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The Arsenal at the Charles offers distinctive space for innovative companies in Watertown.
1.0 EXECUTIVE SUMMARY

VISION
Closely aligned with the beautiful Charles River, Watertown can become a vital location for innovative businesses that grow out of the strong regional economy emanating from the universities and medical centers in Boston and Cambridge. Ongoing investment in infrastructure will create benefits for residents and employees, enhancing the Town’s identity with convenient transit, pedestrian friendly streets, and a network of trails and parks. Strong communication among Town leaders, business leaders, residents, and civic interests will lead to a setting where private investment is encouraged for the role it can play in creating jobs, strengthening the tax base, and building the future of the Town.

PURPOSE
The purpose of this study is to create a Town-wide vision for economic activity that will guide Town priorities, policies, and approvals. The project offers an opportunity to begin comprehensive planning by focusing on economic development. As such, participation has been an important element, with outreach to employers, residents, Town leaders, and other stakeholders.

The project was charged with identifying industries that are well-matched to Watertown and that provide the greatest economic benefits. This consideration recognizes that Watertown has a distinctive history, special environmental considerations, and a diverse population, but also seeks to understand any barriers to location or investment within the Town.

The layered history of industrial and commercial development and proximity to residential neighborhoods can make development decisions challenging. The project provides a context for these decisions and focuses on key opportunity sites and transition areas that are either abandoned or under performing today.

A set of realistic implementation strategies is a key outcome of the project. These strategies must be tailored to the capacity of the Town government and take into account the potential roles of non-profit partners, the business community, industry councils, and State economic development entities.

A strong economic base should be a vehicle for improving the lives of residents and employees in Town. The success of large firms affects decisions by smaller firms, and the number of employees
in Town helps support local retail and restaurant establishments. Residents and employees alike benefit from robust businesses and well-designed transit, parks, and streetscapes that contribute to a vibrant, safe community.

Ultimately economic development can become a lens for analyzing other issues in Town. While this study does not focus on housing or detailed retail strategies, these elements all contribute to and are influenced by economic development. A comprehensive plan, which is a recommended next step, integrates all of these issues into a broader Town-wide vision.

**SUMMARY OF PROCESS**

Over the course of a 15-month period, the Economic Development Study has involved multiple public meetings, ongoing coordination with the Town and its elected officials, and outreach to businesses (Figure 1, Appendix A). The Watertown Department of Community Development and Planning managed the process for the Town and has been actively engaged in guiding the work and generating recommendations. A Steering Committee provided oversight by reviewing the work at key milestones. Members of the Steering Committee included the Town Council Economic Development Sub-Committee and the Planning Board. The Town Council was briefed at the outset of the project in January 2010, and Councilors have been present at all the public meetings.

In order to define the profile of local businesses, calls were made to the chief executive officers or financial officers of the 50 largest firms, representing biotech, design and engineering, health care and social services, media and information, and science and technology, and food industries. On April 1, 2010, a breakfast forum for the large employers was held. The discussion centered on Watertown’s image and strengths, workforce and transportation issues, amenities, the development process, and the role of local government.

Additional meetings were held with the Mass Office of Business Development and the Mass Biotech Council to alert them to the study and to hear their perspective on the regional economy and business decision factors. Real estate brokers were contacted to understand better the local market, types of companies, available properties, rates, trends, and Watertown’s position vis-a-vis surrounding towns.

Outreach to citizens followed several tracks. The Town website was updated with a new page for economic development with links to maps, presentations, and events. Using direct email, facebook, and the Watertown Tab, information about the study was disseminated and notice regarding upcoming meetings was posted. Three public forums were held during the study, with the following themes:

- May 2010 – Analysis
- September 2010 – Economic Scenarios
- December 2010 – Vision and Implementation

The feedback from these meetings helped shape the course of the work and the ultimate strategy. Discussions addressed Watertown’s image and position in the Boston metropolitan area, the relation of industries to the workforce, transportation and communication, and the need
for an overall vision. Regarding implementation strategies, participants expressed significant interest in comprehensive planning, a new zoning strategy, an improved economic development website, and streetscape and transit improvements. Brownfield remediation was also viewed as an activity where the Town could be more proactive.

GOALS

The following goals were established during the process to guide the research and inform the recommendations in the Watertown Strategic Framework for Economic Development:

1. **CAPITALIZE** on key industry clusters
2. **STRENGTHEN** the identity of the Town
3. **PROMOTE** investment in under-utilized areas
4. **SHAPE** the character of new development
5. **LINK** jobs and infrastructure

Watertown has many competitive strengths but also some challenges that must be addressed. The most striking advantages are the Town’s location in the center of the corridor between Boston/ Cambridge and Route 128, still close to the city but with more affordable real estate. Access to universities, hospitals, and a well-educated workforce is excellent. The real estate inventory generally is conducive to smaller firms in early growth stages, with the Arsenal on the Charles demonstrating how powerful location and character can be in attracting innovative firms.

Many interesting economic activities are already occurring in Watertown, yet businesses that might choose to locate in Watertown or who want to expand into larger and better facilities currently have limited choices. With strong competition in the site selection process, Watertown has more work to do to promote itself as a desirable business location. Several blighted sites demand new investment, especially where available land is so scarce. Upfront costs for remediation, demolition, or rehabilitation create significant barriers. Public transportation is strong in some areas, but would benefit from improved service in the business corridors along Arsenal Street and in particular along Pleasant Street.

KEY FINDINGS

The success of Watertown’s economy - now and in the future - lies in the alignment of the regional economy with local assets and challenges. Through research conducted as a part of this study, a number of significant industry clusters have been identified in Watertown. The identification of clusters recognizes that groups of firms, and related institutions and economic entities, may locate and derive benefit from mutual proximity and connections. While these groupings may evolve and diverge in the future, recognition of particular clusters has implications that can affect municipal planning including building and site needs, workforce development, and infrastructure, among other factors. Key clusters in Watertown are

1. **Life Sciences** are the basis for a diverse industry that includes pharmaceuticals, medical devices, diagnostics, and biotechnology.
2. **Information and Media** includes software development, computer systems design, digital media, telecommunications, and internet services.
3. **Design** includes firms engaged in architecture, landscape architecture, structural and systems engineering, environmental consulting, and interior design.
4. **Advanced Manufacturing** involves the application of science and innovative technology to improve the design, control, fabrication and assembly of products, including instrumentation and precision components.

These clusters are based on a knowledge economy although they employ people with a wide variety of skills and occupations. Innovative companies often follow a life cycle that evolves from academic research to application to full production. Cambridge retains a central position in the regional innovation economy, but as firms outgrow their space or need more economical space, they migrate outward, with many landing in Watertown as a second stage. As companies mature further, however, Watertown has limited sites and few available buildings that can accommodate a growing work force and satisfy demands for high quality pedestrian-friendly environments.

The Economic Development Strategy identified a number of focus areas that have a concentration of under-utilized land and could be suitable for

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reinvestment and in some cases redevelopment in the future. The five focus areas are all located in former industrial and commercial zones along the riverfront and the former rail line (Figure 2):

- **Coolidge Hill**: This area encompasses properties surrounding Filippello Park on Grove Street, Arlington Street, and Coolidge Avenue, offering a competitive advantage for start-up companies due to the proximity to Cambridge, the Charles River, and regional highways.

- **Arsenal North**: This area lies between the Arsenal and Coolidge Square, including the Alexandria Technology Center. Aligned along the new Community Path, future investment can improve connections to surrounding areas while also raising visibility from nearby Arsenal Street.

- **Union Market**: This area offers a unique opportunity to orchestrate development to create a new identity and setting for office/lab or residential uses at this midpoint along Arsenal Street, improving access and frontage for one of the larger tracts of land in Town.

- **South Square**: This distinct corner of the South Side occupies a gateway into Town, close to Watertown Square and the Charles River, and could become a transit-oriented development linking nearby businesses into a more pedestrian-friendly environment.

- **West End Riverfront**: Extensive opportunities exist to reposition the west end of Town with a mix of innovative companies, residential, and retail aligned along or near to the riverfront.

**IMPLEMENTATION STRATEGY**

Private firms largely drive decisions about business location and investment; however, municipal governments have a role to play in guiding economic activity. The implementation strategy sets goals within four areas of influence, meeting the following objectives:

1. **Development Policies**: Develop appropriate policies to guide the development of our land resources

2. **Infrastructure Improvements**: Prioritize public infrastructure investment that will enhance the Town identity, attract businesses, and improve the quality of life for residents and employees

3. **Marketing and Outreach**: Promote Watertown’s assets and recruit and retain appropriate businesses

4. **Public/Private Partnerships**: Develop tools to reduce impediments to challenging sites

The following chart identifies implementation priorities, responsibilities, and next steps.
SUMMARY OF IMPLEMENTATION STRATEGY

**IMMEDIATE PRIORITIES: 0-2 YEARS**

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<thead>
<tr>
<th>LEAD / PARTNERS</th>
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<tbody>
<tr>
<td>Development Policies</td>
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<tr>
<td>• Comprehensive Plan</td>
<td>DCDP / Town Council</td>
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<td>Infrastructure Improvements</td>
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<tr>
<td>• Complete Streets</td>
<td>DCDP / DPW</td>
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<tr>
<td>Marketing and Outreach</td>
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<tr>
<td>• New ED Webpage</td>
<td>DCDP</td>
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<tr>
<td>• ED and RE Relationships</td>
<td>DCDP</td>
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<tr>
<td>• Small Business &amp; Retail Organization</td>
<td>Chamber / DCDP</td>
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**MID-TERM ACTIONS: 2-5 YEARS**

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<th>LEAD / PARTNERS</th>
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<tr>
<td>• Zoning Updates</td>
<td>DCDP / Planning Board</td>
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<tr>
<td>Infrastructure Improvements</td>
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<tr>
<td>• Community Path</td>
<td>DCDP / DPW</td>
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<tr>
<td>Marketing and Outreach</td>
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<tr>
<td>• CEO Roundtables</td>
<td>DCDP / ED Subcommittee</td>
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<tr>
<td>Public/Private Partnerships</td>
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<tr>
<td>• Environmental Assessments</td>
<td>DCDP</td>
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**LONG RANGE & ONGOING: 0-10 YEARS**

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<th>LEAD / PARTNERS</th>
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<tr>
<td>• Transit Service Improvements</td>
<td>MBTA / DCDP</td>
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<tr>
<td>• Shuttle Bus System</td>
<td>DCDP / Private</td>
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<tr>
<td>• South Square Transit Center</td>
<td>MBTA / DCDP</td>
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<tr>
<td>Public/Private Partnerships</td>
<td></td>
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<tr>
<td>• Economic Dev. Incentive Program</td>
<td>DCDP / MOBD / Private</td>
</tr>
<tr>
<td>• District Improvement Financing (DIF)</td>
<td>DCDP / MOBD / Private</td>
</tr>
</tbody>
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*DCDP - Department of Community Development and Planning; DPW - Department of Public Works; ED - Economic Development; RE - Real Estate; MOBD - Mass Office of Business Development*
Watertown’s economic development assets include distinctive campuses like the Arsenal on the Charles, major corporate headquarters, and the Charles River.
VISION

The following economic development vision statement reflects key aspirations emerging from the community process.

In 2020, people who come to Watertown will find a thriving business community organized around historic centers and concentrated in strategic locations in the former industrial districts. The buildings will be high quality and easily adaptable, with new development on previously abandoned properties. Policies for the wise use of land, energy, and materials have set the stage for enduring sustainable environments in Watertown.

The Town will identify itself with the Charles River. Well-designed pedestrian-oriented streets, efficient transit, strong digital networks, and regional trail systems will connect Watertown to Boston, Cambridge, and surrounding towns. Many employees will choose to live in one of Watertown’s great neighborhoods. Transitions in scale and use will mark the seams between neighborhoods and business centers. Employees and residents alike will mingle in distinctive local shops and restaurants, arts venues, beautiful parks, and active plazas. Important historic landmarks, such as Mt. Auburn Cemetery, the Gore Estate, Perkins School for the Blind, and the Arsenal, will orient people and distinguish Watertown as a unique place and destination.

Within the region, Watertown will be known as a desired address for innovative economic clusters, such as life sciences, information and media, design, and advanced manufacturing. The overall economy will be balanced between long-term, owner-occupied businesses and small and emerging companies, and between traditional industries and knowledge-based fields. Businesses will be able to evaluate Watertown as a location through the use of excellent digital data and ready information about real estate and the local economy. With a Comprehensive Plan and compatible zoning, the character and location for new development will be clearly identified, regulations will be easy to follow, and the approval process for development will be transparent.

In the future, business leaders, civic leaders, and residents will work together with the government to update the economic development strategy, staying current on key issues. The Town will participate in regional coordination with adjacent towns, industry councils, and state and regional economic development entities. Joint programs between the school system and local businesses will continue to strengthen academic opportunity while building Watertown’s reputation as a strong employment center where people at all skill levels can pursue a range of career paths.

An economic development vision is only one dimension of a town’s overall vision. By definition, this aspect focuses more on types of business, business districts, and issues relating to commercial and industrial development. Yet, the quality of life for residents is significantly affected by the economic character of a town in terms of access to jobs, tax base, mitigation of any adverse impacts from these uses, and the opportunity for shared benefits such as enhanced transit service, thriving retail, dynamic schools, and active recreational resources.

CONTEXT

As part of Boston’s regional economy, Watertown is constantly buffeted by larger regional and global forces. Nevertheless, businesses have been locating in Watertown for hundreds of years. In this process, myriad factors influence each location
decision. As a strategy, economic development asks the question: is there a role for the Town and its constituents to be involved in shaping our economic future.

For many, Watertown is primarily a residential address, a place to raise children, join community groups, and take transit to jobs elsewhere. The broad swath of commercial and industrial properties occupies a peripheral position, only glimpsed when passing through on the way to destinations in the Square, at the Arsenal, or on Pleasant Street or on the way to regional roadways along the Charles River.

In fact, Watertown thrives on a relatively well-balanced tax base with a considerable amount of commercial and industrial properties to offset residential taxes. These properties, which largely line the riverfront and the former railroad alignment, are a mix of new and old building stock, running the gamut from high tech campuses to properties that haven’t seen investment in many years (Figure 3).

At the Arsenal on the Charles and the Alexandria Technology Center, substantial investment in the buildings and sites is attracting innovative companies in the fields of life sciences, biomedical devices, media, publishing, software, and creative professional services. These diverse industries provide thousands of good jobs, ranging from professional to administrative to service sector. With a solid housing stock and good schools, more and more employees in Town consider living close to work, thereby reducing transportation demand.

A solid base of employment in Town helps support local retail centers, such as Coolidge Square, Watertown Square, and West Main. These clusters of restaurants and small shops need a mix of residents, employees, and other visitors to succeed. Businesses and their employees can also be advocates for improved transit service, parks, and street improvements, all elements that benefit everyone in Watertown.

The opportunity for an even more productive tax base exists. Left to market forces, however, little is happening on many sites. Some properties are burdened with contaminated soil; in other cases historic buildings present steep rehabilitation costs; some abandoned buildings are simply an expensive liability; in other cases, land ownership is fragmented. Under these conditions, uses sometimes fall to the lowest common denominator – low barriers to entry, low investment, few jobs, low value, and low property tax revenues. This Economic Development study is an opportunity to consider the strengths and challenges of the Town’s position and to define future priorities and action steps.

**GOALS**

The following goals provide the foundation for the recommendations in the Watertown Strategic Framework for Economic Development:

1. **CAPitalize on key industry clusters:** position Watertown to attract similar and related firms that can benefit from established networks and workforce already present in Town.

2. **STRENGTHEN the identity of the Town:** convey a positive image based on our best assets: convenient access, proximity to major institutions, riverfront trails and other parks, unique landmarks, interesting village centers, and flexible building sites and structures.

3. **PROMOTE investment in under-utilized areas:** expand opportunities for businesses to locate and expand, while also improving our character and environment.

4. **SHAPE the character of new development:** set expectations for high quality, attractive architecture and site design that minimizes impacts on the environment.

5. **LINK jobs and infrastructure:** invest in systems that make business operations feasible - roadways, utilities, broad band internet access, among others - but also in amenities that make business locations desirable such as transit, parks, and trails.
Figure 3. The commercial and industrial properties in Watertown (shown in white) follow the river and the former rail line.
Figure 4. Firms receiving venture capital investment with Watertown highlighted (source: New England Venture Capital Association, February 2010).
Watertown’s economy has a number of strengths that align with the regional economy and with the Commonwealth’s strategy for the innovation and creative economies. These sectors are fluid and dynamic by definition. They thrive on the generation of new ideas and the translation of ideas into products and applications. Firms move from start-up phases, which are often dependent on venture capital, to more mature companies that are market sustainable. Many but not all experiments succeed, however, and market demand in the end can be fickle. A diversified economic base offers certain advantages that must be balanced with the ability to strongly position an economy in a few key clusters.

The drive for innovation and creativity sets Massachusetts apart from many other locations. The Kaufman Foundation recently designated Massachusetts as the state best positioned to navigate towards a global, innovation-based economy. The Foundation considered Massachusetts particularly well positioned in terms of its knowledge jobs, globalization, economic dynamism, transformation to the digital economy, and technological innovation capacity (Figure 4).\(^1\)

The Commonwealth recently identified five key innovation sectors: Life Sciences, Information Technology, Clean Energy, Advanced Manufacturing, and Health Care.\(^2\) The creative industries are also recognized by the Commonwealth as a basis for a strong economy, encompassing Film/TV/Digital Media, Design, Video games, and Advertising.

Of these, Watertown has employment strengths and growth opportunities in the regional economy in the following sectors:

- Life sciences
- Information and media
- Design
- Advanced manufacturing

Many businesses cross over between these categories, integrating design into creative media productions, and applying advanced manufacturing in the production of devices serving the life sciences, as examples. The typical size of firms in these sectors, especially as they emerge out of the start-up phase, is particularly well-suited to Watertown’s building stock and size of sites. In addition, the employment needs of these industry clusters fit the profile of Watertown’s workforce.

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peak of 929 in 2008, this was still more than double the level of 2001. The Town’s largest research and development (R&D) employers are New England Research Institute (about 220 employees), which conducts a variety of contract research for biomedical firms and institutions, and Boston Biomedical Research Institute, (about 125 employees), which conducts basic research. A number of smaller firms conduct pharmaceuticals research.

While local data on employment in pharmaceuticals and medical device manufacturing is not available (some industry employment data is suppressed for confidentiality reasons), Watertown hosts a number of smaller firms conduct pharmaceuticals research.
number of primarily small firms in these industries, such as Tetraphase Pharmaceuticals, a developer and producer of antibiotics; TechDevice, a catheter manufacturer; and Exergen, a manufacturer of temporal artery thermometers and other medical instruments.

Despite Watertown’s recent strong growth in scientific research and development, the industry’s concentration in Watertown relative to adjacent communities, notably Cambridge, is low. This suggests an opportunity for further growth in Watertown. Industry employment in the four adjacent towns increased by over 5,000, or 40 percent, between 2001 and 2008, with most of this in Cambridge. And the industry is expected to continue to grow rapidly, with state-level growth projections of 24 percent between 2006 and 2016.

The potential also exists for local growth in pharmaceutical manufacturing. Pharmaceutical industry employment, while only about one-fifth as great as that of scientific research and development in the Boston region, is expected to grow considerably faster, 45 percent between 2006 and 2016 according to statewide projections. The pharmaceuticals industry is one of only a handful of manufacturing industries expected to experience any statewide employment growth. Prospects for local growth in the medical device industry are less favorable, with statewide employment projected to remain flat.

**INFORMATION AND MEDIA**

The development of digital technologies has ushered in a revolution in communications, media, commerce, and information management. It has radically transformed the way businesses develop, market, and sell their products and manage internal processes, and the way individuals learn, communicate, consume, and play. It has also catalyzed the development of a wide range of commercial and consumer products and services. As in the life sciences industry, the Boston region’s research infrastructure has rendered it a leader in digital technology.

The use of digital technologies spans a wide range of industries, stimulating the growth of an entire class of firms that provide digital products and services to businesses and consumers. These include firms in software development, computer systems design, digital media, telecommunications, internet services, and related consulting services.

Watertown is home to a significant cluster of these firms. The largest single employer is Athenahealth, with about 500 local employees, which provides internet-based practice management services to health care providers.4 The computer systems design industry had 33 firms employing 344 workers in 2009, while software publishing had six firms employing 299 workers. Other industries in Watertown that include firms providing digital products and services are film and video, telecommunications, advertising, business consulting, and internet publishing and broadcasting.

The Arsenal on the Charles has become a highly-desired location for Watertown’s digital technology firms. In addition to Athenahealth, its largest tenant, the Arsenal is home to four software developers, three mobile telecommunications companies.

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4 Athenahealth is classified as “business services” under the federal NAICS industry classification system, although its services are provided through its customized internet-based software.
services providers, a provider of online market intelligence services, an animation production company, and a digital communications agency.

While local employment data presents a mixed growth picture for these industries, projected statewide trends are highly favorable. Among the two industries for which local trend data is available, employment in software publishing increased by 48 percent between 2001 and 2009, while employment in computer systems design dropped by 25 percent. The Town’s largest digital technology employer, Athenahealth, experienced strong growth during the past decade.

For the future, statewide projections forecast strong growth for key industries within this cluster during the 2006-2016 period. This includes 37 percent in computer systems design, 31 percent in software publishing, and 19 percent in internet and other information services. Management, scientific and technical consulting services, which includes consulting to digital technology industries, is expected to increase by 56 percent, the highest rate of any industry. Watertown’s relatively low concentration of both the software publishing and computer systems design industries relative to surrounding communities suggest the potential to capture a larger share of projected growth.

**DESIGN**

Design incorporates several industries involved in the design of the built environment. These include architecture, landscape architecture, structural and systems engineering, environmental consulting, and interior design. These industries are found within the industrial classification of architecture and engineering, which itself is a component of the larger professional and technical services sector.

Architecture and engineering services are the largest and strongest segment of Watertown’s professional and technical industry, with 20 firms and 863 employees in Watertown in 2009. Watertown employment in architecture and engineering services grew by a robust 44 percent between 2001 and 2008. The recent recession and sharp decline in construction activity took a toll on this sector, with local employment declining by four percent between 2008 and 2009, and continuing to decline through the first half of 2010. The industry is expected to recover, however, sustaining a modest annual growth rate of 1.6 percent nationally through 2018. Watertown has more than double the concentration of employment in this industry than adjacent communities.

Design firms in Watertown are diverse in both services and size. The largest firms with the most diverse business lines are Vanasse Hangen Brustlin, which provides planning, landscape architecture, and civil, structural, and transportation engineering services, and Sasaki Associates, which provides

*Design of the built environment is a strong industry cluster in Watertown (2008 Beijing Olympics Master Plan, courtesy Sasaki Associates)*
planning, architecture, landscape architecture, interior design, and engineering services. Together, these firms have more than 500 employees. Both firms are headquartered in Watertown, with branch operations in other locations. Most other firms or branch operations have fewer than 25 employees and specialize in one or two business lines.

Employment data may actually understate the amount of employment in this industry. Some firms classified as construction firms design as well as construct building systems. A prominent example is J.C. Cannistraro, which designs, builds, and installs mechanical systems. Founded in Watertown in 1963, the firm employs a total of about 400 workers. Smaller firms outside of the architecture and engineering industry provide other building design services such as the design and manufacture of architectural signage and architectural millwork.

ADVANCED MANUFACTURING

Advanced manufacturing “entails rapid transfer of science and technology into manufacturing processes and products.” While manufacturing has declined nationally and in the region, Watertown continues to specialize in instrumentation and other advanced manufacturing products. In some cases, the development of new products supports the life sciences, and in other cases, researchers are exploring the cutting edge of alternative energy, as evidenced by the work of A123 and more recently WiTricity. A123 began in the halls of MIT as a concept for a new type of lithium-ion battery, and moved into the business incubator at Boston University before finding space at the Arsenal on the Charles in 2005. Over the years, it has expanded, opening research and development and manufacturing plants in Westborough, Hopkinton, China, and most recently Michigan. As a prime example of company evolution, A123 recently signed a lease to move its headquarters to Waltham to accommodate its growth. More recently, WiTricity expanded from its start-up location on Coolidge Hill Road to a larger facility on Grove Street, where it continues to pursue the wireless transmission of electricity over short distances.

Firms such as Doble Engineering, Radiation Monitoring Devices, and United Electric Controls have been headquartered in Watertown for years. Others like Exergen Corporation are more recent examples of start-up enterprises that have matured into more stable firms, with a steady output of patented devices.

With little visibility in town, Seven Cycles is the nation’s largest custom manufacturer of titanium and carbon-fiber bicycles, employing 25 people and marketing its products globally. Seven Cycles just opened a new business model, Ride Studio Café, in Lexington where the company can showcase its products.

While significant growth in advanced manufacturing statewide is unlikely during the next several years, Watertown is well-positioned to capture more than its share of firm startups and relocations. Statewide projections of employment trends in key segments of advanced manufacturing through 2016 are mixed, with projections of robust growth in pharmaceuticals (3.8 percent annually), no change in medical devices, slight declines in instruments (-0.4 percent), and moderate declines in semiconductor and electronic equipment (1.5 percent). At the same time, Watertown has shown itself to be a very competitive location for some advanced manufacturing segments, with high concentrations relative to surrounding communities especially for instruments and semiconductor and electronic components (comparable data is not available for pharmaceuticals and medical devices). With new firms forming and growing even in the larger context of slow growth or decline, the potential for more of these firms locating in Watertown is considerable.

Another factor that may strengthen opportunities in this cluster is the state’s recently launched Advanced Manufacturing Initiative. Announced in late 2010 and led by the Massachusetts Technology Collaborative, this initiative will seek to strengthen and grow advanced manufacturing companies through research and development, financing, workforce development, and technical assistance.

Figure 5. Development Opportunity Focus Areas (properties with assessed values less than $30/sf highlighted in orange)
Watertown has many vibrant places. A number of areas stand out, however, as opportunities for new investment, and in some cases, future redevelopment. Today, these properties generate the lowest taxes in Town, a reflection of various factors, including use, density, and sometimes condition. Several sites are abandoned and most have one story buildings and extensive parking lots. Many recent development proposals have targeted these sites, but decision-making has invariably been hampered by the absence of an overall vision, outdated zoning, and no framework for appropriate character and uses given the potential value of these sites to the Town.

The Economic Development study has identified five key focus areas and offers recommendations for targeted industries, infrastructure improvements, and potential private investment including likely uses and character (Figure 5). Several of these represent transition areas between residential neighborhoods and workplaces, requiring particularly careful planning to achieve better integration of these uses.

Places in Watertown are often distinguished depending on whether they are in the East End, West End, or South Side. The economic development focus areas are subsets within these broader geographies and generally lack character or identity. To raise awareness and ultimately to market these areas, naming is a process that can evoke the local history and geography while distinguishing new places. For the purposes of this study, we will refer to these as

- Coolidge Hill
- Arsenal North
- Union Market
- South Square
- West End Riverfront

The related sketches are intended to open up possibilities, not to provide definitive design plans or to specify specific uses. They are intended to elicit support for projects consistent with the vision created and illustrate what that may look like and not limit possible outcomes. Most of the properties are in private ownership, and these owners are responsible for initiating any transformations. The Town, however, can begin to reshape its development policies to reflect community interests, economic development potential, and to set the stage for future approval processes.
Target Industries

The Coolidge Hill area is ideal for small to midsize growth companies (50 employees or fewer) in the targeted economic clusters of life sciences, information technology, and advanced manufacturing. The recent relocation of the WiTricity headquarters to 149 Grove Street is a good example of a local start-up company that outgrew its initial space on Coolidge Hill Road and found a new building in close proximity to the Cambridge and Boston markets. Wolfe Laboratories and Barclay Water Management front onto Coolidge Avenue, while the Boston Biomedical Research Institute fronts onto Grove Street. Tufts Health Plan, the largest employer in Town, is headquartered in the landmark art deco building at the corner of Arlington Street and Mount Auburn Street.

Civic Realm Improvements

Greater attention to redevelopment in the East End will strengthen the relationship to Cambridge and provide a fitting identity to the entrance into Watertown. Investment in Arlington Street and Grove Street will showcase these corridors as well landscaped pedestrian and bicycle friendly streets. An improved streetscape along Coolidge Avenue will provide the appropriate setting for the existing residential, recreational, and research and development uses, and can help attract other businesses.

New development in the area should be positioned adjacent to the street edge to define and activate the streets (Figure 7). Since most sites abut Filippello Park, stronger connections to this open space will create an asset for the properties and the district. In addition, Sawin’s Pond (A) and the small stream that flows down to the Charles River offers an opportunity to create an open space amenity and walking trails that strengthen connections. A new street linking Coolidge Avenue and Arlington Street will create a real estate address for the properties north of Sawin’s Pond. This stream, which is revealed adjacent to the Mount Auburn Club (B), flows down into the GSA property (C). Once the GSA remediates and demolishes the remaining buildings on this site, the wetlands can flourish to become a significant natural area marking the entrance to the Town.

Key Sites

The intersection of Arsenal Street, Arlington Street, and Coolidge Avenue has tremendous visibility and proximity to the Charles River. In the long term, this prominent site could support slightly higher density and taller buildings and may be suitable for a hotel or other mixed uses. Ground floor retail and restaurants on this corner would benefit from the visibility and would pull retail services closer to the employees working in the focus area.

The vacant land on Grove Street (D) is now owed by Mount Auburn Cemetery, which is planning an interim parking lot to be used by Mount Auburn Hospital. This site and adjacent properties constitute one of the largest open tracts with over six acres in the most desirable and accessible part of Town for business development. Prime office and research and development space set in a cohesive and well-designed campus setting can become a premier address for Watertown. Reuse of the GE Ionics building at 65 Grove Street
will restore employment activity in the area and will complement the Boston Biomedical Research Institute across the street.

Challenges
The myriad of ownership patterns, existing light industrial uses, and the prevalence of low density building typologies have stymied the potential for the Coolidge Hill area to become an attractive location to live and work. Large swaths of under-utilized land contribute to a sense of neglect. Actual brownfield sites and lingering perceptions of contamination on some properties have contributed to the notion that this area is still best dedicated to industrial uses. On other sites, residential development plans have been made in the absence of a larger plan that demonstrates the commercial value of this part of Town.

Many potential development sites lack street frontage and good vehicular access. Streets in the area, particularly Coolidge Avenue, lack a distinctive character. The lack of immediately accessible transit and the confusing street network have made the area appear less central than other places in the Town. Open spaces that do exist in the area are either inaccessible, contaminated, or are unrelated to surrounding properties.

<table>
<thead>
<tr>
<th>COOLIDGE HILL AREA PROPERTY VALUE POTENTIAL</th>
<th>Existing</th>
<th>Potential</th>
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<tbody>
<tr>
<td>Potential Sites (acres)</td>
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<tr>
<td>Density (FAR)</td>
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<tr>
<td>Property Value ($/sf)</td>
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<tr>
<td>Calculated Tax Revenue</td>
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<td>$2,299,000</td>
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The Arsenal North area is, for a variety of reasons, off of the “mental map” of most residents and visitors to Watertown (Figure 8). With almost no visibility from Arsenal Street, the Alexandria Technology Center (A) is a well-kept secret, yet New England Sports Network (NESN) and several biotech companies are headquartered here. By breaking down the barrier of the old railroad right-of-way, the new Community Path is slated to become an important spine for this district and will open up new connections toward Coolidge Square. The

amenities and the innovation companies in the Arsenal on the Charles are close by and the river is just beyond.

Target Industries

With large sites and several large buildings, the area is well positioned to attract small to mid-size companies in the life sciences, information technology, and advanced manufacturing. Enanta, Envivo Pharmaceutical, Vitruvean, Tetraphase Pharmaceuticals, and Dicerna Pharmaceuticals are some of the start-up biotech companies that already occupy space in 480 Arsenal and 500 Arsenal Street. NESN broadcasts from this location, and ATT has a major internet facility in the district. United Electric Control, which built its facility in 1981, remains one of the largest manufacturing plants in Town with almost 100,000 sf.

Civic Realm Improvements

Over time, investment in the Arsenal North District can improve visibility from and connections to Arsenal Street (Figure 9). A more cohesive and connected environment will strengthen the identity of the district and achieve more of a critical mass of activity. As an example, the campus character of the Arsenal has made it an attractive location for innovative new companies. The well designed and meticulously maintained landscape contributes to the sense of place for employees and visitors.

Redevelopment on the north side of Arsenal Street should strive to capture these cherished aspects of “campus”. New investment in tree-lined access points and complementary parks can assist in connecting the north side of Arsenal with the south. When complete, the Community Path will not only enhance the experience for those who elect to commute by bike to work, but it will also help to reorient property frontages onto the space. The backs of buildings will likely begin to address this new open space amenity as a front.

Key Sites

Over time, properties directly along Arsenal Street may redevelop to take advantage of their prime location on both a major street and an important open space corridor. While the sites are small, they could complement the scale of the more historic sections of the Arsenal, accommodating a mix of uses. The corner of School Street is particularly prominent and would be well suited to ground floor retail and restaurants to further activate the area and complement surrounding businesses.

At the eastern end of this district, the Verizon site (B) could over time be redeveloped in such a way that the historic opening from Bigelow Avenue could be restored. This hinge site occupies a key corner between Coolidge Square, the Arsenal, and Arlington Street. A new street or pedestrian path will help orient new development and direct activity from a mix of uses in all directions.
Challenges

Properties directly along Arsenal Street, while having good visibility, have fragmented ownership and a shallow property configuration due to the old rail track. The one-story buildings do not take advantage of the Arsenal redevelopment and diminish the visibility of the properties behind them. While utility warehouse sites like the Verizon property provide an important base for communication servicing, this type of use creates a barrier to Bigelow Avenue to the north and inhibits the potential to draw on the vitality of Coolidge Square.

<table>
<thead>
<tr>
<th>ARSENAL NORTH PROPERTY VALUE POTENTIAL</th>
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<tr>
<td>Existing</td>
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<td>Potential Sites (acres)</td>
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<td>Density (FAR)</td>
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<tr>
<td>Property Value ($/sf)</td>
</tr>
<tr>
<td>Calculated Tax Revenue</td>
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</tbody>
</table>

Figure 8. Arsenal North Area Existing Conditions

Figure 9. Arsenal North Area Potential - Conceptual Sketch
In advanced manufacturing, long time Watertown company, Doble Engineering, has a large facility, while the more recent start-up, Seven Cycles, manufactures high tech bicycles nearby. Design firms in this district span from the large multi-disciplinary firm, Vanasse Hangen Brustlin, to the boutique firm, Imai Keller Moore Architects. Beaverbrook Step and Springwell, large social service providers, are also located in this area.

Civic Realm Improvements and Key Sites
The design and massing of development in this area should create a sense of place and establish a presence at this key point along Arsenal Street (Figure 11). New buildings will have front doors that address a redesigned streetscape that offers broad sidewalks, shade trees, and possibly the linear bicycle path. Some amount of ground floor retail, as is there now, will support local employers and nearby residents. The grade change that exists can become an asset by building parking below street level against the ten to fifteen-foot high bluff.

To maximize the potential of this large and well positioned district, some degree of land assembly is encouraged to connect the frontage and access onto Arsenal Street with the relatively landlocked properties to the rear. The GE Ionics building (A) off Irving Street has been vacant for many years. Whether reused or redeveloped, the integration of this site with frontage on Arsenal Street will allow for prominent new buildings along the street edge. Ideally, the Rear Washburn properties (B) can be oriented towards Arsenal Street either through assembly or rights-of-way. Over time, the contractors’ yards may redevelop into office, research & development, or lab buildings as well, given the potential value of the site. The brick office and warehouses may be suitable for ongoing adaptive reuse.

While new development may be prominent along Arsenal Street, a transition in scale is warranted to the residential neighborhood to the north. New access points into the Union Market area need to be sensitive to neighborhood concerns about through traffic. To break down the barrier that this site has always posed, however, a combination of access drives and pedestrian paths will create a sense of blocks and streets, allowing neighbors to cross the site easily.

Challenges
The Union Market area has remained undeveloped for decades and is not without its challenges. The district suffers from an overall lack of identity, limited access, and fragmented ownership. A grade change of approximately 10 to 15 feet and a series of narrow low buildings obscure the larger development sites set back from the Arsenal frontage. In this district, the former rail line creates narrow sites that are only 40 to 80 feet deep, too narrow for most commercial development.

The vacant GE Ionics plant, the vacant Rear Washburn properties, and the open contractor supply yards establish the predominant character of the area. Together these 16 acres represent one of the larger tracts in Watertown. Limited points of access have been a barrier to development, however. The Rear Washburn properties are largely landlocked with narrow easements through...
residential driveways. The large GE Ionics site has a single awkward access point off of Arsenal Street and almost no frontage, but is supposed to have an access easement from Irving Street. A third access point connects to a small neighborhood street. The narrow strip of stores and semi-industrial uses fronting on Arsenal Street have no rear loading, so trucks often dominate this frontage.

With large available sites, however, the area is vulnerable to expansion by automotive companies and encroachment by new big box retail outlets. This type of development would tip the character of the corridor away from its potential as a cohesive innovation district - as represented by the start-up companies at the Arsenal on the Charles - to a regional shopping and automotive destination.

With no real sense of place, traffic on Arsenal Street accelerates through this section. Relatively narrow sidewalks further diminish the pedestrian experience. While the linear bicycle path is slated to pass through this area, its exact alignment either off road or on road has not yet been determined. The fragmented industrial uses, railroad right-of-way, and grade changes have created a major barrier between the neighborhoods to the north and the south, leaving little opportunity to take advantage of the proximity to the river and the Perkins campus.

<table>
<thead>
<tr>
<th>UNION MARKET PROPERTY VALUE POTENTIAL</th>
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<td>$1,893,000</td>
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</table>
Media and instrumentation companies fill the mill buildings on the South Side.

**SOUTH SQUARE**

Watertown Square is at the crossroads of the Town. As a hub, it lies at the confluence of seven major roadways, which all converge on the historic crossing of the Charles in this location (Figure 12). Although developed as a park in the 1930s, the Delta acts as the Town common, anchoring the center and also serving as a public transportation hub. The Square contains a vital mix of business, government, and restaurant amenities for the entire area. Nowhere else in Town does such an active mix of uses touch the Charles River.

The south side of the Charles River, across from Watertown Square, has the potential to become a destination in and of itself and a compliment to the animation on the north side. With the Galen Street Bridge as a link, the riverfront can serve as a seam shared by the two sides rather than a dividing line. The degree to which the south side can build on the character of the main Square and develop a strong identity will depend on managing traffic and overcoming land ownership barriers that have stymied new development.

**Target Industries**

The South Square area is ideally suited to a mix of uses, including additional office, research, housing, and retail. A number of industry sectors already exist in the South Square area. Small to mid-size design and information firms occupy the renovated mill buildings on both sides of the river, with a unique concentration of media firms on Hunt Street. Advanced manufacturing firms, such as Radiation Monitoring Devices, have long been located in this area.

**Civic Realm Improvements**

The buildings that define Watertown Square are urban in character, built up to the street edge with attractive streetscape design and parking to the rear (Figure 13). On the South Side, the recent Archstone residential development (B) is an example of relatively high density housing that complements the street without overwhelming it. Ongoing issues with filling ground floor retail in this development may have as much to do with the rent structure as any physical or location issues.

The pedestrian realm on the South Side is improving with the reconstruction of Galen Street and the more recent reconstruction of Nonantum Road. The redesign of Nonantum Road allocates more space to the riverfront trails, making them more inviting. The streetscape on Galen Street is more fitting for a major gateway into Town, although pedestrians still have a difficult time making their way from the South Side mill buildings to the bridge and over to Watertown Square. As a gateway to Newton and near the center of Watertown Square, the South Side has strong public transportation linkages to downtown Boston, however.

**Key Sites**

The site of the MBTA bus barn (C) and its surroundings offer the potential to transform the character of the South Square area. If this site were to become available, new development could be organized around a new urban square and transit center. This open space is envisioned as a compliment to the north side, with the bridge and the riverfront becoming the centerpiece that enlarges one’s perception of the Square. In the long term, a wider bridge could be designed to accommodate increased pedestrian traffic.

Capitalizing on existing bus connections, greater density in this area can create a legitimate transit-oriented development while minimizing automobile traffic. With careful consideration of building massing, new development can define the open space and activate the streets, ensuring stronger pedestrian connections from the riverfront mill buildings down to the Square. This prominent site with a riverfront location and easy turnpike access could support distinctive landmark buildings. The combination of assets including proximity to other media, design, and engineering companies bode well for the creation of a vibrant, mixed use community in the South Square area.
Challenges

Many perceive the South Side as the “other side of the river”, and most visitors don’t even realize that it’s part of Watertown. Class B office space is prevalent and some of the side streets, such as Water Street, are in disrepair. There is little sense of place on the south side of the river.

With the convergence of so many streets on both sides of the river, traffic will always be a challenge. Opportunities to improve public transit should be developed in concert with any site redevelopment plans, with a particular focus on expediting the circulation of the express buses. Consultation with the MBTA regarding the future use of the bus barns and the operational needs for transit will be an important first step in transforming the character of the area.
The historic Aetna Mills were home to Boston Scientific and have recently changed hands.

WEST END RIVERFRONT

Of all the focus areas, the Pleasant Street corridor has the closest relationship to the Charles River (Figure 14). This part of Watertown is celebrated for having major regional attractions such as Russo’s Market (A) and the Gore Estate. The historic Aetna Mills (B) are an icon in the community and a cultural touchstone for the historic identity of Watertown. It represents one of the last remaining vestiges of the area’s industrial past along the riverfront. Recent streetscape investments along Pleasant Street and a major new housing development, Repton Place (C), signal that there is a demand for multi-family residential uses in this area. To the west, Waltham is becoming a major center for innovation companies and economic development in the MetroWest area.

Target Industries

A range of uses are suitable for the Pleasant Street corridor, a reflection of site configuration, the riverfront amenity, and some of the challenges for business location. These challenges include less visibility and fewer connections to either transit or regional highways. A number of emerging and established firms have located in this area in recent years, including information technology, life sciences, medical devices, and design industries. The relatively low rents are attractive to early stage firms, especially with access to multi-tenant buildings. Additional retail could take advantage of and complement Russo’s position as a regional destination. Repton Place is scheduled for a second phase of development, and in some locations, additional housing will create more of a sense of community while also connecting to the existing neighborhoods on the West Side.

Civic Realm Improvements

A new village center could incorporate Russo’s and the ice rink (D) with expanded retail offerings, oriented around a civic space (Figure 15). With such a destination close to the river, new paths and streetscapes will ensure a more favorable pedestrian environment, with connections to nearby neighborhoods on both sides of the river. The rolling meadows of the Gore Estate can once again be connected to the river by daylighting the stream system and improving the network of ponds in the area. These open space resources can serve as more attractive natural habitats and as recreational amenities for those living and working nearby.

Key Sites

A real transformation of the West End Riverfront could come about through redevelopment of key sites on either side of Pleasant Street. New residential development has just been approved for 140 Pleasant Street and for the Haartz Mason site at 270 Pleasant Street. The Stanley Avenue site (E) between Waltham Street and Repton Place has a controversial history, yet new residential development could be interspersed around the ponds, allowing wide setbacks for conservation areas. With a network of new streets, people would be able to stroll from the Gore Estate down to the river. New recreation fields are a possibility, which would support the existing and new West End neighborhoods as well as the Jewish Day School (F).

Boston Scientific recently sold the Aetna Mills and adjacent properties. Specific plans have not yet been announced, but the property is currently being marketed for commercial and industrial uses. The low area behind the riverfront mills, however, is ideally suited for structured parking, which would free up the surface parking lots north of Pleasant Street and could provide shared parking for nearby retail uses. With more shared parking in the area, both sides of Pleasant Street near Russo’s could support additional retail with street frontage and visibility. New streets and small plazas would provide connective tissue between Russo’s, the existing ice rink, nearby housing, and the riverfront.

As values in the area grow, vacant and underutilized properties adjacent to Russo’s could be redeveloped for a mix of uses. New streets will
provide access and real estate addresses for some of the deeper lots, improving the pedestrian realm and connections to the river.

Challenges

Despite its various assets, the West End Riverfront retains a disconnected character with vacant properties, working construction yards, high tech research, new housing, and vibrant destinations such as Russo’s. With the exception of an underutilized Department of Conservation and Recreation (DCR) park (G) adjacent to the ice rink, there are few connections to the Charles River. A number of brownfield sites and a prevalence of existing low-value uses create large gaps and weaken any sense of place or consistent character. In addition, there is a lack of a legible street network and the connections between the riverfront and adjacent neighborhoods are poor.

Recent infrastructure investments along Pleasant Street have helped to improve the identity of this area. Enhanced transit options are needed, however, either through improved service on the existing MBTA express bus on Pleasant Street or with better connections to Main Street and the #70 bus.

<table>
<thead>
<tr>
<th>WEST SIDE RIVERFRONT PROPERTY VALUE POTENTIAL</th>
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<td>Existing</td>
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<tr>
<td>Density (FAR)</td>
</tr>
<tr>
<td>Property Value ($/sf)</td>
</tr>
<tr>
<td>Calculated Tax Revenue</td>
</tr>
</tbody>
</table>
The Arsenal on the Charles was redeveloped in the early 2000s through the disposition of public land, private investment, and civic oversight.
The Town has many implementation tools at its disposal. Setting priorities and committing to outcomes is a necessary step in the economic development process. The specific roles and responsibilities are tied to a realistic assessment of capacity and interest of different entities in Town, including developing new partners.

Looking to the future, the Town has little control over the regional economy but can choose to be either more or less proactive. By taking a more proactive stance, the Town should focus on a few strategic projects in a weak economy and should ensure that multiple projects are well-coordinated in a strong economy (Figure 16).

The Town’s strategic actions fall within four main categories:

1. Development Policies
2. Infrastructure Investment
3. Marketing and Outreach
4. Public/Private Partnerships

At the December public meeting, the question of importance and relative priorities was put before the participants, who expressed a significant interest in comprehensive planning, an updated zoning ordinance, an improved economic development website, and streetscape and transit improvements. Brownfield remediation was also viewed as an activity where the Town could be more proactive (Figure 17).
DEVELOPMENT POLICIES

New public and private investment will transform the focus areas over time. In order to guide this change, however, development policies should be in place prior to specific proposals. With community input, these policies will define the desired character and invite appropriate redevelopment. Comprehensive planning, updated zoning strategies, and transit-oriented development guidelines are all tools that can be used to shape future development.

Comprehensive Planning

A Comprehensive Plan sets a vision for the future based on a solid understanding of existing conditions, citizen input, and relevant data. The plan lays the foundation for capital investment, staff priorities, development policy (zoning) and regulations, and other Town policies and actions. The interlocking nature of demographics, economics, culture, land use, transportation, housing, open space, and other factors are taken into account in crafting the future vision.

The planning process for a comprehensive plan acknowledges the past, recognizes current assets, and defines future potential. With a plan in place, each unique decision faced by the Town will have a context and a framework that guides the outcome ultimately generating an appropriate town-wide implementation strategy. This type of planning
integrates community input with analysis of data and other information to project a compelling vision for the future.

**Next Steps:** DCDP needs to develop a scope and issue an RFP with approval of the Town Council, as an immediate priority.

**Zoning Ordinance Update**

Once a vision has been established in the Comprehensive Plan, zoning is a primary tool to carry out that vision as it relates to land use and development. An updated zoning code will clarify expectations for developers, provide incentives for positive development that contributes to the Town’s economic and civic life, and streamline approvals for the Boards, developers, citizens, and all involved parties.

The existing zoning for the five focus areas presents a mosaic of industrial and commercial zones, often with little rational for the purpose or distinctions. The code should be updated to reflect economic development goals, a comprehensive vision based on community input, current use patterns, and more state-of-the-art approaches to regulating development.

Form-based zoning (which places more emphasis on the form of the building than the use), incentive zoning, and performance zoning are all elements that should be considered to implement the vision of this strategic framework and a new Comprehensive Plan, similar to the Pleasant Street Corridor District. Overlay districts, which typically are used as interim strategies, should be converted into regulations directed to specific goals and geographies.

Key elements of the Pleasant Street Zoning that could become the basis for new zoning in each of the focus areas include:
- A focus on form, addressing density, height, and stepbacks but allowing for creative massing especially on landmark and gateway sites
- Building placement to encourage more clustered, pedestrian-friendly environments oriented to the street with build-to lines, zero lot side lines, and limits on the length of a contiguous building wall
- Shared parking and other parking reduction incentives whereby employers encourage employees to use alternative transportation and discourage commuting by automobile
- Land use policy to encourage more intense use of land close to transit lines and stations, complementary retail and other services close to businesses to promote walkable environments
- Guidelines for design and environmental sustainability
- Use restrictions as necessary to achieve the district vision such as restrictions on retail footprint size, automobile related activities, heavy industry, and other incompatible uses
- Development incentive credits to achieve specific civic goals
- A simpler review process, led by the Planning Board, that expedites the approval of well-designed projects.

While use is down played in form-based zoning, some incentives and restrictions can still play a role. Because of the unique assets in the East End and Arsenal North – good roadway access, transit service, and proximity to Cambridge, Boston, and the river – zoning should be designed to encourage office, research, and advanced manufacturing uses. Hotels, limited retail, and cultural and recreational facilities would be complementary uses within the innovation district. While multi-family housing could be allowed, incentives should be strictly for commercial use.

In the other three districts - Union Market, South Square, and Pleasant Street - a wider range of uses is appropriate including office, research and labs, ground floor retail, culture, hotel, and residential. The Pleasant Street Corridor zoning as it stands allows this diversity of uses and focuses on the form elements listed above, but new zones will be required for the other districts.

**Next Steps:** DCDP, working with the Planning Board, should initiate updated zoning for the five focus areas for Town Council approval, as a midterm action.
INFRASTRUCTURE INVESTMENT

In 2010, the Commonwealth consolidated its many infrastructure funding programs into a single MassWorks Infrastructure Program to fund sewers, utility extensions, streets, roads, parking facilities, site preparation, demolition, pedestrian walkways, and streetscape. The grant programs administered under this “one-stop shop” include:

- Public Works Economic Development (PWED)
- Community Development Action Grant (CDAG)
- Growth District Initiative (GDI) Grants
- Massachusetts Opportunity Relocation and Expansion Program (MORE)
- Transit Oriented Development (TOD) Grant Program

This new program is being administered by the Executive Office of Housing and Economic Development in consultation with the Massachusetts Department of Transportation (MassDOT) and the Executive Office for Administration and Finance (A&F). Funding rounds are held twice a year, in September and January. Shovel ready projects and projects that are consistent with the Commonwealth’s goals are given priority.

Streetscape, Signage, & Utilities

At the local level, street and sidewalk maintenance is one of the top priorities of the Town Council. For fiscal years 2011 to 2015, approximately $61 million is designated for these improvements, although funding is not yet secured. Any needed utility upgrades should be coordinated with the Capital Improvement Plan for street improvements over the next five years. The Department of Public Works (DPW) in coordination with the Department of Community Development and Planning also needs to coordinate NStar and other private utilities to ensure a robust network of services.

The Town of Watertown recently adopted a set of standards for street reconstruction and updated the functional street map (Figure 18). Significant improvements have been made in recent years in Watertown Square, North Beacon Street, Galen Street, Arsenal Street, and Pleasant Street, among others. Moving forward, however, the street standards should be expanded to address additional elements, such as tree planting, street lights, and street furniture. Strategies for complete street design seek a better balance between use by cars, pedestrians, bicycles, transit, and landscape features. In many commercial areas, traffic could be calmed and pedestrian conditions improved by narrower lane widths, wider sidewalks, and tighter curb radii.

The design of consistent graphic signage and an overall wayfinding system is an upfront investment that would allow phased implementation as streets are improved. Since businesses would benefit from better orientation and directional signage, public/private partnerships may be possible.

Next Steps: DCDP should review the street hierarchy, advance guidelines for “Complete Streets”, and working with the DPW, seek MassWorks Infrastructure funding, as an immediate priority.

Parks and Trails

A number of parks are designated for improvement on the Town’s Capital Improvement Plan, most of which are located in and around residential neighborhoods. Ongoing park investments in Filippello Park, Arsenal Park, open space in Watertown Square, and the ice rink and its environs are likely to benefit local businesses as well. The most important park investment keyed to economic development, however, is the completion of the Community Path, which is now installed between Arlington Street and School Street with subsequent phases to the north and to the west.

The Massachusetts Department of Conservation and Recreation (DCR) is responsible for the trails
Figure 18. The street hierarchy in Watertown should inform priorities for investment.
along the Charles River, but the Town has been an important partner in the past and should continue this role as needed. In the long run, the extension of the trail west of Bridge Street on the Watertown (north) side of the river will create a major enhancement for the adjacent properties in the Pleasant Street corridor.

Next Steps: DCDP needs to work with property owners to determine the alignment of Phase 2, and working with the DPW, secure funding, as a mid-term action.

Transit

The Town can play a significant role in monitoring and advocating for improved service to Watertown as incremental steps towards expanded transit services (Figure 19). The major gaps in transit service are along Arsenal Street and Pleasant Street and access to commuter rail, especially at Waverly Station. More frequent and consistent headways on the Route 70/70A alignment is needed in the short term. Ultimately some form of Bus Rapid Transit (BRT), with expedited signals and dedicated lanes where possible, would enhance public transit along Arsenal Street and broaden its appeal to employees along this corridor. Small shuttle buses similar to those run by the Arsenal on the Charles could provide more direct access to Waverly if demand is sufficient.

Next Steps: Working with the MBTA, the Town and its elected State officials should begin advocacy for improved service on the #70/70A and the #558 routes and for transit station improvements in South Square, as ongoing and long range actions. Another long range action is to coordinate with private businesses on expanded, shared shuttle services.

MARKETING AND OUTREACH

Effective communication should be an important tool in Watertown’s economic development strategy. Businesses and developers need thorough information about such factors as available properties, local taxes and regulation, workforce, and amenities in order to make decisions about investing in a community. By making this information easily accessible, the Town can increase the likelihood that a business will consider Watertown among the many potential locations available.

Marketing tools should be designed to be useful to a wide range of businesses and developers. At the same time, the Town should develop a message and information that is particularly aimed at the economic clusters described above, and other industries that provide strong growth potential.
Communication is a two-way street. Local government also needs to hear from businesses, site selectors, developers, and economic development and industry organizations about how they perceive the local business environment and what initiatives could be taken to improve it.

Website and Other Media
As in many realms of activity, the internet has profoundly influenced the process of economic development. The internet is the single most important source of information for businesses and developers seeking information about potential sites and locations, particularly at the initial stages of their research. The Town needs to upgrade existing website materials to provide a single, easy to find and easy to navigate web location with comprehensive information.

At the outset of this project, the project team worked with the Town to create a temporary economic development web page on the Town’s main site. Upgrading this site to a separate website with its own distinct identity will promote a more innovative message and offer better access from web searches. Links between the economic development site and the Town government site should be strong.

Building on the information provided by this report, the website should have a number of features:

- Community profile—demographics, economy, public services, amenities, etc.
- Links to third party property listing websites, such as MassEcon and ZoomProspector
- Descriptions of local and state economic development programs and incentives
- Information on Watertown property development and business regulation
- Local business directory (Chamber)
- Maps, photography, and graphic images
- Links to relevant local, regional, and state websites
- Social media features to enable users to more easily share information with others

The Town should also continue to use social media websites, such as the Facebook page established for this economic development study, to distribute information on significant events like new company locations or development projects.

Working with the material provided by this study, the Town can also produce a simple marketing package promoting the Town’s advantages as a business location for use by real estate professionals and industry councils. Digital newsletters about recent economic development activity in Watertown can be distributed widely through periodic email blasts.

Next Steps: DCDP should establish a new identity for the Economic Development website, and working with material from this report, begin to add and update content, as an immediate priority.

Outreach to Local Businesses
Outreach to local businesses needs to operate on several fronts to target key leaders and to respond to different interests. Three key constituencies to reach are the corporate executive officers of large employers, the proprietors of small businesses, and the operators of retail stores and restaurants. Within each of these groups, there are shared interests, which could become the agenda for greater participation and involvement in the Town’s economic development activities.

The Watertown-Belmont Chamber of Commerce is ideally positioned to reach out to small businesses and retail and restaurant operators in town. With renewed focus, the Chamber could benefit from a broad survey of small enterprises to understand better their needs and interests. The survey could also help set an agenda for advocacy and services provided by the Chamber. A “buy local” online business directory could be particularly helpful, serving to promote and connect these enterprises with local customers. Ultimately, a Main Streets program and/or a Business Improvement District (BID) could be developed for retail districts such as Watertown Square or Coolidge Square to promote retail and restaurants, and to ensure a higher quality public realm to support business activities.

For the large employers, particularly those that are operating on a global scale in the innovation and creative industries, a different strategy is required. In these cases, the Town will need to invest time in building relationships through periodic calls and in
sponsoring small gatherings of industry leaders on an annual basis. The agenda for these meetings would need to focus on issues of particular concern to large employers, and could help launch a more active business community. Potential topics of interest might be improved transit services, public services, development regulations, and other public-private partnership opportunities.

**Next Steps:** The Chamber of Commerce, in coordination with the Town, should focus on small business outreach and services, as an immediate priority. As a mid-term action, the DCDP should identify private sector leaders and develop an agenda, format, and schedule for a regular CEO roundtable meeting.

Outreach to State Economic Development and Industry Organizations

State economic development and industry organizations are important partners in efforts to market Watertown to businesses and property developers. The Massachusetts Office of Business Development, a state agency, and the Massachusetts Economic Alliance, a public-private partnership both operate at the state level to promote Massachusetts as a business location and help businesses find space.

Industry councils are at the forefront in contacts with member organizations and in fielding calls from businesses thinking of moving into or relocating within the state. As specialists in their industry areas, these non-profits are particularly knowledgeable about the match between business needs and the business climate in various towns, such as building stock, regulations, infrastructure, and other factors. For Watertown, the most relevant industry councils are the Mass Biotech Council, Mass Medical Device Industry Council (Mass MEDIC), and the Mass Technology Leadership Council. The Mass Society of Professional Engineers and the Boston Society of Architects also represent firms in a key cluster, but are less active in assisting firms in their industries to find appropriate space.

Town staff should conduct periodic meetings, biannually or annually, with staff from the various economic development and industry organizations, with agendas much like those for meetings with real estate professionals. For industry organizations, simple informational packets targeted to their particular industries could be produced and distributed to raise the profile of the Town. The Town should monitor the online property listings maintained by the Mass Economic Alliance and Mass Biotech Council to ensure that all available Watertown properties are listed and properly described. Newsletter e-blasts about current Watertown economic activity can also be distributed to these organizations.

Specific to the biotech industry, the Town should seek a platinum rating from the Mass Biotech Council. A platinum rating signifies the most favorable municipal environment for biotech firms. While Watertown has a second-level gold rating, competing communities including Boston, Cambridge, Lexington and Waltham have achieved platinum rating.

In order to move from a gold to a platinum rating, two changes are required. First, the Town’s Board of Health must adopt the National Institutes of Health guidelines on DNA activity as part of its regulations. Second, the Town must have at least one building that is already permitted for biotech uses and has 20,000 square feet or more of available space, or it must have a shovel-ready pre-permitted land site with completed MEPA review and municipal water and sewer capacity to meet additional demand.

**Next Steps:** Building on relationships established through this study, DCDP should maintain and extend relationships with other municipal economic development departments, industry councils, and the Massachusetts Office of Business Development with regular meetings, as an immediate priority. The Board of Health should evaluate platinum rating, as an immediate priority.

Outreach to Real Estate Professionals

Local real estate professionals are key actors in Watertown’s economic development through their role of marketing commercial and industrial properties for sale and lease. The Town can work in partnership with real estate professionals to assist their marketing efforts by providing the updated website, marketing packages, and e-newsletters described above.

Beyond the website, the Town can take a number of actions to strengthen its relationships with real estate professionals to promote targeted business recruitment and property development. On the most basic level, periodical meetings with active developers and brokers in the region would provide an opportunity to exchange information. This can include educating them about the development environment, updating them on Town initiatives and development opportunities, and getting feedback about Town actions that could promote more business relocation and property investment.

Next Steps: DCDP should invite active developers and brokers to a roundtable meeting to inform them on the Town’s economic development priorities, as an immediate priority.

Environmental Remediation

The Mass Department of Environmental Protection has identified approximately 25 properties in Watertown as needing or potentially needing some form of environmental remediation. Additional properties may need environmental remediation but have not been formally identified or been subject to an environmental assessment.

The Town could play a significant role in promoting the cleanup of brownfields sites identified as priorities for redevelopment, potentially leveraging partnerships with local interest groups. The correlation between the inventory of contaminated sites and the priority development sites is high, suggesting that contamination is presenting a barrier to reinvestment (Figure 20).

As a next step, meetings with MassDEP will be a means of verifying the inventory and discussing the status of key properties. Once priority cleanup sites are identified, the Town can work in partnership with property owners and/or potential environmental remediation funding for properties contaminated with oil or hazardous materials, tax increment financing to provide incentives for development of individual properties, and district improvement financing to promote the development of public infrastructure.
developers to secure assessment and remediation funding. A number of revenue sources can be tapped. These include the following:

- **U. S. Environmental Protection Agency (EPA)** provides funding of up to $350,000 to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites. EPA also provides cleanup grants to public and nonprofit entities to carry out cleanup activities at brownfield sites. An eligible entity may apply for up to $200,000 per site for up to five sites. Cleanup grants usually require a 20 percent cost share in direct funding or in-kind services.

- **The MassDevelopment Brownfields Redevelopment Fund** offers funding for both site assessment and remediation. The Brownfields Site Assessment Program provides unsecured, interest-free financing up to $100,000 for environmental assessment of brownfields. The Brownfields Remediation Loan Program provides flexible loans up to $500,000 for environmental clean-up of brownfields.

- **The Brownfields Redevelopment Access to Capital Program (BRAC)** is administered by the Business Development Corporation of New England and offers low-cost, often state-subsidized, environmental insurance to help mitigate risk associated with brownfields redevelopment.

- **The Brownfields Tax Credit Program** is administered by the Massachusetts Department of Revenue and offers eligible businesses and non-profits a tax credit for the costs incurred to remediate contaminated property owned or leased for business purposes and located in an Economic Target Area (ETA; the southern half of Watertown has been designated an ETA). Tax credits may be used against state tax liabilities, or transferred or sold to third parties.

Cleanup efforts will be most effective if coordinated with a plan for property redevelopment. Once remediation is completed or underway, the Town should work with property owners and/or developers to promote redevelopment through infrastructure investments, and where appropriate, application of tax increment or district improvement financing.

**Next Steps:** DCDP should seek Federal and State funding for a Town-wide environmental assessment, working with property owners and DEP, as a mid-term action.
Economic Development Incentive Program

Watertown can obtain state and local tax incentives for qualifying development projects under the Massachusetts Office of Business Development’s Economic Development Incentive Program (EDIP). Development projects in designated Economic Target Area’s (ETAs) are eligible to receive local property tax reductions and, in certain cases, state tax credits and/or deductions, if they meet certain economic development criteria. All of the southern part of Watertown has been designated an ETA, including all of the suggested focus areas.

The EDIP program can be used for job creation projects termed “Certified Expansion Projects.” Businesses that are creating new jobs and have substantial sales outside the state are eligible for a state investment tax credit of up to 10 percent, and for local tax increment financing (TIF). TIFs provide a property tax exemption of between five and 100 percent for a period of up to 20 years on the increased value accrued as a result of development (the “increment”). The exemption can be fixed or scaled up or down over time. The rationale behind the TIF is that, while a municipality forgoes some tax revenue, it enjoys a net gain by catalyzing a development project that might not otherwise have occurred.

The project site must be designated an Economic Opportunity Area (EOA), which requires it to meet certain criteria for blight or substandard conditions. If the project involves renovation of a property that has been at least 75 percent vacant for two years, it is also eligible for a 10 percent state abandoned building renovation deduction.

The EDIP can also be used for projects that do not involve job creation. Projects involving abandoned property renovation but not qualifying job creation are still eligible to receive the state abandoned building renovation deduction and the TIF. Projects that do not involve either certified job creation or abandoned property renovation are still eligible for TIFs but no state tax incentives. In all cases, applications have to be made to the state’s Economic Assistance Advisory Council and receive its approval.

The Town should work cooperatively with property owners and developers interested in developing key sites within the Town’s ETA to develop appropriate incentive packages.

Next Step: The Town should seek TIF funding in extraordinary circumstances to facilitate business location or retention when it meets a high standard for achieving civic goals, as an ongoing and long-term policy.

District Improvement Financing Program

District Improvement Financing (DIF) is a comprehensive plan for the development of a defined area with a combination of private and public investment. A DIF enables communities to stimulate development of large tracts of blighted or under-utilized land by financing all or parts of needed public infrastructure improvements in partnership with private developers. Incremental tax revenues generated by the development are dedicated to repayment of municipal bonds issued to finance the infrastructure improvements. Developing a DIF enables the community to influence the scale and quality of development through site planning and public investment. As with TIFs, DIFs are authorized by state statute, and must be approved by the state’s Economic Development Assistance Coordinating Council.

A relatively new tool, DIFs have been approved or proposed for large-scale mixed use development projects in communities including Worcester, Quincy, Springfield, and Somerville. The development of a DIF in Watertown may be appropriate in areas such as the East End and Union Market with large tracts of underdeveloped land and significant infrastructure improvement needs (e.g., new or realigned streets, water/sewer improvements, parking garages, and parks).
In order to establish a DIF, a municipality must define a district and formulate a development plan. The plan must describe how the DIF will encourage increased residential, commercial and/or industrial activity and detail project improvements, financing plans, and community benefits. Preparing a DIF plan involves the following steps:

- Develop site plan(s) with proposed infrastructure investments
- Identify actual or prospective private sector development partners
- Estimate potential development levels and incremental property tax revenues
- Develop plan for financing infrastructure investments through DIF bonds, state infrastructure grants, brownfields grants, and other sources
- Complete local public hearings and approvals and submit to Economic Assistance Coordinating Council for final approval

Based on experience with existing and proposed DIFs, DIFs are typically developed once a private developer has expressed serious interest in pursuing development within the area to be designated as a DIF or has even formulated development plans. However, DIFs can also be developed without private developer participation in anticipation that the development of the DIF will stimulate developer interest and act as a catalyst for private development proposals. However, if a developer has not been identified, it is important to time the DIF for favorable market conditions since a DIF plan is limited to a 30-year period. If private developers are not engaged within a significant time period after DIF approval, the total revenues generated by DIF payments will decline, so reducing the amount of funds available for infrastructure investments. In this case, either the infrastructure projects would be put on hold or would be budgeted from the general revenues of the Town.

**Next Steps:** In appropriate situations where there is active interest for large scale private sector investment, the Town should consider seeking DIF financing, coordinating with the private developer to define a district and develop a site plan.
SUMMARY

This Strategic Framework for Economic Development is an important milestone for the Town of Watertown. It sets forth a vision for a strong economic base for the Town and also marks a commitment to proactive planning and creates a first chapter in a larger comprehensive plan.

The success of any plan is ultimately determined by how it is implemented. Timely action is required to initiate the immediate priorities that have been established during this planning process. The commitment in time and staff resources must be acknowledged, however. To help achieve these goals, leveraging the interests and capacity of non-profit organizations and private sector business leaders will be essential.