

LLB

# BIGELOW SPINNING MILLS FEASIBILITY STUDY, VOL. 1 EXECUTIVE SUMMARY

## **CLIENT**

MassDevelopment  
for the Town of Clinton, MA  
Consultants:

## **FINANCIAL & MARKET ANALYSES**

### **The Aspen Group**

North Reading, MA

### **Barbara Sokoloff Associates, Inc.**

Providence, RI 02903

## **CIVIL ENGINEER**

CDW Consultants, Inc.  
Natick, MA

## **HISTORIC PRESERVATION**

Epsilon Associates, Inc.  
Maynard, MA

## **STRUCTURAL ENGINEERING**

Lim Consultants, Inc.  
Malden, MA.

## **ENVIRONMENTAL**

CDW Consultants, Inc.  
Natick, MA

## **COST ESTIMATING**

VJ Associates\*  
Needham, MA





BIGELOW CARPET CO.  
BUILT 1864.

1844

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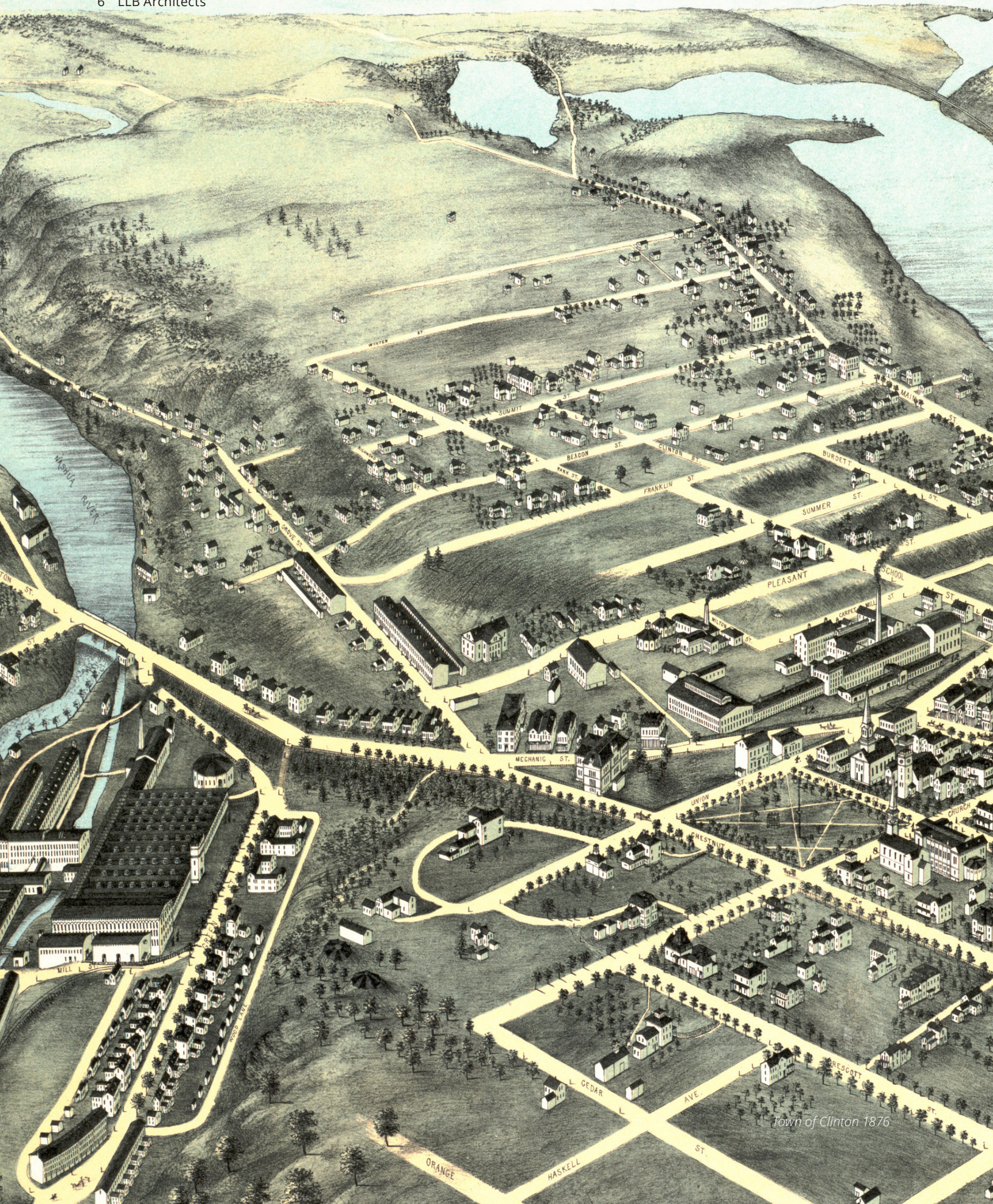
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Town of Clinton 1876



A detailed historical map of the Bigelow Spinning Mills Complex in Clinton, Massachusetts. The map shows a large industrial complex with multiple buildings and a central mill pond labeled 'CROWTHER'S MILL POND'. The surrounding area includes residential streets, a church, and a river. The map is overlaid with a semi-transparent white box containing text.

# INTRODUCTION

In 2017, LLB Architects and its team of historical, structural, cost estimating, and financial consultants was retained by the Massachusetts Development Finance Agency to conduct a feasibility study assessing the existing Bigelow Spinning Mills Complex and examining its potential development for future use.

This report is the culmination and written documentation of the mill complex facilities assessment and visioning process. The assumptions and exclusions are as important as the recommendations and conclusions in the future use of this document and supporting appendix.

This document is a composite of the available data and integrates assumptions about visual observation, concealed conditions, and construction market pricing. Proposed program, designs, considerations, and recommendations have emerged from high level analyses of the Bigelow Spinning Mills complex, its unique challenges and needs as well as our knowledge and experience with similar project types.

LLB Architects wishes to thank the Massachusetts Development Finance Agency and the Town of Clinton, its administrators and staff, for their expertise, time, and the individual contributions of Claire O'Neill, Vice President of Planning and Development, MassDevelopment and Phillip Duffy, Director, Town of Clinton Community and Economic Development to the content of this assessment.





NYLCO

SUBJECT PROPERTIES

TYCA

X2

X1

SOUTH PARCEL

UNION STREET

PLEASANT STREET

MAIN STREET

DUCK HARBOR ROAD

COACHLACE POND



## OVERVIEW

This feasibility study, conducted for MassDevelopment and the Town of Clinton explores the Bigelow Spinning Mills, a project area comprised of a group of adjacent parcels with multiple owners in downtown Clinton, Massachusetts.

The study strategically assesses current context, existing conditions, and the potential for redevelopment toward the goal of identifying a viable, sufficient, and implementable redevelopment strategy that acknowledges the site, market assets, and constraints.

Information regarding the current context of the property has been compiled related to; land use development (zoning) and building code requirements, geographic location, community and market environment, and potential funding strategies to inform the limits and opportunities for development.

Assessment of the existing conditions of Bigelow Spinning Mills Complex includes analysis of its historical context as well as the structural integrity and overall condition of its buildings.

A broad range of scenarios for development of the project area have been schematically designed and estimated. Pro forma analysis of the income and expense projections for each scenario have been made and compared.

This report compiles the findings, resulting conclusions, and recommendations for the potential future development of the Bigelow Spinning Mills Complex.

It is our hope that this study will result in the highest and best use of the property as an asset to the town of Clinton, the community, and for development.

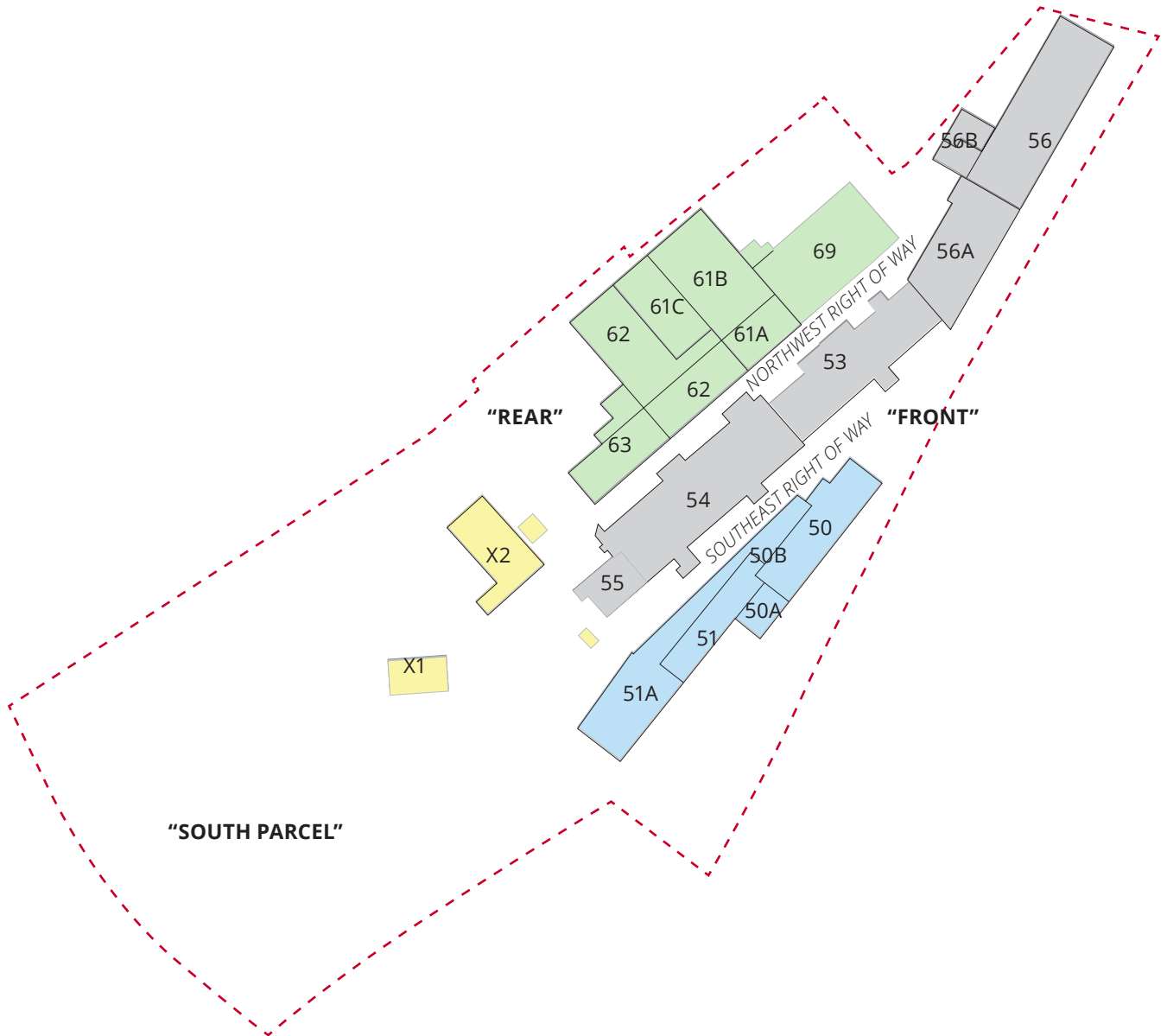
■ **SUBJECT PROPERTIES**

■ **NYLCO**

■ **TYCA**

■ **MISC. TENANTS**

*For the purposes of this study, structures and site features are generally grouped and referenced as illustrated. Subject properties are within the scope of project assessment,*



## PROJECT KEY PLAN



# PROJECT SCOPE

## PROJECT LOCATION AND SITE

The Bigelow Spinning Mills Complex is located at 460-530 R Main Street in downtown Clinton, Massachusetts. The mill complex is highly visible to visitors approaching the Town of Clinton .

The project site is approximately 12.3 Acres. It includes eleven parcels under four separate ownership entities and also includes public rights of way.

The Project Site is considered as a single parcel for the purposes of this study with prioritization of the two properties located at 476-500 Main Street. Open land is assumed to have potential for use and development for vehicular and pedestrian access, parking, and/or new construction.

The open land at the projects site’s south end is referred to as the “south parcel” or “excess land” in this study. This area is adjacent to Duck Harbor Road, across from Coachlace Pond. The terrain in this location slopes steeply.

The project site’s unique context is an important development consideration. Development recommendations have emerged from observation and analyses of the project site amenities in relationship to neighbors, the Town of Clinton, existing infrastructure, surrounding municipalities, and resources.

## SITE STRUCTURES

For the purposes of this study, the project sub areas are broken out and referred to, as follows:

### SUBJECT PROPERTIES

The Subject Properties include those structures that are the primary focus of this study. These attractive, classic, brick mill buildings are linked end to end with Mills 56, 56A and 53, fronting Main Street. The entry tower of Mill 53 is an iconic landmark for the Town of Clinton. The currently under-utilized structures are central to the project site and conveniently located in downtown Clinton.

| Building | Address        | Year of Construction |
|----------|----------------|----------------------|
| • 53     | 476 Main St..  | 1863-66              |
| • 54     | 474 Main St..  | 1864-66              |
| • 55     | 470R Main St.. | 1864-66              |
| • 56A    | 490 Main St..  | Post 1890            |
| • 56/56B | 500 Main St..  | 1864-66              |

## OTHER PROJECT SITE STRUCTURES

The other structures on the Project Site have not been assessed or considered for development as part of this study.

Other Project Site Structures include TYCA, Nylco, and Misc. Structures.

These structures are considered part of the context for the Subject Properties. The potential for the development of the Subject Properties has been evaluated in terms of adjacencies to these structures and the common amenities that they would share. In a few cases, the land occupied by Other Project Site Structures has been determined to be a more valuable asset to development than the structures themselves. Sites of miscellaneous existing buildings that are not determined to be assets to development are treated as open land.

### TYCA Properties

TYCA is a successful manufacturing company that has been in business since 1978 and at this location since 2002. The TYCA properties include multiple interconnected structures that are fully and efficiently utilized:

| Building | Address       | Year of Construction |
|----------|---------------|----------------------|
| • 50     | 470 Main St.. | 1819                 |
| • 50A    |               |                      |
| • 50B    |               |                      |
| • 51     | 470 Main St.. | 1819                 |
| • 51A    |               |                      |

### Nylco Properties

Nylco is a division of Worthen Industries, a worldwide manufacturing and research company with headquarters in Nashua, NH. Nylco has been operating at this location since 1945. The Nylco property includes multiple interconnected structures. The structures are currently in use for manufacturing and storage purposes.

| Building | Address       | Year of Construction |
|----------|---------------|----------------------|
| • 61A    | 530R Main St. | 1890                 |
| • 61B    | 530R Main St. | 1890                 |
| • 61C    | 530R Main St. | 1890                 |
| • 62/62  | 530R Main St. |                      |
| • 63     | 530R Main St. |                      |
| • 69     | 530 Main St.  | 1890                 |

### Miscellaneous Structures

X1 & X2 were identified for “removal” in the scope for this study. Both structures are small in scale and neither is fabricated with long lasting materials or techniques, due to their central site location would be difficult for redevelopment to work around.





# DEVELOPMENT OPTIONS METHODOLOGY

## INTRODUCTION

In evaluating the redevelopment potential for Bigelow Mills, several factors were considered including the site conditions (e.g. changes in grades / elevations, wetlands, anticipated soil conditions, utilities, existing water connections from nearby Coachlace Pond, etc.); buildings' physical characteristics (e.g. existing conditions, floor plate dimensions, floor-to-ceiling heights, spacing of windows and interior columns, etc.); location; parking availability; traffic impacts; adjacencies and abutter concerns; market conditions; and financing potential (including both traditional debt / equity sources as well as non-traditional / creative financing sources of funds such as State and Federal Rehabilitation Tax Credits, New Market Tax Credits, Low Income Tax Credits, and Federal Economic Development (EDA) Grants.

Concurrently, we evaluated numerous development options in an attempt to identify density and product mix combinations that might result in a financially viable project compatible with the subject location and realities of the Clinton commercial leasing and multi-family apartment submarkets.

This report includes summary comments on the redevelopment potential of the Bigelow Mills property including detailed evaluations for fourteen (14) development options included within this submission.

## DEVELOPMENT CHALLENGES

The redevelopment of the Bigelow Mills involves several development challenges inherent in most significant mill renovations, including immediate abutter adjacencies, (which arguably could have an affect on marketability); availability of sufficient and conveniently located parking; limited vehicle circulation areas; deficient existing storm water drainage; grade changes; suspect environmental concerns, and building envelope concerns.

**A more detailed description of these development challenges is included in Appendix 2.**

## COST ASSUMPTIONS

### DEMOLITION COSTS

We have assumed \$1M in demolition costs associated with the reuse of the existing structures and \$2.25M in demolition costs for scenarios that include the partial structural demolition of portions of the Nylco Facility to provide for additional conveniently located surface parking and to "open up" the site and related view corridors. Given the risk of unforeseen conditions associated with the subject site and building, this is a soft estimate at this time.

### ENVIRONMENTAL REMEDIATION

We have assumed \$2M to address testing, remediation, and monitoring of any hazardous materials and environmental issues at the subject property under most Development Options; and increased to \$2.25M for scenarios that include the partial structural demolition of portions of the Nylco Facility. This is an estimate only and not based on any environmental assessment. To the extent the Town can confirm in advance the environmental status of the property and/or address any required remediation, this would mitigate risks to prospective developers and enhance the property's marketability and value.

### SITE IMPROVEMENTS

Site improvements are estimated at \$25 psf of building area and range from \$3.4M to \$5.4M, depending on the Development Option to address standard site work such as earthwork / grading, utilities, storm water retention, new asphalt paving, landscaping, site amenities, etc. It is noted that there appear to be issues with the existing storm water drainage system as well as concerns with existing piping / valving of the water mains extending onto the site from the nearby Coachlace Pond may result in site improvement costs in excess of the listed estimates.

### RENOVATION COSTS

We have assumed the following top side cost estimates with respect to renovations to the existing structures (in addition to demolition, environmental remediation and site improvement costs noted above):

- Base Building Improvements to achieve a marketable base building shell - \$135 psf
- Residential Apartment Fit Out (above base building shell) - \$75 psf
- Commercial Fit Out Allowance (above base building shell) - \$50 psf
- Retail Fit Out Allowance (above base building shell) - \$50 psf
- Light Industrial / Incubator Fit Out Allowance (above base building shell) - \$25 psf
- Common Area & Circulation Fit Out (above base building shell) - \$35 psf
- Storage Space Fit Out (above base building shell) - \$15 psf
- Contingency - we have included a 10% contingency on construction hard costs.

### NEW CONSTRUCTION COSTS

We have assumed the following top side cost estimates with respect to the new ground-up construction (in addition to demolition, environmental remediation and site improvement costs noted above):

- Base Building Improvements to achieve a marketable base building shell - \$125 psf
- Residential Apartment Fit Out (above base building shell) - \$75 psf
- Commercial / Retail Fit Out Allowance (above base building shell) - \$50 psf
- Structured Parking - \$70 psf
- Contingency - we have included a 10% contingency on construction hard costst.

**All demolition, environmental remediation, site improvement, renovation, and new construction cost estimates are based on non-union, non-prevailing wage rates and our experience on other mill renovations; and vary from more conservative estimates provided by a third party cost estimator which can be found in Appendix 2.**

### SOFT COSTS

We have assumed softs costs at 15% of Construction Hard Costs as an estimate for costs such as legal, survey, soil testing, design & engineering, inspection fees, builder's risk insurance, financing origination expenses, construction period interest, marketing / lease up costs, etc.



## MARKET CONDITIONS

Bigelow Mills is situated a few blocks west of the the Town of Clinton's downtown district. Clinton with a population of 13,635 is located along the limits of two submarkets. These submarkets include the northeastern limit of the Central Massachusetts Submarket and the Northwestern limit of the I-495 West Submarket.

Located 35 miles west of Boston, Clinton's downtown district is centrally located between three (3) major highways; with I-495 to the east (5 – 6 miles), I-290 to the south (6 miles +/-), and I-190 to the west (6 miles +/-). In addition, the Massachusetts Turnpike I-90 is only an additional 10 – 15 miles from said connecting Interstates. However, travel to Clinton center from said major highways is mostly via two lane secondary roadways and inherently feels longer than 5 – 6 miles which can negatively influence demand for certain uses such as commercial space while being a positive factor as a so-called "bedroom community" for uses such as residential and supporting uses.

Based on our evaluations of the market conditions; we have used the following estimated rental rates for purposes of the financial projections included within this submission:

- Apartment Rental Rate (average renovation units) - \$1.70 psf
- Apartment Rental Rate (average new construction) - \$1.80 psf
- Commercial Space (renovation) - \$12.00 psf NNN
- Retail Space (renovation) - \$14.00 psf NNN
- Incubator Space (renovation) - \$8.00 psf NNN
- Commercial / Retail Space (new construction) - \$16.00 psf

**A more detailed description of market conditions can be found in Market Report Chapter of this Study.**

## POTENTIAL FUNDING STRATEGIES

### FINANCING PROJECTIONS:

We have provided 14 sets of financial projections (so-labeled Development Options for purposes of this report) for 7 different density alternatives under varying financing approaches.

Note that certain financing approaches only apply to specific density alternatives such as LIHTC requires a housing element whereas an EDA Grant applies to incubator / commercial uses.

For each Development Option, we estimated revenues less expenses to achieve net operating income, as well as projected construction hard costs and associated softs costs to arrive at total development costs. We then measured estimated market value (FMV) based on a capitalization of net operating costs and compared same to total development costs.

In all cases, total development costs exceeded FMV by varying, but significant, amounts. We then evaluated non-traditional funding sources to bridge these gaps with a focus on identifying Development Options in which the sum of the estimated FMV plus funding sources equal or exceeded total development costs. In the scenarios where this proved possible, we deemed the Development Option as financially visible and worthy of consideration by a potential developer for redevelopment.



## **NON-DEBT / NON-TRADITIONAL FUNDING SOURCES**

In conjunction with our financial projections described above, we evaluated the potential of securing certain non-debt funding sources such as State and Federal Historic Rehabilitation Tax Credits, New Market Tax Credits, Low Income Housing Tax Credits, and Federal Economic Development (EDA) Grants associated with Incubator uses. In evaluating the financial viability of the various development options, our financial models account for any funding associated with these sources as a deduction to Total Project Costs. Note that securing these sources of non-traditional financing is a highly competitive process with many projects vying for a limited pool of funds.

Under all Development Options presented, the projected costs to rehabilitate the Bigelow Mills buildings are greater than the amount of traditional financing (debt and market-rate equity) that can be supported. Therefore, there is a “financing gap” that needs to be filled using creative / non-traditional financing vehicles. (Such creative financing is often limited and use-specific, so Bigelow Mills may need to be redeveloped incrementally in phases instead of all at once.)

Given the need for creative financing to cover development cost gaps, uses that can attract significant federal funding would be a good match for Bigelow Mills. The following provides a summary of creative financing for consideration:

### **A. FEDERAL ECONOMIC DEVELOPMENT ADMINISTRATION (EDA) GRANTS**

EDA offers Economic Development Assistance grants of up to \$3 million to support economic development projects in distressed areas that will foster job creation. A review of recent EDA awards shows that several “Business and Technology Incubators” have been developed using EDA grants.

Eligible applicants include Economic Development Districts, municipalities, institutions of higher education, and non-profit organizations. For-profit organizations are not eligible to apply.

Barbara Sokoloff Associates (BSA) reached out to Glenn Eaton, Executive Director of the Montachusett Regional Planning Commission. Glenn was very receptive to the idea of an EDA grant for a Business and Technology Incubator, and encouraged us to pursue this further. Glenn suggested we contact New Vue Communities, a non-profit community development corporation and small business counselor, as a potential applicant for the EDA grant.

BSA subsequently spoke with Marc Dohan, Executive Director of New Vue. Marc was interested exploring development opportunities at Bigelow Mills, including an EDA Business and Technology Incubator. Marc was going to visit the Bigelow Mill site at a later date.

Phil Duffy, Clinton’s Director of Community and Economic Development, described the local ecosystem for incubator-type projects, and the need to be able to sustain a Business and Technology Incubator over the long term. Local examples of incubator space include

- Orange Innovation Center, Orange, MA
- CI Works, Amesbury, MA
- Worcester Clean Tech Incubator, Worcester, MA
- Worcester Idea Lab, Worcester, MA

Nearly adjacent to the study area, there is an old fire station near Bigelow Mills that is being converted into Science Technology Engineering and Math (STEM) and maker space. There are synergies between this project and the adult learning center in town, and may be additional synergies with a potential Business and Technology Incubator.

A feasibility study would be needed to further develop the Business and Technology Incubator concept and assess the feasibility of securing an EDA grant and other necessary financing.



**B. LOW INCOME HOUSING TAX CREDITS (LIHTC) -**

Federal LIHTCs can be used to fill a financing gap on residential rental developments. A developer sells LIHTCs to an investor in exchange for equity that is used to finance construction costs. In Massachusetts, the LIHTC program is administered by the Department of Housing and Community Development (DHCD). Developers apply for LIHTCs in a competitive funding round, with funding awards made annually. The state also provides subordinate financing that can be paired with Federal LIHTCs.

LIHTCs can also be incorporated into a mixed-income housing development. A typical ratio is 80% market rate housing and 20% LIHTC housing. New Vue Communities expressed interest in potentially developing LIHTC housing at Bigelow Mills. New Vue is an experienced LIHTC developer. A non-profit developer like New Vue could take advantage of the state Community Investment Tax Credit (CITC).

The DHCD allocates tax credits to community partners and CDCs that have adopted Community Investment Plans or Community Building proposals. Receipt of a CITC allocation award enables Community Partners to solicit and receive qualified investments from donor taxpayers and to provide those donor taxpayers with tax credits in exchange for qualified investments made to the Community Partner.

The CITC is designed to enable local residents and stake-holders to work with and through community development corporations (CDCs) to partner with nonprofit, public, and private entities to improve economic opportunities for low and moderate income households and other residents in urban, rural, and suburban communities across the Commonwealth. CDCs accomplish this through adoption of community investment plans to undertake community development programs, policies, and activities. Under the program, CDCs and Community Support Organizations (CSOs) are eligible to apply to DHCD for selection as a Community Partner and receive an allocation of tax credits.

First time allocation awards are based on DHCD's determination of the quality of the adopted Community Investment Plan (CIP), in the case of CDCs, or community building proposal, in the case of CSOs. Subsequent year allocation awards are based on DHCD's determination that the Community Partner is making adequate progress on its credit utilization and adequate progress implementing its CIP or Work Plan. Receipt of a CITC allocation award enables Community Partners to solicit

and receive qualified investments from donor taxpayers and to provide those donor taxpayers with tax credits in exchange for qualified investments made to the Community Partner.

It is noted that the Town's preference appears to be to redevelop Bigelow Mills for commercial use versus multi-family housing. Clinton currently has 7.6% affordable housing, which means a developer could propose a Chapter 40B project in Clinton, which allows expedited permitting and a density increase for residential development that includes affordable housing. No 40B developments have been proposed to date in Clinton.

A project using LIHTCs may act as a potential catalyst to start redevelopment of the property. If the redevelopment cost is too high compared to the anticipated return for market rate housing, LIHTC could potentially set the stage for future market rate residential development.

**C. NEW MARKETS TAX CREDITS (NMTC) -**

NMTC are a federal tax credit that can provide equity for economic development projects in distressed neighborhoods. Unfortunately Bigelow Mills is not located in a NMTC-eligible census tract. To use NMTC in a non-eligible census tract requires a Targeted Populations NMTC project, which means the developer commits that an agreed upon percentage (for example, 60%) of the customers or employees of the project will be low income people.

Targeted Populations NMTC projects are more challenging than typical NMTC projects, because the owner must collect income data on the project users annually throughout the seven year NMTC compliance period, and if the low income percentage is not met, the tax credits will be recaptured. Projects with a guaranteed low income population work best for a Targeted Populations NMTC project. Examples include a PACE program (elderly services for people on Medicaid) or a Head Start program (pre-kindergarten education for low income children). A workforce development program could potentially work as a Targeted Populations NMTC project if it could be restricted to low income people.

It is noted that Summit ElderCare operates PACE programs in Worcester and Leominster, and Montachusett Opportunity Council (MOC) operates a Head Start program in Clinton. There is also an



Adult Learning Center operated by Clinton Public Schools. Any of these could potentially utilize NMTC as a Targeted Populations project if they relocated to Bigelow Mills.

Another consideration is a community health center or walk-in clinic as a potential user of space at Bigelow Mills. UMASS Memorial – HealthAlliance operates a hospital in Clinton; a community health center / walk-in clinic could compliment the hospital. The nearest community health center is Great Brook Valley Health Center in Worcester and Phil Duffy noted that many families from Clinton go to Great Brook Valley Health Center because of the multi-language services and counseling available there.

BSA noted that it recently met with a community health center in Providence about a potential site for expansion in Providence, Rhode Island. The health center indicated the parking availability was a major consideration, and there is a concern that Bigelow Mills site does not offer ample parking conveniently located near the buildings. The health center BSA spoke with also indicated their hesitancy to expand in the near term due to uncertainty about future federal healthcare funding, particularly potential repeal of the Affordable Care Act.

A charter school was also suggested as a potential use that could attract NMTC. Phil Duffy noted there are three charter schools within a 20 minute drive of Clinton, and thought a charter school would be a tough sell in Clinton. There are a number of environmental remediation concerns that would need to be addressed for a school to locate at Bigelow Mills.

NMTCs are a highly competitive funding source. Projects compete with others across the country for this limited resource. NMTCs work best in a project with a total development cost between \$5 million and \$10 million. Smaller projects are not feasible due to the complexity of the financing and the large, fixed legal and accounting fees. Larger projects require assembling multiple NMTC investments, which is challenging. NMTC can provide 20%-25% of the total funding needed for a project. A feasibility study would be needed to assess the viability of a potential NMTC project at Bigelow Mills.

#### **D. LOCAL FOUNDATIONS -**

- BSA suggested exploring local foundations that could support innovative, non-profit development projects, including the following:
- Worcester Business Development
- CorporationNYPRO Foundation
- Seven Hills Foundation

## **ROUNDING**

Given the number of existing buildings and nuances involved in the measuring of said spaces, together with several consultants working collectively on this assignment; there may be minor rounding differences in SF amounts between various documents included within this submission. Note that any rounding differences are immaterial to the findings and recommendation herein.

## **PARKING**

Sufficient on-site parking is a key element to the viability of any project and especially an urban mill re-development where land area is often limited.

We have evaluated the available parking for each Development Option and note that there is, generally, sufficient site area to achieve the quantity of surface parking required to meet market needs. It is expected that relief would be sought from Town of Clinton Zoning parking requirements to achieve a mutually agreeable balance of spaces for development and the Town.

Parking challenges include the distance of most spaces to the Subject Properties, access routes, and grade.

**Further information about parking can be found in the Design Considerations Chapter of this Study, Appendix 2 with data and illustrations of each proposed scenario, and in the Civil Report found in Appendix 1.**

## **ACQUISITION / SALES PRICE**

We have assumed an acquisition / sale price of \$1 under all development options.





# TESTED DEVELOPMENT SCENARIOS

## **DEVELOPMENT OPTION 1**

Renovation of the existing buildings to a single use of 116 residential apartments with 203 surface parking spaces plus an assumed 113 surface parking spaces for the immediate abutters. This scenario is not feasible at the assumed average market rental rate of \$1.70 psf, with an estimated financing shortfall of \$10M +/-, even with an assumed \$12.6M in State and Federal Historic Tax Credits.

## **DEVELOPMENT OPTION 1A**

A variation of Option 1 and financially feasible based on financing approach including LIHTCs, State Soft Debt Financing, and State and Federal Historic Tax Credits. Note that LIHTC and soft debt financing is very competitive.

## **DEVELOPMENT OPTION 2**

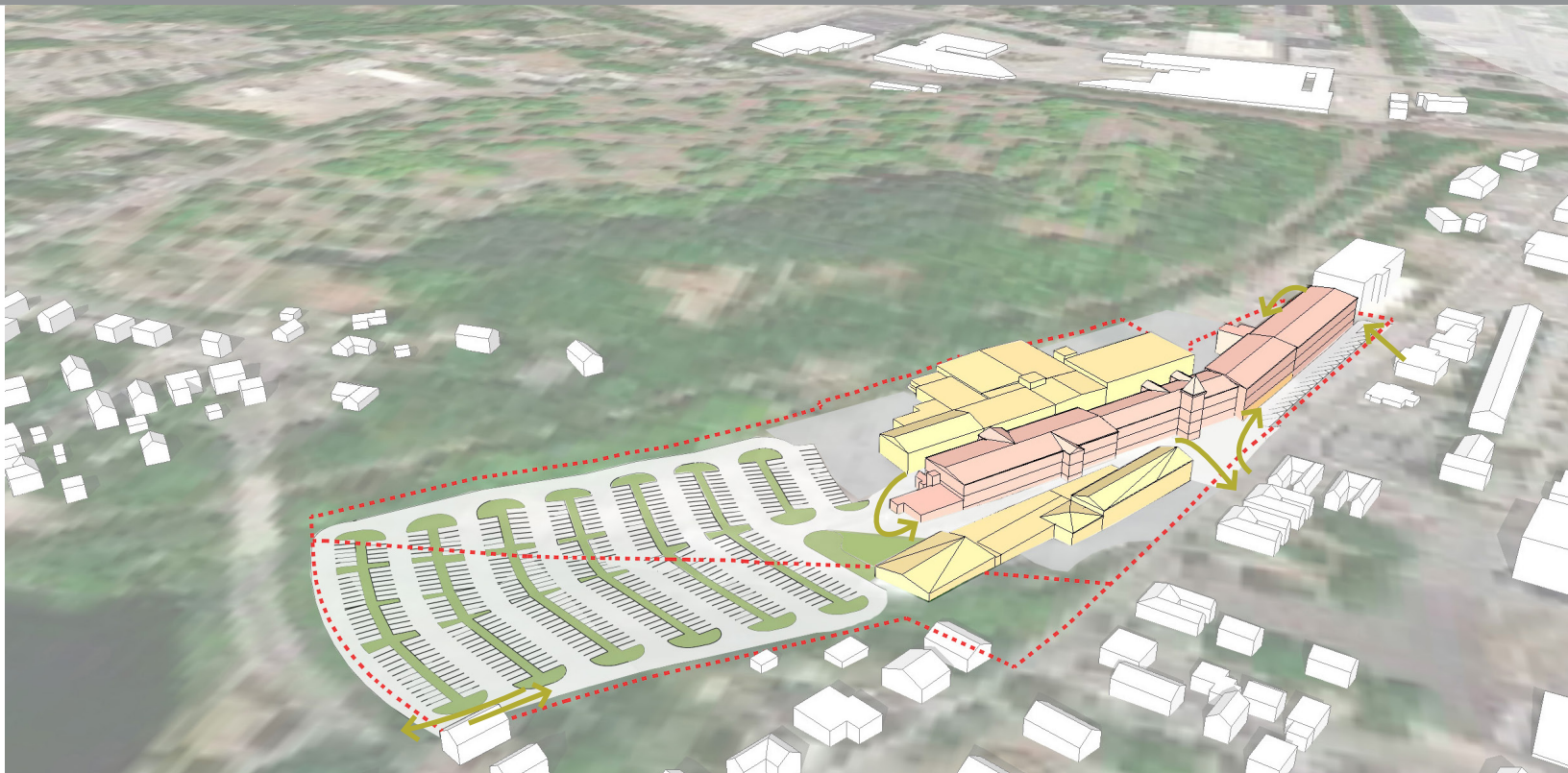
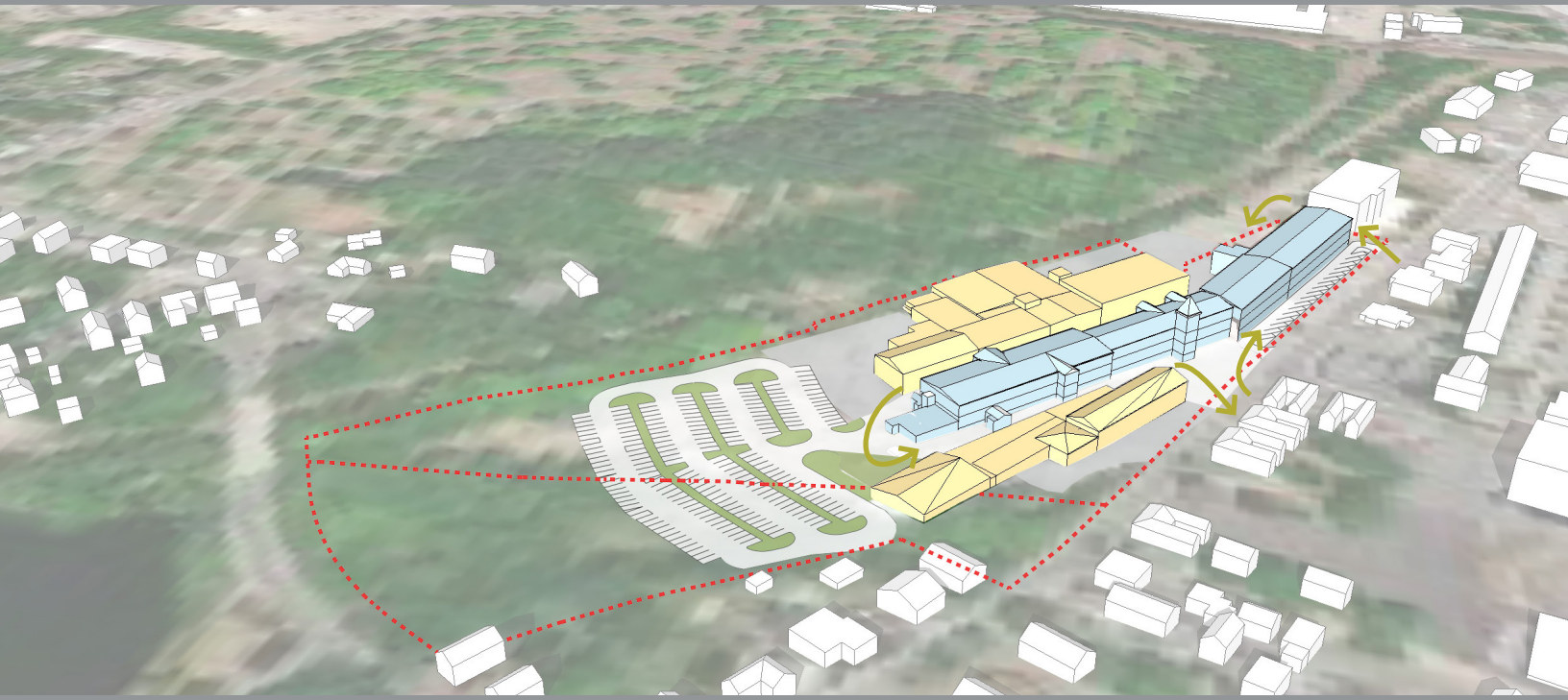
Renovation of the existing buildings to a single use of 135,505 sf of commercial space above 1st floor retail with 418 surface parking spaces plus an assumed 113 surface parking spaces for the immediate abutters. This scenario is not feasible at the assumed average market lease rates of \$12 psf NNN for commercial space and \$14 psf NNN for retail users, with an estimated financing shortfall of \$10M +/-, even with an assumed \$11.0 M in State and Federal Historic Tax Credits.

## **DEVELOPMENT OPTION 2A**

A variation of Option 2 and shows that rents of \$20 psf NNN would be required for a financially feasible project (however, still requires the indicated historic tax credits).

## **DEVELOPMENT OPTION 2B**

A variation of Option 2A however includes a portion of the commercial space (20,000 sf) replaced by a Business and Technology "Incubator" which would pay below-market rent but could attract New Markets Tax Credits (NMTCs) and a Federal Economic Development Administration (EDA) grant. Both NMTC and EDA financing are very competitive. The remainder of the commercial space would still need to be at above-market rents (\$20 psf NNN) to be financially feasible.





### **DEVELOPMENT OPTION 3**

Renovation of the existing buildings to a mix of uses including 84 apartment units and 38,852 sf of commercial / retail space. This options requires 273 surface parking spaces plus an assumed 113 surface parking spaces for the immediate abutters. Based on market apartment rents and market commercial / retail lease rates noted above, this scenario is not feasible, with an estimated financing shortfall of \$8.6M +/-, even with an assumed \$12.2M in State and Federal Historic Tax Credits.

### **DEVELOPMENT OPTION 3A**

A variation of Option 3 that assumes LIHTC for the 84 apartment units as well as State Soft Debt Financing, and State and Federal Historic Tax Credits. The commercial / retail space is at market rents. This approach is appears to be financially feasible.

### **DEVELOPMENT OPTION 3B**

A variation of Option 3A that includes 21,299 sf of Incubator space which could attract NMTCs and EDA Grant results in a financially feasible option.

### **DEVELOPMENT OPTION 4**

Assumes an expanded development that includes the redevelopment of the existing buildings into 116 apartment units, similar to Option 1, plus new ground up construction of a 60 unit residential building at the eastern edge of the site on the so-called "excess land area". This options requires 308 surface parking spaces plus an assumed 113 surface parking spaces for the immediate abutters. Similar to Option 1, this approach is not viable at market rental rents, with an estimated financing shortfall of \$12.4M +/-, even with an assumed \$12.6M in State and Federal Historic Tax Credits.

### **DEVELOPMENT OPTION 4A**

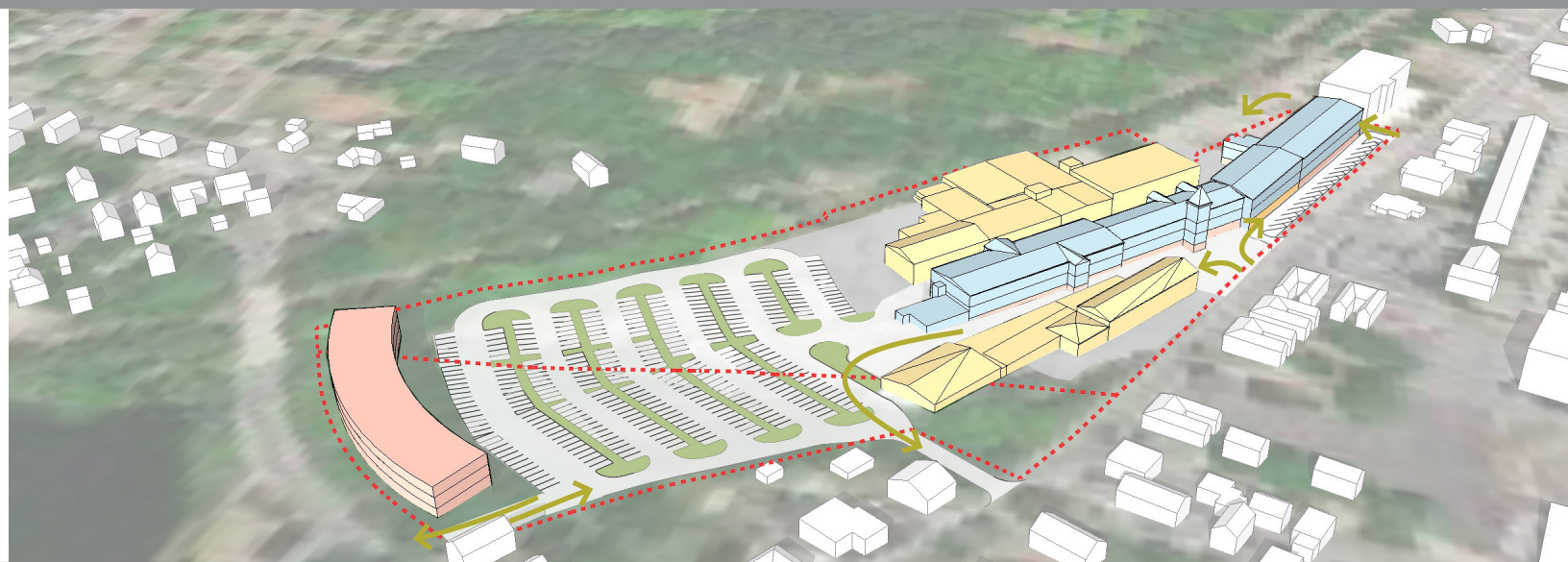
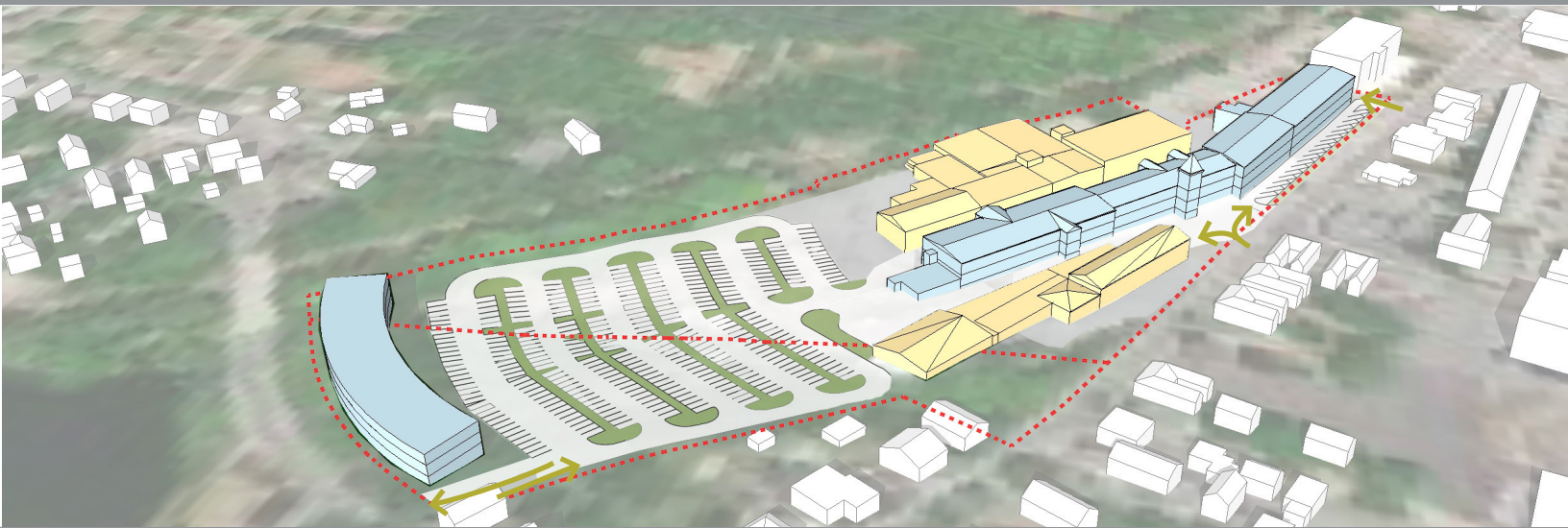
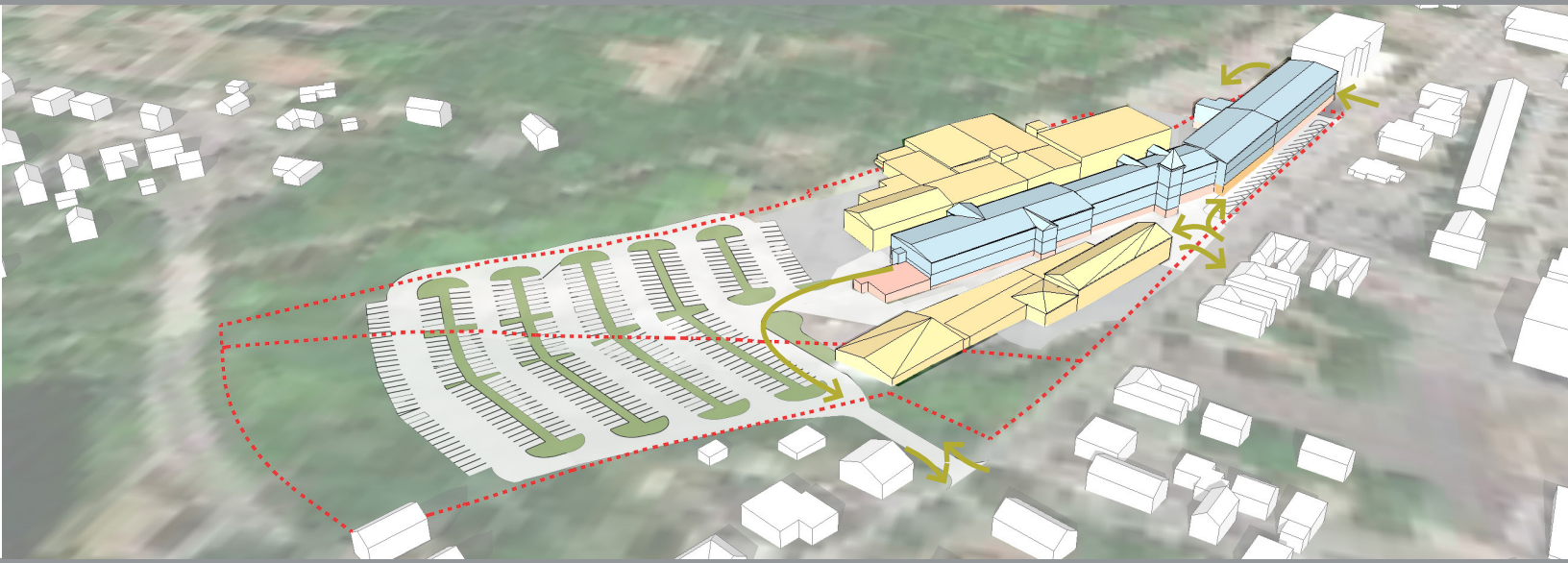
A variation of Option 4 that appears to be financially viable that calls for a LIHTC for the redevelopment units (as well as soft debt financing and historic tax credits) and market rental rates for the new construction units

### **DEVELOPMENT OPTION 5**

Similar to Option 4, this option assumes an expanded development including the redevelopment of the existing buildings into 84 apartment units and 42,789 sf of commercial / retail space plus the new construction of a 60,000 sf commercial building on the so-called "excess land area". This options requires 513 surface parking spaces plus an assumed 113 surface parking spaces for the immediate abutters. The parking quantity does not appear to be feasible with surface parking. Based on market rates, this approach is not feasible, with an estimated financing shortfall of \$10M, even with an assumed \$12.2M in State and Federal Historic Tax Credit.

### **DEVELOPMENT OPTION 5A**

A variation of Option 5 that results in a financially viable project and based on a mixed financing approach with a LIHTC for the redevelopment units (as well as soft debt financing and historic tax credits) and market rental rates for both the renovated and new commercial space.



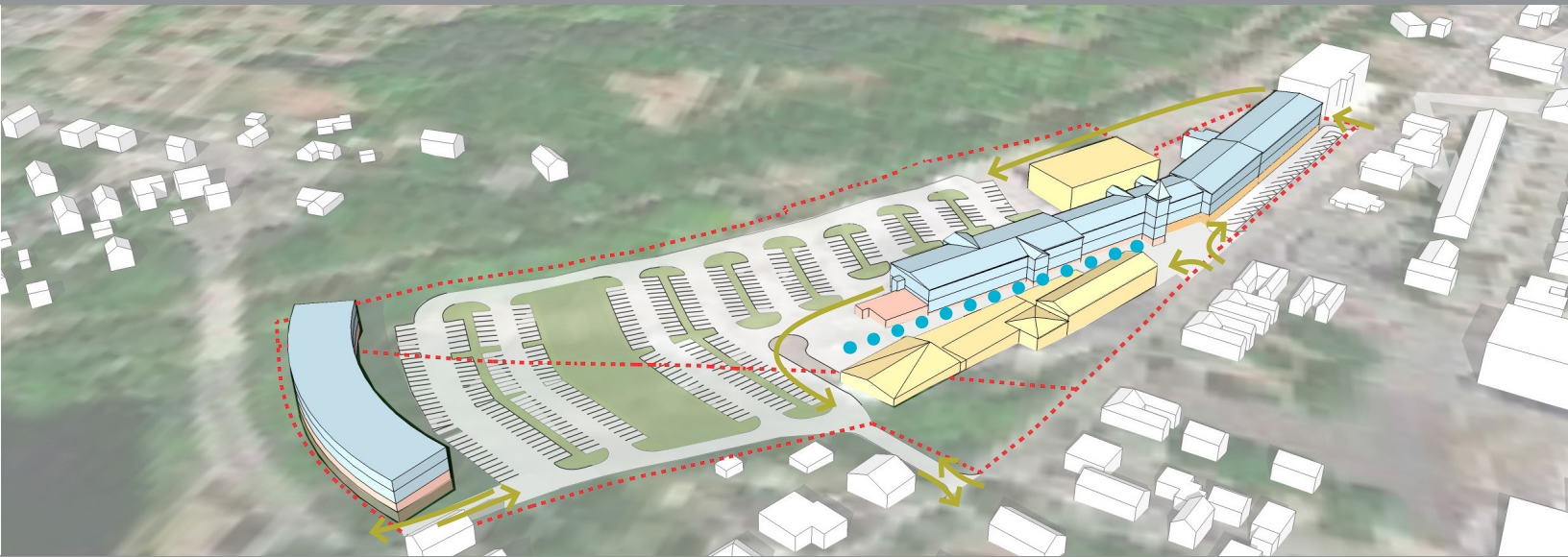
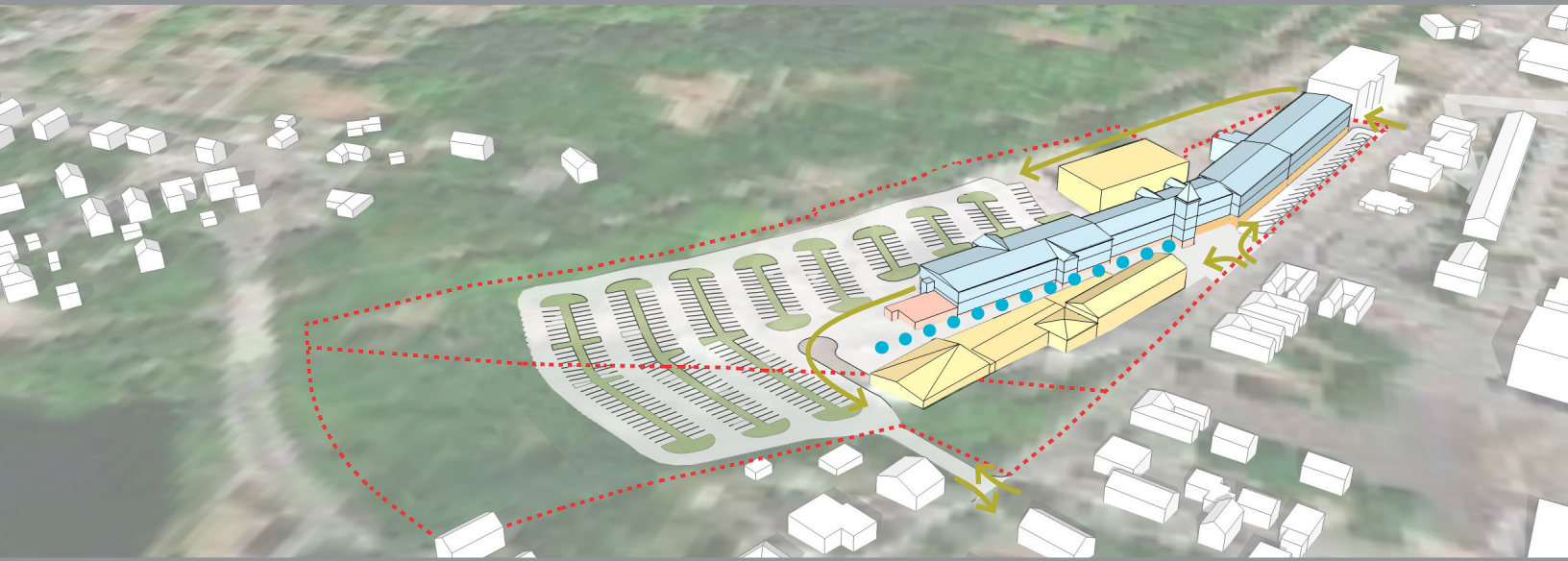


### **DEVELOPMENT OPTION 10**

A variation of Option 3 with 84 apartment units and 42,789 sf of commercial / retail space that provides for the partial demolition of an abutter's building directly to the north which "opens up" the site to allow improved visibility and view corridors and provide increased parking that is more centralized and conveniently located. Although additional demolition and environmental remediation costs are assumed, this option arguable provides a more market acceptable environment for both residents and commercial / retail tenants. This option is not viable at Market Rates and with Historic Rehabilitation Tax Credits, with an estimated financing shortfall of \$9.5M +/-," however, approaches that include a LIHTC and Incubator space make this option more financially feasible similar to Options 3A and 3B.

### **DEVELOPMENT OPTION 10A**

A variation of Option 5 with 84 renovated apartment units; 42,789 sf of renovated commercial / retail space; a new 80,000 sf mixed use building includes 60 apartments, 20,000 sf of commercial / retail space, and 20,000 sf of structured parking; and the partial demolition of an abutter's building directly to the north which "opens up" the site to allow improved visibility and view corridors and provide increased parking that is more centralized and conveniently located. This options requires 423 surface and structured parking spaces plus an assumed 66 surface parking spaces for the remaining immediate abutters. This option would also require LIHTC and historic tax credits to approach financial viability, with an estimated financing shortfall of \$13.3M +/-.





# DEVELOPMENT OPTIONS CONCLUSIONS

In conclusion, after considering all factors, the most financially viable options for redevelopment of Bigelow Mills appear to include residential uses (in whole or in part) that take advantage of LIHTCs to infuse much needed equity capital to bridge the gap between estimated redevelopment costs and traditional debt / equity funding sources. Uses that also combine commercial and/or incubator uses that support NMTCs and EDA Grants can provide supplemental funding sources while resulting in more “jobs oriented uses” that may be more attractive overall to the Town albeit not necessarily the most financially viable development option. These options include:

- Option 5A - combination renovation and new construction mixed used project with 84 apartments units (renovation) financed with LIHTC; 43,000 sf of market rate commercial space (renovation); and 60,000 sf of new market rate commercial space.
- Option 3B – a variation of Option 3A (below) with a portion of the commercial / retail space converted to 21,000 sf incubator space.
- Option 3A – mixed use renovation including 84 apartment units financed with LIHTC and 39,000 sf of commercial / retail space likely on the lower floors.
- Option 4A – combination renovation and new construction single use residential project with 116 apartments units (renovation) financed with LIHTC and 60 new market rate units
- Option 1A – single use residential renovation project with 116 apartment units financed with LIHTC.

In spite of our austere projections, there may be a developer experienced in these type of redevelopment projects with a different perspective and funding parameters that could potentially present a scenario that is more favorable to the Town.

## NEXT STEPS:

There are several measures that can be taken in the short term by the town of Clinton, community, and property owners that would facilitate the redevelopment of the project site, making the process more expedient and attractive to potential investors. These include further development planning, pre-permitting, applying for potential sources of funding, and, possibly, land banking.

### SEEK INPUT FROM PROPERTY OWNERS

The first step recommended is to review and discuss the report findings with each property owner to discover their concerns and gauge their interest in supporting redevelopment. Each will have unique wants and needs regarding the future of their property. This information is vital to discover. It should be determined if each party is interested in selling their property or investing in its development.

If any of the owners would prefer to sell the property, the price they would require should be determined. Up front discussion should address the concern that this report uses a value of \$1.00 as a placeholder for the sale price of each building. Owners who are interested in development should take note that all options explored are challenging and are not expected to see short term profits. It is recognized that some owners may be in more challenging positions than others and different strategies may be in their best interests.

Potential site development options are particularly dependent on the futures of both Nylco and Tyca. Clarification of the long term plans of each company would be particularly beneficial to the advancement of planning.

The town of Clinton should determine if it is in their best interests to control the Nylco property in the event that becomes an option.

The property owned by Tyca includes building structures, a significant portion of undeveloped land, and rights to water entering the property from Coachlace Pond. It should be determined if the owner's would be willing to sell land for parking or other uses that would support development.

It will also be very important to verify if the water rights are actually owned by Tyca. The potential assets and liabilities associated with these water rights should be further investigated by the Town and ownership. The long term value of the water rights should be considered. The resource has the potential to be very attractive to certain manufacturing industries or the community. It also presents a potential flood hazard to the property and Town. The roles and responsibilities of maintaining this water system and liability in the event of potential failures need to be understood by all parties.

#### **DETERMINE SCENARIOS TO PURSUE**

The next step will be to determine which development scenarios to pursue. This will be informed by the feedback and involvement of owners and abutters, the Town's interests, and the report findings.

#### **ISSUE A REQUEST FOR PROPOSAL**

Once the scope of the project goals and constraints are clarified, the town of Clinton and participating owners would invite developers to respond to a Request for Proposals. It is recommended that this RFP include a menu of options based on portions of property to be developed and desired uses. The RFP will serve as marketing for mill complex.

#### **CONDUCT FURTHER DUE DILIGENCE**

The response of developers to the RFP will provide feedback to the town of Clinton in the form of requests for further information. The town of Clinton should consider investing in further due diligence to answer specific developer questions. It is expected that this will include the need for environmental testing and greater detail about other report findings. The RFP would then be re-issued with requested information.

#### **OTHER CONSIDERATIONS**

The need and scope of further development planning will be determined based on feedback received from owners, key abutters, and developer RFP responses.

#### **PRE-PERMIT**

It is recommended that the town of Clinton consider creating an overlay district to allow for a broad range of permitted uses at this site and that this district also address any obvious density and dimensional conflicts that the redevelopment would bring rise to. The creation of an overlay district could eliminate the cost and time associated with securing necessary zoning relief and variances (which can cause financing issues for developers.) Said overlay zoning could be subject to a special permit to afford the town with reasonable zoning control while providing potential developers / users with a clear pathway to zoning and permitting.

#### **PREPARE TO RECEIVE FUNDING:**

Depending on which funding sources are being considered, representatives from the Town and the developer should meet with those funders to describe the proposed development project and receive feedback.

- If traditional bank financing is being sought, the Town and developer should meet with commercial real estate lenders from local banks to discuss underwriting terms and requirements.
- If Low Income Housing Tax Credits (LIHTC) are being sought, the Town and developer should meet with the state Department of Housing and Community Development (DHCD) to discuss the LIHTC application process and time frame and the availability of state subordinate debt.
- If New Markets Tax Credits (NMTC) are being sought, the Town and developer should meet with Community Development Entities (CDEs). CDEs apply for NMTC allocation from the federal government and invest in projects. Examples of (CDEs) who invest in Massachusetts include MassDevelopment, Massachusetts Housing Investment Corporation, and Boston Community Capital.



- If federal Economic Development Administration (EDA) grants are being sought, the Town and Developer should meet with regional EDA representatives to discuss the project and its competitiveness for EDA grant funding.
- The Town and developer and its historic consultant should meet with the Massachusetts Historical Commission to discuss how their development plans fit with the requirements of the federal and state historic tax credit programs.

Regardless of which financing sources are being sought, all funders will want to see market data indicating a demand for the proposed use, including letters of interest or commitments from commercial tenants.

## **ENVIRONMENTAL**

- Environmental unknowns are a major concern for developers. The time and costs required to comply with state, and possibly federal, requirements for assessment, testing, and documentation have the potential to be substantial. This is even before any remediation work that may be required prior to redevelopment. It is recommended that each owner thoroughly investigate and properly remove all obvious environmental concerns (e.g. existing drums, excess or obsolete stored lubricants, etc.) from their property. They should also consider performing Phase 1 Site Assessments which may identify any major areas of concerns. There may be grants available to help fund these preliminary efforts.

## **PUBLIC ENTITY INVOLVEMENT**

Identify any involvement from public entities that could be leveraged to help stimulate redevelopment interest such as:

- State /Federal grants to or programs to help fund environmental assessments, testing, and remediation as noted above
- Local / State grants or programs to help fund roadway / infrastructure costs
- Local Tax Treaty or Tax Incremental Financing that could reduce taxes on real estate and/or personal property / equipment during the redevelopment period and early operating years thereafter.

## **POTENTIAL SOURCES OF FUNDING**

- Environmental studies: As noted above, additional environmental assessment and testing will be needed. The federal Environmental Protection Agency (EPA) and the state Department of Environmental Protection (MassDEP) offer funding programs that provide grants and loans for assessment, testing, and remediation. Some of these programs require that the property owner be a municipality or a non-profit organization.
- RFP funding: The Town may also seek funding and/or technical assistance to prepare, issue and evaluate responses to a request for development proposals. MassDevelopment may have resources to assist with this process. The Town could also reach out to the Montachusett Regional Planning Commission and the Montachusett Economic Development District for assistance.

## **LAND BANKING**

Land Banking of the entire project site is not a likely option for the town of Clinton, however, the town might consider the option specifically for the Nylco properties. Nylco's operations are highly valued by the town of Clinton. The Nylco properties are also very important to the success of any redevelopment scenario.

It is recommended that the town of Clinton discuss Nylco's plans for the future of their properties and the town's hopes for the larger project site to determine if they have common goals. If transfer of Nylco property ownership is a future consideration for the company, it is important that future ownership have the capacity to redevelop the property. It would be ideal if the town or community could control the nature of future redevelopment.

Acquisition, management, maintenance, and re purposing of the property in keeping with the needs of the community through land banking might be an alternative worth consideration.

While the structure of a land banking entity could take on many forms, the tool would allow the town or community to find the highest and best use of the property in the larger context of the project site.

## DEVELOPMENT CHALLENGES

The following challenges are noted with respect to the redevelopment of the Bigelow Mills complex:



## 1. ADJACENCIES

The subject property has two immediately adjacent abutters (Tyca Corporation and Nylco Products, Inc.) Abutting properties limit access, circulation, convenient parking, and views, which are mostly perceived as unfavorable to the redevelopment of the subject property.

### TYCA

Tyca, in business since 1978, is a privately owned manufacturer of embossed denim, cotton and leather apparel and accessories with three-dimensional visual impact.

Tyca Corporation also owns a significant portion of the Project Site. Its manufacturing facility fronts Main Street and is located directly southeast of the Bigelow Mills Subject Properties.

Tyca's facilities include a primary, gable roofed, two story building which has been added to over the years. The entire facility is well maintained and utilized. It also "blocks" approximately 40% +/- of the frontage to the Subject Properties from Main Street.

Tyca owns approximately 50% of the Project Site, including what is referred to, in this study, as Excess Land. This study explores the use of this land for surface parking, vehicular access, and/or a new building to support the redevelopment of the Subject Properties.

Tyca is also understood to control the water rights to nearby Coachlace Pond. This low cost water source has contributed to the success of their manufacturing business. The routing of water through the Project Site, service to Subject Properties, and potential value to future manufacturers or other users with high water demand should be further explored.

Tyca appears to be very well managed. Ownership has noted that there currently appears to be little interest in manufacturing among the youth of Clinton. The long term plans of the manufacturer are unclear.

### NYLCO

Nylco's facilities are located immediately west of the subject property and offers a more significant challenge to the redevelopment of the subject property in our estimation. The Nylco buildings are situated across a narrow alleyway (25' +/-) and block approximately 50% of the west (rear) side of the subject property.

Nylco is a division of a larger manufacturer, Worthen Industries which manufactures high quality adhesives, coatings, extruded films and laminated products since 1866 with corporative offices in Nashua New Hampshire, and manufacturing plants in New Hampshire, Virginia, Michigan, China, Hong Kong, Vietnam and Indonesia.

The Nylco Clinton operations have been significantly reduced in recent years with a small administration area and only 2 manufacturing lines operating in Building 69 and with much of their complex either used for storage of excess equipment / parts or empty. Nylco has installed and is operating solar panels on an estimated 50% its roof areas (which is consistent with Worthen's New Hampshire facilities).

It is also noted that its basement areas experience significant flooding during high water periods as a result of issues with the drainage culvert that extends across the rear of the property.

Given the reduced production at the Clinton facility, it is unclear as to Worthen's long term plans to maintain operations in Clinton.

## 2. PARKING & CIRCULATION

There is limited parking conveniently located near the subject property. Given the adjacencies described above, there is limited circulation in and around the property and limited areas for truck circulation and loading.

The so-called Excess Land at the south side of the site (approximately 50% controlled by Tyca) will be required to provide parking to support any significant redevelopment of the subject property or one that involves labor intensive operations. We have provided required parking counts for each redevelopment option as well as attempted to layout the circulation and parking area on the corresponding site plans.

It is conceivable that at least one existing single family residential property abutting the Tyca property to the south will need to be purchased to provide another means of egress to the overall site (and need to confirm the site engineering of this area from a grading perspective).

## 3. STORM WATER DRAINAGE

There appears to be an issue with the existing culvert that extends along the west (rear) property line that is causing flooding in the lower section of the subject building (No. 54) that has caused structural damages to be addressed as well as has caused flooding at the lower level of the Nylco Buildings as noted above.

## 4. WETLANDS

The 100' flood line needs to be confirmed as well as how this may impact the various redevelopment options of the overall site

## 5. GRADE CHANGES

There are significant changes in elevation at the abutting properties along the southeast perimeter of the site along Main Street which are at a higher elevation than the subject property. Also, Duck Harbor Road, which extends along the south perimeter of the site, is at a significantly higher elevation than the subject site; such that access from Duck Harbor Road to the subject site is perceived as impractical. This change in elevation also limits the views of Coachlace Pond for any new building developed in this area.

Land to the west of the site also slopes up to the train tracks and then significantly higher to the west (all of which collectively may contribute to periods of high ground water at the subject property).

## 6. SOIL CONDITIONS

Based on a visual inspection only, there is a concern whether the soils within the so-called Excess Land area are structurally adequate to support new construction with conventional foundation systems and without costly reinforcing such as geo-piers, piles, etc.

## 7. ENVIRONMENTAL CONCERNS

Environment concerns at the subject property include potential mold remediation due to water infiltration at the lower level (as well as structural damage as noted above); removal and disposal of underground storage tank(s) and related impacted soils, if any; and unsecured chemical drums / containers.

We also do not have any information on the potential presence of asbestos or PCB containing materials often found at mill complexes including window caulking and glazing, soils surrounding old transformers, hazardous materials located in former water passageways, roofing materials and adhesives, pipe insulation, etc.

## 8. BUILDING ENVELOPE CONCERNS

The extent of potentially costly repair work to the building envelope of the subject buildings to be redeveloped needs to be confirmed included masonry repointing, and the replacement of rotted wood roof decking, trim and window framing / sills.





# MARKET CONTEXT

## INTRODUCTION

The following provides a summary market report for the Bigelow Mills property based on discussions with economic development personnel, appraisers, and brokers active in the Greater Clinton Market.



## **A. MARKET LOCATION**

Clinton is located along the limits of two submarkets being the northeastern limit of the Central Massachusetts Submarket and the Northwestern limit of the I-495 West Submarket.

Located 35 miles west of Boston, Clinton's downtown district is centrally located between three (3) major highways; with I-495 to the east (5 – 6 miles), I-290 to the south (6 miles +/-), and I-190 to the west (6 miles +/-).

In addition, the Massachusetts Turnpike I-90 is only an additional 10 – 15 miles from said connecting Interstates.

## **B. COMMERCIAL DEVELOPMENT**

### **OVERVIEW**

The lack of direct access to a major highway interchange has deterred most significant commercial development experienced along the major access routes during the last 30 years +/- as the local economy shifted away from manufacturing to more high technology oriented.

### **NYPRO**

One exception is Nypro, a manufacturer of custom plastics for the healthcare, packaging, and consumer-electronics industries. Nypro has significant operations within a sprawling mill complex in Clinton town center, a few blocks from Bigelow Mills, and is the town's largest employer. Nypro is a division of the Jabil Inc., a multi-national manufacturing company with over 100 plants in 28 countries and publically traded on the NYSE (under the JBL) symbol reporting net revenues of \$5.6 billion for its first fiscal quarter in 2018.

### **INDUSTRIAL**

Adams Road Industrial Park is another significant commercial development within Clinton. The Industrial Park consists of two, large, recently purchased warehouse facilities which previously housed the Ames Department Store Distribution Center. The first, located at 100 Adams Road, is 344,000 sf. The second, located at 111 Adams Road, is 460,000 sf.

The buildings offer high bay warehouse/ industrial space with ceiling heights from 22' – 32', significant loading docks, and active rail service.

The buildings are leased to a variety of industrial uses with various uses including high bay distribution, refrigeration, storage, etc. There is 30,000 SF of high bay distribution space coming available at 111 Adams Street with asking rents of \$4.50 /sf NNN +/- . Other pockets of space totaling 50,000 SF +/- are available at asking rents of \$4.00 to \$6.50 /sf NNN depending on clear height, number of loading docks, etc."

## MANUFACTURING

Critical questions regarding the manufacturing market include:

### ***Is there measurable demand for manufacturing space on a going forward basis?***

Per discussions with Philip Duffy, Clinton's Director of Community & Economic Development, he has received calls from small manufacturers (15,000 – 25,000 sf +/-) inquiring about availability of space in Clinton.

Based on our meeting with Tyca Corp. (specialty embosser of apparel and accessories) there appears to be a market for small niche manufacturers that do not compete for large scale orders typically shifted to low cost manufacturers overseas. However, these niche manufactures need every advantage possible to reduce operating costs to be competitive.

Tyca, for example, has water rights to the nearby Coachlace Pond that provides low cost water needed in its manufacturing process. They are currently considering the installing of co-generation equipment to reduce utility costs. However, Massachusetts is perceived as a high operating cost locale and continued incentives from local and state economic development agencies appear to be essential to driving demand for manufacturing space (from both current users and hopefully new companies).

Alternatively, for "high technology" manufacturers such as Nypro that operate in "hot markets" such as healthcare and consumer-electronics, access to the region's educated labor force is a compelling benefit that can drive local demand.

Additionally, a labor force with a history of manufacturing experience coupled with lower labor and housing costs available in Clinton and Central Mass, in general, are added benefits that have positively influenced demand in the past and hopefully will continue to do so in the future (especially for firms with established operations).

### ***What rental rate can manufacturers afford to pay?***

The answer to the rental rate question is "as low as possible" with the focus more on "total operating expenses" including labor, utilities and taxes.

### ***Does Bigelow Mills provide compatible space for manufacturing use?***

Given its historical use for manufacturing, we feel the buildings at Bigelow Mills could work well for manufacturing uses both for large users such as Nypro (i.e. potential expansion of Nypro's nearby campus) or on a subdivided basis including as "incubator space" for emerging manufacturing or technology companies (to the extent state and local incentives are available). Demand may be impacted more by certain site constraints such as limited availability of convenient parking, limited auto and truck circulation, limited loading areas, and reductions in natural light due to adjacent buildings.

## OFFICE

Based on discussion with John Hogan of R/E Max Realty, who has a long working history in Clinton, there is limited supply of quality office space in town; however, also a corresponding low level of demand with rental rates ranging from \$5 - \$8 per square foot (net of heat and lights).

This lack of demand is consistent with similar communities lacking direct highway access versus those along I-495 which experienced significant growth in office space during the 1980's and 1990's and have had an historical vacancy rate of 20% +/- and with limited increase in net effective rents of \$20/sf +/- . Bottom line; there is sufficient available office space in relative close proximity along I-495.

In our opinion, the subject location is not competitive for any significant demand for office use due to a lack of convenient on-site parking as well as adjacency concerns. We do feel a limited amount of local supportive office space may be viable; however, low existing rental rates will likely not justify construction costs without financing incentives.



### **C. RETAIL**

We also discussed with John Hogan the local retail market and confirmed that, similar to the office market, there does not appear to be any pent up demand for retail use other than small local supportive retailers, restaurants, etc.

We also feel that Bigelow Mills does not layout well for any significant retail use given the lack of convenient parking, immediate adjacencies, and first floor elevations above finished grades on approximately 50% of the structure.

However, in our opinion, Bigelow Mills would be compatible for a "destination brewery" which is a trendy use with a seemingly endless supply of openings across the State. A brewery would also be more forgiving than many other uses regarding the perceived challenges with parking, adjacencies, etc., and may act as a stimulus to attract other uses.

### **D. RESIDENTIAL APARTMENTS FOR RENT**

We discussed the residential market with Kali Hogan from R/E Max Realty in Clinton who has significant local residential experience.

Consistent with other communities throughout the region, multi-family apartments are in high demand and this appears to be the same in Clinton. Brady Sullivan recently completed The Lofts at Lancaster Mill consisting of the gut renovation of a nearby mill complex into 132 units of apartments with rental rates averaging \$1.65 per square foot for one- and two - bedroom units.

The Lofts at Lancaster Mill is highly comparable to the redevelopment opportunity at Bigelow Mills in which the footprint dimensions work well for apartments. Per discussions with Kali Hogan, there is a lack of available newer first class apartment facilities with quality amenities in the Clinton market.

## **E. RESIDENTIAL CONDOMINIUMS FOR SALE**

There also appears to be a fairly vibrant for-sale market for new product.

The nearby Reservoir Estates includes the renovation of an old school building into 19 flats and the new construction of 10 duplex buildings offering 20 townhouse units located high on a ridge overlooking Coachlace Pond. Sales for the renovation units appear to be strong with 2 bedroom units of 1,330 sf with 1 parking space in covered garage selling at \$260,000 or \$200/sf +/- . No amenities are included in this project.

With respect to Bigelow Mills, we feel the preferred approach would be rental apartments that are perceived as more forgiving versus for-sale housing with respect to the development challenges associated with the subject property.

## **SUMMARY COMMENTS**

The following summary comments are noted:

### **1. INDUSTRIAL USES**

We do not feel the subject property is compatible with industrial uses requiring heavy trucking or loading operations or users with high bay warehouse/storage needs.

### **2. MANUFACTURING USES**

We feel the subject property could be attractive for a large manufacturing user, such as Nypro, requiring a large block of space (or one that can be expanded into over time) with potential low water costs and an experienced and lower cost labor force that can benefit from the lower cost of living in Central Massachusetts

Concurrently, an "incubator" operation for emerging manufacturing or technology users to lease sub-divided pockets of the subject buildings would be viable subject most likely to financing incentives.

### **3. OFFICE/RETAIL**

We do not believe there is any substantive market for traditional office/retail uses at the subject property other than as smaller supportive office/retail uses as part of a mixed use re-development.

A "destination brewery" could be a compatible use and act as a stimulus for other mixed uses; however, there is a concern with over saturation of the brewery market.

### **4. RESIDENTIAL**

We feel rental apartments are the most compatible use as an "anchor use" for the re-development of Bigelow Mills, which could be supplemented with a mix of smaller uses such as a destination brewery, restaurant, or supportive office/retail.

Concurrently, a mix of rental apartments and an "incubator" manufacturing/technology use could also co-exist at the subject property.





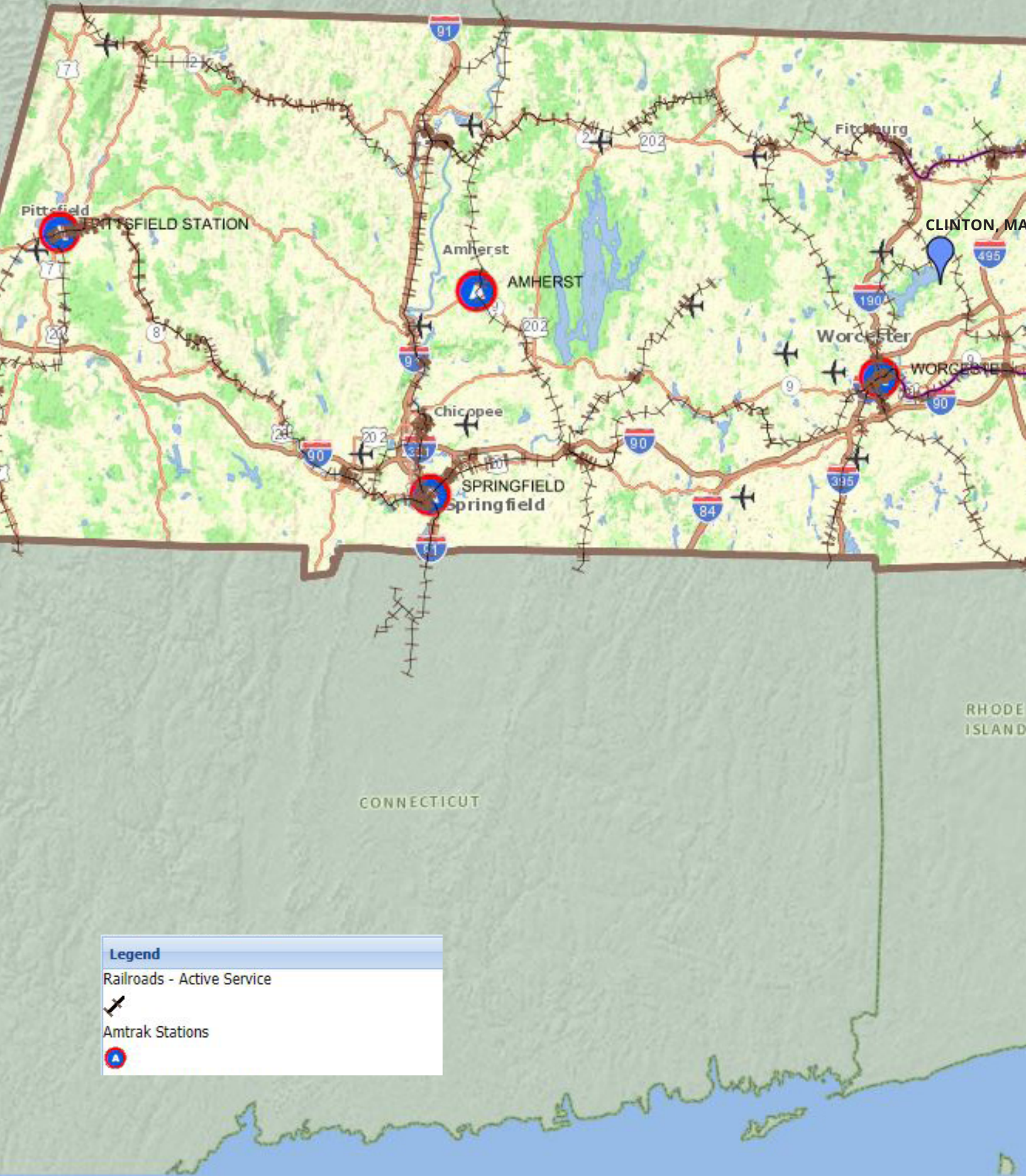
# DESIGN CONSIDERATIONS

## OVERVIEW

The Bigelow Spinning Mills have a unique context. This context drives the architectural design and development potential at many scales.

The location of the Town of Clinton, the context of the mill complex within the community, the geography of the project site, the history, architecture of Subject Properties, and applicable regulations are considerations that factor into use and redevelopment recommendations.





**Legend**

Railroads - Active Service

✂

Amtrak Stations

ⓘ



GULF OF MAINE

## LOCATION

- Latitude/ Longitude: 42.416/-71.694 \*
- County: Worcester
- Zip Code: 01510
- Population: 13,799 (2016 ACS, American Community Survey)\*

## METROPOLITAN AREA

The Town of Clinton Massachusetts is located approximately 12 miles northeast of the city of Worcester, MA and considered to be part of the Worcester metropolitan area. It is 32 miles west of Boston. \*

Clinton is centrally positioned between Route 2 to the north, I-290 to the south, I-495 to the east, and I-190 to the west. Additionally, Clinton is connected to surrounding towns and nearby cities such as Worcester and Leominster by several state-numbered routes and other minor regional roadways. \*\*

The Bigelow Spinning Mills project site is located at the intersection of Route 110 (Main Street) and Route 62/70 (Union Street). The mill complex makes a strong visual impression on visitors who typically approach the town of Clinton via one of these routes. \*

## GEOGRAPHY

The northern edge of the Wachusett Reservoir forms the town's southern border. The Wachusett Reservoir was formed in 1905 by damming the Nashua River. Water power was a major factor in the choice of the town for the location of the textile mills which are responsible for its growth. \*

Coachlace Pond neighbors the project site on the southwest. Water rights from this source historically and currently makes many types of manufacturing possible at this location.

The site is located in a valley sloping up to the rail tracks and cemetery beyond on the northwest, to Coachlace Pond on the south, and to the town center to the east.

## PUBLIC TRANSPORTATION:

### AIR

The nearest airport is Logan International, located in Boston, MA.\*

Mass GIS Online Mapping, showing Town of Clinton within the context of transportation in the State of Massachusetts,







**PASSENGER RAIL**

The Town of Clinton is not directly served by passenger rail service. The nearest Massachusetts Bay Transportation (MBTA) Commuter Rail station is in North Leominster, MA, served by the Fitchburg Line. It is approximately an 18 minute drive to the station from the Bigelow Spinning Mills. Many alternate MBTA stations are located within a 30 minute drive of the mill complex including South Acton and Littelton. Others include the Wachusett, Fitchburg, and Shirley stops on the Fitchburg line and Worcester, Grafton and Westborough stops on the Worcester Line. The nearest Amtrak Station is in Union Station in Worcester, MA.

**BUS SERVICE**

There is currently no fixed route WRTA bus service between Worcester and Clinton.

**FREIGHT RAIL**

A freight rail line (formerly B&R Railroad) runs adjacent to the northwest border of the project site, running roughly northeast/southwest. A second freight rail line runs roughly perpendicular to the first passing through the town of Clinton north of the project site. The rail lines are elevated from traffic and effectively divide the town into quarters. \*\*, \*\*\* The service providers include Guilford Rail and CSX.

Sources:

- \*[www.citytowninfo.com](http://www.citytowninfo.com)
- \*\*\*Oliver Mass GIS Online Mapping

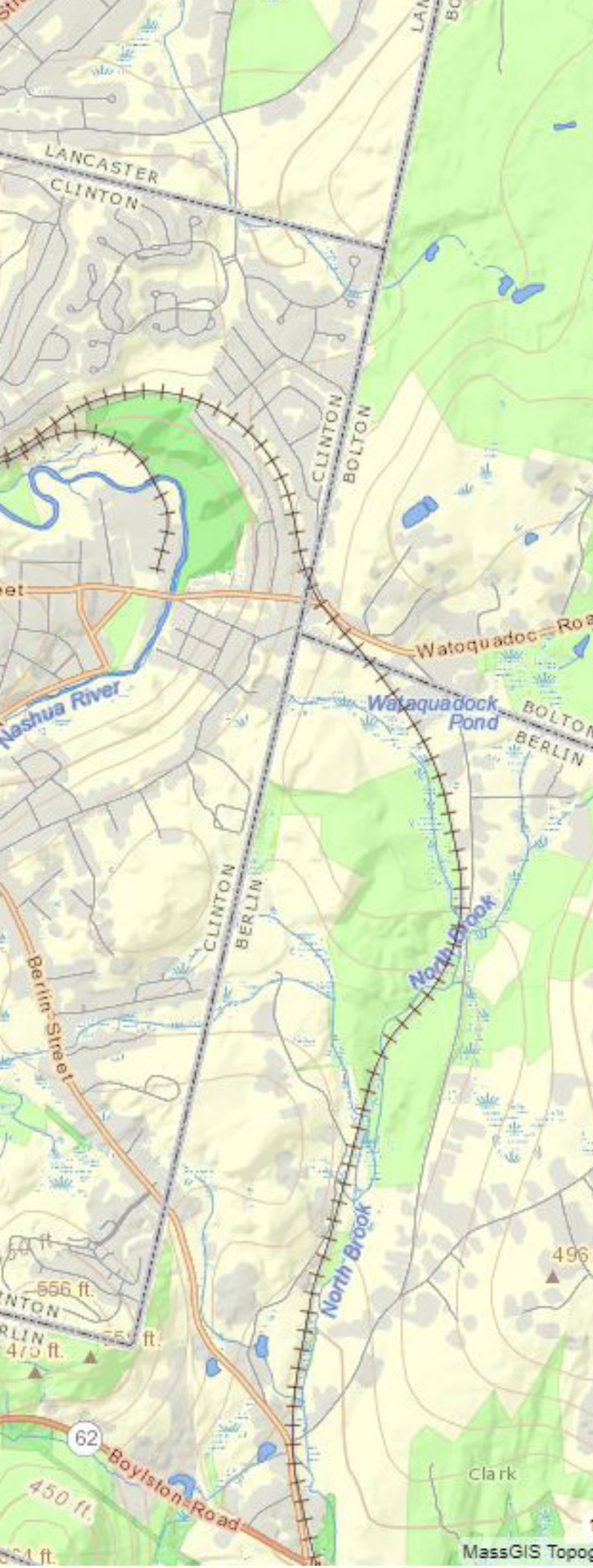
**Legend**

FEMA National Flood Hazard Layer Polygons

- A: 1% Annual Chance of Flooding, no BFE
- AE: 1% Annual Chance of Flooding, with BFE
- ▨ AE: Regulatory Floodway
- AH: 1% Annual Chance of 1-3ft Ponding, with BFE
- AO: 1% Annual Chance of 1-3ft Sheet Flow Flooding, with Depth
- VE: High Risk Coastal Area
- D: Possible But Undetermined Hazard
- X: 0.2% Annual Chance of Flooding
- ▨ X: 1% Drainage Area < 1 Sq. Mi.
- ▨ X: Reduced Flood Risk due to Levee
- Area Not Included
- Area with no DFIRM - Paper FIRMs in Effect

Q3 Flood Zones (from Paper FIRMs, where NFHL Unavailable)

- A
- AE
- AE Floodway
- AH
- AO
- D
- VE
- Area Not Included
- X500



Left: Mass GIS Online Mapping, showing significant features of town of Clinton.

## SUBJECT PROPERTIES

### OWNER: JD COMMERCIAL PROPERTIES LLC

C/O RICHARD DONOVAN  
470R MAIN ST.  
CLINTON, MA 01510

PARCEL: 85-298  
LAND AREA: 129,410 SF\*\*\*  
TWO STRUCTURES

PARCEL: 85-297  
LAND AREA: 28,782 SF\*\*\*  
BUILDING 54

PARCEL: 85-299  
BUILDING 55  
LAND AREA: 13,200 SF\*\*\*

474 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 3  
CONSTRUCTION:BRICK  
CONSTRUCTION DATE: 1838

297, 298,299  
TOTAL LAND AREA : 171,191 SF  
ASSESSED VALUE: \$392,000

PARCEL: 85-1252  
BUILDING 53  
476 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 2  
CONSTRUCTION:BRICK  
CONSTRUCTION DATE: 1864  
LAND AREA: 24,040 SF  
ASSESSED VALUE: \$297,000

PARCEL: 85-1436  
BUILDING 56A  
490 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 3  
CONSTRUCTION:BRICK  
CONSTRUCTION DATE: 1890  
LAND AREA: 16,170 SF  
ASSESSED VALUE: \$223,400

### OWNER: FJC LLC

C/O KEVIN COLEMAN  
5 MOUNT ROYAL AVE SUITE 200  
MARLBOROUGH, MA 01752

PARCEL: 85-3490  
BUILDING 56  
500 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 3  
CONSTRUCTION: BRICK  
CONSTRUCTION DATE: 1896  
LAND AREA: 28,306 SF  
ASSESSED VALUE:\$578,800 TYCA PROPERTIES

### OWNER: TYCA CORPORATION

C/O FRANKLIN HARDY  
470 MAIN ST.  
CLINTON, MA 01510

PARCEL: 85-1669  
460 MAIN STREET  
ZONING: I / 4400  
USE: VACANT  
LAND AREA: 135,907 SF  
ASSESSED VALUE: \$69,500

PARCEL: 85-1674  
LAND AREA: 4,196 SF\*\*\*  
USE: VACANT

PARCEL: 85-1665  
BUILDINGS 50 & 51  
470 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 2  
CONSTRUCTION: WOOD  
CONSTRUCTION DATE: 1817  
LAND AREA: 43,966 SF (ASSESSED VALUE: \$316,000

## NYLCO PROPERTIES

### OWNER: 530 MAIN ST. REAL ESTATE LLC

530 MAIN ST.  
CLINTON, MA 01510

PARCEL: 85-2363  
BUILDING 69  
530 MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 3  
CONSTRUCTION:BRICK  
CONSTRUCTION DATE: 1899  
LAND AREA: 16,224 SF  
ASSESSED VALUE: \$313,400

### OWNER: CLINTON LTD PARTNERSHIP

C/O WORTHEN INDUSTRIES INC  
3 EAST SPIT BROOK RD.  
NASHUA, NH 03060-5443

PARCEL: 85-377 & 85-378  
BUILDING 61A-63  
530R MAIN STREET  
ZONING: I / 4000  
USE: INDUSTRIAL  
STORIES: 3  
CONSTRUCTION:BRICK  
CONSTRUCTION DATE: 1890  
LAND AREA TOTAL: 81,022SF  
(LAND AREA 377: 45,844 SF \*\*\*)  
(LAND AREA 378: 35,210 SF\*\*\*)  
ASSESSED VALUE TOTAL: \$312,100

## UNKNOWN

### POTENTIAL ASSET

**420 MAIN ST.**  
PARCEL: 86-176  
BUILDING: OUTSIDE PROJECT SCOPE  
ZONING: IND  
USE: 1010 SINGLE FAMILY RESIDENTIAL  
STORIES: 2  
CONSTRUCTION: WOOD  
CONSTRUCTION DATE: 1900  
RESIDENTIAL AREA: 2390  
LAND AREA: 8800 SF (.202 ACRES)  
ASSESSED VALUE: \$185,000



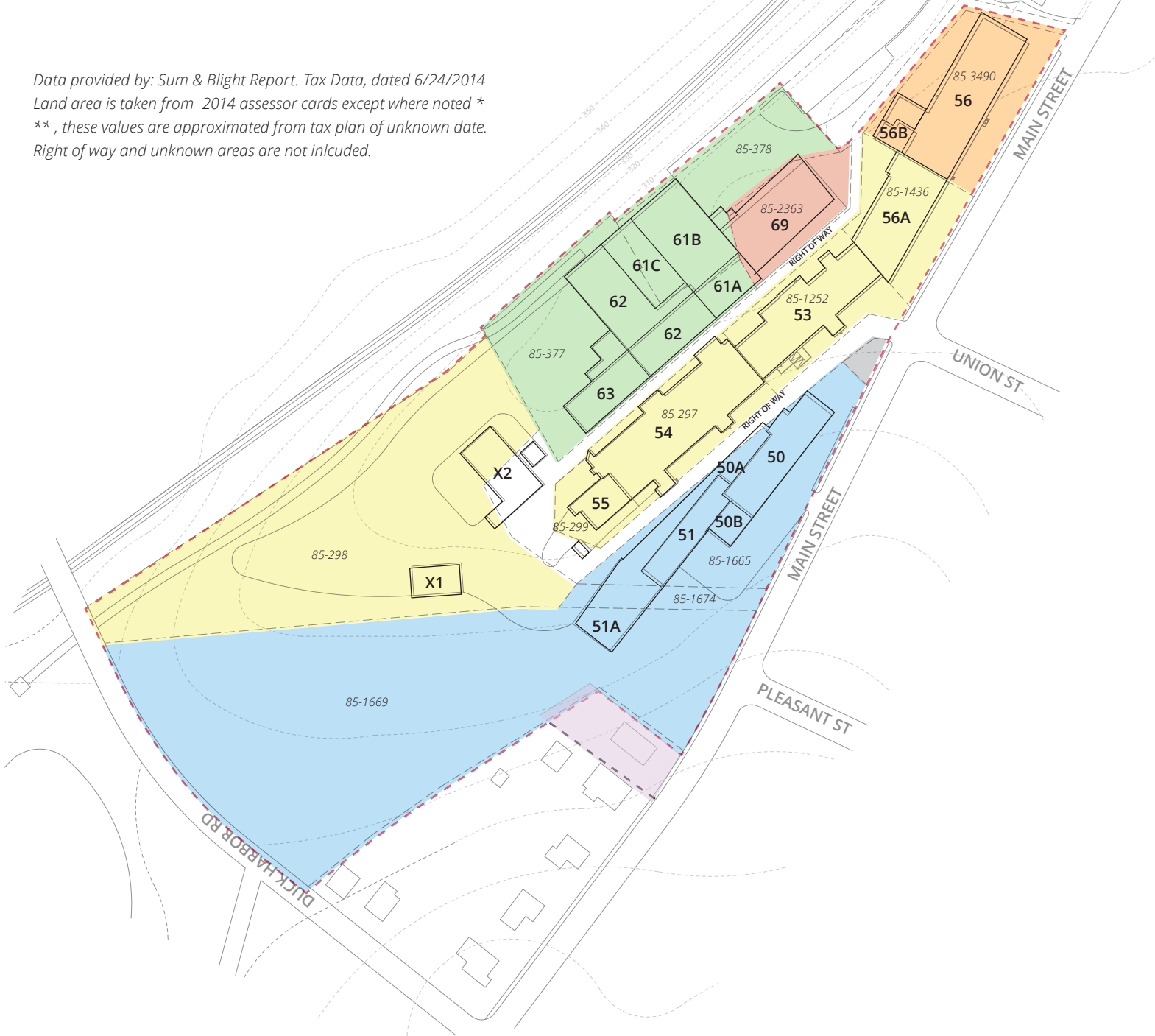
# PARCEL IDENTIFICATION

**TOTAL OF KNOWN PARCEL AREAS: +/- 516,826 GSF**  
(11.86 ACRES (12.3 ACRES 2017 PER TAP STUDY))

TOTAL OF KNOWN ASSESSED VALUES: +/- \$2,502,200

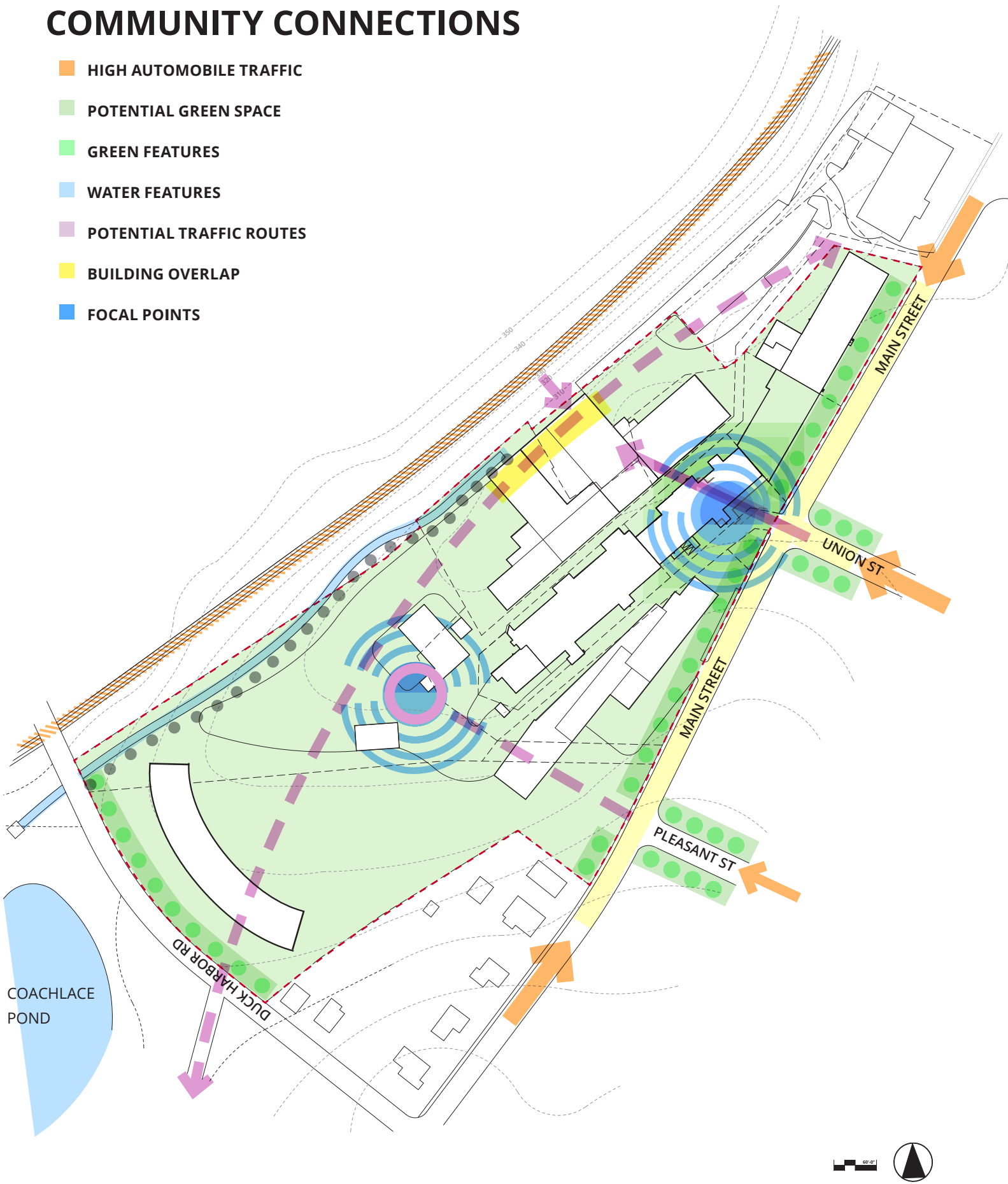
NOTE: NOT ALL ASSESSED VALUES AND LAND AREAS ARE KNOWN.

Data provided by: Sum & Blight Report. Tax Data, dated 6/24/2014  
Land area is taken from 2014 assessor cards except where noted \*  
\*\*, these values are approximated from tax plan of unknown date.  
Right of way and unknown areas are not included.



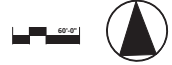
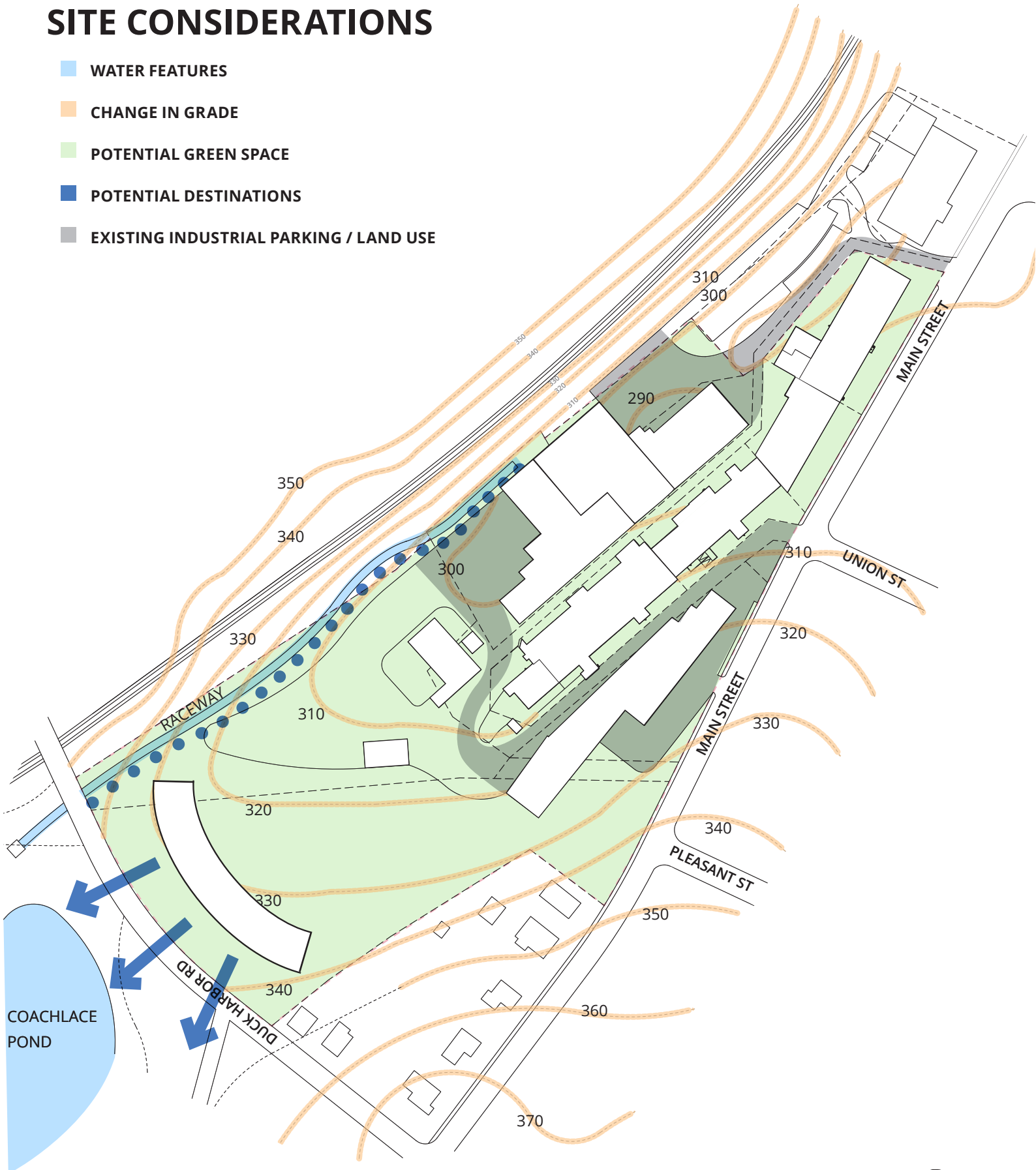
# COMMUNITY CONNECTIONS

- HIGH AUTOMOBILE TRAFFIC
- POTENTIAL GREEN SPACE
- GREEN FEATURES
- WATER FEATURES
- POTENTIAL TRAFFIC ROUTES
- BUILDING OVERLAP
- FOCAL POINTS



# SITE CONSIDERATIONS

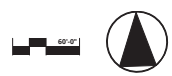
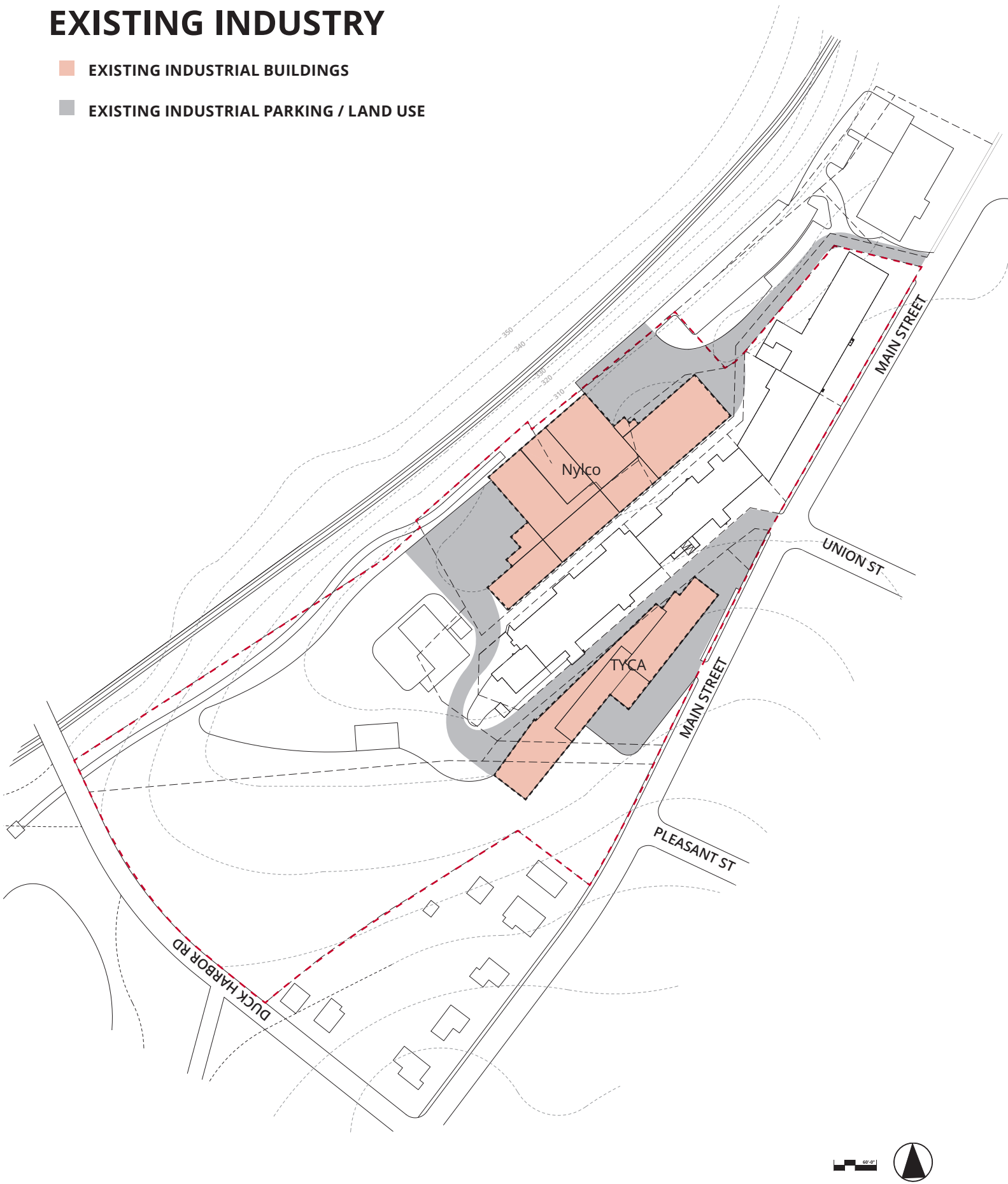
- WATER FEATURES
- CHANGE IN GRADE
- POTENTIAL GREEN SPACE
- POTENTIAL DESTINATIONS
- EXISTING INDUSTRIAL PARKING / LAND USE





# EXISTING INDUSTRY

- EXISTING INDUSTRIAL BUILDINGS
- EXISTING INDUSTRIAL PARKING / LAND USE



# REGULATED SETBACKS: FLOOD, WETLAND & ZONING

 A/E WETLAND ZONE

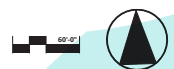
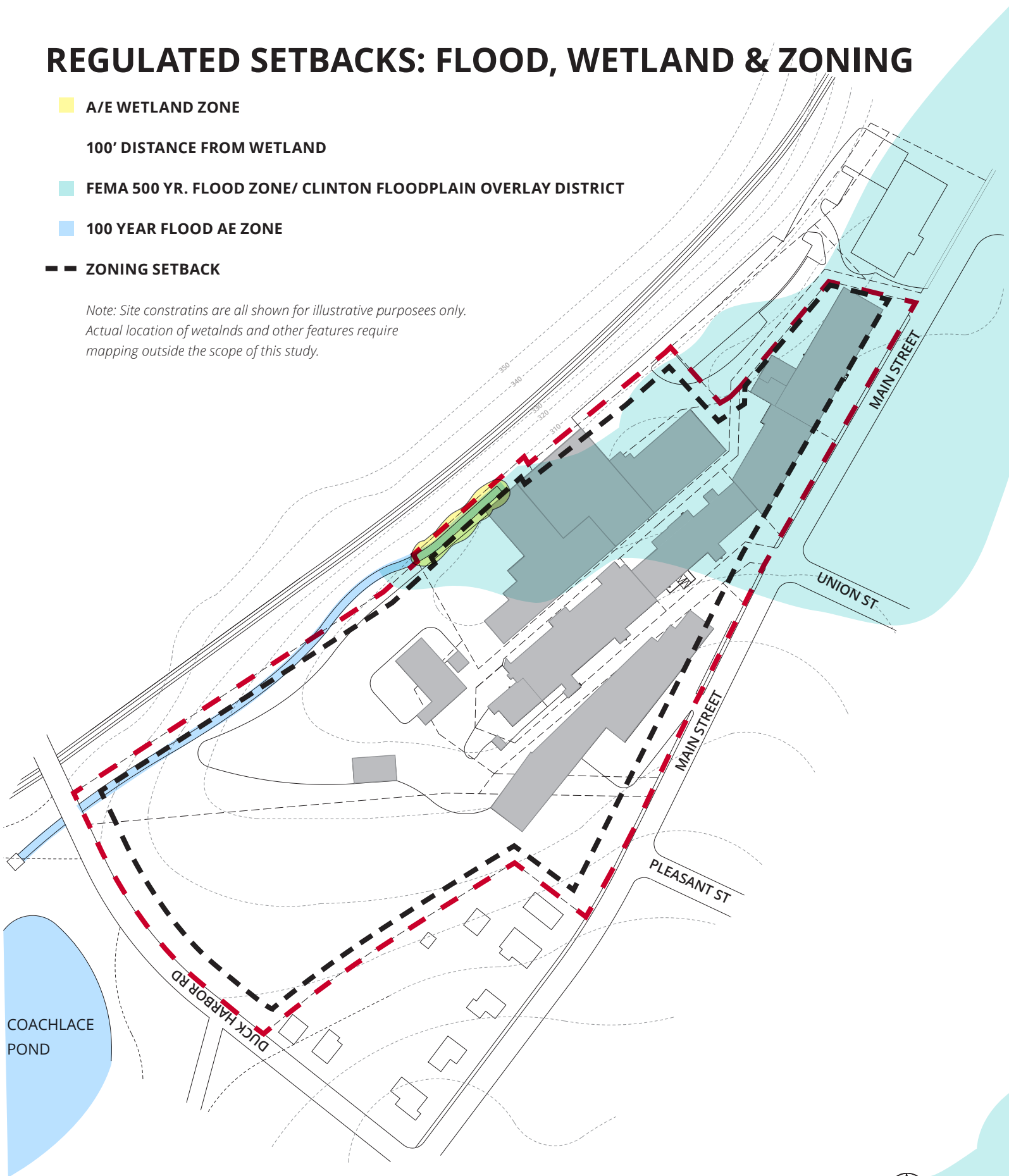
100' DISTANCE FROM WETLAND

 FEMA 500 YR. FLOOD ZONE/ CLINTON FLOODPLAIN OVERLAY DISTRICT

 100 YEAR FLOOD AE ZONE

 ZONING SETBACK

*Note: Site constraints are all shown for illustrative purposes only. Actual location of wetlands and other features require mapping outside the scope of this study.*



## HISTORICAL CONTEXT

The Historic Assessment included in Appendix 1 includes commentary i on the viability of obtaining Federal or State Historic Rehabilitation Tax Credits for the range of potential demolition and reuse alternatives illustrated by development scenarios.

The Subject Properties were all constructed between 1863 and 1866 except for Mill 56A which was constructed post 1890, in what appears to be a deviation from original master plans. All Subject Properties are among those listed on the National Register.

Early in the brainstorming process for this study, designs for a more direct means of vehicular and/or pedestrian access to the rear of the site from the central Main Street entrance were explored. To do so would have required the partial demolition of Mill 53 or 56A, these concepts were determined to be unlikely to receive historic support. The options were dismissed to improve the likelihood that a project would be granted Historic Tax Credits.

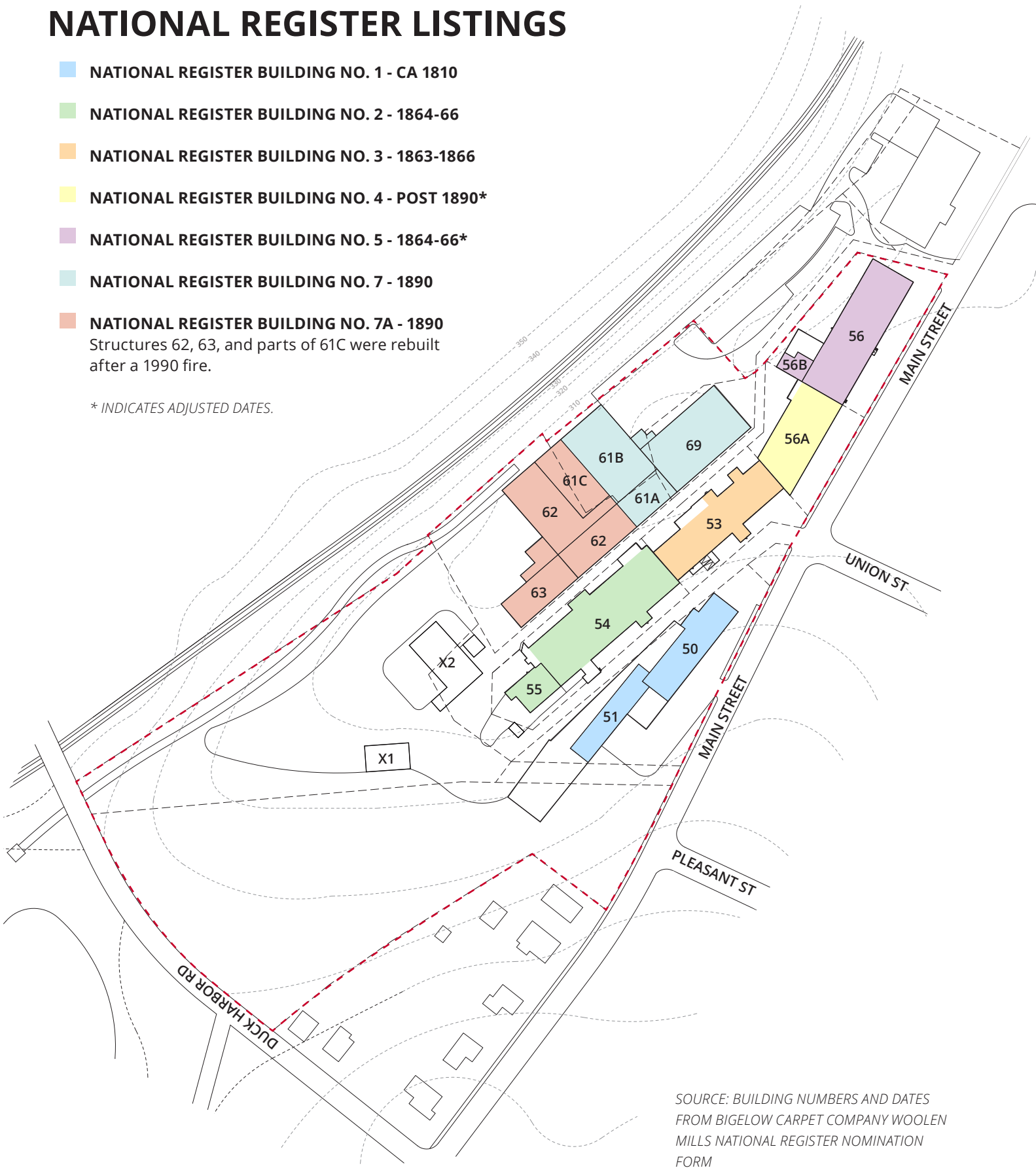
The development options proposed in this study take the National Register listing into account, with the goal of maximizing the potentially of offsetting development costs with Historic Tax Credits. The development scenario options included in this study assume the preservation of the Subject Properties (except for more recently constructed additions) in keeping with National Parks guidelines and with respect for other historic Project Site Structures.



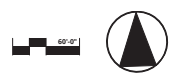
# NATIONAL REGISTER LISTINGS

- NATIONAL REGISTER BUILDING NO. 1 - CA 1810
- NATIONAL REGISTER BUILDING NO. 2 - 1864-66
- NATIONAL REGISTER BUILDING NO. 3 - 1863-1866
- NATIONAL REGISTER BUILDING NO. 4 - POST 1890\*
- NATIONAL REGISTER BUILDING NO. 5 - 1864-66\*
- NATIONAL REGISTER BUILDING NO. 7 - 1890
- NATIONAL REGISTER BUILDING NO. 7A - 1890  
Structures 62, 63, and parts of 61C were rebuilt after a 1990 fire.

\* INDICATES ADJUSTED DATES.



SOURCE: BUILDING NUMBERS AND DATES FROM BIGELOW CARPET COMPANY WOOLEN MILLS NATIONAL REGISTER NOMINATION FORM

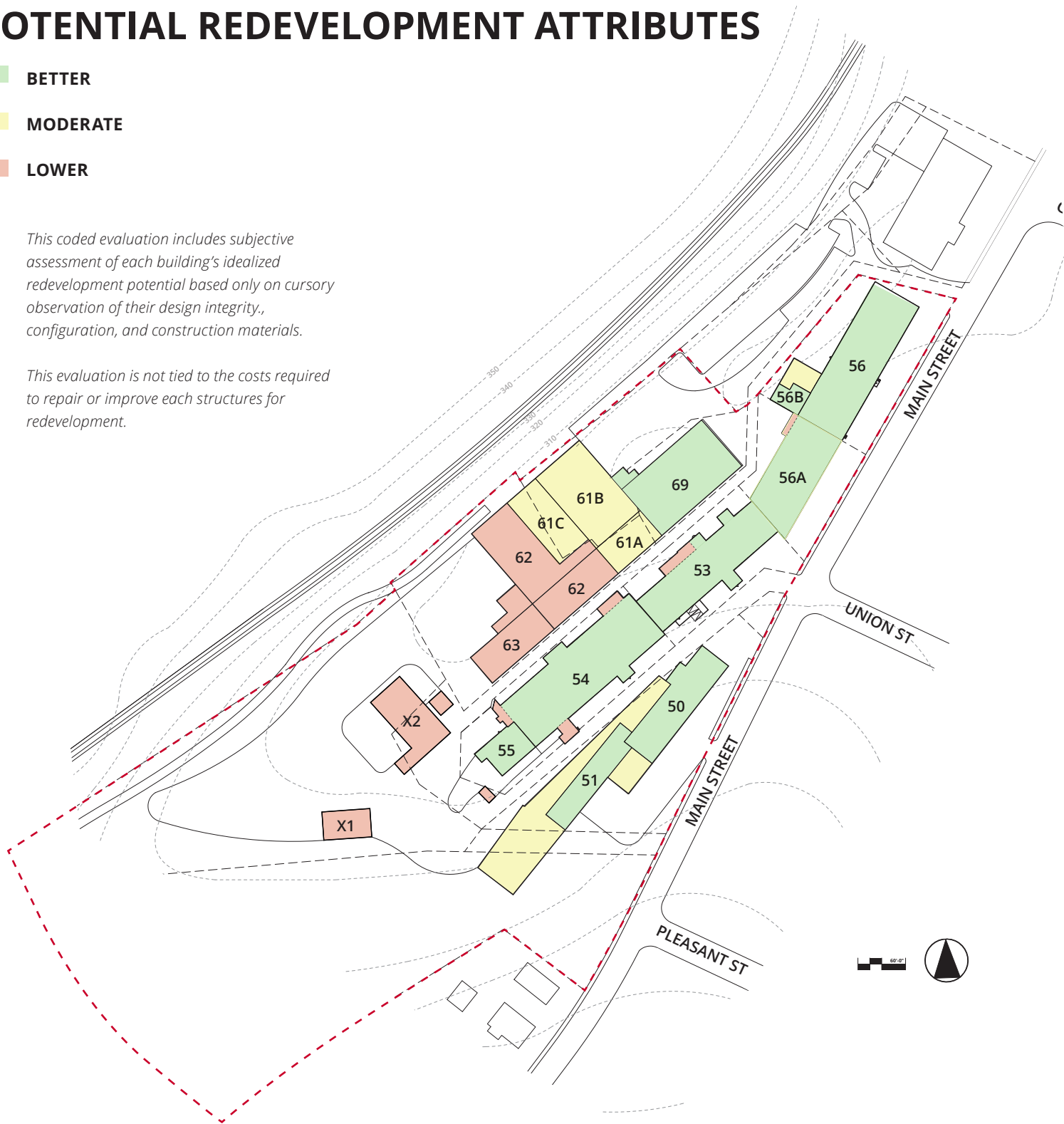


# POTENTIAL REDEVELOPMENT ATTRIBUTES

- BETTER
- MODERATE
- LOWER

*This coded evaluation includes subjective assessment of each building's idealized redevelopment potential based only on cursory observation of their design integrity,, configuration, and construction materials.*

*This evaluation is not tied to the costs required to repair or improve each structures for redevelopment.*

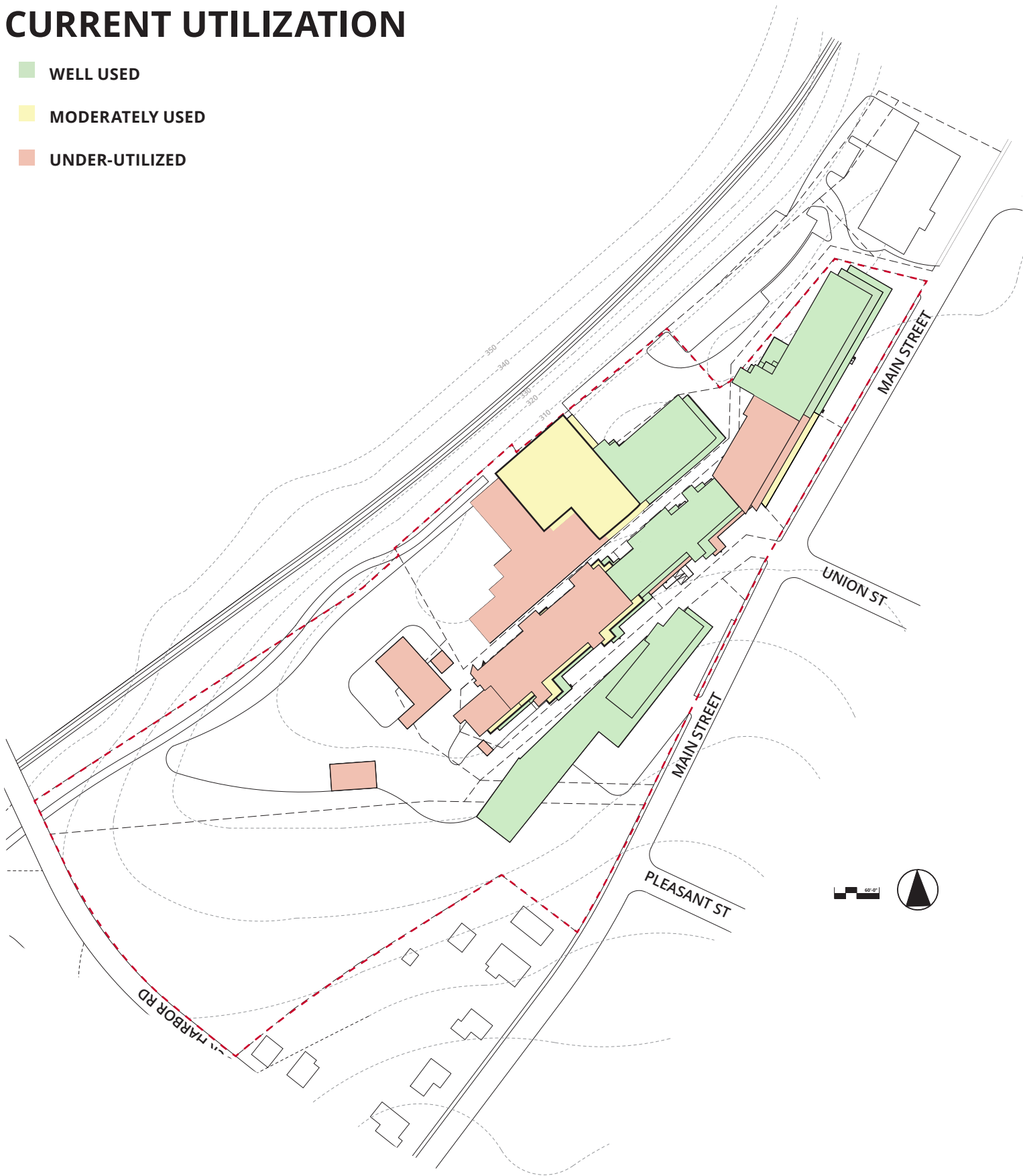


Appendix 1 includes photographs and commentary on the general state of the Subject Property buildings to facilitate assessment of their potential for redevelopment.

The findings are broken out by building system; Exterior Vertical Enclosure, Roof and Rainwater Management, Vertical Circulation and Conveying, Interiors and Finishes, Plumbing, HVAC, Fire Protection, Electrical, Accessibility, Sustainability and Site considerations.

# CURRENT UTILIZATION

- WELL USED
- MODERATELY USED
- UNDER-UTILIZED





# MAJOR SITE SUPPLY & WASTE WATER LINES

- UNDERGROUND RACEWAY
- WATER SUPPLY FROM COACHLACE POND
- TOWN SEWER
- OPEN RACEWAY (WASTEWAY)

SYSTEMS ARE SHOWN DIAGRAMATICALLY FOR ILLUSTRATIVE PURPOSES ONLY  
AND DO NOT DEPICT ALL UNDERGROUND UTILITIES OR SURFACE  
DRAINAGE,  
SOURCE: S: 1945 PLAN OF LAND, GW SCHOTT ENGR.



# DEVELOPMENT DESIGN RECOMMENDATIONS

## DEMOLITION

In consideration of the major influences of development of the Bigelow Spinning Mills Project Site and Subject Properties, it is recommended that some existing structures be retained, and others demolished.

The Subject Properties are all recommended for redevelopment. All Subject Properties require structural repairs, but none appear to be beyond repair. The Subject Properties appear to be structurally viable for redevelopment.

It is unlikely that historic tax credits would be granted for development if any of these structures were demolished or if their shells were partially demolished. The more recent additions to the Subject Properties are not considered historically significant and are proposed, for the purposes of improving the development options for this study, to be demolished.

TYCA and Nylco are operating industrial manufacturing businesses and employers highly respected as assets to the Bigelow Mills Site and Town of Clinton. Both complexes include a combination of historic structures and those that have been more recently constructed.

No change is proposed to the TYCA and Nylco structures and their associated access routes and parking areas. Scenario 10 and 10A, however, explore a potential long-range concept in which portions of Nylco manufacturing located in structures that appear to have low historic significance and redevelopment potential, might be relocated, (potential in renovated Subject Property buildings), and the site redeveloped with parking supporting the Subject Properties.

For the purposes of this study miscellaneous existing structures including X1 & X2 have been determined not to be candidates for redevelopment due to their location on the Project Site, size, lack of historical significance, and construction quality.

Demolition of any structures on this National Register Contributing property requires the approval of the National Park Service. The criteria for Historic Rehabilitation Tax Credits for development is best explained the Historic Assessment contained in Appendix 1

## HAZARDOUS MATERIALS

The structures are expected to contain hazardous materials which need to be appropriately disposed of.

An Environmental Report is included in this study, this report includes only readily apparent observations and does not include material testing. Further investigation is required to test and quantify the extents of required hazardous materials remediation.

An allowance for the abatement of hazardous materials is included in redevelopment cost estimate, actual costs are anticipated to vary.

## PROPOSED

A broad range of development scenarios have been evaluated in this study.

Uses recommended for the Subject Properties have emerged from market study and financial analyses, the Town of Clinton's hopes and concerns for development, and in response to the unique nature of the buildings and site.

Each Scenario assumes the redevelopment of the Subject Properties for one or a combination of proposed general uses including residential, commercial, retail, or light industrial. These categories are intentionally broad, the specific options for actual occupancy are far ranging.

In some scenarios, a new structure is also proposed and evaluated. The new structure is proposed to be located on the South Parcel. This location has been selected because of its relatively convenient vehicular access from Duck Harbor Road and its proximity to and potential views of Coachlace Pond. This also leaves area for the development of much needed parking between new building and existing. The location of a new building on the South Parcel has both the potentially positive and negative effect of separating the new and existing structures. Actual development would take into consideration the desired relationship of site structures.

While all uses are viable in each Subject Property building, some are more suitable than others to uses based on their structure and context.

Buildings 56 and 56A are considered the most ideal for retail or restaurant development on their ground floors due to their high-profile location on heavily trafficked Main Street. The structural report should be referred to for the reinforcement required for these uses in this location.

Due to their central site location and their relationship to grade, Buildings 53, 54 are good candidates for office, residential, or light industrial use. The replacement of the first floors of both buildings called for in the structural report would make these levels capable of handling higher load requirements suitable to multiple uses. Single level building 55 would serve well as a supporting office, café, or fitness center for private use by Subject Property tenants.



Buildings 53 is highly visible and partially fronts Main Street; its first floor is partially submerged below grade. From an aesthetic design perspective, it would be desirable to change the grade at the front of the building to be in keeping with original building complex illustrations, exposing partially concealed windows and restoring the entrance tower door to full height. In these depictions, the first floor is on grade at the front side, with a retaining wall separating it from the higher grade along the Southeast Right of Way. Investigation beyond the scope of this study would be required to determine if this would be feasible while maintaining required fire truck access to buildings 53, 54, and 55.

Another consideration for the redevelopment of these uses in this location of parking.

Buildings 56 and 56A have limited parking between the front of building and Main Street. It would be desirable to enhance the Main street sidewalk in this area with a landscape strip planted with grass and trees and with attractive street lighting. Main Street is too heavily trafficked to be a good candidate for parallel parking in this location. It is recommended that parking continue to be located here due to the lack of parking at the rear of the structure. A one-way drive, diagonal parking, and street improvements are proposed here though it will require further study of the restrictions of this limited space.

Similarly, it is recommended that existing parking spaces and landscaping be improved along the Southeast Right of Way to serve buildings 53 and 54.

The market driven surface parking requirements of each scenario have been test-fit on the Project Site to inform the feasibility of achieving them on available open land. In most scenarios, adequate space is available to achieve market driven parking demands, however seeking zoning relief from regulations may be required. The open land available for the development of surface parking is, for the most part, located on the southern parcel. Parking would be required to be tiered to accommodate grade changes. While feasible, it would not ideally serve all uses of the Subject Properties, retail and restaurant customers would prefer to park closer to their destinations.

Indoor parking is not generally considered feasible. Parking within the Subject Properties is unrealistic because only Mills 54 and 55 have basements, the relationship of these levels to grade precludes vehicular access. Neither basement has windows or natural ventilation which would require costly mechanical

ventilation systems. Fire rated separations with the floors above would also be required. Locating parking on other levels would be make for a poor use of space as well in addition to being structurally cost prohibitive. New parking structures were also considered and have been explored in one scenario. Generally, the cost to build new parking structures is prohibitively high for development.

Vehicular site access was a consideration in development options. The linked Subject Properties effectively create a wall between the front and rear of the Project Site. Options to create a passage through to the rear have been dismissed, as discussed in the historic summary. For this reason, the existing curb cuts at Pleasant Street and the north of the Project Site are proposed to be maintained.

New curb cuts are proposed along Duck Harbor Road to serve a potential new structure there and uses with heavy parking demands. In many scenarios a curb cut is also proposed at the southeastern portion of the site from Man Street. This would be a desirable two way, central, site access point particularly useful if Rights of Way become one-way.

Fire truck access needs to be maintained along the Southeast Right of Way. The Northwest Right of Way is less likely to be utilize for Fire Truck use, but this would need to be verified by the Authorities Having Jurisdiction. In some scenarios it is recommended that this be improved as a one-way lane, in others, that it become a landscaped pedestrian way.

Scenarios 10 and 10A illustrate the potential of freeing up land at the rear of the Subject Properties allowing for more parking in greater proximity to the Subject Properties. In these scenarios tenants and visitors have access to the green space and waterway at the west side rear of property.

In all scenarios, the western property edge has great potential for development as a highly desirable park-like area with walking paths, lighting and areas to rest along the length of the stream.



LLB

