, Transportation Improvement Program (TIP), the MassWorks Infrastructure Program, Community Development Block Grants (CDBG), Capital Funding and other state and federal funds for street and infrastructure design shall adhere to (comply with) the Town of Natick Complete Streets Policy. Private developments and related street design components or corresponding street-related components shall adhere to (comply with) the Complete Streets principles. In addition, to the extent practical, state-owned roadways will comply with the Complete Streets resolution, including the design, construction, and maintenance of such roadways within Town boundaries.

Transportation infrastructure may be excluded, upon approval by the Complete Streets Committee, where

documentation and data indicate that:

1. Facilities where specific users are prohibited by law, such as interstate freeways or pedestrian malls. An effort will be made in these cases for alternative accommodations.

2. Where cost or impacts of accommodation are excessively disproportionate to the need or probable use or probable future use.

3. Where the constraints of the roadway preclude a design that can safely accommodate all users. An effort will be made in these cases for alternative accommodations.

4. Where such facilities would constitute a threat to public safety.

Best Practices:

The Town of Natick Complete Streets policy will focus on developing a connected, integrated network that serves all road users. Complete Streets principles will be integrated into policies, planning, and design of all types of public and private projects, including new construction, reconstruction, rehabilitation, repair, and maintenance of transportation facilities on streets and redevelopment projects.

Implementation of the Town of Natick Complete Streets Policy will be carried out cooperatively within all departments in the Town of Natick with multi-jurisdictional cooperation, to the greatest extent possible, among private developers, and state, regional, and federal agencies.

Complete Streets principles include the development and implementation of projects in a context sensitive manner in which project implementation is sensitive to the community's physical, economic, and social setting. The context-sensitive approach to process and design includes a range of goals by considering stakeholder and community values on a level plane with the project need. It includes goals related to livability with greater participation of those affected in order to gain project consensus. The overall goal of this approach is to preserve and enhance scenic, aesthetic, historical, and environmental resources while improving or maintaining safety, mobility, and infrastructure conditions.

The Town of Natick recognizes that "Complete Streets" may be achieved through single elements incorporated into a particular project, or incrementally through a series of smaller improvements or maintenance activities over time.

The latest design guidance, standards, and recommendations available will be used in the implementation of Complete Streets including:

- The Massachusetts of Department of Transportation Project Development and Design Guidebook and current Engineering Directives
- Massachusetts Department of Transportation Engineering Directive E-14-006, "Design Criteria for MassDOT Highway Division Projects"
- The latest edition of American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets
- The United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Design Controls (2009).
- The Architectural Access Board (AAB) 521CMR Rules and Regulations

- Documents and plans created by or for the Town of Natick, such as bicycle and pedestrian network plans, transportation master plan, land use plans, open space and recreation plans, Town of Natick Pavement Management Program Five-year Roadway Improvements Plan.

Complete Streets implementation and effectiveness should be constantly evaluated for success and opportunities for improvement. The town will develop performance measures to gauge implementation and effectiveness of the policies.

The Town will endeavor to ensure that Natick ways, including but not limited to those subject to improvements under this policy, are accessible to all, and that the town employs education, encouragement and enforcement to help ensure the safety of all users.

Implementation:

The Town shall make Complete Streets practices a routine part of everyday operations, shall approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.

Town shall review and either revise or develop proposed revisions to all appropriate planning documents (master plans, open space and recreation plan, etc.), zoning and subdivision codes, laws, procedures, rules, regulations, guidelines, programs, and templates to integrate Complete Streets principles in all Street Projects. A committee of relevant stakeholders will be created to implement this initiative. The Complete Streets Committee may include but not be limited to a Board of Selectmen designee, the Director of Public Works or designee, the Director of Community and Economic Development or designee, the Police Safety Officer, a representative of the Bicycle and Pedestrian Advisory Committee, and a representative of the Natick Center Associates. The Committee shall meet on a regular basis to review implementation of this policy, opportunities for Complete Streets projects, and proposed transportation projects for compliance.

The Town shall maintain a comprehensive inventory of pedestrian and bicycle facility infrastructure, including infrastructure in need of maintenance, repair and connectivity, which will prioritize projects to eliminate gaps in the sidewalk and bikeway network.

The Town will consider capital planning and funding to encourage implementation of Complete Streets implementation.

The Town will train pertinent town staff and decision-makers on the content of Complete Streets principles and best practices for implementing policy through workshops, reference materials, and other appropriate means.

The Town will utilize inter-department coordination to promote the most responsible and efficient use of resources for activities within the public way.

The Town will seek out appropriate sources of funding and grants for implementation of Complete Streets policies, and advocate for such funding directly or through affiliations.

Appendix E

Complete Streets Directives

Policy: P-13-0001

Date: September 9, 2013

HEALTHY TRANSPORTATION POLICY DIRECTIVE

Secretary of Transportation and Chief Executive Officer

Highway Division Administrator

MBTA General Manager and Rail and Transit Administrator

Aeronautics Division Administrator

Executive Director, Office of Transportation Planning

I. Healthy Transportation Policy Directive:

This directive formalizes MassDOT's commitment to the implementation and maintenance of transportation networks that serve all mode choices for our customers and that was memorialized in our Mode Shift Goal announced October 2012.

II. Goal:

To further MassDOT's GreenDOT Implementation Plan, the Commonwealth's Healthy Transportation Compact and statewide Mode Shift Goal, this *Healthy Transportation Policy Directive* is issued to ensure all MassDOT projects are designed and implemented in a way that all our customers have access to safe and comfortable healthy transportation options at all MassDOT facilities and in all the services we provide. This directive builds on other existing directives and guidance that addresses such issues. Healthy Transportation modes as defined by GreenDOT are walking, bicycling and taking transit.

III. Implementation:

1) Project Reviews

In order to ensure that healthy transportation modes are considered equally as potential solutions within project design, this *Healthy Transportation Policy Directive* requires the following:

1A. All MassDOT funded and or designed projects shall seek to increase and encourage more pedestrian, bicycle and transit trips. MassDOT has established a statewide mode shift goal that seeks to triple the distance traveled by walking, bicycling and transit by 2030, promoting intermodal access to the maximum extent feasible will help the agency meet this goal.

1B. The MassDOT Highway, Rail & Transit, and Aeronautics Divisions shall undertake a review process to evaluate all projects currently under MassDOT design oversight for conformance with the specifications and spirit of this *Healthy Transportation Policy Directive*. This process must be completed by January 1, 2014 and submitted to the Secretary and CEO for review. Projects programmed for federal and state funding within the next four fiscal years should be reviewed as a priority. For projects under the Highway Division, the emphasis should be on those projects that entered the design review process before the adoption of the *2006 Project Development and Design Guide*. Projects should not advance in the design process until they have undertaken this review.

1C. MassDOT funded and or designed projects that fail to provide facilities for healthy transportation modes, as identified by the aforementioned reviews, shall require signoff by the Secretary and CEO of Transportation prior advancing additional design work. For the Highway Division, this shall not apply to roadway facilities that already prohibit bicyclists and pedestrians, such as limited access highways, or Interstates.

1D. Projects under contract for construction, currently under bid review, or advertised for construction on the date of this policy adoption, do not need to undergo major modifications. However, each MassDOT Division shall submit a list of these projects to the Secretary and CEO of Transportation by October 1, 2013 highlighting healthy transportation design opportunities.

1E. MassDOT construction projects shall include provisions of off-road accommodations (shared use path, or bridge side path) or clearly designate safe travel routes for pedestrians, bicyclists, and transit users along existing facilities, including customers that fall under the protection of the Americans with Disabilities Act.

2) Project Design Process

2A. All design notices and public communications for projects shall clearly state the following: 1) existing walking, bicycling and transit facilities/routes that are within the project site area to educate the community on their options for attending public meetings or hearings, and 2) walking, bicycling and transit facilities/routes that are within the project site area that are proposed in the project.

2B. All proposed project scopes of work and associated budgets being prepared by the Highway Division shall clearly detail walking (along with identified deficiencies in ADA compliance), bicycling and transit facilities/routes that are within the project site area at the time of project number issuance. In addition, existing or proposed networks within a 2-mile radius of the proposed project, critical connections to downtowns or transit facilities, and all Bay State Greenway routes shall be clearly identified.

2C. All MassDOT facilities shall be responsive to adjacent land uses and site context. Wherever adjacent land uses include commercial development or residential development of greater than five units per acre, a sidewalk should be provided along the roadway adjacent to the use. The potential for walking, bicycling and transit activity increases due to existing or planned land uses such as: schools, public parks and playgrounds, hospitals, retail centers, senior centers or housing, multi-family housing, or community centers. Design features to consider shall include, but not limited to: wider sidewalks, street trees, landscaped buffers, benches, lighting, frequent crossing opportunities and strong intermodal connectivity to transit. All project proposals being reviewed or designed by MassDOT shall provide a project site context map with basic information about the site location, and land use (commercial, office, institutional, educational, etc.).

2D. MassDOT shall initiate road safety audits of known clustered incident sites where healthy transportation users are involved, to improve customer safety for more vulnerable users. This effort shall have an initial emphasis on healthy transportation users in Environmental Justice communities. By December 31, 2014 the Highway Division shall identify and conduct road safety audits for all high crash location clusters for healthy transportation users along MassDOT owned facilities where that cluster falls in areas where two of three, or all Environmental Justice community thresholds are exceeded (low-income, minority or limited English proficiency). By June 30, 2015 the Highway Division shall have developed a process to implement safety projects to address the locations identified. This process shall include the development of metrics for success and identify a reasonable completion date.

2E. For projects along non-limited access rights-of-way in urbanized areas, sidewalks shall be provided on both sides of roadway rights-of-way with added attention to ADA compliance. Every bridge, overpass or underpass shall provide sidewalks on both sides of the road, even if comparable facilities do not yet exist on the abutting road segments, unless pedestrian travel is already prohibited along the roadway.

2F. All project proposals being reviewed or designed by MassDOT including new design, retrofits and maintenance shall not remove existing pedestrian or bicycle facilities unless those are replaced by facilities providing equal or better Level of Service. They shall also seek to add facilities that increase and encourage healthy transportation for pavement restoration and resurfacing projects including opportunities to meet ADA compliance. These plans shall be signed off on by the District Highway Engineer and electronic copies provided to the Office of Transportation Planning.

2G. The MassDOT Highway and Rail & Transit Divisions shall establish a guide for use by communities that propose Shared Use Paths on or along rail beds. The guide shall be written to assist communities in understanding the design standards (including ADA compliance) for such paths, especially along active rail lines, and acquiring rights of way with the intention of accelerating the design of Shared Use Paths, especially those facilities that are an element of the Bay State Greenway and/or provide critical connections to downtowns or transit facilities. The MassDOT Highway and Rail & Transit Divisions shall permit Shared-Use Paths to be installed along active or future railroad rights-of-way (Rails with Trails) provided appropriate fencing separates the two uses.

2H. For the design of bicycle facilities MassDOT shall consider, but not be limited to, the *AASHTO Guide for the Development of Bicycle Facilities* (2012) and the *NACTO Urban Bikeway Design Guide* (2012) as supplements to the *Project Development and Design Guide* (2006), except for pavement markings not approved by MUTCD. MassDOT should utilize other guides as they emerge and evolve from NACTO, AASHTO, and/or the US Department of Transportation.

2I. For the design of bus stop facilities MassDOT shall consider, but not be limited to, guidelines of the MBTA Bus Stop Planning and Design Guide (2013) and guidance on ADA compliance. MassDOT should utilize other guides as they emerge and evolve from NACTO, AASHTO, and/or the US Department of Transportation.

2J. Upon completion of all healthy transportation facilities, the location, description, and length must be submitted to the appropriate MassDOT offices to facilitate asset management activities.

Please Post_____ **Do Not Post_____**

Number: E-14-006
Date: 12/19/14

ENGINEERING DIRECTIVE

Patricia A. Leavenworth, P.E. (signature on original)

CHIEF ENGINEER

Design Criteria for MassDOT Highway Division Projects

The purpose of this Engineering Directive is to clarify the design criteria that shall be applied to MassDOT Highway Division projects, as listed below. This Directive introduces new controlling criteria for pedestrian and bicycle accommodation that will be used together with FHWA's 13 controlling criteria for roadways and bridges. This Directive updates and supersedes Engineering Directive E-14-001, dated 2/4/14, and supports MassDOT Healthy Transportation Policy Directive P-13-0001, dated 9/9/13.

This Directive applies to all projects not yet advertised for construction. Projects that have received 25% Project Approval as of 2/4/14 are exempt from meeting the pedestrian and bicycle accommodation requirements of this Directive, unless directed otherwise by MassDOT on a case-by-case basis. However, designers are encouraged to apply all elements of this Directive, where practical, to every project regardless of design status.

As stated in the *MassHighway Project Development and Design Guide* (Guide), the design criteria and processes contained herein apply when:

1. MassDOT Highway Division is the project proponent, or
2. MassDOT Highway Division is responsible for project funding (state or federal aid), or
3. MassDOT Highway Division controls the affected infrastructure (State Highway).

Design Criteria for Roadways and Bridges (FHWA's 13 Controlling Criteria)

1. For projects not on the NHS, the design criteria shall be in accordance with the Guide.

2. For projects on the NHS, the design criteria shall be as follows:
    a. For projects on NHS Interstate Highways:
        i. For Interstate non-3R* projects, the design criteria shall be in accordance with the latest edition of the *AASHTO, A Policy on Design Standards, Interstate System* (AASHTO Interstate).
        ii. For Interstate 3R* projects, the minimum design criteria for horizontal alignment, vertical alignment and widths of median, traveled way and shoulders remain the standards that were in effect at the time of original construction or inclusion into the Interstate System.

b. For projects on other NHS freeways (other than Interstate) the design criteria shall be in accordance with the latest edition of the *AASHTO, A Policy on Geometric Design of Highways and Streets* (Green Book). 3R* allowances for NHS freeways are included in the Green Book.

c. For projects on non-freeway NHS roadways:

   i. For non-freeway non-3R* projects, the design criteria shall be in accordance with the Green Book.
   ii. For non-freeway 3R* projects, the design criteria shall be in accordance with the Guide.

** 3R projects are projects that are primarily resurfacing, restoration or rehabilitation projects that extend the service life of highways, bridges and related appurtenances; and/or restore safe, efficient travel on an existing facility. Normally, 3R projects include most of MassDOT's resurfacing projects and most bridge preservation and rehabilitation projects. They also include roadway projects where box widening is proposed to widen shoulders for improved bicycle accommodation and safety. 3R projects generally have no significant geometric changes to horizontal or vertical alignment and generally have no significant widening such as widening for additional capacity. Projects that include minor lane and/or shoulder widening may be considered to be 3R projects. Projects that are beyond the 3R definition are normally defined as reconstruction projects and new construction projects which are subject to the respective standards identified above and their established design exception approval process.*

DESIGN CRITERIA for
ARTERIAL TRAVEL LANES AND SHOULDERS

ROADWAY TYPE	PROJECT TYPE	BOOK	EXHIBIT NUMBER	ARTERIAL MINIMUM WIDTHS[1,3]		
				TRAVEL LANE	LEFT SHOULDER	RIGHT SHOULDER[2]
Interstate	Non 3R[4]	Interstate	2005 Page 3	12'	4' (to 12')[2]	10' (to 12')
Interstate	3R[4]	Interstate	1956 or later	12'	3.5' offset	10' (to 12')
NHS Freeway	All	Green	7-3	12'	4'[2]	10'
NHS Non-Freeway	Non 3R[4]	Green	7-3	12'	2' offset	8'
NHS Non-Freeway	3R[4] Only	Guide	5-12 5-14	11'	2' offset	4'
Non NHS	All	Guide	5-12 5-14	11'	2' offset	4'

1. These are the minimum widths below which a Design Exception is normally required.
2. These dimensions are for usable shoulder. Add a 2' offset for objects over 6" high, such as guardrail.
3. These criteria apply regardless of project funding.
4. "3R" stands for resurfacing, restoration or rehabilitation.

Design Criteria for Pedestrian and Bicycle Accommodation

Pedestrian Accommodation

- Pedestrian accommodation shall be in accordance with Chapter 5 of the Guide and the *AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities*.
- Wherever adjacent land uses include commercial or residential development greater than 5 units per acre, a sidewalk shall be provided along the roadway adjacent to the use. (See P-13-0001, Section 2C.)
- For projects in urbanized areas on roadways where pedestrians are legally allowed, sidewalks shall be provided on both sides of the roadway. (See P-13-0001, Section 2E. Refer to MassDOT's Road Inventory Maps for urbanized area boundaries.)
- For bridge projects, sidewalks shall be provided on both sides of the roadway if pedestrians are legally allowed. (See P-13-0001, Section 2E.)
- For projects on roadways that pass under bridges and where pedestrians are legally allowed, sidewalks shall be provided on both sides of the roadway beneath each bridge. (See P-13-0001, Section 2E.)
- The minimum sidewalk width below which a design exception is required is 5', exclusive of curb.

Bicycle Accommodation

- Bicycle accommodation shall be in accordance with Chapter 5 of the Guide and the *AASHTO Guide for the Development of Bicycle Facilities*.
- For all freeways, arterials and collectors where bicycles are legally allowed, a paved outside shoulder or designated bicycle lane shall be provided on both sides of the roadway.
- The minimum paved outside shoulder or designated bicycle lane width below which a design exception is required is 5', exclusive of any parking lane.
- In lieu of paved outside shoulders or designated bicycle lanes, protected bicycle facilities (i.e. cycle tracks, side paths, shared-use paths, bicycle paths, etc.) may provide accommodation for bicycles. However, the presence of such facilities does not relieve the designer of the need to properly consider applicable design criteria for outside (right) shoulder width.
- Refer to the *AASHTO Guide for the Development of Bicycle Facilities* and other current guidance documents for design criteria for off-road paths and cycle tracks.

Design Exceptions

- Criteria proposed below minimum values may be considered after providing sufficient justification and documentation while following the Design Exception process outlined in Chapter 2 of the Guide.
- In determining the standards for horizontal alignment, the minimum length of curve criteria need not be met on 3R projects.
- Refer to the guidance in the previous sections of this Directive to determine design criteria for lane and shoulder widths. When using the Guide, the values in Exhibits 5-12 and 5-14 shall apply. When using the Green Book, the values in Exhibit 7-3 shall apply. Additional language in the Green Book, particularly for constraints associated with Urban Arterials, may be used to support justification for a Design Exception.
- In using the AASHTO Interstate standards, the shoulder width criteria, regardless of the terminology used, such as "shall", "should be considered", etc., by virtue of their adoption by

FHWA, are the minimum values for each condition described. Design Exceptions are therefore required for projects that do not provide applicable widths.

- In some cases, the minimum shoulder width criterion for bicycle accommodation exceeds the minimum right shoulder width criterion for roadways. Regardless, the designer must consider each element independently, and must document any necessary design exceptions accordingly. In cases where design exceptions are required for both elements, the discussion and justification of these exceptions may be combined in the Design Exception Report.
- The designer shall prepare and submit any necessary Design Exception Reports as part of the 25% design submission, or for permit projects, as part of the permit application.
- Upon receipt of a Design Exception Report, the Project Manager shall provide by email a copy of the Report to the Chair of the Design Exception Review Committee. The Committee shall discuss project elements and offer advice or endorsements to the Project Manager and the project reviewers for each issue. The Committee is responsible for tracking and reporting on all Design Exception issues, and for ensuring consistency in the application of design standards and in the documentation of Design Exceptions.
- The primary project reviewer, typically the District office, shall review the Design Exception Report. In addition, the Complete Streets Engineer shall review the 25% design submission, including the Design Exception Report, for all projects on roadways where pedestrians and bicyclists are allowed, including projects to be completed under a permit.
- If all reviewers recommend approval of the Design Exception Report, the Project Manager shall forward the signed Design Exception Report to the Chief Engineer for approval. If the Design Exception Report includes exceptions to the design criteria for Pedestrian and Bicycle Accommodation, the Project Manager shall subsequently request project sign off by the Secretary and CEO of Transportation, or their designee, in accordance with P-13-0001. The approved Design Exception Report shall be used as justification for the Secretary's sign off. If the project is subject to FHWA oversight, the Project Manager shall subsequently forward the approved Design Exception Report to FHWA for final approval.
- Projects should not be advanced beyond the 25% design stage until all necessary Design Exception approvals and project sign offs are secured. Highway Access Permits should not be approved by District Highway Directors until all necessary Design Exception approvals and project sign offs are secured.
- For maintenance projects that are not categorically exempt from design criteria for pedestrian and bicycle accommodation and for which design plans and normal design review submissions are not applicable, the project proponent shall ensure that the proposed typical section(s) are reviewed by appropriate District Projects staff and the Complete Streets Engineer, improvements to pedestrian and bicycle accommodation are considered, and reasons for not making pedestrian and bicycle accommodation improvements are documented and retained in the project file.

Exemptions from Controlling Criteria

Design Criteria for Roadways and Bridges (FHWA's 13 Controlling Criteria)

The following types of projects are exempt from the need to comply with FHWA's 13 controlling criteria. When design criteria for these types of projects are not in compliance, a formal Design Exception Report is not required; however, geometric deficiencies should be identified in a Functional Design Report or other documentation:

- 3R projects within the existing roadway footprint where the project Purpose and Need is solely to maintain the roadway surface or bridge structure and the crash history does not indicate any apparent geometric deficiency.
- Interstate 3R projects (if the roadway meets the standards used for horizontal alignment, vertical alignment and widths of median, traveled way and shoulders that were in effect at the time of original construction or inclusion into the Interstate System, and the crash history does not indicate any apparent geometric deficiency).
- Non-NHS Footprint Bridge projects in accordance with the Footprint Bridge Policy.
- Isolated single intersection safety improvement projects (with minimal work on approach roadways).
- Routine roadway maintenance projects such as crack sealing, joint repair, micro surfacing, chip seals, etc.
- Non-roadway maintenance projects such as catch basin cleaning, street sweeping, grass mowing, etc.
- Bridge maintenance projects such as joint repair, deck repair, superstructure repair, substructure repair, etc.
- Sidewalk and curb ramp only projects.
- Drainage only projects.
- Noise barrier only projects (provided sight distance and horizontal clearance met).
- Guardrail only projects (provided sight distance and horizontal clearance met).
- Landscape only projects (provided sight distance, vertical clearance and horizontal clearance met).
- Highway lighting only projects (provided sight distance, vertical clearance and horizontal clearance met).
- Signing only projects (provided sight distance, vertical clearance and horizontal clearance met).
- Pavement marking only projects.
- Traffic signal equipment only projects (provided horizontal and vertical clearance met).
- Vertical construction and other non-roadway/bridge projects.
- Projects done under Minor Vehicle Access Permits or Non-Vehicular Access Permits.

Design Criteria for Pedestrian and Bicycle Accommodation

The following types of projects are exempt from the need to comply with Pedestrian and Bicycle Accommodation design criteria:

- All projects on facilities where bicyclists and pedestrians are prohibited, such as Interstates and freeways.
- Routine roadway maintenance projects that don't involve application of new pavement markings, such as crack sealing, pothole patching and joint repair.
- Bridge maintenance projects such as joint repair, deck repair, superstructure repair, substructure repair, etc. In addition, any bridge deck resurfacing work to be done as part of a roadway resurfacing project shall have the same design criteria and exemptions as the full roadway resurfacing project.
- "Footprint" Bridge projects on Rural Collector Roads and Rural Local Roads where no sidewalks currently exist on the approach roadways, and that are also exempt from the 13 Controlling Criteria in accordance with the "Footprint" Bridge Policy.
- Drainage only projects.

- Noise barrier only projects.
- Guardrail only projects.
- Lighting only projects.
- Traffic Signal Equipment only projects.
- Signing only projects.
- Landscape only projects.
- Vertical construction and other non-roadway/bridge projects.
- Projects done under Minor Vehicle Access Permits or Non-Vehicular Access Permits.

EXEMPTIONS FROM CONTROLLING CRITERIA
SUMMARY TABLE

Project Type[1]	Exemption Type	
	FHWA's 13 Controlling Criteria	Pedestrian and Bicycle Accommodation Criteria
3R Roadway (Non-Interstate)[1]	✓	
3R Interstate[1]	✓	✓
Non-NHS Footprint Bridge[1]	✓	
"Footprint" Bridge on Rural Collector Road or Rural Local Road[1]	✓	✓
Isolated Intersection[1]	✓	
Routine Roadway Maintenance[1]	✓	
Routine Roadway Maintenance – No New Pavement Markings[1]	✓	✓
Non-Roadway Maintenance[1]	✓	✓
Bridge Maintenance[1]	✓	✓
Sidewalk and/or Curb Ramp Only[2]	✓	
Pavement Marking Only[3]	✓	
Drainage Only	✓	✓
Noise Barrier Only[1]	✓	✓
Guardrail Only[1]	✓	✓
Lighting Only[1]	✓	✓
Traffic Signal Equipment Only[1]	✓	✓
Signing Only[1]	✓	✓
Landscape Only[1]	✓	✓
Non-Vehicular or Minor Vehicle Access Permit	✓	✓
Vertical Construction and other Non-Roadway/Bridge	✓	✓
On Facilities where Bicycles and Pedestrians are Prohibited		✓

Notes
[1] See expanded Project Type descriptions above.
[2] These projects are also exempt from Bicycle Accommodation Criteria.
[3] These projects are also exempt from Pedestrian Accommodation Criteria.

Appendix F

City of Pomona – Fences, Walls & Arbors on Residential Streets

City of Pomona

Fences, Walls & Arbors on Residential Properties

This handout applies only to fences and walls within residential zones and residential districts of specific plans. (If there is a conflict between these regulations and the specific plan provisions, specific plan regulations govern.)

1. Fence & Wall Permits

A Fence and Wall Permit is required when:

- A fence or wall is to be constructed where there is no existing fence or wall;
- A fence or wall is to replace more than 50 percent of an existing fence or wall;
- For fences and walls to be located in historic districts, Certificate of Appropriateness is required instead of a Fence and Wall Permit.

Once a Fence and Wall Permit application is submitted to the City's Planning Division, the proposed fence or wall will be reviewed for consistency with the fence and wall design standards and guidelines, and all applicable height, material, design, and location requirements contained in the Zoning Ordinance. Fence and Wall permit applications are available at the City's website at www.ci.pomona.ca.us/city_departments/community_development/planning/ or at the Planning Division counter in City Hall (505 S. Garey Ave.). There is no fee for a Fence and Wall Permit from the Planning Division. (Contact the Building and Safety Division for building permit fees for fences and walls.)

2. Definitions

Decorative masonry wall: Wall constructed of masonry material other than plain concrete block that has a decorative surface treatment such as patterned block, river rock or split face.

Hedge: A plant or series of plants, shrubs or other landscape material arranged to form a physical barrier or enclosure.

Open fence: A fence that is constructed so that not less than 50 percent of the vertical surface is open to permit transmission of light, air and vision.

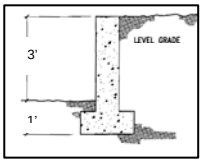
Retaining wall: A properly engineered wall built or designed to retain soil on the uphill side from slumping, sliding or failing.

Solid fence: A fence constructed so that more than 50 percent of the vertical surface is closed to prevent passage of light, air and vision and that is constructed of solid materials such as wood, chain-link with screening inserts, vinyl or composite material.

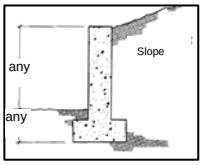
3. Building Permits

Building permits are only required for fences that exceed six feet in height and for walls that exceed three feet in height as measured from grade to the top of the wall. A building permit is required for retaining walls that meet any of the following:

- Retaining walls with level backfill that are over three feet in height as measured from the ground on the lower side to top of wall or over four feet in height as measured from the bottom of footing to top of wall;



- Retaining walls of any height that support a slope on one side or surcharge from such things as parked vehicles and structures.



For more information on when a building permit is required for fences or walls, other building permit requirements and fees, contact the Building and Safety Division at 909.620.2371.

4. Prohibited Materials

The following types of materials are prohibited when used for construction of fences and walls in residential zones and residential districts within specific plans:

- Chain-link, metal slat, and wire fencing within front yard setbacks and street-facing side and rear yard setbacks, except temporary fencing associated with construction activity with an active building permit on file and vacant lots in accordance with Sec. .600 A.9 and C.3 of the Zoning Ordinance.

- Debris, junk, tarps or other types of fabric (except for mesh fabric specifically designed for tennis courts), rolled plastic, sheet metal, plywood, or waste materials;
- Glass shards, spikes (other than decorative spikes that are part of an ornamental metal fence), nails, or other sharp materials installed on top of a fence or wall.
- Security fencing (i.e. barbed wire, coiled barbed wire, razor wire, concertina wire, and/or similar products).
- Garage doors.
- Wood fencing for perimeter walls for residential subdivisions

5. Height Requirements

The following height restrictions apply to all residential zones properties and residential districts of Specific Plans:

- Maximum height of 6 feet for all fences and walls within rear and side property lines and to the rear of front yard setback;
- Maximum height of 4 feet for open fences and retaining walls as measured from the outside of the wall and maximum height of 3 feet for all solid fences, walls and hedges in any required front yard.
- Maximum height of 12 feet for fences around tennis, badminton, basketball or volleyball courts or similar play areas provided they are located in the rear half of the lot and all parts of the fence over six feet in height are open mesh style fencing. Sport court fences to be located on a property line or within 10 feet of a property line require approval of a conditional use permit.

6. Design Standards

Design standards are intended to ensure that a proposed fence or wall will be consistent with the character of a neighborhood and compatible with buildings on the site, and that fences and walls visible from a public street meet high standards of design quality. Fences and walls will be reviewed for consistency with the following design standards:

- Walls constructed in front yard setbacks and along street facing side and rear setbacks must be decorative masonry and have a decorative cap;
- Wood fencing installed in front yards and street facing side and rear yards must be painted, stained or water sealed and have the front side facing out;
- Materials and finish must be continuous and uniform within a given fence or wall along the same property line.
- See Fences & Walls in Historic Districts handout for additonal design standards and guidelines for properties located in historic districts.

7. Design Guidelines

Design guidelines are intended to provide general direction to the property owner and developer in the design of fences and walls. Exceptions to the design guidelines may be allowed by the Planning Commission or other applicable review body, if it is determined that the exception is beneficial to overall appropriateness of a fence or wall. The following guidelines apply to residentially zoned property and residential districts in the Downtown Pomona Specific Plan where a fence or wall is proposed to be located within a front yard setback area or a street-facing side or rear yard setback area:

- Avoid fences and walls in front yards where open yards predominate, unless needed for specific screening or safety purposes. Where needed for safety or security, the fence and wall should be kept as open as possible.
- The fence or wall should complement the architectural style of the home in terms of color, material and appearance.
- Walls and fences along street facing side and rear yard areas, except for through lots, should be setback at least 3 feet from the property line (if there is a landscaped parkway at least 3 feet in width, the parkway shall serve as the setback) and planted with low shrubs in combination with vines and other accent plants on the street side and provided with automatic sprinklers.

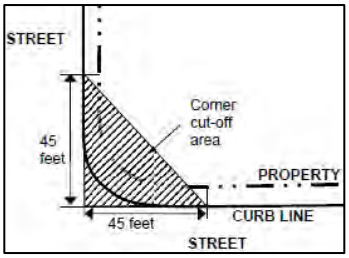
8. Arbors

The City of Pomona's Zoning Ordinance defines an arbor as a structure that is freestanding or connected to a fence that has a roof and walls that are substantially open. Arbors do not require approval of a Fence and Wall Permit; however, they must meet the following standards:

- Maximum height is 9 feet as measured from grade to top of the structure;
- Maximum width is 5 feet as measured from the inside of the inside edges of the posts;
- Maximum roof area is 25 square feet;
- The sides and roof must be substantially open

9. Maintenance & Repair

All fences and walls must be maintained in good repair and in a safe condition. Any deteriorated, missing, decayed, or broken structural and decorative elements, missing fasteners, bent elements, damaged pieces, split wood, rusted metal, loose fasteners, insecure posts, etc. must be promptly replaced or repaired. All fences and walls are required to receive regular maintenance to prevent and address sagging and weathering of surfaces visible from the public right-of-way.



10. Visibility triangle

The corner cutoff area for streets with curbs is measured 45 back from the intersection of the curblines. All fences, walls, hedges and plants within the corner cutoff triangle shall not exceed a maximum height of 3 feet as measured from the flow line of the adjacent gutter.

Additional Information

For additional information and questions regarding fences and walls on residential properties, please contact Planning Division staff.

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