
Framingham Tech Park Area

Techniques for increasing economic development while decreasing per-employee vehicle miles traveled

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- Sheraton Framingham Hotel and Conference Center
- FedEx
- GateHouse Media
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Executive Summary

In Massachusetts and across the nation, conventional highway-oriented office and industrial parks are at a crossroads. Major suburban job centers that were constructed from the sixties through the nineties are now facing profound challenges: limited roadway capacity and even more limited public funds to expand infrastructure; outdated zoning that may not address the increasing demand for mixed use development; and a new generation of workers that prefer urban living and car-free lifestyles. In Metro Boston, top-tier suburban job centers face increasing competition from each other and from growing redevelopment of areas in the Inner Core, such as the Seaport District and Kendall Square. Meanwhile, the Commonwealth's policy focus on environmental sustainability, greenhouse gas reduction, and mode shift, means that alternatives to conventional auto-focused solutions need to be thoroughly explored. In this context, strategies to provide transportation choice, encourage alternatives to single occupancy vehicles, and improve environmental performance will be critical to the success of suburban job centers.

This report examines one such job center: the Tech Park Area in Framingham, Southborough, and Ashland, Massachusetts. The Tech Park Area includes two sections: Framingham Technology Park and the 9/90 Corporate Center, located on opposite sides of Route 9 at the intersection of I-90. Approximately 9,000 employees work in the area at major employers such as Genzyme, Staples, Bose, and CA Technologies, making it one of the most substantial job centers in MetroWest. Current development proposals could add thousands of new jobs to the area. This report examines how some of that growth may be designed and accommodated through transportation demand management and other techniques.

The existing land use and infrastructure plans for Tech Park Area growth call for conventional approaches such as a significant increase in parking spaces, major roadway expansions, and construction of a direct on-ramp to I-90.

An alternative approach to creating a sustainable Tech Park Area would include a combination of strategies to diversify the available transportation options on the site. The provision of improved transit service, transportation demand management programs, bicycle and pedestrian options, and additional amenities on site can allow for comparable levels of economic growth with fewer car trips to and from the site. Such strategies, which have a demonstrated track record of success both within the Tech Park Area and across the region, will not eliminate the need for additional roadway infrastructure investment, but they could influence the magnitude and form of desired expansions.

This report summarizes MAPC's recommendations for how such strategies might be tailored and applied in the Tech Park Area. Our findings are based on extensive research and analysis, interviews with numerous stakeholders, and evaluation of successful transportation demand management programs both in the study area and elsewhere. We estimate that more widespread application of the transportation demand management programs already in place by some employers in the Tech Park Area could reduce the number of drive-alone trips by 5% to

12%—enough to reduce strain on area roadways and possibly provide some room for expansion.

MAPC's recommendations include:

- Establish a Transportation Demand Coordinator for the Tech Park Area
- Improve Transit and Shuttle Coordination
- Increase Investment in Bicycle and Pedestrian Infrastructure
- Increase use of TDM in the Technology Park District's Zoning
- Increase support for TDM in Development Impact Standards
- Perform a Market Analysis

We recognize that further analysis and customization of the recommended strategies may be necessary to effectively apply them to the Tech Park Area. Perhaps the biggest challenge, however, will be developing the consensus necessary to implement a coordinated approach involving a diverse array of property owners, corporate divisions, public agencies, and surrounding neighborhoods. Building that consensus will require strong leadership from municipal officials.

The recommendations within this report can generally be implemented in the short-term. Additionally, future analyses could also identify opportunities for zoning modifications that would promote the town's vision for the Tech Park Area and enhance its overall development potential. In this context, zoning can be a cost-effective tool for enabling an appropriate mix of land uses to complement and support the anticipated infrastructure and recommended transportation demand management (TDM) measures in a way that will not only enhance the synergies between these discrete investments, but also increase the cumulative effectiveness of the program.

Project Introduction

MAPC has conducted an analysis of the Framingham Technology Park and the 9/90 Corporate Center (“Tech Park Area”) to identify transportation, land use, and program enhancements that will further enable the area to grow as a prosperous, competitive, and sustainable job center in MetroWest. In particular, MAPC explored options that would allow additional growth while reducing the number of employees that drive alone as part of their commute.

Strategies to achieve these goals fall into three broad categories: provide more transportation choices for employees to get to work; incentivize the use of those options; and add amenities that reduce the need for off-site trips during the work day. Additional transportation choices may include expanded transit service, improved bicycle and pedestrian infrastructure, or a more robust carpooling program. Incentives such as reduced cost transit passes, parking fees, and flexible work hours will encourage more people to use the available transportation options. Finally, the availability of restaurants, shopping, or services within the Tech Park Area will increase the convenience of the area as a worksite.

Strategies such as these have been applied and met with success in a variety of contexts. Across Massachusetts and the nation, office and industrial parks are examining ways to decrease traffic congestion, to encourage additional development, and to attract a workforce that is increasingly urban-based, part of car-free or single vehicle households, and interested in living and working in walkable areas with diverse amenities like shops, restaurants, and offices.

- In Northwest Park, an existing office park in the Town of Burlington, Massachusetts, construction is underway to redevelop the area to include 1.9 million square feet of new office space and 1.3 million square feet of mixed use development, including up to 300 new residential units. A new internal local street network is being created as part of the circulation plan, and 28 acres of new open space are being created. This mixed-use development will balance typical peak hour traffic demands as well as parking demands. As residential and office uses typically utilize parking spaces at different times, the development will be able to utilize shared-parking techniques and minimize the amount of parking on-site.
- Farther east, 4.6 million square feet of new development has been added in the Kendall Square neighborhood of the City of Cambridge, Massachusetts. As this development has occurred, vehicle traffic on major streets has dropped, and some streets have had traffic counts fall as much as 14 percent.¹ A large reason for this is the City’s policy that local transportation infrastructure supports all modes, and City Council mandates (and yearly monitoring) that require new developments to have progressive vehicle reduction management techniques and actively discourage vehicular use. 2012 mode share survey

¹ Boston Globe, July 25, 2012, [Car-free commuting push pays off in Kendall Square](#).

results indicate that there is a 26% drive alone, 36% transit, 33% walk/bike/other, and 5% carpool rate in Kendall Square.²

- On the west coast, Stanford University has invested heavily in its programs and initiatives to reduce the number of staff and students driving alone to the campus. The result: the percentage driving alone to work has dropped from 72 percent in 2001 to just 47 percent in 2012.³
- Such strategies have already been applied and met with success in the study area: the Staples Corporate Office at the 9/90 Corporate Center has hired a transportation coordinator to focus on carpooling, transit, and walking and biking initiatives. As a result, Staples boasts a lower drive alone mode share (79%), with high rates of carpooling (9%) and employees telecommuting (7%), as compared with other large corporations in the Tech Park Area – Genzyme has an 84% drive alone mode share, and Bose has an 87% drive alone mode share.⁴ Also within the 9/90 Corporate Center, CA Technologies boasts the lowest drive alone rate (75%) within the Tech Park Area, primarily a result of telecommuting efforts (approximately 19% of employees work from home).

Knowing that a mode shift of 5-12% is possible given the results from Staples and CA Technologies, **a reduction of 450-1,080 single occupancy vehicles⁵ is possible in both the morning and evening peak hours in the Tech Park Area through existing demand management strategies.** Given the high number of employees in the Tech Park Area, a small percentage shift in mode share resulting from aggressive transportation demand management techniques would result in big impacts to the local roadways. In addition, with construction costs averaging \$18,000⁶ per parking space (plus maintenance costs), reduced trips will have a big impact on construction costs, as well as the increased ability to utilize valuable land for buildings instead of surface parking.

Each of these examples demonstrates how innovative approaches are being taken with existing office and industrial parks to meet new demands for growth. These new approaches hold promise, and substantially reduce the reliance on driving alone as the primary way to commute or get around during the work day. Moreover, growth and redevelopment in these locations values existing infrastructure and reduces pressure to move businesses and homes farther out into undeveloped land.

The focus and recommendations of this study are not meant to preclude roadway infrastructure investments. They are intended to provide methods for addressing existing traffic congestion in the area while setting the stage for more sustainable patterns of growth and commuting in the

² Kendall Square Urban Renewal Area, 2012 Annual Traffic Count Program and Trip Generation Analysis

³ Stanford News, March 20, 2013, [Commuters discover serendipitous pleasures while reducing peak hour traffic at Stanford.](#)

⁴ Staples, Genzyme, and Bose mode share information from 2012 Rideshare Reports, released by the Department of Environmental Protection. Mode share information for other smaller Tech Park Area businesses is not reported to DEP.

⁵ Assuming 9,000 employees in the Tech Park Area. The number of employees is likely to increase in the future due to planned development, creating additional opportunity for a mode shift.

⁶ National Parking Association. *Parking in America: The second annual review of parking rates in North America (2009)*. Average construction costs per space for all projects reported = \$18,247 per space. Costs are typically higher for metropolitan areas.

future. They are also intended to increase the viable and reliable transportation choices for commuters who come to work in the area. Currently, public transit service to the study area exists as do sidewalks; but the transit and pedestrian infrastructure suffer from lack of connectivity, perceptions of safety, and constraints from the physical layout of the Tech Park Area. Lastly, the recommendations are intended to increase accessibility to the Tech Park Area for workers who either are currently employed or desire to seek employment at businesses in the area. At present, there is a reliance on driving as a main means of reaching the area, which limits access for those who do not have access to a personal vehicle. By increasing the variety and reliability of transportation modes, those who are seeking the opportunity to find employment in the Tech Park Area will have increased ability to access those opportunities.

Tech Park Area: A regional employment center

At an elevation of 364 feet, a prominent hill in Framingham was referred to as “The Mountain.” It sat high above nearby water bodies and surrounding lands, offering commanding views of the region. It was reduced in size when the Massachusetts Turnpike (Interstate 90/ Mass Pike) was constructed, but The Mountain regained some of its original stature in the 1990’s when the world headquarters of the Bose Corporation was built on top of what remained of the hill. Now part of the Framingham Technology Park, the headquarters employs over 1,500 people and is located among a diverse set of national and international businesses with corporate offices and research and development labs as well as a local businesses like a nursery school and regional newspaper. Along with Bose, the largest among these include:

- Genzyme, a pioneering company in the field of biotechnology and part of the pharmaceutical company Sanofi, and has its US northeast headquarters in Framingham Technology Park
- Staples, the world’s largest office products company, who has its world headquarters in the 9/90 Corporate Park
- CA Technologies, an international company that provide IT management solutions, and is located in the 9/90 Corporate Park

In total, the Tech Park Area—comprising both the Framingham Technology Park and 9/90 Corporate Center, as shown in Figure 1—currently contains approximately 9,000 employees and this number is expected to grow. In addition to the major employers listed above, there are numerous small to medium size businesses in the area, including Sheraton Framingham Hotel and Conference Center, the Marriott Residence Inn Framingham, the Mountainside Children’s Center, FedEx, and Gatehouse Media, among others. As shown in Figure 2, the Tech Park Area is the largest business center in the immediate area. Table 1 below identifies the largest businesses in the Tech Park Area:

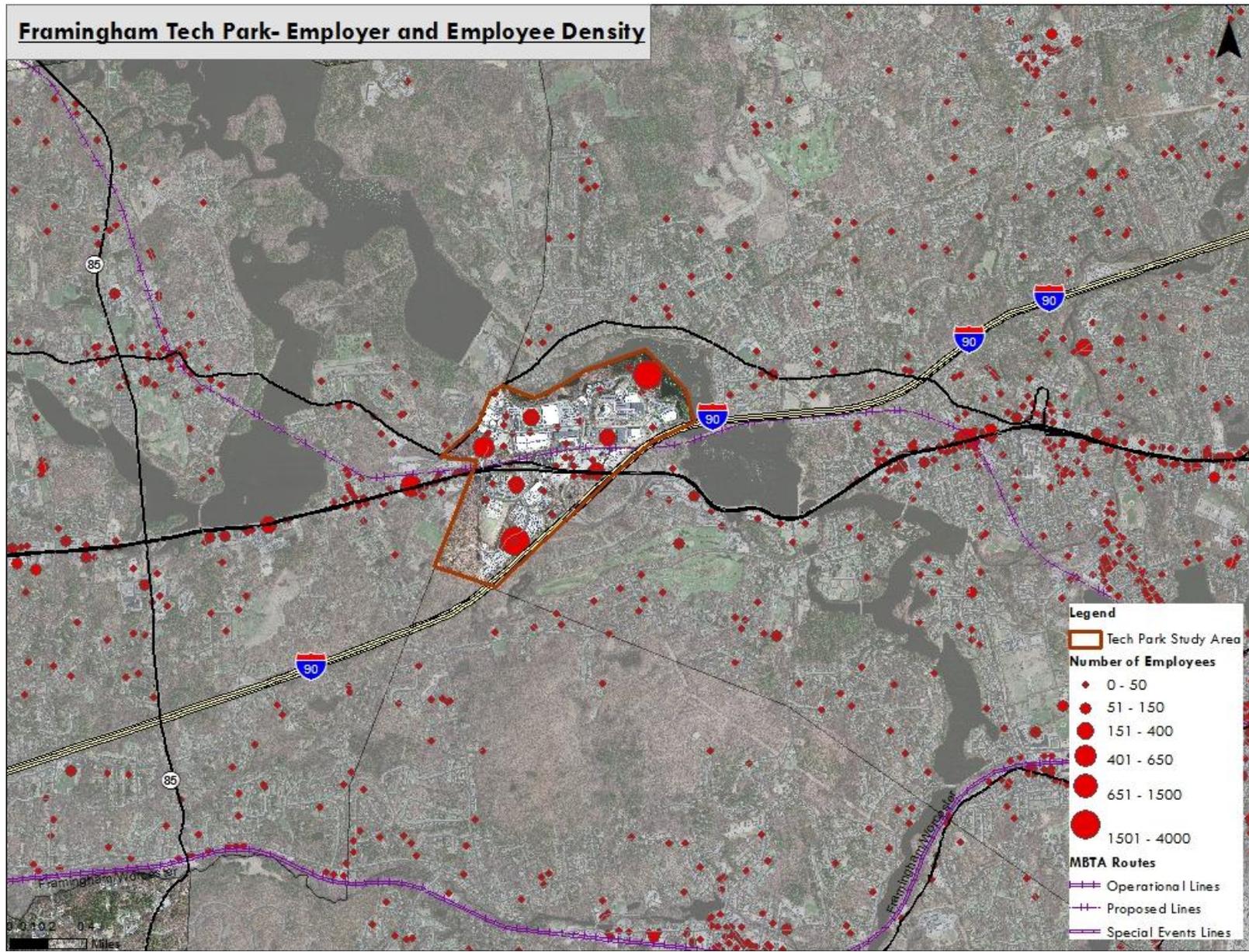
Company	Location	Employees
Genzyme Corporation	Framingham Tech Park	2,375
Staples, Inc.	9/90 Business Center	2,357
Bose Corp.	Framingham Tech Park	1,509
CA Technologies	9/90 Business Center	600
Cumberland Farms Inc.	9/90 Business Center	400
MetroWest Daily News	Framingham Tech Park	325
Nestle Waters North America	Framingham Tech Park	200
Sheraton Framingham Hotel	Framingham Tech Park	160

Source: 2012 DEP Rideshare Reports and 2011 InfoGroup Business Listings

Figure 1. Study Area



Figure 2. Employee Density



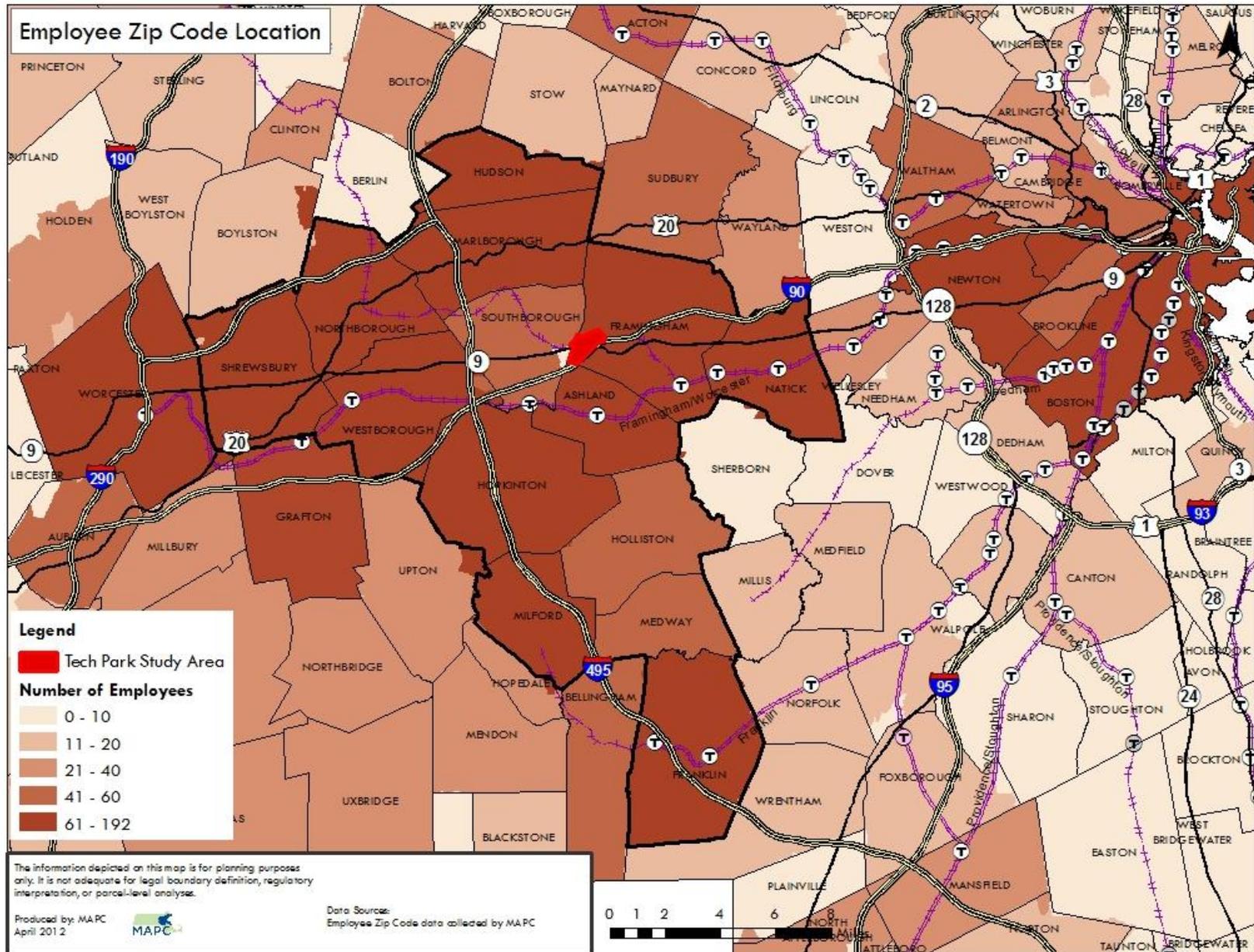
Commuting patterns

Employees working in the Tech Park Area originate from many different municipalities in the Metro Boston region and beyond. Based on zip code data from the four biggest employers in the Tech Park Area, the most popular locations for Tech Park Area employees to reside are Boston, Framingham, Marlborough, and Worcester, three of which are directly served by the Framingham/Worcester commuter rail line that runs near the Tech Park Area. In addition, there are a large number of employees residing in all of the communities immediately surrounding the Tech Park Area. Table 2 and Figure 3 detail the 15 most popular residential locations for Tech Park Area employees, 8 of which are directly served by the Framingham/Worcester commuter rail line, and 4 of which are within 5 miles of the commuter rail line.

Table 2. Top 15 Residential Areas for Tech Park Area employees	
Community	
1.	Boston*
2.	Framingham*
3.	Marlborough^
4.	Worcester*
5.	Shrewsbury^
6.	Westborough*
7.	Milford
8.	Northborough^
9.	Natick*
10.	Newton*
11.	Grafton*
12.	Ashland*
13.	Franklin
14.	Hudson
15.	Hopkinton^
*Denotes a community on the Framingham/Worcester commuter rail line	
^Denotes a community nearby the Framingham/Worcester commuter rail line	
Source: 2012 DEP Rideshare Reports for Staples, Genzyme, Bose, and CA Technologies, Zip Code Data	

Given that there are a high number of employees living along the Framingham/Worcester commuter rail line, strengthening the east-west transit connections to and from the Tech Park Area will have a positive impact and likely reduce congestion. Demand management strategies should also focus on the employees that live relatively close to their place of employment, as they have the greatest number of transportation alternatives: carpool, take local transit, or walk or bike to work.

Figure 3. Employee Zip Code Locations



The overwhelming majority of employees and visitors arrive by single occupancy vehicle, meaning they drive alone rather than carpooling or taking transit, cycling, or walking. According to 2012 Rideshare Report data filed with the Department of Environmental Protection⁷, 82% of the work-trips in the Tech Park Area are single occupancy (drive alone) trips. Table 3 provides a breakdown of mode shares in 2012 at some of the Tech Park Area’s larger employment centers.

Travel Mode	Staples	Genzyme	Bose	CA Tech.	Average
Drive Alone	79%	84%	87%	75%	82%
Carpool	10%	7%	8%	4%	8%
Transit	1%	1%	1%	0%	1%
Bike/Walk	0%	0%	0%	0%	0%
Out of Office/Vacation	3%	7%	2%	2%	4%
Worked from home	7%	1%	2%	19%	5%
Total	100%	100%	100%	100%	100%

Source: Department of Environmental Protection - 2012 Rideshare Regulation Reports

Rideshare Reports from earlier years suggest that single occupancy use has dropped significantly from 2010, but remain generally consistent with 2008 mode shares when gas prices were at an all-time high and residents across the region explored alternative ways to access their place of employment. Detailed mode share information from 2008-2012 can be found in Appendix A.

Staples has led the way in advocating for carpooling and telecommuting, and the company’s drive alone mode share is consistently less than other Tech Park Area businesses. It is likely this can be attributed to the on-site transportation coordinator that specializes in transportation demand management and incentives such as raffles and cash prizes for high occupancy travel, including carpooling or transit use. The drive alone rate at Staples is 79 percent, 3 percent below the average drive alone rate and approximately 5-8% lower than other large businesses in the Tech Park Area.

CA Technologies has also initiated a program to reduce drive alone vehicle trips, by encouraging employees to work from home. In 2012, approximately 19 percent of surveyed employees worked from home. The drive alone rate at CA Technologies is 75 percent, 9-12% lower than Genzyme and Bose.

Currently, the thousands of parking spaces within the Tech Park Area, the free use of those spaces, and the limited options for alternative modes all encourage single occupancy use.

Carpooling

Approximately 8 percent of employees accessing the Tech Park Area arrived via carpool in 2012. Comparing this information to previous Rideshare Reports, single occupancy use has

⁷ The Massachusetts Department of Environmental Protection (MassDEP) Rideshare Regulation, 310 CMR 7.16, is a statewide air quality regulation that aims to reduce air pollution. In general, facilities with 1,000 or more applicable commuters (those that begin and end their workday between 6:00 am and 8:00 pm) are required to provide data annually on how their commuting population commutes to the facility.

dropped significantly from 2010, but remain generally consistent with 2008 mode shares. At Staples, there is a direct correlation between the reduction in carpooling and the increase in telecommuting. Other businesses have experienced consistent levels of carpooling and telecommuting.

Transit and Shuttle Services

Figure 4 depicts transit services near the Tech Park Area, including the MBTA Commuter Rail and MetroWest Regional Transit Authority (MWRTA) bus service. According to Rideshare Reports, only 1 percent of surveyed workers commuted to Tech Park Area via transit in 2012. The MWRTA’s most popular shuttle routes, Route 1 (250 daily passengers) and Route 7 (350 daily passengers), provide access to the Tech Park Area. Detailed MWRTA shuttle ridership data is provided in Appendix B. Transit use among Tech Park Area employees has remained fairly consistent over the past 6 years, which can likely be attributed to the lack of improvements in transit access.

The MBTA Worcester-Framingham Line operates between Union Station in Worcester and South Station in Boston, serving three stations that are approximately 4 miles driving distance from the study area: Framingham (Irving St. and Concord St.), Ashland (Pleasant St.) and Southborough (Southville Road). As shown in Table 4 and Figure 8, although the Framingham commuter rail station is the farthest distance and longest commute time from the Tech Park Area, it is the only station where shuttle service is available.

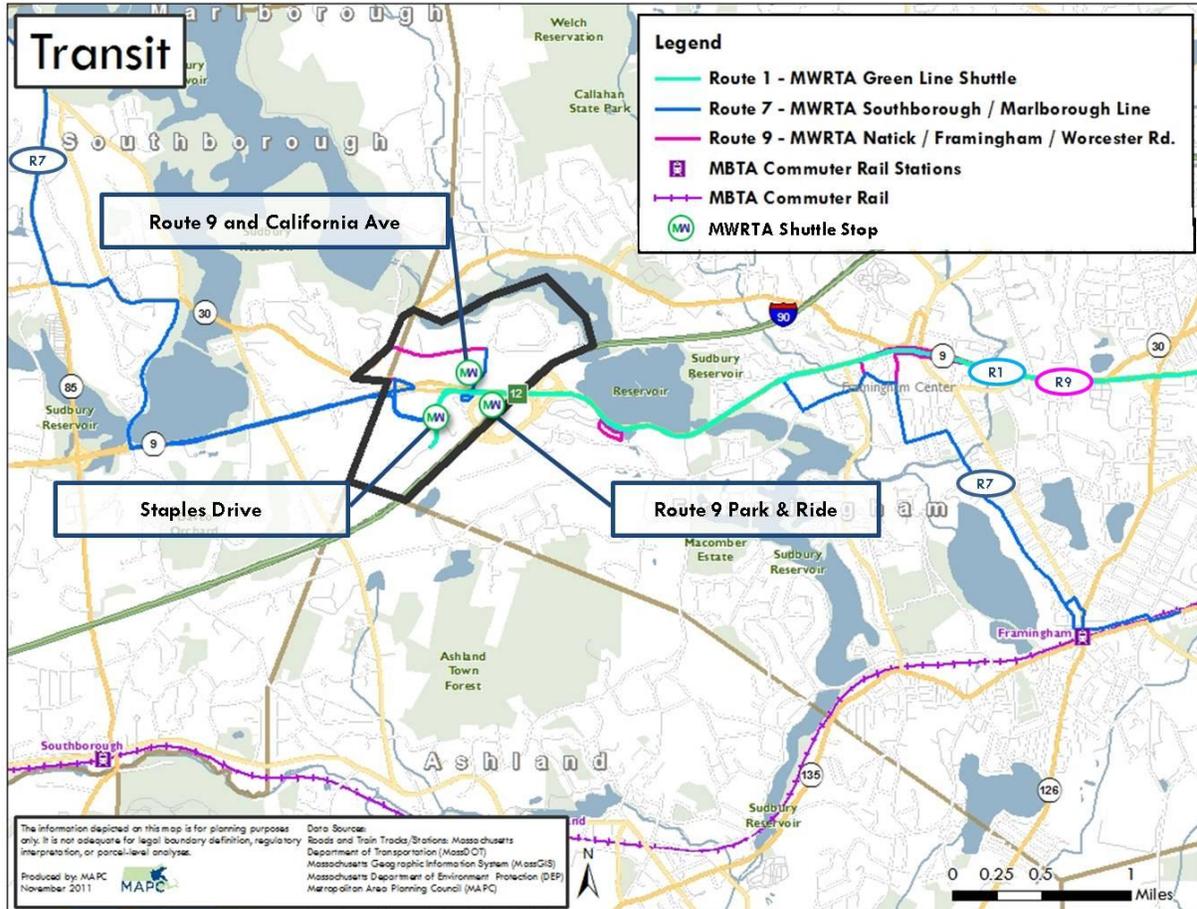
Table 4. Distances between Commuter Rail stations and the Tech Park Area		
MBTA Commuter Rail Station	Distance to Tech Park Area (miles)	Minutes to Tech Park Area (mins.)
Framingham	4.6	10
Ashland	4.2	8
Southborough	3.9	7
Distances measured between the commuter rail station and Route 9 at California Avenue. On-road travel distances and time measured using google maps. Travel times do not include rush hour delays.		

Additional issues with the commuter rail service to the site include the lack of service for the many Tech Park Area employees that reside along the Worcester-Framingham Line. Trains generally prioritize inbound service in the morning and outbound service in the evening, and therefore provide limited options for the residents needing a “reverse commute” option in Newton, Wellesley, and Natick, and surrounding communities, as the commuter trains do not stop at those stations during the morning and evening commuter peaks.

MWRTA operates 11 bus routes and their service area includes 11 municipalities. There are three MWRTA routes that provide connections to the Tech Park Study Area – bus routes 1, 7, and 9. Buses generally run from the morning commuter peak periods to the evening commuter peaks. Bus stops are limited to Route 9 at California, the Park and Ride, and on Staples Drive. Peak hour frequency ranges from 30-90 minutes. The routes and stops are illustrated in the figure below. There are three bus stops within the Tech Park Area. Accommodations at these stops are minimal, with signs, benches, and shelter lacking at the majority of locations. There is a sheltered bus stop

within the 9/90 Corporate Center, near Staples, but there is no signage to indicate the schedule of the bus.

Figure 4. Local Transit Service



There are private shuttles that provide service in the Tech Park Study Area. Bose operates two shuttles that are used to take their employees to the different office buildings located in the Framingham Tech Park. The shuttles operate from 7 AM to 6:30 PM and run continuously, providing service every 30 minutes.

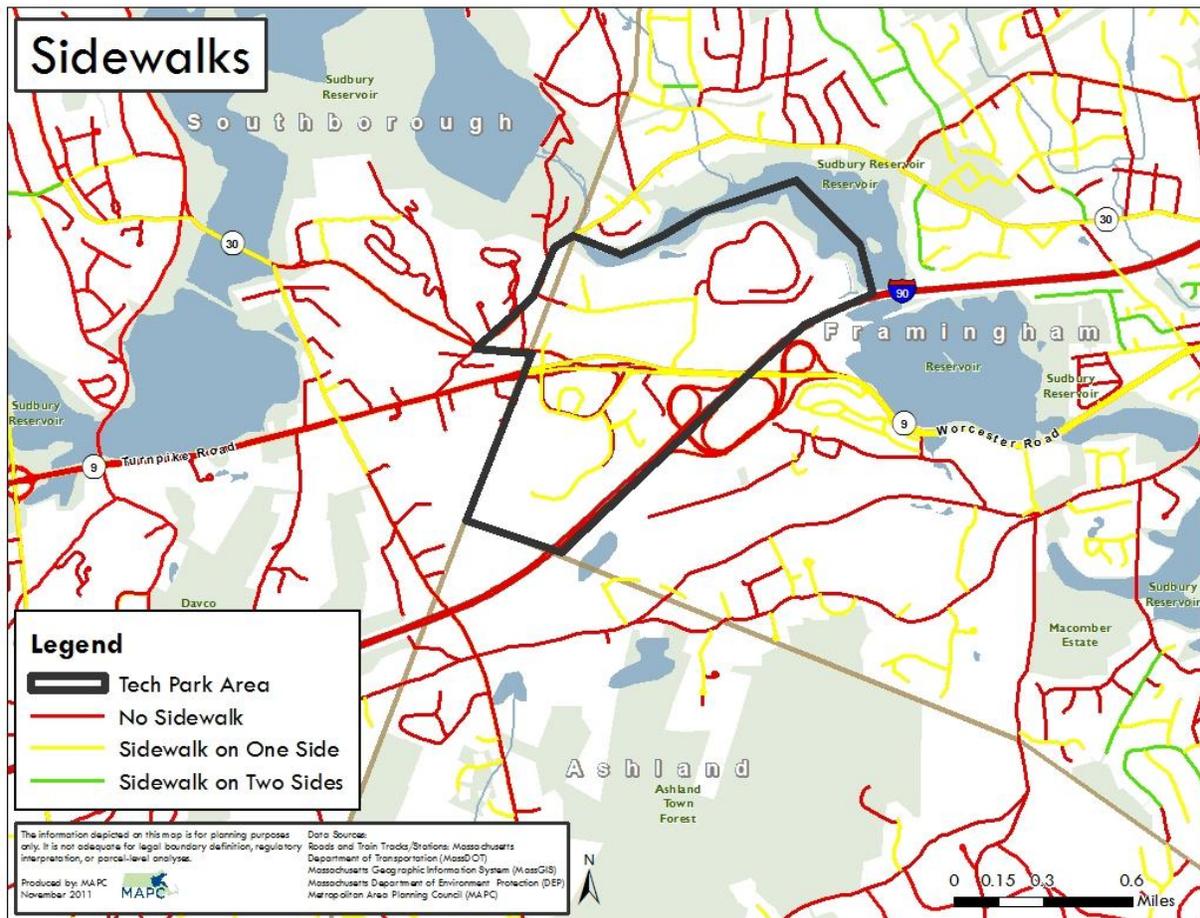
Genzyme operates employee shuttles within the Tech Park Area and between Framingham and Allston/Cambridge locations. However, the Allston/Cambridge shuttle is intended for meeting purposes only and is not intended to be a daily commute option. Therefore, Genzyme employees residing in Allston and Cambridge are directed to utilize other forms of transportation to access the Tech Park Area.

Bicycle and Pedestrian Access and Facilities

Sidewalks are largely absent from roadways within and surrounding the Tech Park Area (Figure 5), making it unsafe and uninviting for employees or visitors to conduct any portion of their

commute on foot or to conduct workday errands as pedestrians, or run/walk for exercise or pleasure. The only sidewalks within the Tech Park Area are on one side of Route 9, California Avenue and New York Avenue. There is no existing sidewalk on Mountain Road, Pennsylvania Avenue or Route 30.

Figure 5. Available Sidewalk Inventory



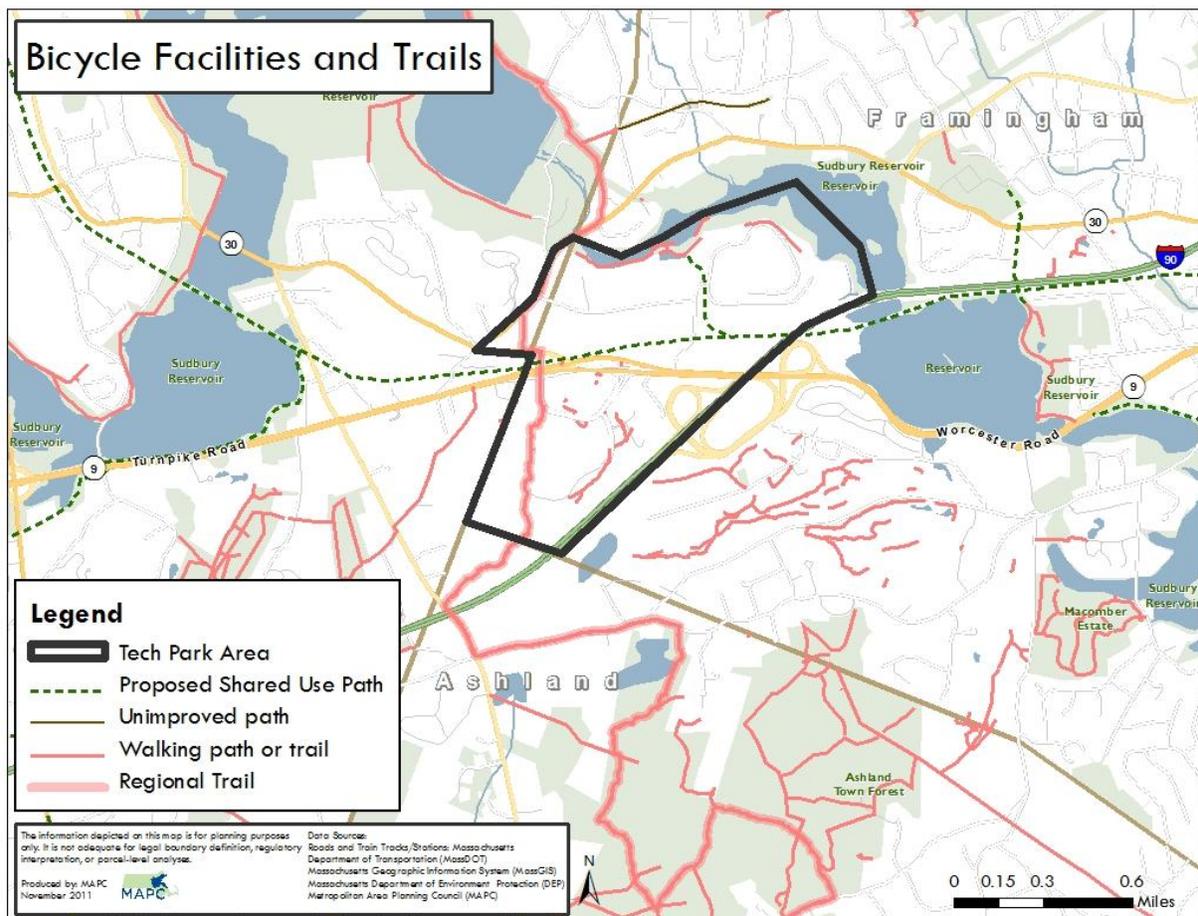
Similarly, there are no existing on-road bicycle facilities in the Tech Park Area (Figure 6). However, there are 3 proposed trails that intersect with the study area: The Bay Circuit Trail, a trail identified as part of the MetroWest Open Space Study and the Weston Aqueduct. The Bay Circuit Trail is a trail and greenway corridor that is planned to link recreational areas and open spaces circumferentially around Boston. It extends through 34 municipalities and currently has both completed and planned sections. Sections in the Tech Park Study Area are not complete, just planned. The MetroWest Open Space Study also proposed trails that follow the alignment of the existing CSX freight rail line and the previous rail spur into the Technology Park.

The Weston Aqueduct trail is proposed as part of the 40 miles of trails along the historic aqueducts of the Massachusetts Water Resources Authority (MWRA). When aqueduct trail along

the Weston is fully authorized and opened, it will provide an off-road link between Framingham and the town of Weston.

There is limited bicycle parking provided on-site, with bicycle parking available only at a few of the larger businesses. Bicycle parking and storage is recommended at all businesses.

Figure 6. Bicycle Facilities



Open Space

The Tech Park Area consists of two distinct office parks, the Framingham Technology Park, and the 9/90 Corporate Center. The Framingham Tech Park has minimal open space, but has an opportunity for landscaping and for open space along the existing rail line that runs near Pennsylvania Avenue and continues east and west of the Tech Park. There is also the aqueduct trail that runs directly to the north of the Tech Park that is in the process of opening. This aqueduct trail will connect with other trails, some of which have already opened, and a trailhead near the intersection of Route 30 and New York Avenue will be provided. The 9/90 Corporate Center has more green space, including landscaping at numerous buildings and an open space field.

TRANSPORTATION DEMAND MANAGEMENT MEASURES

There are a variety of transportation demand management measures in place within the Tech Park Area.

TMA Programs – The 495/MetroWest Transportation Management Association (TMA), currently serving more than 25 businesses (including Genzyme, Bose, Staples, and CA Technologies in the Tech Park Area), provides carpool and vanpool matching services, access to public transportation information, bicycle information and riding groups, and a guaranteed ride home program for members that need to tend to an emergency and do not have vehicle access due to carpooling, transit, or biking/walking. The TMA currently has one part-time staff, and is funded by member businesses.

Employer-based Programs – Some individual businesses provide services for their employees above and beyond the TMA benefits, among them:

- Genzyme – Carpooling is encouraged with 7 percent of survey employees sharing a ride. Preferential parking is provided for carpools, vanpools, and low-emission vehicles. In addition, employees have access to a number of features to encourage bicycling, including showers, lockers, and secure bicycle racks. Genzyme also offers a 60 percent transit subsidy and employees can use pre-tax dollars to cover the remaining balance, however transit use remains consistently low at all Tech Park Area businesses at 1 percent. Genzyme also provides a shuttle service between the Genzyme Center in Cambridge and the Tech Park from 7:00 a.m. to 6:00 p.m., as well as internal circulator shuttles that run every 15 minutes. Staggered and flexible work hours are also available to employees.
- CA Technologies – Telecommuting is highly encouraged, with 19 percent of surveyed employees working from home. In addition, employees have access to a number of features to encourage bicycling, including showers, lockers, and secure bicycle racks. CA Technologies is also willing to offer transit incentives should service improve to generate demand, and up to \$125 per month in tax free dollars toward vanpooling costs if one is formed. Staggered and flexible work hours are also available to employees.
- Bose – Carpooling is encouraged, with 8 percent of surveyed employees sharing a ride. In addition, employees have access to a number of features to encourage bicycling, including showers, lockers, and secure bicycle racks. Bose also runs a shuttle service between their Framingham facilities from 7:00 a.m. to 7:00 p.m. to reduce single occupancy trips between buildings.
- Staples – Staples employs an active transportation coordinator that works to promote the use of alternative transportation through a variety of programs, incentives, and prizes through their Commuter Services Program. The program has run since 1997 and currently offers preferential carpool and vanpool parking spaces, pre-tax benefits for transit passes and carpool/vanpool use, bicycle incentives such as showers, lockers, and secure bicycle racks, a strong marketing program for transportation alternatives, and 8 electric

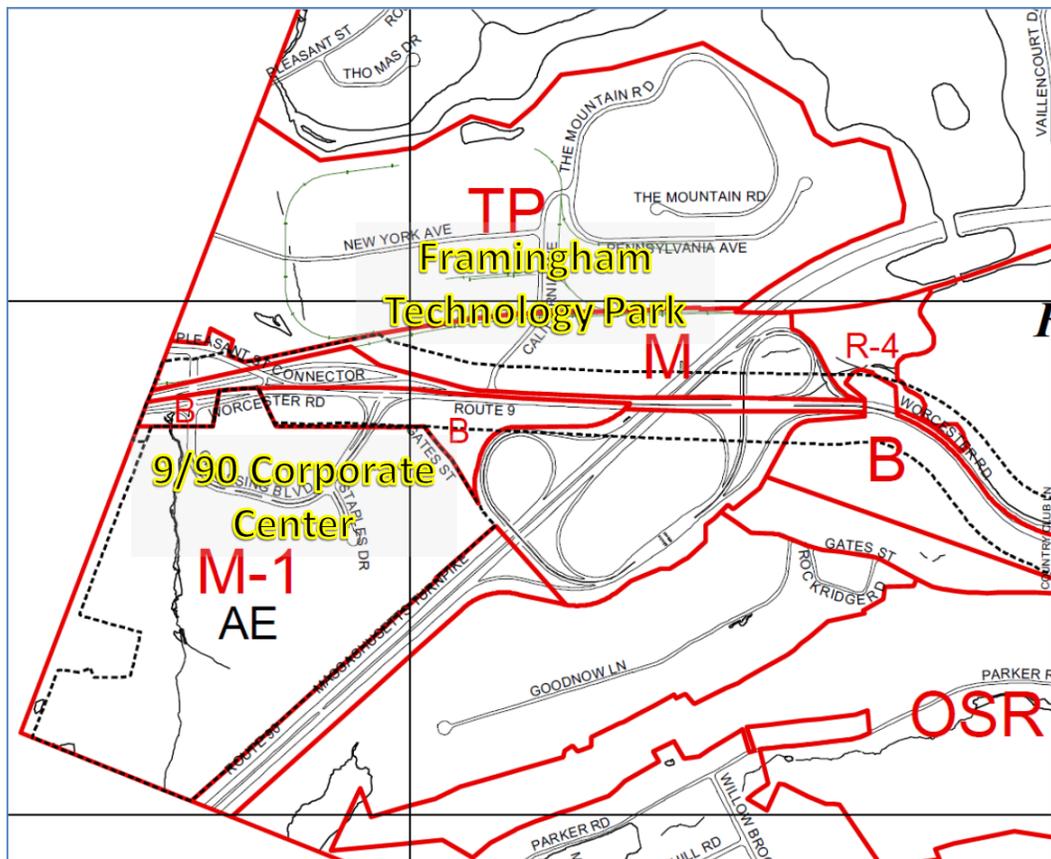
vehicle charging stations. Carpooling is the most popular alternative form of commuting, with approximately 10 percent of employees sharing a ride, and telecommuting is also strongly encouraged with 7 percent of surveyed employees working from home. Staggered and flexible work hours are also available to employees.

ZONING AND LAND USE

In Framingham, the Tech Park Area is covered by four zoning districts (shown in Figure 7): Technology Park District (TP), General Manufacturing (M), Light Manufacturing (M-1) and Business (B). The Framingham Technology Park is primarily contained in the TP and the M districts, both of which are intended to accommodate forms of industrial development and exclude residential development. The TP district is more restrictive in the uses it permits (e.g., not allowing commercial developments like retail sales or restaurants) and, through a special permit process, provides opportunity for developments at higher densities while limiting traffic impacts through implementation of employer-based transportation demand strategies.

The 9/90 Corporate Center area is almost entirely located in an M-1 zoning district, with a small portion in a B zoning district. The M-1 district is intended to accommodate a broad range of industrial and manufacturing uses as well as various other non-residential developments as permitted under the town's General Business District zoning (B-4).

Figure 7. Framingham Zoning



The land in Southborough that is part of the Framingham Technology Park is zoned Industrial and the Route 9 corridor is zoned at Business Highway. The Industrial zone allows a variety of uses including residential, office, retail, manufacturing, research and development, and wholesale distribution. The Business Highway zone allows many of the same uses as the industrial zone with the exception of warehousing, research and development, and most manufacturing uses.

In Ashland, the land adjacent to the 9/90 site and north of the MassPike is zoned Industrial, which allows by-right uses ranging from manufacturing and warehousing to computer development and alternative research and development facilities.

CURRENT GROWTH AND EXPANSION PLANS

The Tech Park Area currently has substantial demand for growth, from businesses already located within the area, and from developers and businesses that would like to take advantage of underutilized space and undeveloped land. Moreover, the Tech Park Area has been designated as a local priority development area (PDA) by the Town of Framingham and the 495/MetroWest Development Compact process also determined the area to be Regionally Significant PDA and a State PDA.

At present, the following plans for growth in the Tech Park Area include:

- Genzyme – 921,000 sf expansion of research and development, office, and manufacturing space along New York Avenue, 2,390 new parking spaces, and a growth of approximately 2,500 new employees. Transportation demand management plans for the expansion include ride matching services, guaranteed ride home program, preferential parking for high occupancy vehicles, bike racks, and flexible working hours
- Crossroads Corporate Center – 400,000 sf of permitted research and development/office space on existing building parcels along Pennsylvania Avenue, with 1,250 parking spaces. Although already permitted, building construction is on hold until a tenant is secured.
- 9/90 Corporate Center – 250,000 sf of available new construction space⁸, although there are no current plans for expansion.

Existing estimates are that over 3,500 new jobs will be created from these proposed new developments by Genzyme and the Crossroads Corporate Center development in the Framingham Technology Park. Recent conversations have also indicated that Normandy Real Estate Partners, owners of 15 Pleasant Street Connector, are interested in expanding the existing 93,000 sf building by approximately 73,000 additional sf. In addition, there is room for expansion within the 9/90 Corporate Center, although no additional space has been planned at the current time.

⁸ ULI Technical Assistance Panel – stakeholder interviews

However, limitations of the existing transportation system may impede this growth potential. Although situated near an exit from the Mass Pike (I-90) and in the vicinity of multiple commuter rail stations, surrounding roadways like Route 9 and Route 30 are severely congested during rush hour. This congestion affects vehicular flow along both corridors and connecting roadways, creates long delays at surrounding intersections, and can limit the ability to access businesses in the area. In particular, the Framingham Technology Park has only two points to enter and exit, which unlike access points to the 9/90 Corporate Center are not free-flow, and result in backups that contribute to congestion on the Park's internal roads and on the surrounding system. Alternatives to the car are limited due to the geographic location of the park, incomplete or non-existent pedestrian and bicycle infrastructure, and infrequent transit service.

To resolve these constraints, the Town of Framingham's prior planning efforts have focused on infrastructure investments such as a direct connection to the Mass Pike, widening of internal and adjacent roadways, sharing or repurposing an existing freight line that connects to downtown Framingham, and use of the nearby MassDOT park and ride lot on Route 9, among other concepts. However, such improvements are very capital intensive and will result in additional auto trips and increased GHG emissions.

Public Engagement

Along with the existing conditions review and technical analysis, MAPC convened an Advisory Committee in order to understand the experiences of employers, employees, local advocates, and the municipal officials in the area. Engaging these various stakeholders provided insight into existing issues and the variety of desires for the Tech Park Area.

ADVISORY COMMITTEE

MAPC, in coordination with Framingham, convened an Advisory Committee for the project. The purpose of the Advisory Committee was to guide the project (e.g., data collection, transportation issues and opportunities) and to assist in coordinating with other related efforts (e.g., Genzyme Tech Park Campus Master Plan, Technology Park Infrastructure Improvement Plan, etc.)

The Advisory Committee was comprised of representatives from the public sector and from both non-profit and for profit organizations. From the public sector, participants included:

- Town of Framingham (Board of Selectmen, Town Manager, Planning Board, Community and Economic Development, Public Works)
- Town of Southborough (Planning Board, Public Works)
- Town of Ashland
- MetroWest Regional Collaborative
- Massachusetts Department of Transportation (MassDOT), District 3
- Executive Office of Housing and Economic Development

Representatives from the following private sector organizations also participated in the committee:

- MetroWest Regional Trans. Authority
- MetroWest/495 Transportation Management Association
- 495/MetroWest Partnership
- Metrowest Chamber of Commerce
- MassRIDES
- Partnerships for a Skilled Workforce
- MAPA Translations
- Genzyme
- CA Technologies
- Bose
- Mountainside Children's Center
- Sheraton Framingham Hotel and Conference Center
- FedEx
- GateHouse Media

- The Congress Group
- Staples
- Marriott Residence Inn
- Cumberland Farms
- National Development

There were three meetings of the Advisory Committee. The first meeting occurred on November 16, 2011 and focused on presenting an overview of the project and existing conditions for the Tech Park Study Area.

The second meeting of the Advisory Committee meeting was held on June 19, 2012. This meeting provided information about recommendations from the TAP and presented the Alternative Improvement Strategies developed for the project area. The strategies were:

- Advanced Transportation Demand Management (TDM)
- Increase Commuter Shuttle Accessibility and Ridership
- Bicycle and Pedestrian Connectivity Improvements
- Create a “Sense of Place”
- Infrastructure Investments
- Municipal Initiatives
- Employer Initiatives

The Advisory Group provided feedback on the variety of options and what their business or agency would most respond to in terms of strategies. Follow up meetings were held with many of the Advisory Group members to discuss feedback and alternatives in further detail.

On November 18, 2013, MAPC and Robert Halpin (Framingham Town Manager) convened a final meeting with the Tech Park Area Advisory Committee. The meeting was well attended by local businesses, town staff and officials, and state agencies. MAPC proposed recommendations and next steps for the Tech Park Area, including creating a Transportation Demand Coordinator position for the Tech Park and 9/90 Area, improving communication between the Tech Park and 9/90 businesses by forming a Working Group that includes representatives from the Town of Framingham and the two business parks, and improving connections between the Tech Park Area and Downtown Framingham, among others. The recommendations were well-received and Robert Halpin concluded the meeting with a discussion focusing on next steps and how to implement the recommendations.

WORKFORCE AND DISADVANTAGED POPULATIONS

The office, research and development, and manufacturing growth in the Tech Park Area is a tremendous asset to the Towns of Framingham and Southborough as well as to the surrounding cities and towns. It represents a commitment in the existing jobs and employee productivity, and an investment in an existing job center.

With these benefits in mind, outreach was conducted through this study to organizations that serve populations in the workforce that might not be immediately considered. Although there is likely work that has gone into looking at the type of jobs that are to be created and the availability of workers to fill these jobs, there is an opportunity with this expansion to look at how it can have a broader and more diverse workforce participate in the opportunities presented by the growth.

Several organizations were contacted, and meetings and correspondence occurred with most through the study process to discuss the potential opportunities for workforce participation in the growth at Tech Park. These organizations included:

- Partnerships for a Skilled Workforce (PFSW)
- BRAMAS - Brazilian American Association
- Massachusetts Association for Portuguese Speakers (MAPS)
- Jewish Family Services of MetroWest (JFSMW)
- Framingham Adult English as a Second Language (ESL) Plus
- Foundation for MetroWest
- MassBay Community College - Office of Career Services

These groups serve a diverse set of population that ranges from those who are looking for retraining and to develop new skills so that can start new careers to those who have emigrated or come as refugees to the Boston Metro region. The groups that are served do have a commonality: the desire to participate in the workforce using either their current skills (e.g., refugees who have been trained and educate in the native country) or to develop new skills (e.g., advance from basic English language training to a better proficiency with corporate language understanding) so that they can seize employment opportunities in the region's economy.

Several themes emerged from the discussions with these groups. The themes are summarized below:

Transportation – Transportation access to jobs is an important issue for employees across the board. In the study area, the two main ways to access jobs is by personal vehicle or by an MWRTA shuttle. Many of the people served by these organizations do not have access to their own personal vehicle and they have to rely on the shuttle system or those close to them who have access to a vehicle. Also, there may be a mismatch between where the services to the Tech Park Area originate and where groups such as refugees are located, which complicates the ability to use transit. Similarly, recent college graduates may not have a vehicle and have to rely on the transit services are well. By relying primarily on one mode to serve commuters, employers are limiting the size of their potential workforce and not providing a potential opportunity for others who live in the area.

Workforce Needs – The populations served by these organizations typically have a set of job skills that serve as a foundation for the work they currently do or work they may have done prior to coming to the US. Based on experiences of the organizations, most are not content to stay at their current level and express a strong interest in job training. In some cases, this advanced

training is available such as the services that Framingham ESL provides for training in advanced language skills and that MassBay Community College provides in re-training for returning veterans. However, there is ample opportunity to meet the greater need through collaborations with growing industries in the region.

Profile of Populations – The background of the groups served by these organizations varies from those who are well educated to those who have not moved beyond a high school education. In addition, their age profile varies from those who are currently college-age students to those who are later in life. Lastly, many have a commitment to their current location since they have existing family connections to the area.

Communication – As mentioned earlier, language can be a barrier especially for those who have not acquired English as a second language. This not only serves as a barrier to training and communicating existing job skills, it also prevent these individuals from being aware of the opportunities in the region, such as new employment. An opportunity here is for municipal officials and business leaders to communicate through channels that serve these diverse populations. This includes language specific radio stations (e.g., Spanish and Portuguese language stations) and faith organizations such as churches that are attended by specific ethnic groups.

Housing – Not unlike most others in the area, availability of housing is a challenge. This ranges from those needing affordable housing to those who may be limited to certain locations due to age. It either segregates people to certain locations or pushes them farther away from employment centers. This has a corresponding affect by often limiting transportation options since transit services are not as robust (e.g., smaller coverage area, lower frequency) the farther out one goes.

These issues by no means are items that will hold back development or the increasing number of job opportunities. However, they do highlight a challenge and opportunity, especially related to developing an equitable region, which here is defined as a region where:

“People have full and equal access to opportunities that enable them to attain their full potential” is one featuring a diverse labor force prepared for the region’s knowledge economy; healthy residents and low health care costs; and communities where people of different ages, incomes, races and ethnicities have real options to live, work, learn and play side by side.⁹

Confronting and integrating these issues does not always find a way into projects. The consideration (and action) on these issues as part of continued growth within the Tech Park Area has the potential to define this former industrial and manufacturing center not only as center for high tech innovation, but also as a beacon of opportunity and key component to strengthening competitiveness of the region’s businesses and workforce.

The above issues were considered and incorporated, where appropriate, into the strategies for the Tech Park Area.

⁹ *The State of Equity in Metro Boston Indicators Report*, December 2011

Strategies for a Sustainable Tech Park Area

The review of existing conditions revealed information about the current availability and utilization of transportation demand management (TDM) in the Tech Park Area. The review provided an overview of the transportation system that serves the area such as the limited number of access points to the employment areas, the constant struggle employees can have with finding parking, and the fragmented bicycle and pedestrian network. Also revealed were the thousands of employees who live in Framingham or nearby communities, and the major job growth anticipated by Genzyme and the Congress Group.

There are thousands of commuter trips to the Tech Park Area, and many more likely in the future with the planned expansion. The innovative programs in this section provide a menu of strategies that look at these existing and projected new trips not as single occupancy vehicle (SOV) trips, but trips that could be accommodated through a variety of travel modes while increasing physical and social aspects that define the area.

Though the strategies are organized into categories, there are many ways in which they overlap and interconnect, which reflects how TDM works better as a multi-faceted approach. It should also be noted that many of the strategies were also recommendations by the Urban Land Institute (ULI) in their Technical Assistance Panel (TAP).

Advanced Transportation Demand Management (TDM)

As detailed earlier, TDM measures are in place for the large businesses in the study area, ranging from internal corporate programs to participation in the MetroWest Transportation Management Association (TMA), which includes a variety of benefits such as a guaranteed ride home program, and online carpool and vanpool matching.



This report proposes the implementation of *enhanced* TDM strategies and incentives through the businesses and the TMA as a means to influence a more significant reduction in SOV trips. This strategy assumes that the TDM techniques that are currently used in the Framingham Tech Park and 9/90 Corporate Center will continue or be made more robust.

Tech Park Area TDM Coordinator – Designate a shared Transportation Coordinator to focus on the Framingham Technology Park and 9/90 Corporate Center as a single location (incorporate activities, incentives, weekly or monthly transportation email to all employees, etc). The coordinator would have the ability to harness the total employee population of the study area and leverage that potential into new TDM opportunities (e.g., larger and more targeted rideshare database and transit connections to popular residential centers).

Initiate New TDM Incentives – Develop and institute incentives that build on existing TDM measures and encourage the use of alternative travel modes and commuting during non-peak periods. An example would be a Parking Cash Out program, which is considered one of the most effective means to encourage employees not to drive alone to work¹⁰. Parking Cash Out programs offer commuters a cash match for using an alternative travel mode and not parking on the company property. Although these payouts are new business expenditures, there is a significant savings by reducing the potential number of parking spaces that need to be constructed on or off-site, as the cost to construct new parking is approximately \$18,000 per parking space nationwide (not including maintenance costs), with significantly higher costs for structured parking. A pilot program could be instituted to identify the popularity of the policy. Parking Cash Out rewards employees that take transit, carpool, walk, or bike, and rewards generally range from \$50 to \$100 a month.

Prioritize High Occupancy Vehicles – Provide priority parking spaces for high occupancy vehicles, including spaces nearby the building entrance/exit and sheltered parking spaces that minimize the need for snow removal from vehicles in the winter months. Also, as part of any roadway expansion project, prioritize the new capacity for use by shuttles and high occupancy vehicles.

Target Specific Goals – Create specific mode share goals for the area (i.e. identify specific targets for carpooling/vanpooling, public transportation, and shuttle use). Monitor progress of TDM initiatives to achieve targets and adjust demand management strategies in response to progress.

Increase Commuter Shuttle Accessibility and Ridership

Transit service through the MWRTA is available to the Framingham Technology Park and the 9/90 Corporate Center. Recommendations would build on the existing connections by proposing more frequent shuttle service during peak commute periods. Recommendations would also include the identification of new connections to transfer and origin locations of employees.



Increased Frequency of Existing Shuttles - Increase the frequency of service on the MWRTA Route 7 so that the service has 30 minutes headways during peak periods (current service has 45 minute headways). In addition, adjust timing to work in conjunction with other MWRTA routes that serve the Tech Park Area.

New Shuttle Connections - Enhance or create new connections specifically from residential locations with a high number of Tech Park Area employees (e.g., Framingham, Worcester, Boston, Marlborough). As noted previously, Genzyme runs a shuttle bus from their Cambridge office, but the service is intended only for employees attending meetings and not for commuting.

¹⁰ *Parking Cash Out: Implementing Commuter Benefits as One of the Nation's Best Workplaces for Commuters*, March 2005
http://www.bestworkplaces.org/pdf/ParkingCashout_07.pdf

New Shuttle Service from Commuter Rail - Establish a direct shuttle connection from either the Southborough or Ashland Commuter Rail Stations to the Tech Park Area. Currently the MWRTA shuttle runs from the Framingham Center commuter rail to the Tech Park Area, and has multiple stops and delays along Route 9. Providing a new direct shuttle from Southborough or Ashland would decrease delay and improve access between the commuter rail and the Tech Park Area. Some minor modifications to the commuter rail schedule may be required, as not every train currently stops at these stations.

Encourage the MBTA to increase the “reverse commute” options – Work with the MBTA to provide “reverse commute” options at the Newton, Wellesley, and Natick commuter rail stations. By providing reverse commute service at these stations, the MBTA would be providing new transportation alternatives to residents of those communities the surrounding communities.

Provide attractive shuttle shelters – There is only one shelter in the study area. With an enhanced shuttle system, new shelters should be installed to provide an amenity to passengers and to communicate stop locations for the service. These shelters could be developed to reflect the high tech and science aspects of the businesses in the study area.

Bicycle and Pedestrian Connectivity Improvements

There are sidewalks and paths in the Tech Park Area, but as described earlier, these pedestrian facilities are limited and there are missing segments. Bicycle and pedestrian connectivity improvements will enhance the ability of employees and others to travel between destinations either by walking or biking, and as a result reducing the number of vehicle trips in and to the Tech Park Area. In combination with transit services and regional bicycle facilities, these improvements would increase accessibility for those looking to walk and cycle during the workday or as part of their commute.



Sidewalk Network – Build out the sidewalk network inside and connecting to the Tech Park Area. Currently there is a limited amount of sidewalk and, where present, the sidewalk is located on only one side of the roadway. By establishing a connected sidewalk network, more walking trips will be possible between offices and for recreational purposes. As part of this, a key link is sidewalk access to and across Crossing Boulevard where it is elevated over Route 9, linking the Framingham Technology Park and 9/90 Corporate Center. Additional high-priority gaps include sidewalk access along the Mountain Road and Pennsylvania Avenue.

Construct Raised Crosswalks – Raised crosswalks significantly reduce the speed of vehicular traffic and protect pedestrians by making them more visible to drivers. Raised crosswalks are especially ideal for mid-block crossings along high volume local roadways, such as New York Avenue.

Provide a “Complete Streets” design for local roadways – Complete Streets design limits the amount of roadway width for vehicles and reallocates excess roadway for pedestrian and bicycle mobility. This would be in alignment with the Complete Streets action items identified in the Town of Framingham’s current Master Plan.

New Trail Connections –Establish links and/or connections to existing and proposed shared use paths and trails. This could include connections to the proposed Bay Circuit Trail or coordination with the newly accessible MWRA aqueducts to the north of the Framingham Technology Park. These connections would also integrate with Framingham’s Bicycle Collector Ways System as included in the town’s 2012 Master Plan.

Tech Park Bike Share Initiative – Establish a bicycle share initiative for the Framingham Technology Park and 9/90 Corporate Center. Employees would get free or inexpensive access to bicycles, along with helmets, bike locks, and bike route maps.

Create a “Sense of Place”

Many employees may currently look at the Tech Park Area as purely a location for employment and as such, stay in the park only as long as they have to be at work. By creating a greater sense of place at the Framingham Technology Park and 9/90 Corporate Center, there is opportunity to develop a workplace where employees look to do more activities, and possibly minimize the roadway demand at peak hours by spreading out arrivals and departures if employees come to or remain in the area before or after normal work hours. This recommendation proposes enhancements to the recreational, social, and cultural opportunities that occur within the entire study area.

‘Campus Meal Plan’ – Provide open access for all employees working in the Tech Park Area to use cafeterias within other buildings. This would create variety and offer opportunities for interaction among employees of the various business.

‘Recreation and Open Space Plan’ – Make the Tech Park Area a location for physical activity by utilizing existing open spaces and through the creation of new recreational amenities. This could reduce the need for a car to get to a gym and could be coordinated with the existing gym facility in the park.

Events Calendar for Tech Park Area – Create activities for employees during and after the work day, ranging from walking groups at lunch, outdoor concerts, food trucks, or organized athletic team events after work at the open space area in the 9/90 Corporate Center.

Provide amenities – Common amenities within the Framingham Technology Park and 9/90 Corporate Center will limit the amount of vehicle travel that employees will have to do during and after the work day, and possibly reduce the need for a car during the day. These amenities could include: more lunch options, laundry and dry cleaning, postal service, drug store, and coffee shop, and would be open to the public.

Market Study - Perform a market study for the Tech Park Area. Identify vacancy rates and potential market opportunities (i.e. other potential land uses such as retail and residential), and parking needs in the study area, with a focus on reducing the need for daytime trips and the need for a personal car at work. Based on findings, consider updating Tech Park Area zoning to permit uses for which there is a market demand but that are not yet allowed.

Employer Initiatives

The businesses really are the driver of change in the study area. As is case with Staples and CA Technologies, a corporate structure that allows for telecommuting and values alternative transportation modes, encourages employees to be proactive in their transportation choices and can minimize the use of single occupancy vehicles.



Strengthen Working Group(s) - Establish a functioning and formal Working Group for businesses in both the Framingham Technology Park and 9/90 Corporate Center to attend on a set basis (e.g., quarterly). Elect a representative of the Working Group to work closely with the local municipalities and the MWRTA and TMA on issues such as transportation, zoning, and pedestrian access.

Funding for Shuttle Services - Funding from larger businesses can support a shuttle that runs direct from the Framingham Technology Park and 9/90 Corporate Center to the commuter rail during morning and evening peak hours. Consider working with the MWRTA and providing financial resources to help run the shuttle.

Additional TMA Funding - Increase funding to the MetroWest TMA for work and programs that would specifically focus on Tech Park Area.

Internal Tech Park Area Shuttle Service – Build on the existing shuttle services to create a shuttle system open to employees in the Tech Park Area. This could occur through a merging of the Genzyme shuttles and Bose shuttles as well any other service operating in the study area.

Appeal to an up and coming workforce – Young people are less apt to own a personal vehicle now than ever before. Consider the importance of providing transportation options for this new generation that is entering the workforce.

Municipal Initiatives



While the employers and property owners play the biggest role in implementing many of the recommendations in this report, the Towns of Framingham and Southborough have the ability to require some of these actions, or at the very least, point businesses in this direction through incentives in zoning and mitigation agreements.

Establish TDM Incentives – Through the zoning ordinance, developer agreements, or other development regulations, establish incentives for reducing the amount of single occupancy vehicle (SOV) commuter trips. Incentives could include reduction in the number of required parking spaces, density bonuses that allow for taller (and thus more cost-effective) buildings, reduction in building permit fees, expedited permitting and/or ability to flex capital investments to programmatic investments (like funding a single TDM coordinator for the entire Tech Park area) as part of mitigation requirements.

Mitigation agreements – Continue to provide clear and concise mitigation agreements, so that developers and businesses know what to expect when making building or making improvements within the Tech Park Area. Currently in Framingham, all mitigation fees are directed to infrastructure. Future mitigation agreements should allow for contributions towards programs identified in this report.

Park and Ride site – Work with MassDOT to identify an appropriate future use on the Park and Ride site, located at the intersection of Route 9 and California Avenue. The site is located at the entryway to both the Framingham Technology Park and the 9/90 Corporate Center and a future use should be selected with the potential impacts to the immediate area in mind.

Potential Funding Strategies

One of the biggest challenges to implementing the recommendations in this report is to identify funding. In most cases, funding should come from the developers, employers, and businesses located in the Tech Park area. However, other opportunities do exist to support these programs and services.

Transportation Management Association - In general, funding for office park transportation improvements is provided by the owner of the land and/or the office tenants, although some Towns opt to provide additional or matching funds. Many Tech Park Area businesses currently provide funding up to \$5,000 per year for the MetroWest/495-TMA, and the TMA provides services such as rideshare matching and guaranteed ride home services in return. If a transportation coordinator is designated to focus solely on the Tech Park Area, as suggested in this study, TMA contributions from local businesses would be redirected solely to the Tech Park Area program, which would either be recognized under the MetroWest/495-TMA umbrella, or function as a separate TMA. MAPC recommends performing an analysis to determine the cost of desired transportation improvements, and increasing the TMA contributions as necessary, with the

largest corporations contributing the most. In exchange for membership and annual contributions, the Tech Park Area TMA would aim to reduce single occupancy travel, and thus reduce the need for businesses to construct costly parking spaces for employees. Additionally, providing more transportation options makes the employer a more attractive work site, which supports attracting a skilled workforce. These benefits are the primary reasons why property owners and employers fund TMAs.

The MetroWest/495-TMA currently does not provide any shuttle service for TMA members. However, other TMA's like the 128 Business Council provide multiple shuttle options to its members, including 8 well utilized shuttles that provide service from transit stations to local business parks along Route 128 from Needham to Woburn. Although the 128 Business Council is mostly funded by local businesses and property owners, communities such as Arlington and Lexington are also members of the TMA and contribute towards transportation improvements. Framingham and Southborough could consider participating in the local TMA to improve the Tech Park Area transportation options.

Mitigation Agreements – Currently mitigation fees in the Town of Framingham are assessed to developers at approximately 3 percent of total construction costs. These fees are currently applied towards infrastructure, however, future mitigation costs should allow for contributions towards programs identified in this report.

Business Improvement District – Business Improvement Districts (BIDs) are an underutilized funding strategy in Massachusetts. BIDs exist to increase the attractiveness of a business area and function by requiring businesses in an identified district to fund additional public services and improvements.¹¹ Businesses vote to create the district and work with the municipality to establish it. Fees are set by each BID, but may not exceed one-half of one percent of the total participating members' assessed property value. There are approximately 7 Business Improvement Districts currently in Massachusetts¹², providing a range of services such as maintenance and sanitation, with the ultimate goal of increasing property values and improving revenue. A BID is most often used in an urban or downtown setting, but if there is interest within the Tech Park Area, it could provide a mechanism for supporting the programmatic recommendations identified in this report. In Massachusetts BIDs have not been used for major infrastructure, but could conceivably be used for smaller scale improvements such as contributing to shuttles, landscaping, and sidewalk construction.

JARC (Job Access and Reverse Commute) – The Job Access and Reverse Commute program provides funding opportunities for transit and vanpools for low-income individuals to access jobs, including access from urban areas to suburban employment locations.¹³ While the program is being phased out under the most recent federal transportation law, MAP – 21, the Massachusetts Department of Transportation may continue funding these types of activities via federal transit

¹¹ A Guidebook of Massachusetts' Public Financing Programs for Infrastructure Investment, Margaret Keaveny

¹² As of 2012, BIDs were located in: Amherst, Boston, Hyannis, Northampton, Springfield, Taunton, and Westfield

¹³ Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted July 6, 2012

http://www.fta.dot.gov/grants/13093_3550.html

funds to Regional Transit Agencies and Transportation Management Associations, because they continue to be eligible for federal funding and serve an important work site access role. This could provide an opportunity to increase the linkage from Downtown Framingham with the Tech Park Area.

MassWorks Infrastructure Program – The MassWorks Infrastructure Program provides grant funding for publicly owned infrastructure including pedestrian walkways and streetscape improvements¹⁴. The focus of the grant program is job creation and economic development. The Public Works Economic Development (PWED) grant, as well as five other grant sources, has been consolidated into this grant program.

¹⁴ <http://www.mass.gov/hed/economic/eohed/pro/infrastructure/massworks/>

Recommendations

There is much economic growth to come in the Tech Park Area. This growth is planned to be accompanied by large roadway infrastructure by the Town, state, businesses, or a combination of them. However, there are a number of short-term, low-cost innovative programs and ideas identified in this report that would support plans for growth while increasing mobility options for commuters and potentially catering to a new genre of employees, many of whom prefer to live in town and city centers and to not have to rely on a car.

The innovative strategies were reviewed in the context of the Tech Park Area and discussed with local officials and businesses. While the full menu of strategies offer benefits to the area, through this review a smaller set of initiatives were identified as having the greatest potential to produce the most advantageous outcomes for the Tech Park Area. These are strategies that could be implemented in the short term (1-3 years) and efficiently build on existing resources and partnerships. The strategies are:

- Transportation Demand Coordinator for the Tech Park Area – Through the study process, it became clear that a significant amount and density of employees are located in the Tech Park Area. At present, these employees are leveraged in an uncoordinated fashion as each business provides a focus on its specific set of workers. This makes sense and reflects a standard business desire to manage its resources, but there is prospect for creating a coordinator who would supplement the support and services that are provided now. The Tech Park Area Coordinator would be able to utilize the full set of employees to create additional programs, seek additional resources, be available throughout the week for employees of business large and small, and ultimately focus strictly on the businesses and employees within Tech Park Area. As shown with the case of Staples, where there is a coordinator on-site one day a week, direct support through this role could increase the sense of place in the Tech Park Area and create additional capacity in the transportation system by connecting employees with more commute options and reducing the number of vehicles on the road.
- Transit and Shuttle Coordination – There are multiple shuttles currently providing service within the Tech Park Area, however they all provide service to a discrete number of employees. By coordinating or condensing these services, there is an opportunity to provide improved service to a larger number of Tech Park Area employees. Businesses have requested direct MWRTA service between the Tech Park Area and commuter rail stations, potentially from Ashland or Southborough, as service is currently only provided from Framingham Center and requires long delays on Route 9 to access the Tech Park Area. The MBTA has recently improved frequency on the Worcester Line, improving the potential for access via commuter rail, however additional improvements are required to provide better reverse commuting options. In addition, there is an opportunity to reuse the Route 9 Park and Ride site as a transit or shuttle hub to increase transit use.

- Investment in Bicycle and Pedestrian Infrastructure – There are multiple factors creating a hearty atmosphere for improvements, such as new and improved bicycle and pedestrian facilities and creating a “green” and healthy environment. Framingham has incorporated a Complete Streets philosophy in its Master Plan and has a desire to accomplish this within the Tech Park Area by providing more resources to pedestrians and cyclists. In addition, multiple businesses within the Tech Park Area expressed interest in being more environmentally friendly and “green” as agencies, and as a part of that are encouraging their employees to walk and bike during the day, and reduce single occupancy vehicle trips. This coupled with a recent local trend for improved personal health, and the MetroWest Moves – Mass in Motion initiatives prioritizing bicycle and pedestrian access, provide a great environment for new infrastructure within the Tech Park Area and the surrounding environment.
- Increased Use of TDM in the Technology Park District’s Zoning - Framingham includes TDM in its zoning ordinance, with specific mention in the Technology Park Districts (Section III. Use and Dimensional Regulations, L. Technology Park Districts). In this district, development proposals in the Technology Park Districts that require a special permit or site plan review are required, at a minimum, to “be accompanied by a transportation demand management plan and evidence of active participation in a transportation demand management program.” TDM is also included as a special permit provision for increasing the allowable floor area ratio for a development proposal in the Technology Park District. This TDM section specifies that a provision of the special permit will be that the “applicant agrees to develop a transportation demand management plan and actively participate in a transportation demand management program to reduce the number of peak hour vehicle trips.”

These provisions are fundamental to supporting the application of TDM in the Tech Park Area. They also make possible implementing a fuller array of TDM strategies. It is recommended that this ordinance be enhanced by identifying a set of minimum required elements for the TDM plan such as parking management, bicycle and pedestrian accommodations, transit and shuttle strategies, telecommuting options and employer incentives (like a parking cash-out program). This would create plan consistency across the district and common evaluation of the various plans to determine best practices and opportunities for improvement. The ordinance could also be enhanced by requiring submission to the Town of data from the MassDEP rideshare reports as evidence of active participation in TDM and results of efforts to reduce peak hour vehicle trips. This would build on work already completed and give the town further information about which TDM programs are working and freeing up additional capacity on the roadways.

Lastly, similar provisions for TDM are not currently found in the Light Manufacturing District in which the 9/90 Corporate Center is located. A recommendation is for similar provision under special permit conditions to be added to this zoning district or added if a new zoning district is applied to this area. It would create consistency for businesses in the

area, allow for better identification of successful TDM strategies and be supportive of a coordinated TDM approach to the Tech Park Area.

- Support for Transportation Demand Management (TDM) in Development Impact Standards - TDM programs benefit from the leveraging of financial resources. Presently, the Development Impact Standards in Framingham's Site Plan Review regulations (Section IV Special Regulations I. Site Plan Review) specify the level of investment required of developers for traffic-related capital improvements necessitated by the new development. This amount is specified to be "a minimum of three percent (3%) of the total development cost of the proposed project." In combination, the site plan regulations specify that off-site improvements up to a maximum value of six per cent (6%) of the total development cost of the proposed project could be conditioned on the development, inclusive of the traffic impact costs.

It is recommended that this language be reviewed and revised to include TDM program support as a potential investment focus of the impact standards. Typically, the intersection, roadway and other traffic related improvements are identified in relation to the expected number of new trips from or coming to the proposed development. However, as participation in TDM programs is encouraged or required, the ability to flex this money for TDM support could have a considerable impact by allowing businesses to take more creative approaches to accommodate growth and new commuter trips. The use of the funding could also be tied to desired thresholds (e.g., achieving and maintaining a certain carpool percentage) so that if the projected reductions in SOV travel do not occur, resources could be flexed for capital improvements. This would likely require the money to be placed up front in a trust or reserve, which would likely work for business interests that prefer one time payments rather than ongoing payments.

- Market Analysis – In the future, the Tech Park Area could encompass more uses than are currently present and could continue its evolution from a center of manufacturing to a center of innovation. To determine what these additional uses could be and the form they could take, it is recommended that a market analysis be performed for the area. The analysis would look at what is there now (e.g., occupied and unoccupied office space, planned expansion, land uses, parking spaces, etc.) and forecast what additional growth and uses have potential in the area. Using this informed approach, the zoning and related regulations could be updated to reflect the direction of the market as well as the vision that the town has for the area. For example, it could help form the basis for changes to zoning for the 9/90 Corporate Center, such as the allowable floor area ratio (FAR), so it would match what is allowed in the Technology Park District zoning. This could mean an expansion of the TP district so that there is a single zoning district in the area or it could lead to the creation of a new district that makes different allowances for uses, heights, parking spaces, TDM incentives and other development characteristics.

The analysis would also help to inform the vision for form of the Tech Park Area. As a center of innovation, the analysis could identify design approaches that would help create

a consistent feel of the area so that it is more a 'place'. The approach could encourage development of spaces that employees could use to collaborate and recreate, and could include gateway features that communicate entry to the Tech Park Area and the Town of Framingham. Additionally, the analysis could assist in identifying those locations in the Tech Park Area where there is most potential for placemaking, such as inside the business parks or at key intersections like Route 9 and California Avenue. The analysis would serve a complimentary guide to the town's vision for the area.

- Strengthen Connection to Downtown Framingham – As noted earlier, the Tech Park Area is in close proximity to Downtown Framingham and its commuter rail station, however, the connections between the two are limited. It is recommended that the connections between these two centers be enhanced through transportation investments and land use changes in the downtown. The transportation investments between the centers should be focused on non-vehicular modes such as transit improvements. Similarly, the town should continue to follow the status of the CSX freight line which offers the possibility for a transit and/or bicycle and pedestrian connection directly from downtown to the Tech Park Area. A transit-oriented development approach should be used for the land use changes in Downtown Framingham. This would mean focusing residential development, which employees of the Tech Park Area could utilize, around the commuter rail station and building support for existing businesses and opportunities for additional services to develop in the downtown. Transportation investments in the downtown will also likely be needed to improve vehicular as well as transit, bicycle and pedestrian mobility needs in conjunction with new development. By strengthening the connection, there will be improved access from the southern section of Framingham, increased services for commuters and the ability for employers to tap into a larger employee pool.

Conclusion and next steps

As office parks and technology centers around the country are evolving and becoming mixed-use and denser developments, we encourage the Towns of Framingham and Southborough, along with landowners and business owners within the Tech Park Area, to consider how best to accommodate the future planned growth.

Next steps for the area, that are supportive of the recommendations, include:

1. Convene the Tech Park Working Group and include representatives from businesses in the 9/90 Corporate Center, such as Staples, CA Technologies and Marriott Residence Inn. Discuss the potential for a Transportation Demand Coordinator for the Tech Park Area and coordination of the multiple employer shuttles running currently in the area.
2. Through the towns or the working group, meet with the MetroWest TMA to discuss and develop an action plan (including identification of resources) in support of having a Transportation Demand Coordinator for the Tech Park Area.
3. Through the towns or the working group, meet with MWRTA to discuss how to leverage local, state, and private funds for transit improvements and coordination with the private shuttle systems.
4. Implement bicycle and pedestrian infrastructure recommendations, including incorporation of Complete Streets approaches for the Tech Park Area in line with the Town of Framingham 2012 Master Plan. Implementation should be pursued through a mixture of public and private investments.
5. Conduct a review of the Town of Framingham Technology Park District Zoning and the Development Impact Standards, and revise to include more specific language regarding standards to demonstrate TDM use and to allow for flexing of developer funding for program investments as well as a capital investments.
6. Perform a market analysis for the Tech Park Area in order to forecast what additional growth and uses have potential in the area, and whether the existing parking supply would be necessary to support these uses. Integrate considerations for additional residential and commercial development in Downtown Framingham as an element of the market analysis.

By taking these next steps, the towns will establish the groundwork for successful TDM strategies and increased economic growth that is not dependent on the car, but on people and innovation, and that will raise the standard for sustained growth through the region.

Appendix A.

Detailed Mode Share Information

Rideshare Report Summary

	Staples			Genzyme			Bose			CA Technologies			Total		
	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Total Commuters at Facility:	2,643	3,215	3,259	2,059	2,375	2,357	1,604	1,536	1,509			600	6,306	7,126	7,125
Total Applicable Commuters at Facility	2,437	2,958	3,007	1,700	1,971	2,003	1,429	1,368	1,312			557	5,566	6,297	6,322
Framingham	89		90	69			76		34			10	234		134
Worcester	69		83	64			68		26			7	201		116
Boston	89		95	53			54		30			18	196		143
Marlborough	63		81	44			67		35			14	174		130
Westborough	55		54	41			39		23			7	135		84
Shrewsbury	35		59	42			44		20			10	121		89
Milford	26		30	39			47		23			4	112		57
Ashland	24		27	30			36		17			5	90		49
Hopkinton	23		21	27			39		14			6	89		41
Grafton	28		34	28			33		14			4	89		52
Newton	31		30	27			30		14			11	88		55
Franklin	25		30	27			34		10			8	86		48
Natick	26		35	19			37		15			6	82		56
Hudson	17		19	17			45		20			4	79		43
Northborough	26		37	21			29		13			7	76		57

Mode Share Data

Mode	Staples			Genzyme			Bose			CA Technologies			Weighted Average		
	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2008</u>	<u>2010</u>	<u>2012</u>	<u>2008</u>	<u>2010</u>	<u>2012</u>
Drove alone the entire way	79%	84%	79%	87%	87%	84%	87%	88%	87%			75%	84%	86%	82%
Drove alone then transit	0%	0%	0%	0%	0%	0%	1%	0%	0%			0%	0%	0%	0%
Walked, then public transit	1%	0%	0%	1%	0%	0%	0%	0%	0%			0%	1%	0%	0%
Shared ride, then public transit	1%	1%	0%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Bike, then public transit	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Rode in 2 person carpool	11%	8%	9%	6%	6%	4%	7%	5%	6%			3%	8%	7%	6%
Rode in 3 to 7- person carpool	2%	1%	1%	1%	1%	2%	1%	2%	2%			1%	2%	1%	1%
Rode in an 8- or more person vanpool	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Dropped off at work	1%	1%	1%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Commuter Boat	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Bicycled	0%	0%	0%	0%	0%	0%	0%	1%	0%			0%	0%	0%	0%
Walked	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%	0%	0%	0%
Out of Office	2%	2%	2%	2%	3%	3%	2%	2%	2%			2%	2%	2%	2%
Scheduled day off	2%	1%	1%	2%	2%	4%	1%	1%	1%			1%	1%	1%	2%
Worked at Home	1%	1%	7%	1%	1%	1%	1%	1%	2%			19%	1%	1%	4%
Total	100%			100%	100%	100%	100%								
Drive alone	79%	84%	79%	87%	87%	84%	87%	88%	87%			75%	84%	86%	82%
Transit	2%	1%	1%	1%	1%	1%	1%	0%	1%			0%	1%	1%	1%
Carpool	14%	10%	10%	7%	7%	7%	9%	8%	8%			4%	10%	8%	8%
Bike/Walk	1%	0%	0%	0%	0%	0%	0%	1%	0%			0%	0%	0%	0%
Out of Office	2%	2%	2%	2%	3%	3%	2%	2%	2%			2%	2%	2%	2%
Scheduled Day Off	2%	1%	1%	2%	2%	4%	1%	1%	1%			1%	1%	1%	2%
Worked from Home	1%	1%	7%	1%	1%	1%	1%	1%	2%			19%	1%	1%	4%
Total	100%			100%	100%	100%	100%								

Appendix B.

MWRTA Shuttle Ridership

Summary of MWRTA Ridership Changes 2008-2012

Route	2008 Ridership	2012 Ridership
Route 1 and Route 9 (combined)	48	250
Route 2	160	166
Route 3	206	230
Route 4	72	81
Route 5	106	113
Route 6	92	101
Route 7 and Route 7C (combined)	336	342
Route 10	117	116
Route 11	43	41
Commuter shuttles	69	95
Route 2, Saturday	106	132
Route 3, Saturday	161	124
Route 7 and 7C, Saturday	N/A	106
Route 10, Saturday	74	60
Total		
Weekday	1249	1535

N/A = not applicable

Source: 2008 data from CTPS manual counts, 2012 data from MWRTA fareboxes.