SOUTHEAST FRAMINGHAM

Brownfield Plan Study

SEPTEMBER
2016

FUSS&O'NEILL

Table of Contents

SOUTHEAST FRAMINGHAM BROWNFIELD PLAN STUDY

Figures

Appendices

1. Introduction

1.1 Study Overview

Southeast Framingham is an area typical of many communities, with substantial economic- and community-revitalization potential dependent upon the more productive use of brownfield properties. Southeast Framingham is characterized by a relatively high density of brownfield properties, meaning properties burdened by the reality or perception of environmental contamination, which have great potential to deliver more productive and beneficial uses to the community, if the environmental contamination issues are addressed. The Town of Framingham (Town), with assistance from the Framingham Brownfield Program, commissioned the Southeast Framingham Brownfield Redevelopment Plan Study (the Study) documented herein to evaluate potential strategies and develop recommendations to transform the existing brownfields into more productively utilized properties that serve the neighborhood and community more fully.

1.2 Document Organization

This document has been organized into the following basic format:

- Study Overview, which presents:
  - the goals of the study,
  - limitations of the study, and
  - the state and federal regulatory framework applicable to brownfield redevelopment.

- Brownfield Planning Evaluation, which presents:
  - an overview of the study area characteristics and demographics,
  - an analysis of existing conditions and land use challenges,
  - a summary of the Town's approach to inventory and prioritize brownfield sites, and
  - an introduction to property groupings that were selected for more detailed analysis.

- Property Groupings Evaluation, which presents:
  - benefits to consolidation of properties into groupings to support a vision for redevelopment,
  - grouping-by-grouping descriptions of:
    - land use history,
    - environmental release history, and
    - opportunities for land use improvements.

- Recommendations, which presents:
  - various recommended brownfield cleanup response actions, and
  - various recommended incentive programs and policy approaches which may facilitate brownfield redevelopment.

1.3 Goals of the Study

As part of a long term planning focus, the Town seeks increased investment in real estate development, greater productive use of properties, and the associated benefits to the Southeast Framingham community and greater Framingham. Due to the relatively high density of brownfield properties in Southeast Framingham, increased investment in brownfield real estate is a critical component of this community enhancement approach. One of the actions taken by the Town to date to incentivize this type of investment was the implementation of the Framingham Brownfields Program initiated in 2007. This municipal brownfield program has been funded by $800,000 from the United States Environmental Protection Agency (USEPA), and additional funding from USEPA for the program is applied for as necessary by the Town. The primary focus of this program to date has been to provide environmental- and development-consulting expertise to potential buyers, sellers, and real estate developers seeking to invest in brownfield properties in Framingham. This approach has been implemented by the Town providing redevelopment assistance and funding on a property-by-property basis to support specific property redevelopment efforts.

Town Planning staff have noted that a Town commitment to a bigger picture vision for Southeast Framingham, which includes more productive use of multiple brownfield sites and groupings of contiguous parcels, could demonstrate a vision of more productive property uses and target investment. Additionally Brownfields investigations will help spur development by reducing uncertainty regarding perceived or known environmental liabilities. Consequently, the primary goal of this study was to evaluate whether more holistic actions can be implemented by the Town to generate more substantive investment in Southeast Framingham than the property-by-property brownfield investment approach conducted to date. Specifically, this includes:

- Demonstrating a clearer path and vision of the brownfield redevelopment potential for the area.
- Identifying more holistic impediments, remedies, regulations and incentives to stimulate productive and beneficial re-use of brownfields in Southeast Framingham.
- Reducing uncertainty regarding potential environmental liabilities associated with redevelopment in Southeast Framingham.
- Developing and communicating tangible environmental assessment, cleanup, and redevelopment strategies to potential stakeholders that will further stimulate investment in Southeast Framingham.
- Helping guide future investment of Framingham Brownfields Program funds in assessment and cleanup planning that will generate more substantive benefits to and investment in the Southeast Framingham community.

- Providing preliminary recommendations to revitalize, repurpose, and redevelop sections of the neighborhood impacted by environmental contamination.
- Providing recommendations as to reasonable and feasible actions the Town can take to catalyze more investment in Southeast Framingham.

1.4 Limitations of the Study

The Study builds upon planning efforts conducted by others to date and is intended to specifically focus on the brownfield aspects of planning in Southeast Framingham and how planning strategies to address brownfields re-use in the area can support larger planning goals being addressed by other planning work in the area. Most recently, the Metropolitan Area Planning Council (MAPC) and Massachusetts Department of Environmental Protection (MassDEP) have both been working on larger aspects of planning in Southeast Framingham and the efforts of those organizations are not intended to be reiterated herein. The goal of the Study is to focus on brownfield strategies that support larger planning goals of the Town and will spur investment in Southeast Framingham.

1.5 Brownfield Technical Support & Regulatory Framework

The primary regulatory agencies for brownfield assessment and cleanup in Massachusetts are the USEPA and MassDEP. These two regulatory agencies routinely collaborate in facilitating brownfield redevelopment and re-use and their expertise and regulations can be an asset to brownfield redevelopment when engaged. These organizations have funding, expertise, and regulatory requirements that support both private and public brownfield redevelopments. While an understanding of their regulatory requirements is necessary for successful re-use of brownfield properties, both agencies assist developers in safe and productive re-use of brownfields.

1.5.1 USEPA BROWNFIELDS PROGRAM

USEPA is responsible for the primary definition of a brownfield nationwide, which is:

> Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substances, pollutants, contaminants, controlled substances, petroleum or petroleum products, or is mine-scarred lands.

This definition is quite broad in practice and much of the real estate in Southeast Framingham, especially current and former industrial and commercial properties, can meet the definition. The value of meeting the definition in the development of real estate is the potential for eligibility for both funding and technical support from USEPA. USEPA has

several funding programs that can directly support both public and private entities in brownfield redevelopment projects, which are discussed in **Section 4.0 (Recommendations**). USEPA also provides technical expertise and resources when requested to aid in improving the productive use of brownfields real estate. The Framingham Brownfield Program run by the Framingham Community and Economic Development Division is the appropriate contact for requests for USEPA funding and technical assistance. The Framingham Community and Economic Development Department can provide funding and technical advice regarding USEPA capabilities without regulatory risk to owners and developers.

1.5.2 MASSDEP CLEANUP REGULATIONS

Assessment and cleanup of brownfield properties with confirmed environmental releases in Massachusetts are regulated by the MassDEP via the Massachusetts Contingency Plan (MCP; 310 CMR 40.000). The regulations set forth under the MCP do not require pristine cleanup of environmental releases but instead focus on cost effective means to eliminate human health and environmental risks of environmental releases. The performance standard for achieving "closure"[1] under the MCP is to cleanup to a condition of "No Significant Risk". In practice, the MassDEP regulations allow for substantial flexibility in clean-up approaches based on the anticipated development use of the property. Often cleanup remedies can be implemented concurrently with property redevelopment and financed simultaneously as part of redevelopment financing. Typically a developer or owner of a brownfield does need to hire a private Licensed Site Professional (LSP) consultant to address regulatory requirements under the MCP. However, Framingham's Brownfield Program can, in some cases, provide that consulting expertise to potential developers and owners. The Framingham Community and Economic Development Division can be contacted without regulatory risk under the MCP regarding this type of consulting assistance.

MassDEP also supports brownfield redevelopment through a variety of measures. Some examples of these include:

- Providing technical assistance to developers, landowners, and municipalities through regional points-of-contact that provide information on the assessment and cleanup process and funding opportunities.
- Allow flexibility on cleanup timelines through Special Project Designations.
- Support efforts to obtain federal funding to facilitate brownfield redevelopment in the Commonwealth.

1.5.3 AMERICAN SOCIETY OF TESTING AND MATERIALS

In addition to the regulatory and technical framework established by USEPA and MassDEP, the American Society for Testing and Materials (ASTM) has developed a standard approach, known as Phase I Environmental Site Assessments (Phase I ESAs; ASTM Standard Practice 1527-13), for evaluating potential environmental liabilities as part of initial

[1] "Closure" generally means that a Permanent Solution to an environmental condition(s) has been achieved, and no additional assessment or cleanup actions are necessary under the current land use scenario.

due diligence to support property transactions. Phase I ESAs, sometimes referred to as "21E" investigations in reference to Massachusetts General Law, generally include review of the property's history and conditions to identify evidence of releases or threats of releases to the property grounds. Typically required by lenders or other entities which finance land development projects, Phase I ESAs are an ideal and necessary first step in brownfield redevelopment, as they do not expose owners or prospective buyers to potential regulatory liability because the steps conducted during a Phase I ESA would generally not trigger a new requirement to report to a regulatory agency. At the same time, Phase I ESAs allow for a better understanding of property-specific conditions, secure federal liability protections, and promote eligibility for available funding sources. Based on the results of a Phase I ESA, owners or developers should work with their LSP and financing partners to determine if additional environmental assessment is needed to evaluate specific concerns which have not been addressed, assess property-wide environmental conditions, and support selection of feasible cleanup and redevelopment options.

2. Brownfield Planning Evaluation

2.1 Study Area Overview

Southeast Framingham has a long history of industrial and commercial development, which historically contributed to the economic prosperity of the Town. However, today the neighborhood is burdened by a median family household income which is approximately one-third of that of the Town. The industrial and commercial legacy is recognized in the high concentration of brownfield properties, which collectively represent a substantial challenge to restoring the economic vitality of the neighborhood.

2.1.1 STUDY AREA DESCRIPTION

The study area is predominantly commercial and industrial in character, intermingled with residential land usage. The area is generally centered around Beaverdam Brook, and is bound by Waverly Street to the north, with downtown Framingham located approximately 0.25 to 0.5 miles to the northwest. Moderately-dense single- and multi-family residential developments, including publically-subsidized housing facilities, abut the study area to the east. A higher concentration of single-family residential neighborhoods abuts the study area to the west. To the south of the study area sit a state correctional facility, the ADESA automobile auction facility, along with single- and multi-family housing adjoining wet wooded and undeveloped land. A railroad line owned by the Consolidated Rail Corporation also bisects the study area, trending northwest to southeast. The boundary of the study area and several neighborhood landmarks are depicted on Figure 1.

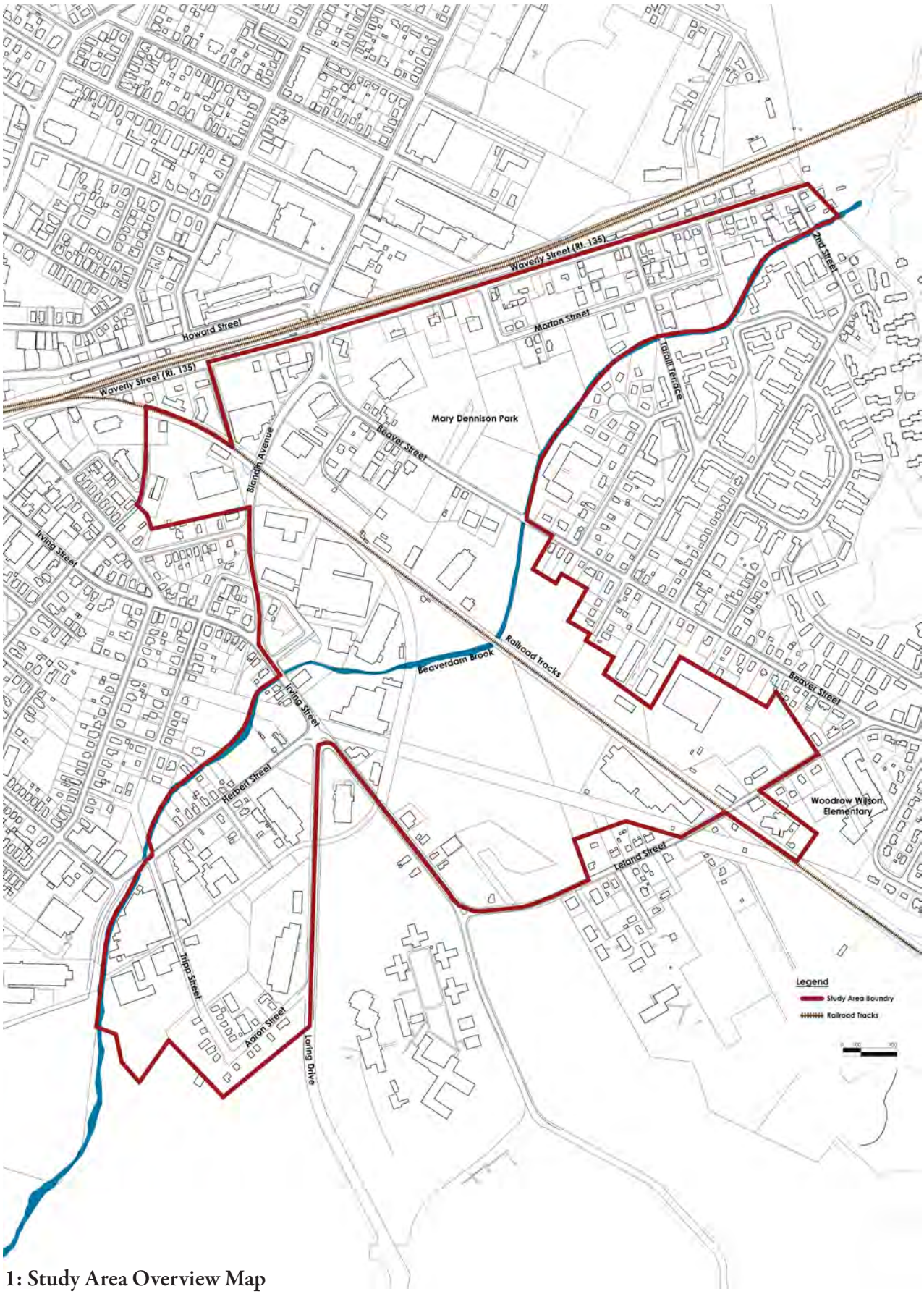


Figure 1: Study Area Overview Map

2.1.2 STUDY AREA DEMOGRAPHICS

According to data compiled by MAPC, Southeast Framingham is home to approximately 7% of the Town's population, but approximately 29% of its subsidized housing. Approximately 60% of households are considered by the US Census Bureau to be "cost-burdened" with respect to housing costs, meaning that those households pay more than 30% of their gross income on housing. Additionally, the area's population is characterized by a high percentage of minorities (approximately 77%) and immigrants (approximately 39%). As a result, approximately 34% of households are non-English speaking, speaking predominantly Spanish or Portuguese. These income and demographic characteristics are summarily expressed in the neighborhood's designation as an Environmental Justice community, due to low median household incomes, high percentage of minorities, and high incidence of English language-isolation. Environmental justice populations have historically been disproportionately-impacted by brownfield properties and the resulting degradation of the environmental- and economic-vitality of their communities. As such, engagement of these populations during the life of brownfield redevelopment projects is a priority of the Town, MassDEP, and USEPA, to ensure that the needs of these vulnerable persons are understood and considered as decisions are made. For additional background information on the demographics of the neighborhood, refer to MAPC's 2016 *Southeast Framingham Neighborhood Action Plan*.

2.1.3 ON-GOING MASSDEP INITIATIVES

MassDEP has also implemented a number of programs initiated in 2015 that are intended to improve the environmental quality of Southeast Framingham and promote related community engagement. These activities have included outreach to neighborhood business owners that are subject to MassDEP regulations due to generation of hazardous waste or emission of potential air pollutants as part of their business operations. Specifically, MassDEP personnel met with and distributed regulatory compliance assistance guides to these business owners.

MassDEP has also taken an active role in several larger-scale cleanup projects that are on-going in the neighborhood, including two cleanups which were considered as part of this study, cleanups at Mary Dennison Park and General Chemical. Their role has included regular interaction with Town officials, Responsible Parties, environmental professionals, and the public regarding the progress of cleanup at these properties.

Additional sites where smaller-scale releases of oil and/or hazardous materials that have the potential to impact Beaverdam Brook have been inventoried and prioritized by MassDEP. As part of this process, characteristics of each site that affect the likelihood of impacts to the Brook, such as distance to the stream and contaminant concentrations, were considered. MassDEP intends to use this inventory to make recommendations regarding follow-up activities at high priority sites.

2.2 Neighborhood Analysis

2.2.1 CURRENT BUILDING STOCK AND LAND IMPROVEMENTS

The study area is comprised mostly of older buildings and impervious surfaces (including an abundance of parking lots) and a lack of public realm amenities. These characteristics often create an aesthetically-unpleasing and less-cohesive environment. The area also has a relatively high density of rental properties and associated renter population. Typically, areas with relatively high density of absentee landlords and renters are not as well-maintained aesthetically and functionally. Absentee landlords and renters not investing in neighborhood character and maintenance may further a perception of disinvestment in the neighborhood.

Throughout the study area, there is an abundance of impervious surfaces. These impervious areas are a result, in part, of outdated parking regulations and land uses. Beaverdam Brook, the only natural surface water resource located within the study area, is the direct recipient of excessive stormwater runoff and pollutant migration as a result of impervious surfaces, due to high amount of stormwater not being infiltrated into the ground. Individual parking areas increase impervious area in addition to contributing to low density development. The majority of the commercial parcels within the study area have their own parking facility.

2.2.2 LAND USE ZONING

In 2014, the Framingham Planning Board completed a detailed study of the land use in Southeast Framingham, including a review of the existing conditions, desired uses, and regulations. The Planning Board identified the following six goals for the Town's reinvestment in South Framingham:

- Enhance the aesthetic quality
- Encourage alternative modes of transportation
- Allow for mixed use development
- Allow for the expansion and growth of local businesses
- Invest in housing and parks
- Establish a neighborhood identity

To achieve these goals, a number of recommendations were made regarding changes to the zoning ordinance and other land use regulations for the Southeast Framingham neighborhood. The specific recommendations that apply to this Study include:

- Allow for a higher density, mixed use corridor along Waverly Street
- Consider a streetscape and building design guideline

- Incorporate public art into the streetscape to create a vibrant sense of place
- Utilize the sign and façade program to create more attractive storefronts
- Encourage mixed use style housing so necessary resources (food, medical care, financial, education, etc.) are accessible to all
- Increase available open space opportunities through pocket parks and redevelopment of underutilized parcels into park amenities

From a planning perspective, zoning is the enabling tool that a municipality uses to insure consistency with an established vision. However, the zoning requirements in Southeast Framingham are a contributing impediment to creating a better functioning neighborhood and consequently, are contributing to the perception of disinvestment. Current zoning appears incompatible with the vision of establishing positive mixed use change within the neighborhood in general. Refer to Figure 4 for a depiction of current zoning within the study area.

As an example of the challenges posed by current zoning, numerous parcels located in manufacturing zoning districts within the study area (Zone M District – General Manufacturing) are being used for residential purposes. Active manufacturing use amongst residential land use results in less safe public ways for pedestrians and disrupts the community character of the neighborhood. Many of the homes located in the Zone M District do not benefit from amenities typically found in residential zoning districts such as well-maintained and connected sidewalks, marked travel lanes, and street lights. These homes are at a disadvantage for investment because of their location in the manufacturing district.

Properties within the area also have to follow restrictive dimensional regulations, have relatively high parking requirements, and often need numerous special permits or variances to facilitate redevelopment. The area has a high number of parcels that do not conform to the existing Lot Area Requirement. It is estimated that approximately 30 percent of the parcels within the study area do not meet this requirement. Many of the businesses and uses in this neighborhood, despite their appearance, are active and contribute to the community. A future vision of the area must be respectful of the balance between existing and potentially continuing businesses with the municipal desire to evolve to a greater mixed use development pattern. In such cases, rezoning should be considered for sections of this neighborhood to achieve the desired results. Form-based codes and guidelines are an effective adjunct to such flexible zones to insure establishment and preservation of the neighborhood character. Additional detail regarding recommended zoning changes which the Town could implement to facilitate its vision for Southeast Framingham is presented in **Section 4 (Recommendations)** of this document.

2.2.3 AMENITIES

Services and amenities serving the neighborhood are generally insufficient to energize further investment in the area. Some of the issues related to amenities include:

- **Markets/Fresh Food Access:** Within the study area there is one full-service grocery store which offers fresh produce, weekly shopping opportunities, and specialty products. There are a total of nine other stores and markets that sell food within the study area, but more than half of these stores and markets do not sell fresh produce and do not have sufficient volume and variety of stock to support weekly shopping.
- **Schools:** The Woodrow Wilson Elementary School is the only public school located within 0.25 miles of the study area.
- **Downtown Access:** Although much of the neighborhood in general is within a half mile of Framingham's downtown, which has many amenities and transportation options, the area feels disconnected from such attributes. Strip development, auto centric roadways, lack of multi modal connectivity, and the aesthetics of the study area all enforce this feeling of detachment.
- **Open/Recreational Space:** The only substantive open space or green area in the study area open to the public is Mary Dennison Park.
- **Community Centers:** One community support center located within the study area is the MetroWest Center for Independent Living. Four additional community organizations providing a variety of support to the public, including gathering space, are located within 0.5 mile of the Study area.
- **Healthcare and Pharmacies:** Two health care providers and one pharmacy are located within the study area.
- **Financial Institutions:** Aside from ATM services, no banks are located within the study area.
- **Gyms and Fitness Centers:** One fitness center, Suburban Athletic Club, is located within the study area.
- **Churches:** One church is located within the study area, and approximately ten others are located within 0.5 mile.

Refer to Figure 2 for a map of the approximate location of basic community amenities located within and near the study area.

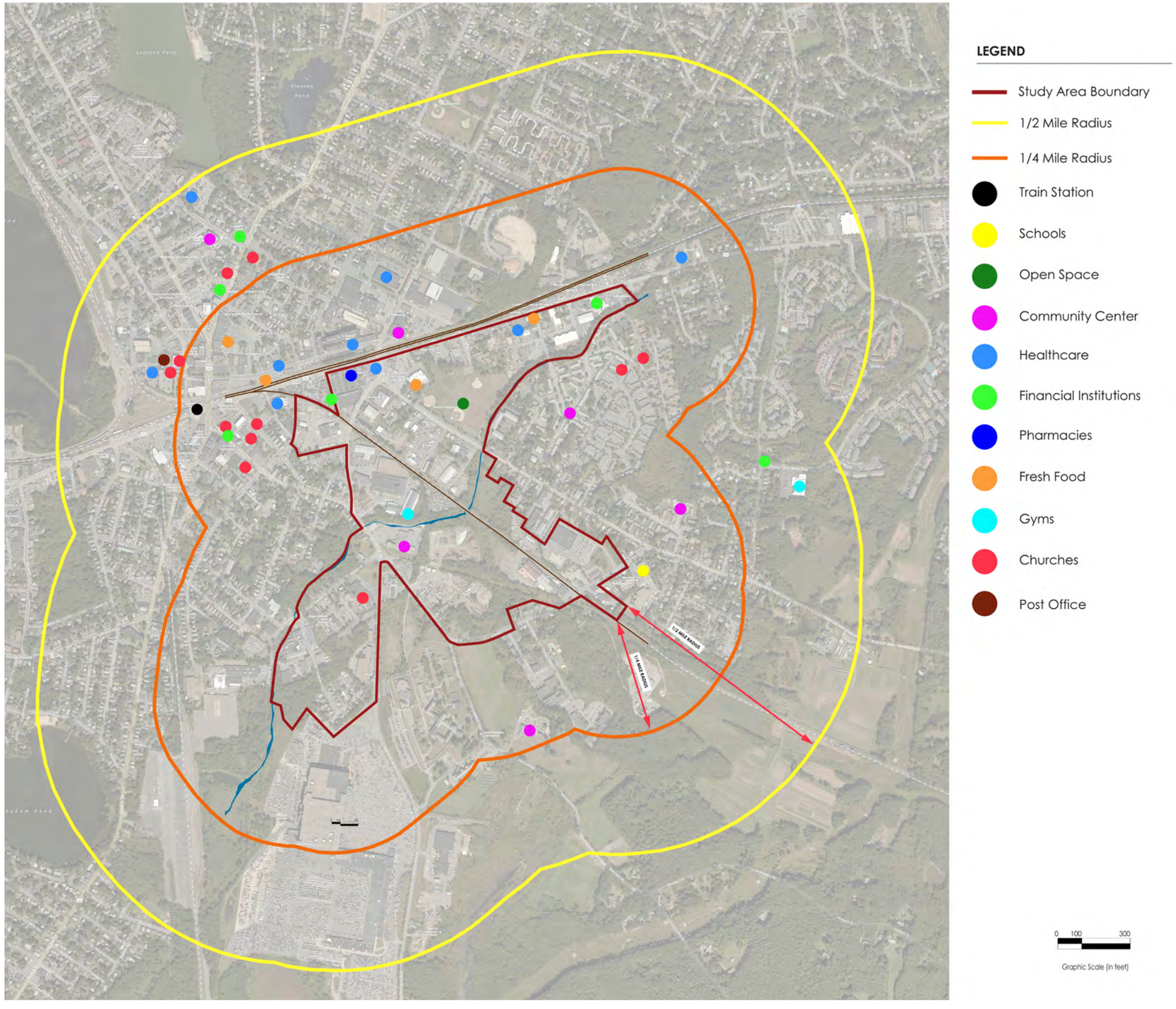


Figure 2: Neighborhood Amenities Map

2.2.4 TRANSIT SYSTEMS

Public transit does serve the area but access for some can be more challenging. Five bus stops are located in the area but the bus stop locations are all on the boundary of the study area. Three bus stations are located along Waverly Street and the other two are located near the southern and eastern extents of the study area. The closest train station is in downtown, approximately 1.4 miles from the northeastern boundary of the study area, operated by the Massachusetts Bay Regional Transit Authority. Because much of the neighborhood is characterized by impervious surfaces and outdated parking options that are scattered amongst industrial and manufacturing properties, the overall setting is not conducive to pedestrian safety and connectivity to transit options. In addition, the Metrowest Regional Transit Authority bus system servicing the area is generally inadequate, with limited service after noontime during the week and no service on weekends. Refer to MAPC's 2016 *Southeast Framingham Neighborhood Action Plan* for additional detail regarding bus service in Southeast Framingham. Refer to Figure 3 for a map of the approximate location of transit services located within and near the study area.

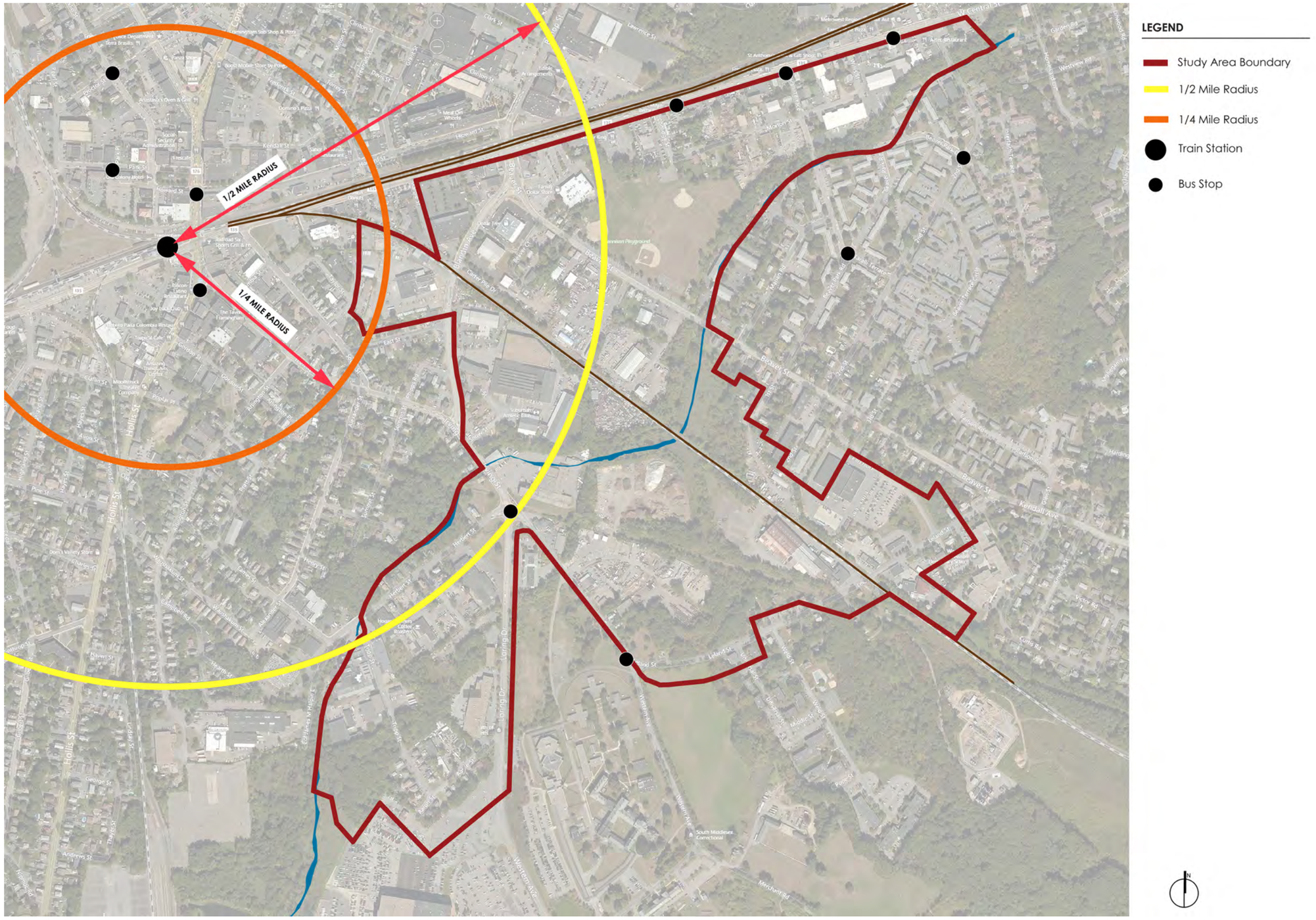


Figure 3: Neighborhood Transit Services Map

2.3 Brownfield Inventory

As part of the on-going Framingham Brownfield Program, an inventory of properties with redevelopment potential that potentially meet the USEPA brownfield definition was developed and was used to guide the selection of properties that were the focus of this study. The redevelopment potential of these brownfield properties was evaluated based on factors such as location, presence of transit options, availability, and catalytic-development potential, as well as the documented or potential presence of environmental contamination. No residential parcels were included in the inventory, and all other parcels were scored with respect to the following high-value criteria:

- Properties with proximity to major transportation routes (e.g., rail, highways, regional roads) or other key features (e.g., waterway), location in a downtown, industrial or commercial area, close to residential population, amenities, or services.
- Properties with documented environmental conditions (e.g. spills, releases), or land use history indicative of a relatively high potential for contamination.
- Larger vacant properties for industrial and commercial properties, unless a smaller property can be readily combined with adjacent properties in order to increase the size of the site.
- The presence of existing buildings that can be readily adapted converted or reused.
- Properties that are for sale, or have a receptive, interested, and willing landowner.
- Properties in a targeted redevelopment area or in areas with other municipal incentives.
- Properties that have the ability through their reuse or redevelopment to positively generate similar improvements in the surrounding area.

Each of the property characteristics listed above contribute to the redevelopment potential of the properties, and were used by the Town to prioritize brownfield redevelopment. These characteristics and the resulting inventory of brownfield properties, which is subject to change over time, were used to inform the study area and, what we will refer to as, the property groupings. The property groupings are summarized below and were the subject of the more-detailed evaluation presented in **Section 3 (Property Groupings Evaluation).** Refer to Figure 4 for a depiction of the property groupings, as well as maps evaluated to support development of the groupings.

2.4 Potential for Urban Fill

As with all urban property in Massachusetts, the potential exists for fill materials containing anthropogenic[2] materials and contaminants to be present throughout the study area. Such fill materials, referred to herein as "urban fill", often contain coal, wood ash, and/or coal ash, and related hazardous materials. Given the widespread and common presence of these

[2] In this context, "anthropogenic" means environmental contaminants or contaminant sources which originate from human activity.

fill materials in urban land, releases of hazardous material attributed solely to coal and ash have been specifically exempted from MassDEP's release notification and cleanup requirements. However, despite the lack of requirements to report and cleanup such releases, the presence of fill materials may still have implications for future redevelopment activities at the subject groupings. In particular, the presence of these materials may limit soil disposal options, and thus affect costs, and may also warrant careful implementation of best management practices during redevelopment to limit migration of soil to humans or environmental amenities

2.5 Property Groupings Overview

In addition to the analysis of the Southeast Framingham study area summarized above, five separate groupings of properties within the study area were evaluated in greater detail as part of the Study. The focus on property groupings supports the idea that land use could function more productively if owners and developers design developments in collaboration, rather than on a parcel-by-parcel basis, which is discussed further below in **Section 3.1 (Benefit of Property Groupings)**. The groupings, depicted on Figure 1, were delineated based on a relative abundance of Brownfield properties, the presence of existing incompatible land uses (industrial adjoining residential), and/or high potential for enhanced productivity which better meets the needs of the neighborhood. Furthermore, the presence or absence of viable businesses that serve the needs of neighborhood residents was considered in the delineation of the groupings, in conjunction with the presence of wetlands and floodplains. While the Study documented herein focused on the Brownfield characteristics and reuse potential of the depicted groupings, it is important to note that the Town's goals for Brownfield redevelopment in Southeast Framingham are not limited to the properties within groupings.

Current land use patterns at each of the groupings are summarized in the following bullets. A vision for and benefits of redevelopment of these groupings are described below in **Section 3 (Property Groupings Evaluation)**.

- **Blandin Avenue Grouping:** This grouping is centered around the intersection of Blandin Avenue and Beaver Street, which connect northward to the residential and commercial areas along the east side of downtown. Commercial activities with an abundance of impervious parking surfaces characterize land use. Restaurants, multi-unit retail structures, a gasoline station, a rental car facility, an automobile repair shop, and an industrial supply facility operate within this grouping. The northern boundary of the grouping abuts Waverly Street, while the southwestern boundary abuts the railroad tracks.

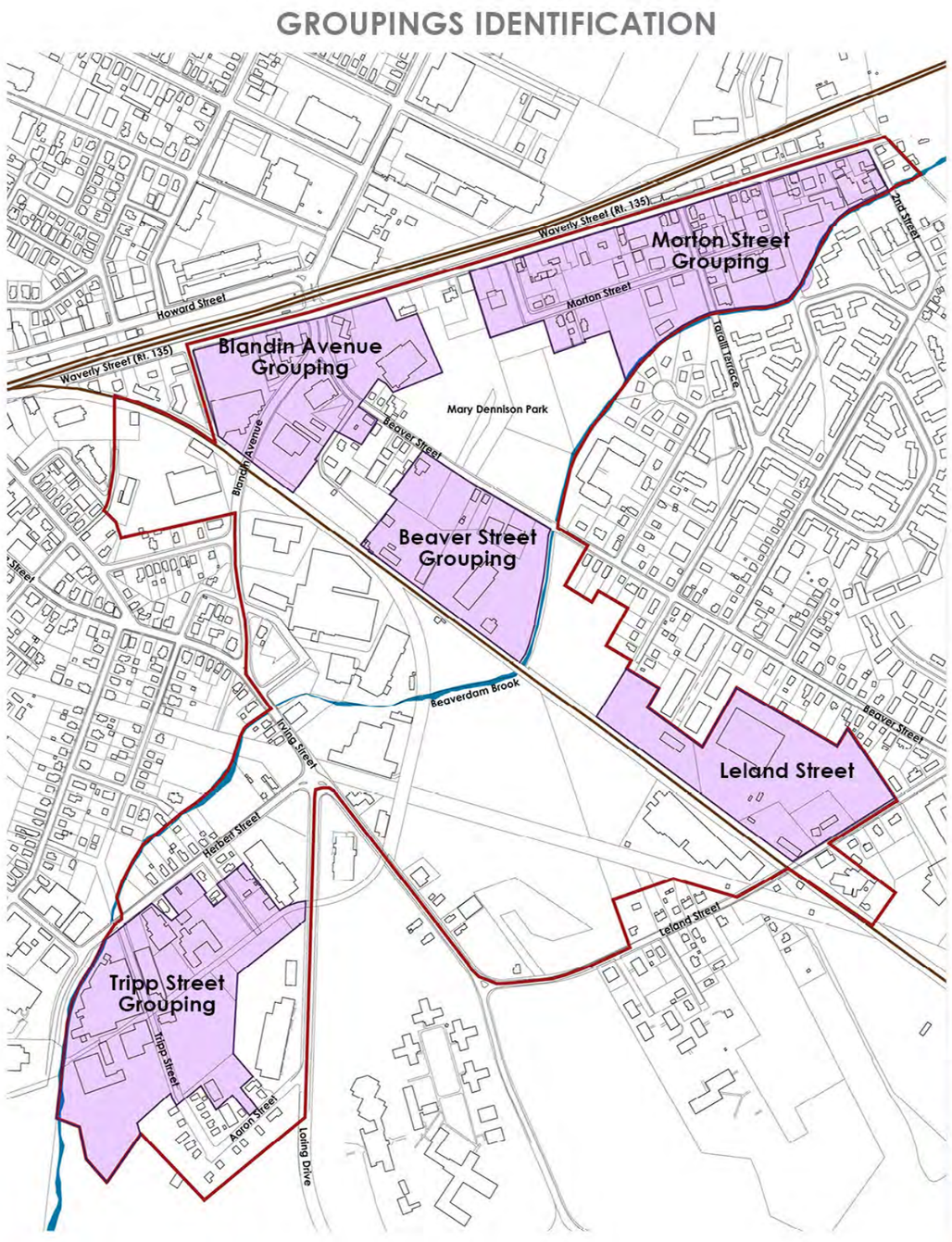
- **Beaver Street Grouping:** This grouping fronts Beaver Street, one of the primary thoroughfares within the study area. On the other side of Beaver Street lies Mary Dennison Park, a highly-visible and critical recreational amenity. Commercial operations which occupy large land areas with parking lots characterize this grouping. Residential

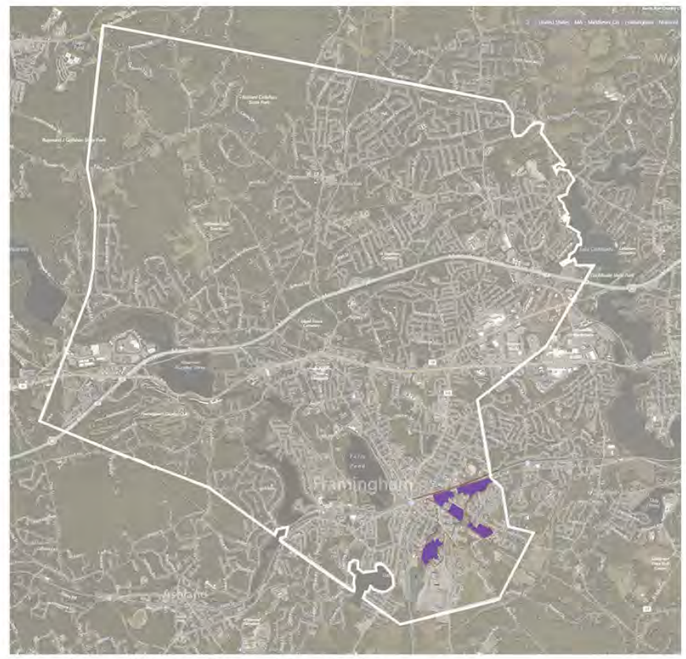
properties along Beaver Street are located within and abut this grouping. Automobile-related operations dominate much of the land use, including multiple repair shops, junk car storage lots, and a towing company. Other commercial operations include a laundromat, construction supply companies, and a convenience store. The eastern portion of the grouping is characterized by an area of wetlands and woodlands buffering the abutting Beaverdam Brook, while the southwestern boundary abuts the railroad tracks.

- **Morton Street Grouping:** This grouping encompasses the properties along and adjoining the blocks formed by Morton Street, Coolidge Street, and Willis Street. A road connection from Waverly Street to dense residential neighborhoods trends north-south through this grouping. The grouping is abutted to the south by Beaverdam Brook and Mary Dennison Park. Though a variety of commercial and industrial operations are present, automobile-related businesses dominate, including a salvage yard, a gasoline station, and multiple repair shops. These uses are intermingled with, and in some cases directly abutted by, residential properties.

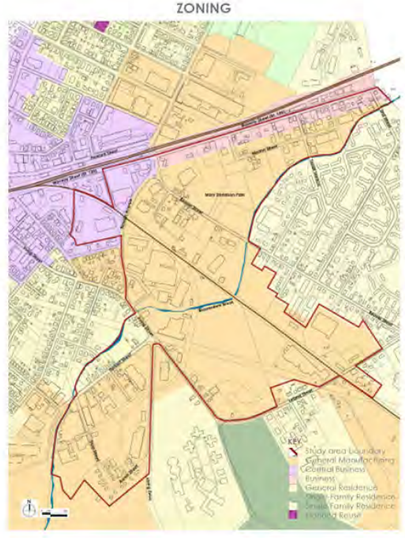
- **Leland Street Grouping:** This grouping is abutted to the north by a residential neighborhood comprised of a combination of single- and multi-unit housing. Land use within this grouping is characterized by a limited number of commercial operations which occupy large parcels, including several large parking lots. Existing companies include an environmental contractor which occupies a former heating oil distribution facility. A vehicle fleet maintenance and storage facility for a telecommunications company covers much of the grouping. Additional operations include a junk vehicle storage area and a car wash. The grouping is abutted to the southwest by the railroad track, and to the southeast by the former General Chemical facility, which is a high-profile contaminated site. The public Woodrow Wilson Elementary School is located just northeast of the grouping.

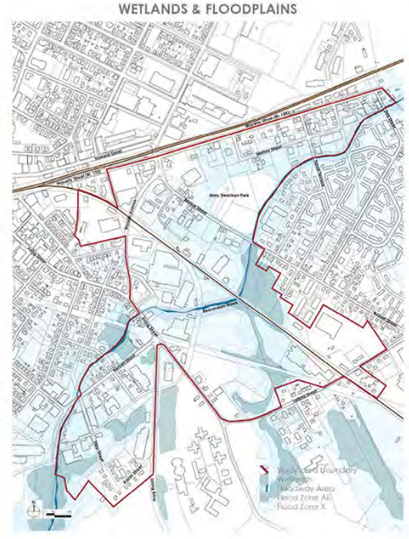
- **Tripp Street Grouping:** This grouping is characterized by multiple former industrial buildings, several of which have been sub-divided into smaller industrial or commercial units. While much of the building space appears to be under-utilized, several industrial and commercial tenants are present. These include a furniture restoration company, a kitchen services contractor, medical research labs, a holiday bow manufacturer, and an office furniture retail operation, all located along Tripp Street. Additional occupants along Herbert Street include an HVAC service company and a printing company. A solid waste trucking company operates along Wellington Street, while a towing and vehicle storage company is present on Aaron Street. The grouping is abutted to the north and south by residential properties. Beaverdam Brook defines the western boundary, and a former railroad spur bisects the grouping.





Groupings within the Town of Framingham





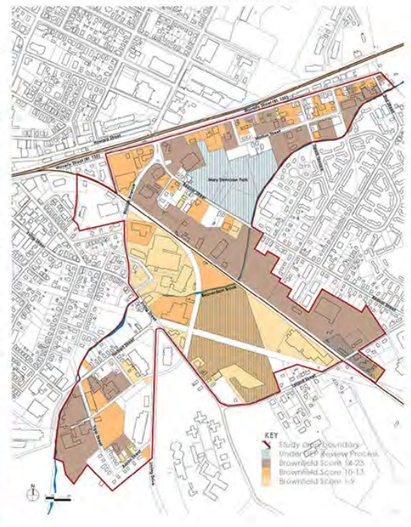


Figure 4: Study Area, Property Groupings, and Selection Process Maps

3. Property Groupings Evaluation

3.1 Benefit of Property Groupings

As described above, Southeast Framingham is an area zoned primarily for manufacturing and industrial uses, but is characterized by many smaller parcels, including residential, interspersed in the area amongst the larger parcels. For the purposes of evaluating development potential and recommended actions to drive more productive property use, the five larger groupings identified above were delineated. Typically, parcel redevelopment values can be greatly improved when groups of parcels are combined, allowing greater use flexibility and design options for a single, larger, integrated-development plan. Effectively, if the Southeast Framingham property owners, potential developers, and the Town can collaborate over a larger development area than individual parcel–by-parcel developments, the larger grouping can be more valuable in the long run to the developer and the community. Cooperation of multiple abutting property owners and developers is a critical step in creating a larger development vision.

As many of the sites and groupings studied contain currently active uses on numerous, relatively-small parcels of land, a number of objectives must be achieved at the property owner level. Consolidation of smaller individual parcels into more marketable and potentially valuable groupings creates critical mass. The potential of grouped urban properties often offers greater development options and values than the properties would yield when developed on a parcel-by-parcel basis. In turn, the enhanced redevelopment value will provide incentive to assess and cleanup environmental contamination at the individual properties, in a manner that facilitates the broader redevelopment goals for the grouping. Redevelopment potential will be substantially diminished without such critical mass, and consequently, cleanup opportunities, development options, and private investment will be lesser without the critical massing.

This study illustrates conceptual parcel groupings in Southeast Framingham that can provide much greater development opportunities and values to stakeholders over the long term. It should be noted, however, that the determination of successful grouping boundaries in reality will be largely dependent on property owner cooperation in providing development opportunities to the market. Land owners must understand the value of consolidation and working together, and the Town can play a role in educating stakeholders about increased yield predicated on increased density of land uses and the resulting increase in real-estate value.

The Town also has an opportunity to reduce uncertainty regarding environmental liabilities pertaining to the individual properties, which can represent a substantial hurdle impeding the likelihood of successful consolidation and redevelopment of the groupings. As an initial step in this process, this study included review of available Sanborn® Fire Insurance mapping (provided by Environmental Data Resources) depicting land use history (note that Sanborn mapping did not cover the Leland Street grouping) and online MassDEP records pertaining to documented releases of oil and/

or hazardous materials. This review focused on properties within and directly abutting the groupings, and is intended to provide a better understanding of known and potential Brownfield conditions at the groupings.

As detailed further below, releases of oil and/or hazardous materials have been reported at each of the groupings, and in some cases, have resulted in implementation of Activity and Use Limitations (AULs) on a property to address known releases. AULs are typically one of the most cost effective means to re-use Brownfield properties and are often utilized to support proposed redevelopment plans at properties with known releases of oil or hazardous materials. AULs ensure that engineering controls required to utilize a contaminated property safely are maintained for a particular property use. In cases where the use of the property changes, AULs can be modified to support other property uses which often occurs to facilitate Brownfield redevelopment. Existing AULs should not be considered barriers to redevelopment or changes in property uses, as AULs can be modified appropriately by an LSP when necessary to facilitate a new redevelopment or property use plan. Combining parcels into groupings can help achieve an economy of scale that enhances the cost-effectiveness of cleanup actions, which can often be integrated into broader redevelopment activities with relatively low added cost. Such cleanup activities can be used to remove or modify the need for existing AULs and allow an expanded range of site uses.

The groupings' Brownfield conditions and visions for potential improvements to the values of the groupings are discussed in the following sections.

3.2 Blandin Avenue Grouping

3.2.1 LAND USE HISTORY

In 1887, land use at the western portion of this grouping was characterized by a marble works facility, a planing mill, and box factory, which was located just northwest of Beaver Court. The grouping was abutted to the west by a coal and lumber storage yard featuring multiple railroad spurs, which operated into the late 1960s.

By 1915, the mill and box factory site was occupied by a manufacturer of steel lockers and chairs. This facility used coal as a heating source and was abutted to the southwest by railroad spurs. The metals manufacturing facility remained in operation until sometime between 1930 and the 1960s. A gasoline filling station, small vulcanizing shop, and junkyard operated just west of the intersection of Waverly and Beaver Streets in 1930. During the period from 1887 until 1930, residential land use was scattered among the aforementioned industrial/commercial activities.

By 1968, Blandin Avenue was present and land development within the grouping was generally similar to present-day conditions. The location of the former metals manufacturing facility was occupied by a contracting company mainly

for equipment storage, and a gasoline filling station was located east of the Waverly and Beaver Street intersection. An electrical utility company abutted the grouping to the southwest. Mapping depicting historical land use of this grouping is included in Appendix A.

3.2.2 DOCUMENTED RELEASE HISTORY

Several gasoline stations, an auto-repair shop, a railroad line, and an electric company service center, among other commercial operations, have operated at and adjacent to this grouping. Twelve separate releases of oil or petroleum-based products were identified in MassDEP records, which were generally attributable to small (i.e. 100 gallons or less) spills or leaking underground storage tanks (USTs). The majority of these releases have been cleaned to conditions of No Significant Risk, without limitation on land use within the grouping in the form of an Activity and Use Limitation (AUL). However, residual petroleum contaminants are reported to be present in soil and groundwater throughout this grouping. Furthermore, cleanup response actions were on-going at the time of this writing at 228 Waverly Street and abutting 212 Waverly Street, where gasoline-related compounds are present in groundwater at levels which pose risk to humans or the environment. The on-going cleanup actions consist of monitored natural attenuation (refer to Section 4.2.5), which includes groundwater sampling twice per year to document the natural breakdown of contaminants and ensure that the extent of the impact is stable or shrinking.

On-going environmental assessment and cleanup were limited to the abutting Mary Dennison Park (54-84 Beaver Street), where historical waste disposal and burning activities have resulted in levels of metals (primarily lead) and polycyclic aromatic hydrocarbons (PAH) in soil. While these disposal activities were concentrated at Mary Dennison Park, the presence of buried waste and related contaminants was not assessed on portions of the grouping immediately adjacent to the Park.

3.2.3 OPPORTUNITIES FOR LAND USE IMPROVEMENTS

The intersection of Blandin Avenue and Waverly Street is the entrance to the southern commercial district from downtown. This is the gateway area from downtown to the Southeast Framingham study area neighborhood. Currently, this gateway is not aesthetically welcoming, as the junction of Blandin Avenue and Beaver Streets comprises an overly large amount of asphalt and is surrounded by surface parking lots and the rears of buildings. The area is characteristically accommodating of automobile traffic rather than sensitive to pedestrian or cyclist safety and comfort. Currently, a new multifamily project has been proposed in the western part of the grouping, to take advantage of this area's proximity to downtown and the nearby train station, which are located less than a half mile from the grouping. This grouping, due to its proximity to downtown, is the portion of the study area likely to see development pressure first. A map depicting existing conditions in the grouping is attached as Figure 5.

Examples of possible short term improvements that would increase the productive use of properties in the grouping could include those listed below. Short term concept changes are depicted on Figure 6.

- Relocating some of the businesses and removing some of the older structures to reduce driveway cuts and add curb and gutter along the north side of the Beaver Street, to be in keeping with the upgrades along the south side. As the current uses of many of the structures are primarily auto-oriented, these may be moved to less visibly prominent locations, and the parcels facing Blandin Avenue and Beaver Street may be used for neighborhood-serving commercial uses with a more walkable disposition.
- The shopping center parcel at the intersection of Waverly and Beaver Streets, abutting the Park, could have a pad site added along Waverly Street to fund renovation of the existing building for new uses. Depending on the market potential, an additional building or two could also be added to the Beaver Street side of that parcel, provided parking is adequate and shared between the potential users.
- With the cooperation of property owners, in a longer timeframe, new street connections may be added to the area to improve circulation and increase accessibility to some of the parcels along the railroad right-of way.

The effect of these changes would result in a better defined gateway area with predominantly commercial and other neighborhood-serving uses in the initial gateway area, with residential use and the Mary Dennison Park recreational area further behind the gateway uses to the southwest.

In the longer term, other improvements would help further define land use in the Blandin Avenue gateway grouping. Potential improvements could include those listed below. Long term concept changes are depicted on Figure 7:

- A gateway and entrance feature, such as a statue or other civic art, could be a future infrastructure upgrade at the intersection of Waverly with Blandin Avenue and Beaver Street. Coupled with multi-modal transit or Complete Street improvements, the gateway feature would define or brand the beginning of the neighborhood and enhance walkability. This area could also act as a defining element, while reducing the impervious surface coverage.
- The addition of bicycle lanes on Waverly Street and Blandin Avenue would help the connectivity of downtown into the gateway Blandin grouping area.
- Increased opportunities for jobs and basic retail services in the commercial area of this grouping could help serve the entire neighborhood of the larger study area , through mixed-use structures integrating both residential and commercial units.
- Implementing streetscape improvements in this developing commercial area would enhance aesthetics, improve safety, and attract economic development
- This currently asphalt-dominated gateway area could evolve into a productive commercial area, while serving as a buffer between the open green area of the park and the abutting residential areas.

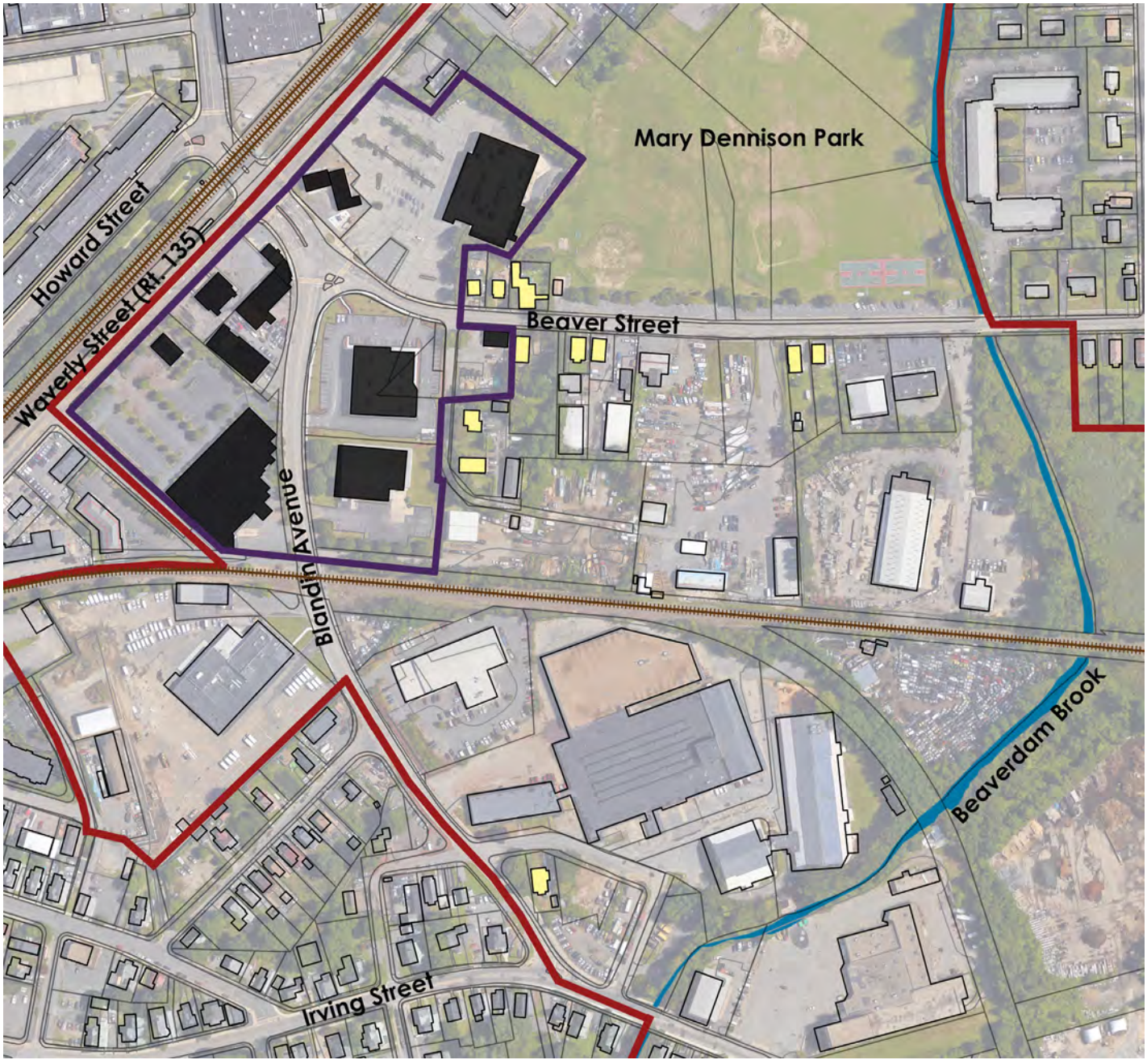


Figure 5: Existing Conditions - Blandin Avenue Grouping

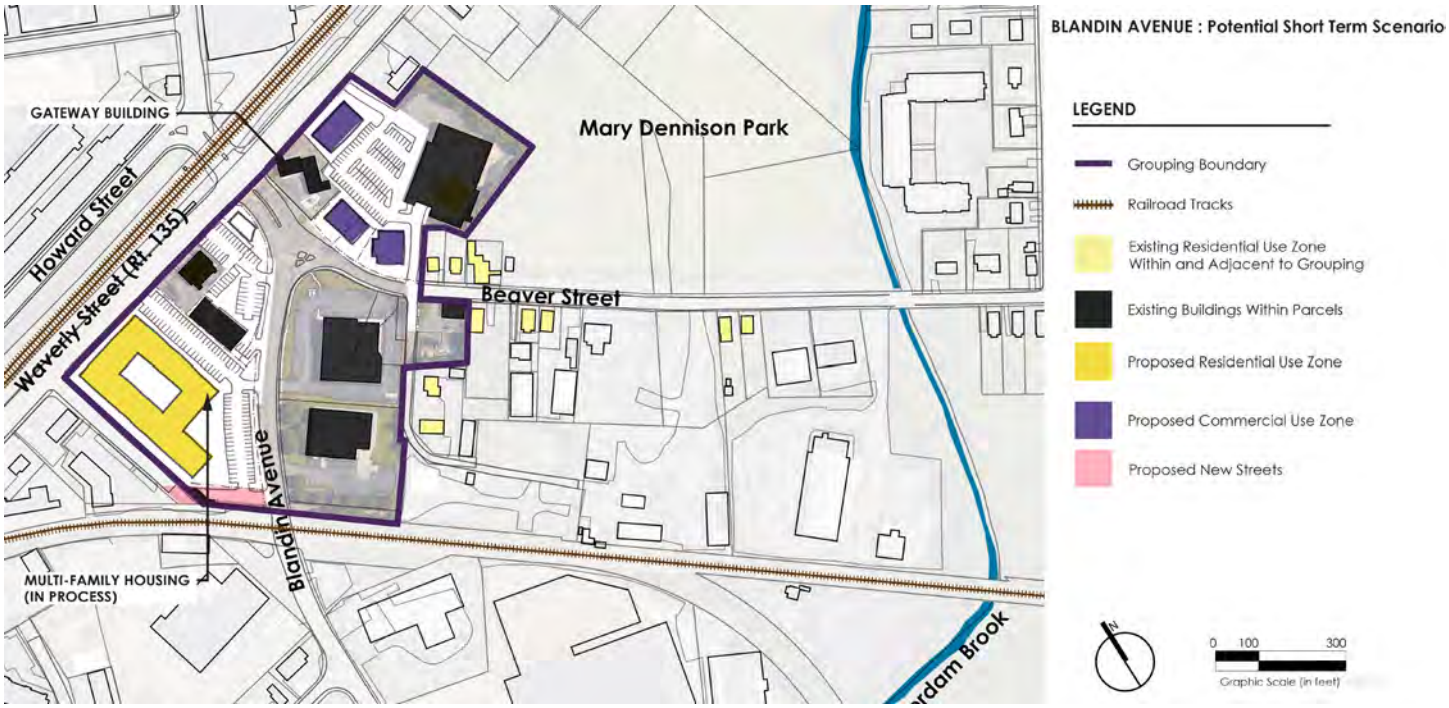


Figure 6: Short Term Recommendations - Blandin Avenue Grouping

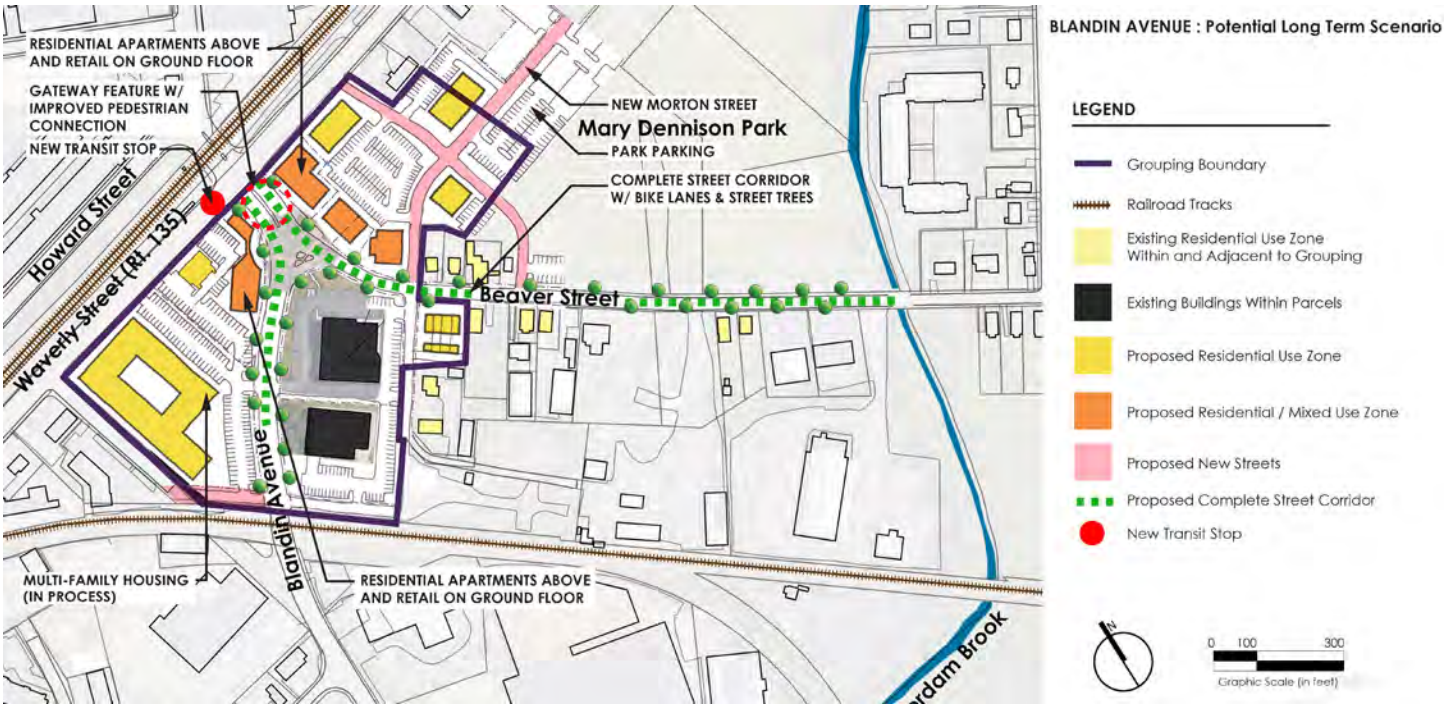


Figure 7: Long Term Recommendations - Blandin Avenue Grouping

- Enhance transit options in Blandin grouping area, which is currently served by the downtown train station that is between one half mile to one mile from the grouping, and bus service along Waverly Street with the nearest stations outside of the grouping area. Create safer connections to transit for pedestrians and cyclists in neighborhood.

These long term concept changes are depicted on Figure 7.

3.3 Beaver Street Grouping

3.3.1 LAND USE HISTORY

Available mapping was limited to the far northern portion of the grouping, in the vicinity of Beaver Street and Beaver Court, depicting land use in 1930, 1948, and 1968. The area proximal to the grouping depicted in the available mapping was characterized by residential use in 1930 and 1948. During this time period, the abutting, present-day Mary Dennison Park was identified as a dump. By 1968, while residential use continued at an abutting property, an autobody shop and repair facility operated at the far northern end of the grouping. The abutting dump had also been converted to Mary Dennison Park. Refer to Appendix A for depiction of historical land use at this grouping.

3.3.2 DOCUMENTED RELEASE HISTORY

Six releases of oil and/or hazardous materials have been documented at this grouping, where auto-repair shops, junkyards, a construction company, a granite company, and a freight transport company have operated at and adjacent to this grouping, among residential properties. Five of these releases were petroleum or petroleum-products, while one release was a spill of six gallons of a bleach-based cleaning agent. Five of the six releases were related to spills or leaking USTs, while one release was attributed to application of fill material containing asphalt. Additionally, five of the six releases have been addressed to a condition of No Significant Risk, without limitation on land use in the form of an AUL. However, residual petroleum contaminants are reported to be present in soil and groundwater throughout this grouping. Additionally, at 21 Beaver Court, within the grouping, an AUL has been implemented to ensure the long-term integrity of surface pavement at the property, currently prohibiting[3] the use of the property for residential or child care purposes, and requiring implementation of a Soil Management Plan prior to disturbance of impacted soil or pavement. This grouping also abuts the Mary Dennison Park site described above.

3.3.3 OPPORTUNITIES FOR LAND USE IMPROVEMENTS

After turning off Waverly Street, Beaver Street becomes the commercial spine of the Southeast Framingham neighborhood area. Access to parking and Mary Dennison Park for the community is provided via Beaver Street. Currently, the structures and uses facing the park are a mix of residential and small businesses with a substantial amount of impervious surface used for parking or storage. A map depicting existing conditions in the grouping is attached as Figure 8.

[3] As noted in Section 3.1 (Benefit of Property Groupings), additional cleanup (or in some cases, assessment activities) can be conducted to remove the need for an AUL and allow for expanded site uses.

The parcels between Beaver Street and the railroad right-of-way would benefit greatly from new street connections. This improvement requires active participation and cooperation from all property owners but could greatly improve the economic development potential and land values in the area. Adding new types of residential housing options along Beaver Street, possibly town houses and small apartment buildings, could strengthen the existing residential housing stock in this area. Such housing along Beaver Street would benefit by good views to the park. Enlarging the parking area for Mary Dennison Park would not only provide better access to the recreation uses, but would also provide an ideal location for a farmers market to give the neighborhood easier access to locally-grown produce.

The commercial uses, such as light industrial and/or manufacturing, could be located on a new street with building rears and service access along the railroad right-of-way. It is extremely important for these uses to be retained in Southeast Framingham as these businesses provide critical employment opportunities for the local residents. As many of the parcels are fairly large, the potential exists to more productively utilize these properties with upgrades and new construction so the commercial enterprises are not displaced.

With careful consideration of the infrastructure, these long term solutions may also provide environmental benefits to the neighborhood. The parking and storage areas may be reconfigured to become more efficient in use and reduce the total amount of paving. The water quality of Beaverdam Brook and surrounding wetlands would greatly improve from reduced stormwater runoff and become a pleasant amenity for the neighborhood.

Some key aspects or potential improvements to consider in increasing the productive benefits of the Beaver Street grouping to the community include:

- Small lots facing park are good for infill residential development as either two-family attached or multi-family units as stacked flats. The park amenity will increase the value of these residential offerings.
- The existing business uses are a good use for property along the railroad tracks. These uses are a good buffer from the railway while continuing to provide job opportunities.
- Bicycle lanes should be added to Beaver Street to help with connectivity to downtown, the Mary Dennison Park amenity, and the rest of the Southeast Framingham neighborhood.
- Continue to increase opportunities for jobs and basic retail services but also protect the existing commercial uses and encourage utilization of parcels at a greater density of use.
- Make streetscape improvements to enhance aesthetics, improve safety, and attract economic development.
- Enhance transit service and create safer connections for pedestrians and cyclists.
- Protect and enhance the neighborhood's park and brook.

Short term and long term concept changes are depicted on Figures 9 and 10, respectively.

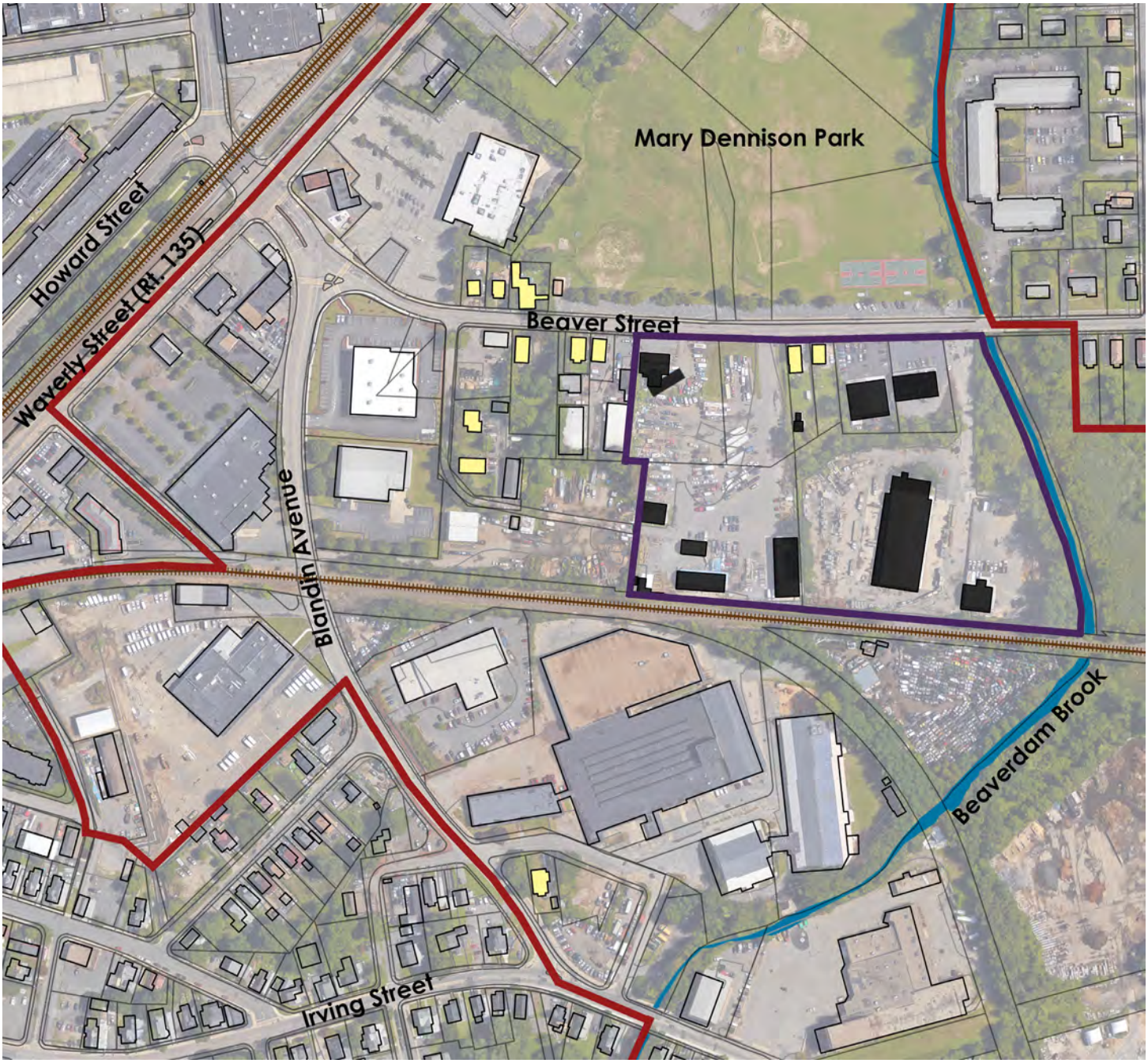


Figure 8: Existing Conditions-Beaver Street Grouping

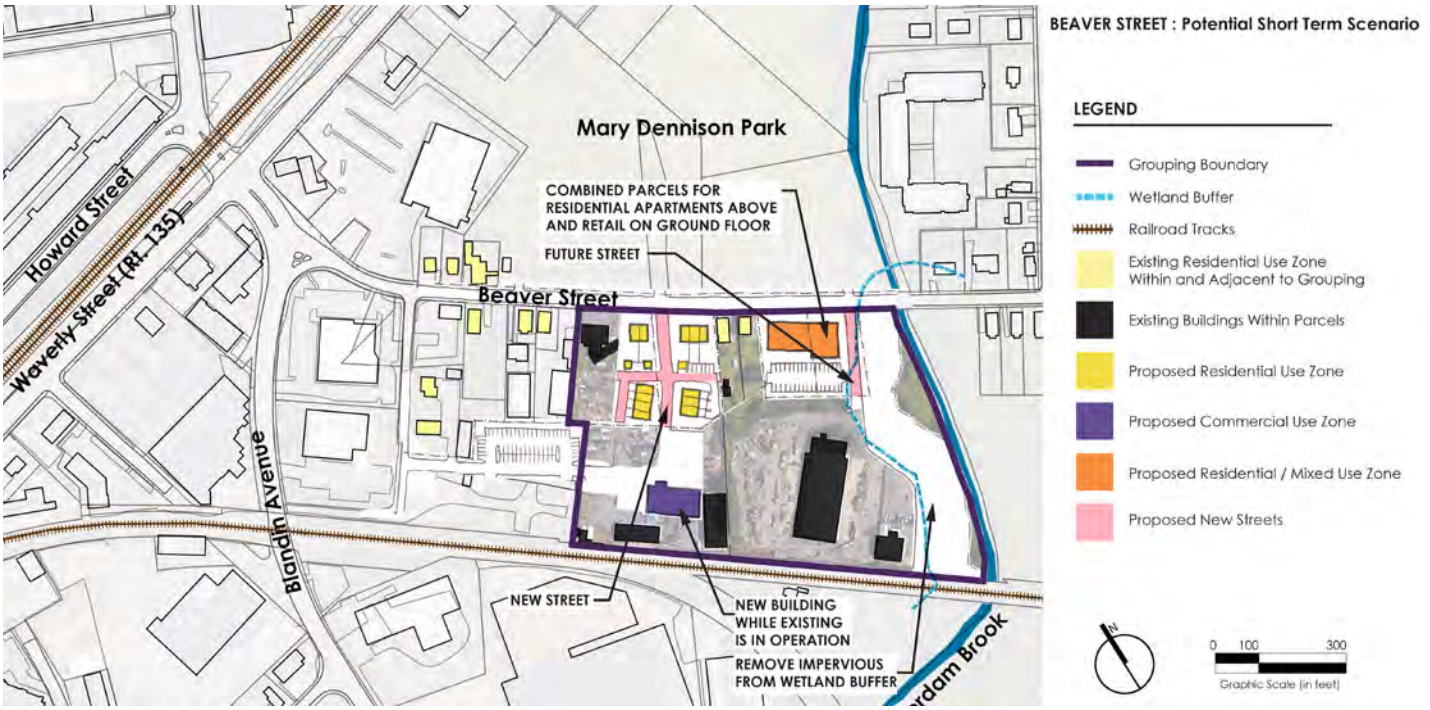


Figure 9: Short Term Recommendations - Beaver Street Grouping

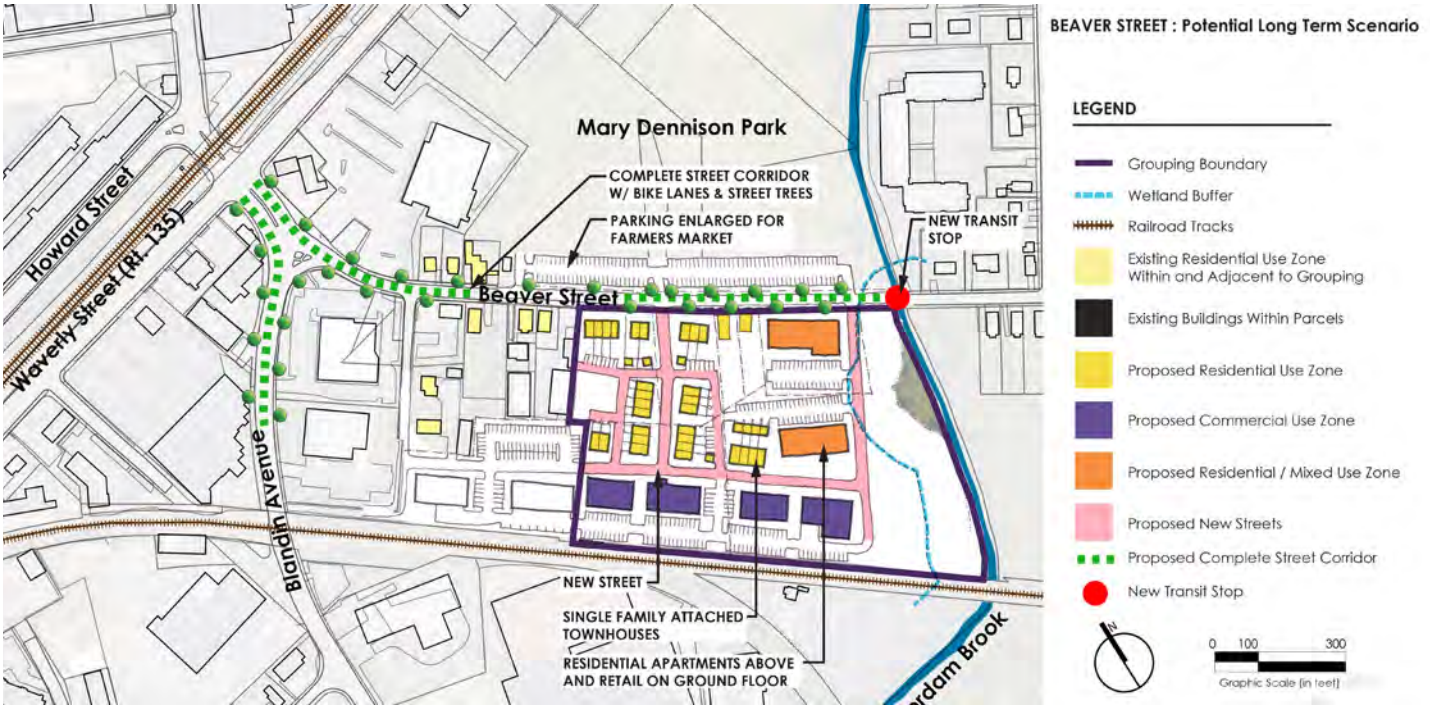


Figure 10: Long Term Recommendations - Beaver Street Grouping

3.4 Morton Street Grouping

3.4.1 LAND USE HISTORY

Available mapping was limited to the western portion of the grouping, in the vicinity of Coolidge and Morton streets, depicting land use in 1915, 1922, 1930, 1948, and 1968. Land use at this area was characterized primarily by residential usage, intermingled with small-scale automobile-related operations. Junk yards and junk storage structures were depicted along Waverly Street in 1922. Several gasoline filling stations with underground tanks were also present along Waverly Street by 1930. These automobile-related land uses expanded by 1948 and into 1968. Mapping depicting historical land use of this grouping is included in Appendix B.

3.4.2 DOCUMENTED RELEASE HISTORY

As introduced above, multiple gasoline stations, junkyards, and automobile-related business have operated at and adjacent to this grouping, among residential properties. Fourteen separate releases of oil or petroleum-based products were identified in MassDEP records, the majority of which were attributed to leaking USTs. Cleanup of each of these releases have achieved conditions of No Significant Risk, without limitation on land use in the form of an AUL. However, residual petroleum contaminants are reported to be present in soil and groundwater throughout this grouping. On-going environmental assessment and cleanup were limited to the abutting Mary Dennison Park (54-84 Beaver Street) and 170 Waverly Street, where conditions consistent with those at the Park have been identified.

3.4.3 OPPORTUNITIES FOR LAND USE IMPROVEMENTS

Morton Street is currently a very problematic area for the neighborhood and the Town as a whole. There are salvage yards, auto repair businesses, and an abundance of vehicle storage along Waverly Street, which is a prominent main public face of Framingham to those traveling to downtown. While viable businesses, many of the parcels are currently under-utilized and are not serving the neighborhood in a manner that is conducive to new investment and economic development. The existing conditions also detract from the residential areas of the neighborhood. While Taralli Terrace is an important connection and an additional opportunity to establish a neighborhood gateway, there is currently no manifestation of the Southeast neighborhood visible at Waverly Street. A map depicting existing conditions in the grouping is attached as Figure 11.

The critical upgrades for this area in the short term are installing curb and gutter to improve the streetscape along Morton and Waverly Streets. Consolidating driveways along both streets so sidewalks can potentially be added would also be beneficial. Relocating the salvage yard and the automotive businesses, possibly to locations off Beaver or Leland

Streets near the railroad right-of-way, while more challenging to accomplish, will tremendously improve the potential for economic development.

While this area is best suited to commercial uses, the commercial market demand may not support redevelopment of the entire area. As there are existing residential properties scattered throughout, allowing infill residential uses in strategic locations could be a good way to increase density and improve the character of the area. Small multi-family buildings with a modest amount of support retail or single-family attached row houses would provide additional dwelling types, for sale or rental, not currently available in the neighborhood.

In the longer term, additional street connections could make Morton Street better incorporated into Southeast Framingham. By extending westward, Morton Street could connect to Beaver Street and engage the northern edge of Mary Dennison Park, allowing the recreation area to be more accessible to a greater segment of the population.

Potential ways to increase investment and community benefits in the Morton Street grouping include:

- Revitalize Waverly Street to create an appealing gateway corridor into Downtown Framingham. The corridor should include amenities and attractions. This type of development should be incentivized through an array of tools including infrastructure improvements, district financing, and cultural programs.
- Develop zoning that allows for a higher density mixed use corridor along Waverly Street.
- Incorporate bicycle lanes on Waverly Street.
- Create higher density mixed use gateways into Southeast Framingham south from Waverly at Taralli Terrace gateway and Coolidge Street.
- Protect the commercial uses which better serve the neighborhood and encourage utilization of parcels at a greater density of use. Automotive or salvage-based commercial operations should be considered for relocation.
- Make streetscape improvements to enhance aesthetics, improve safety, and attract economic development.

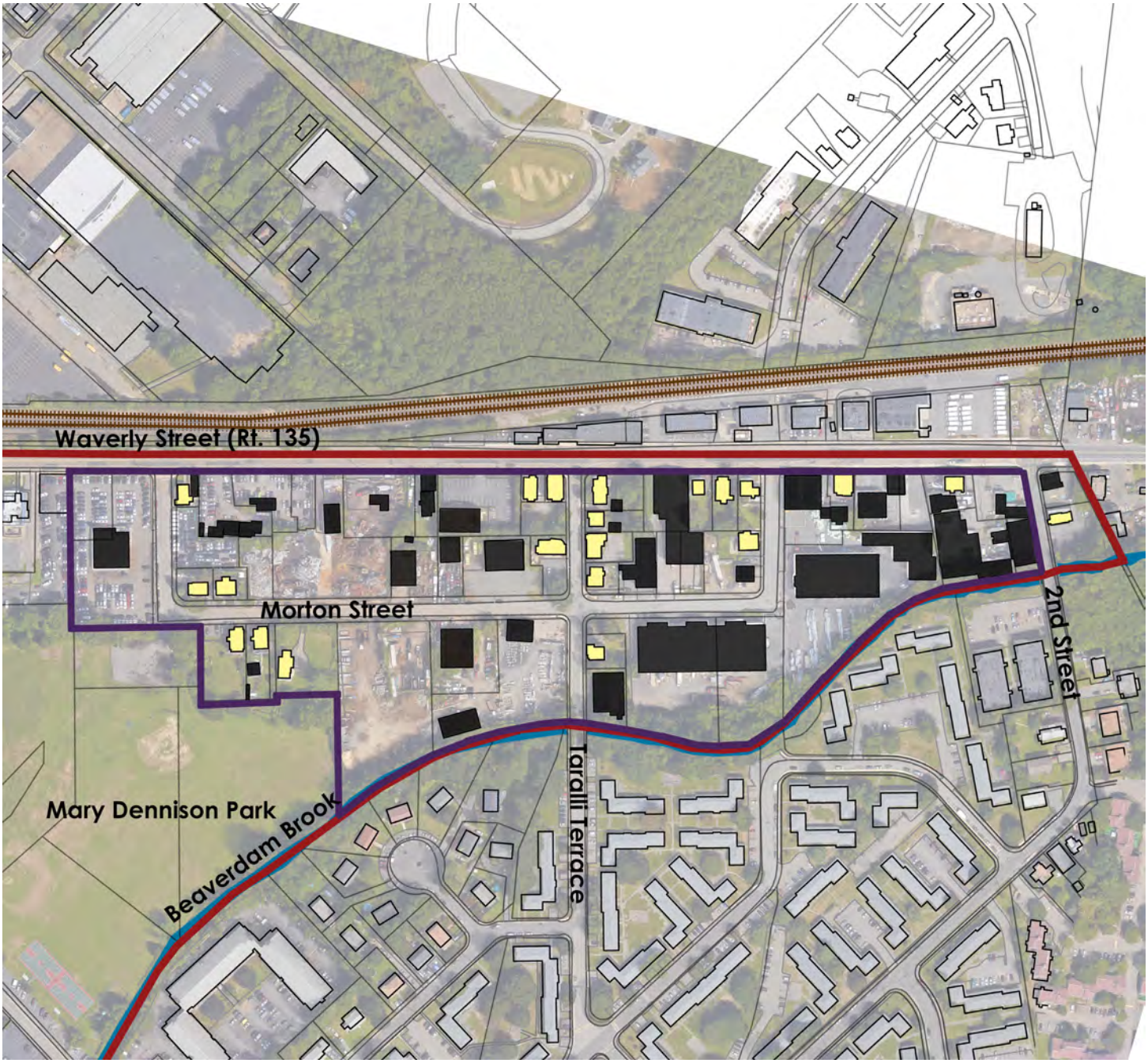


Figure 11: Existing Conditions - Morton Street Grouping

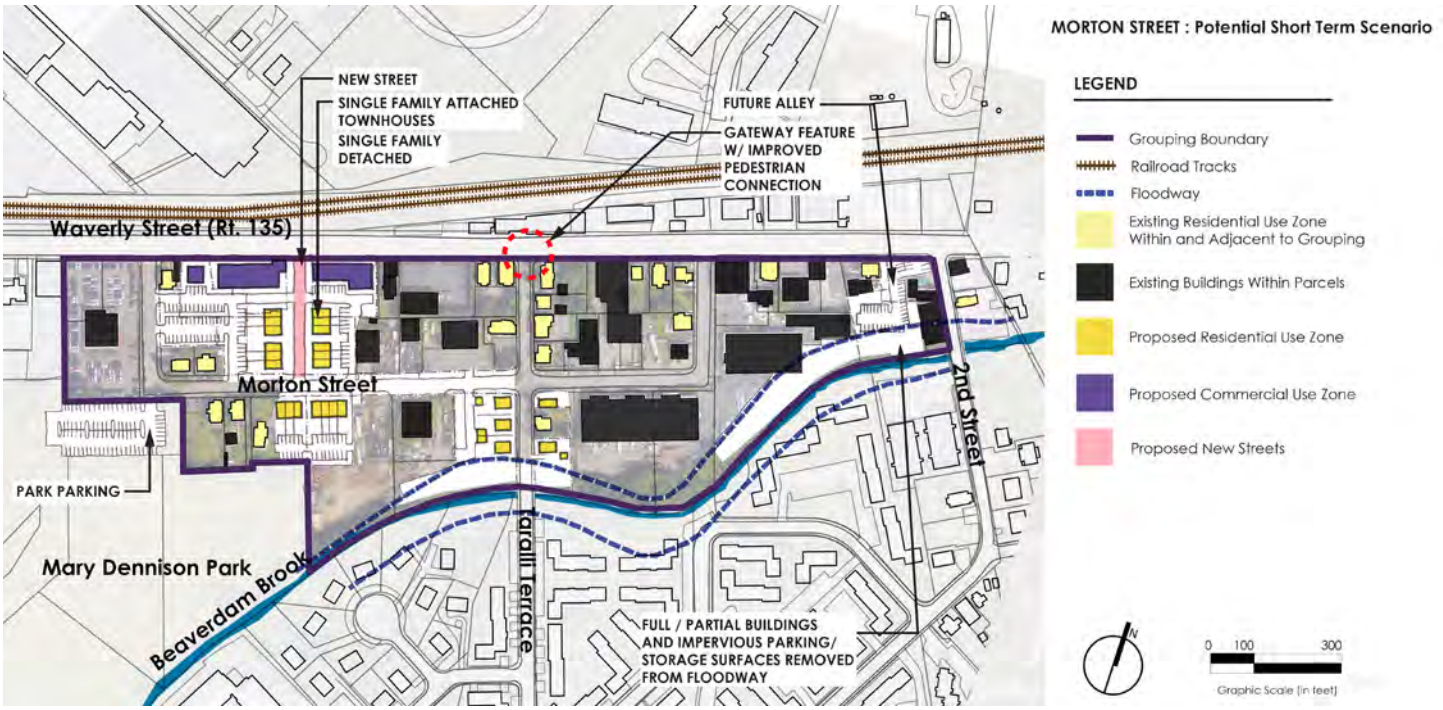


Figure 12: Short Term Recommendations - Morton Street Grouping

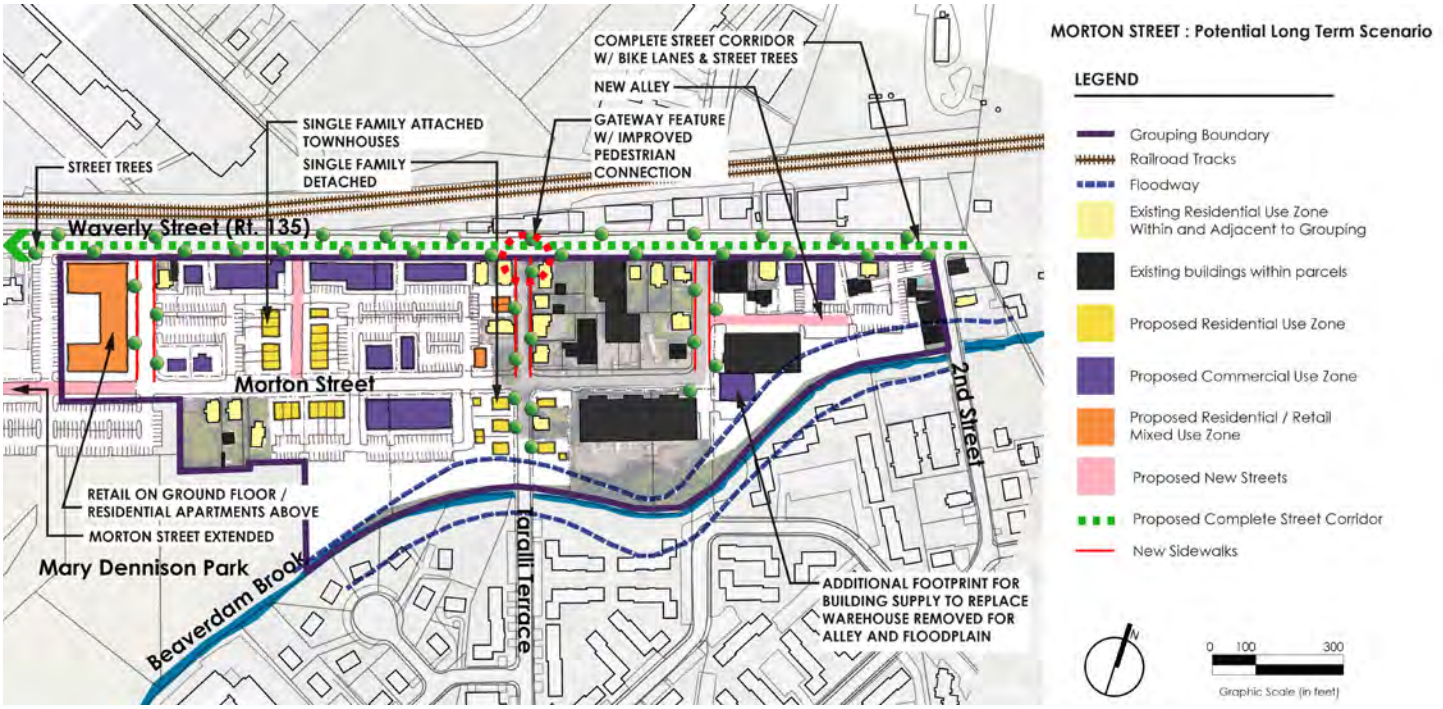


Figure 13: Long Term Recommendations - Morton Street Grouping

Short term and long term concept changes are depicted on Figures 12 and 13, respectively.

3.5 Leland Street Grouping

3.5.1 DOCUMENTED RELEASE HISTORY

Environmental conditions at and in the vicinity of this grouping are predominantly characterized by the operation of the General Chemical facility, abutting the grouping at 133 Leland Street, from 1960 to 2012. General Chemical operated a chlorinated solvent storage, distribution, and waste treatment facility. As a result of this industrial history, the environmental quality of the General Chemical property and down-gradient properties has been degraded by multiple releases of chlorinated volatile organic compounds (cVOC) which have not been addressed to a condition of No Significant Risk. Development of an active remediation program for cleanup of the General Chemical releases is currently underway, under the close supervision of MassDEP.

Chlorinated VOC attributed to the General Chemical facility have migrated to several nearby properties resulting in impacts to down-gradient groundwater and surface water quality, as well as concerns about vapor intrusion to residential buildings. Regular monitoring of the cVOC plume originating at General Chemical, which is migrating to the south and east, is part of the on-going response actions aimed at pursuing a condition of No Significant Risk for this condition. MassDEP records show no indication that the cVOC releases attributed to General Chemical have migrated to the north and west, which would impact the environmental quality of this grouping. However, given the proximity of the General Chemical facility to the grouping, potential migration of cVOC from the subsurface to indoor air remains a concern, which may need to be mitigated, potentially with a sub-surface depressurization system (see **Section 4.2.4**).

The property at 138 Leland Street, within the grouping, was historically operated as a fuel oil storage and distribution facility, beginning in the 1950s. As a result of this history, three releases of petroleum have been reported at this property due to spills and releases from above ground storage tanks (ASTs). Each of these releases has been cleaned up to a condition of No Significant Risk. However, residual petroleum remains in the environment and an AUL was implemented for this property as a result of a 1980 release of 15,000-gallons of fuel oil from a ruptured tank valve. Separate phase petroleum[4] is reported to still be present in the subsurface. The AUL currently prohibits the use of the property for residential and child care purposes, and requires that future demolition, excavation, and construction activities are done under the supervision of an LSP. However, if additional cleanup and/or environmental assessment activities are conducted, the AUL may be modified or removed.

Two releases of petroleum have also been reported at 146 Leland Street, located within the grouping. This property

[4] "Separate phase" petroleum refers to liquid petroleum in the subsurface which can separate from soil to which it is absorbed.

has operated as a fleet vehicle maintenance facility for tele-communications companies. The petroleum releases were attributed to leaking USTs and were addressed to a condition of No Significant Risk, without limitation on land use in the form of an AUL. However, residual petroleum contaminants are reported to be present in soil and groundwater at this property.

3.5.2 OPPORTUNITIES FOR LAND USE IMPROVEMENTS

As with the Beaver Street grouping, the railroad right-of-way provides a good location for light industrial and manufacturing uses once a plan for future street access is in place. This new thoroughfare would intersect with Leland Street to the south, while Second and Third Streets could be extended to provide a better street network to add new residential types, such as alley-accessed town homes or stacked flats in row house-type buildings, to the single family houses at Leland and Beaver Streets and the existing garden apartments between Beaver Street and Carlson Road. This infrastructure that is necessary to increase the residential and commercial uses can easily be phased as the market demand grows and property owners change.

Leland and Beaver Streets should be upgraded to include Safe Routes to School features to enable the neighborhood children to walk or cycle to the elementary school safely. Bike lanes and sidewalks along the full length of Beaver Street should be considered infrastructure improvements in the near term to provide better access between the school, the park, and Beaverdam Brook.

Improvements that could enhance the value of the grouping include:

- Incorporate Safe Routes to School design elements to encourage neighborhood students to walk or cycle to Woodrow Wilson Elementary School.
- Redevelop the properties along Leland Street first, enabling other commercial and industrial operations to remain operational in the short term.
- Incorporate bicycle lanes on Leland Street.
- Buffer residents and the open spaces from the impacts of commercial and industrial uses concentrated along a new street parallel to the railroad right-of-way
- Make streetscape improvements on Leland Street to enhance aesthetics, improve safety, and attract economic development

A map depicting existing conditions in the grouping is attached as Figure 14. Short term and long term concept changes are depicted on Figures 15 and 16, respectively.

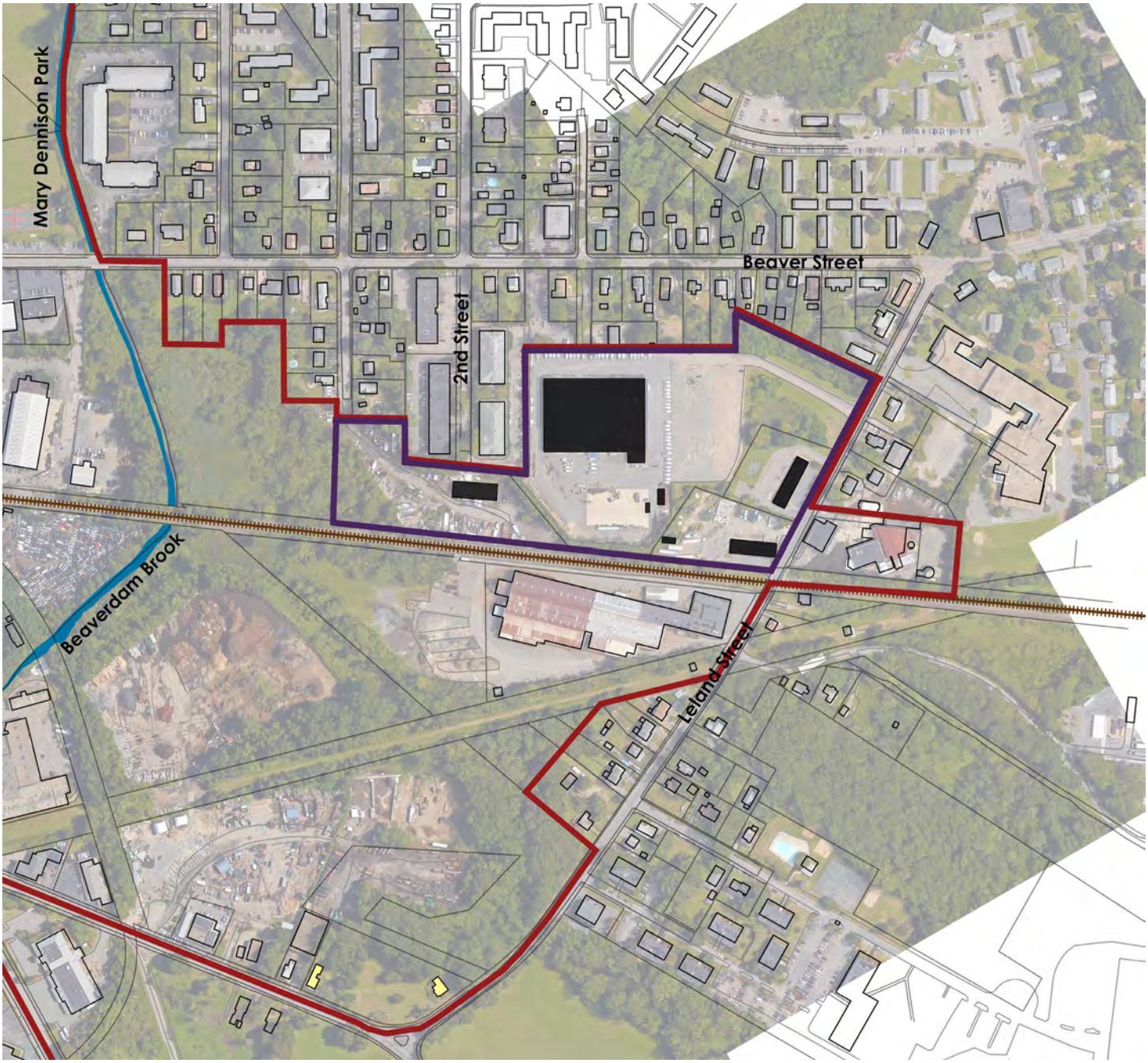


Figure 14: Existing Conditions-Leland Street Grouping

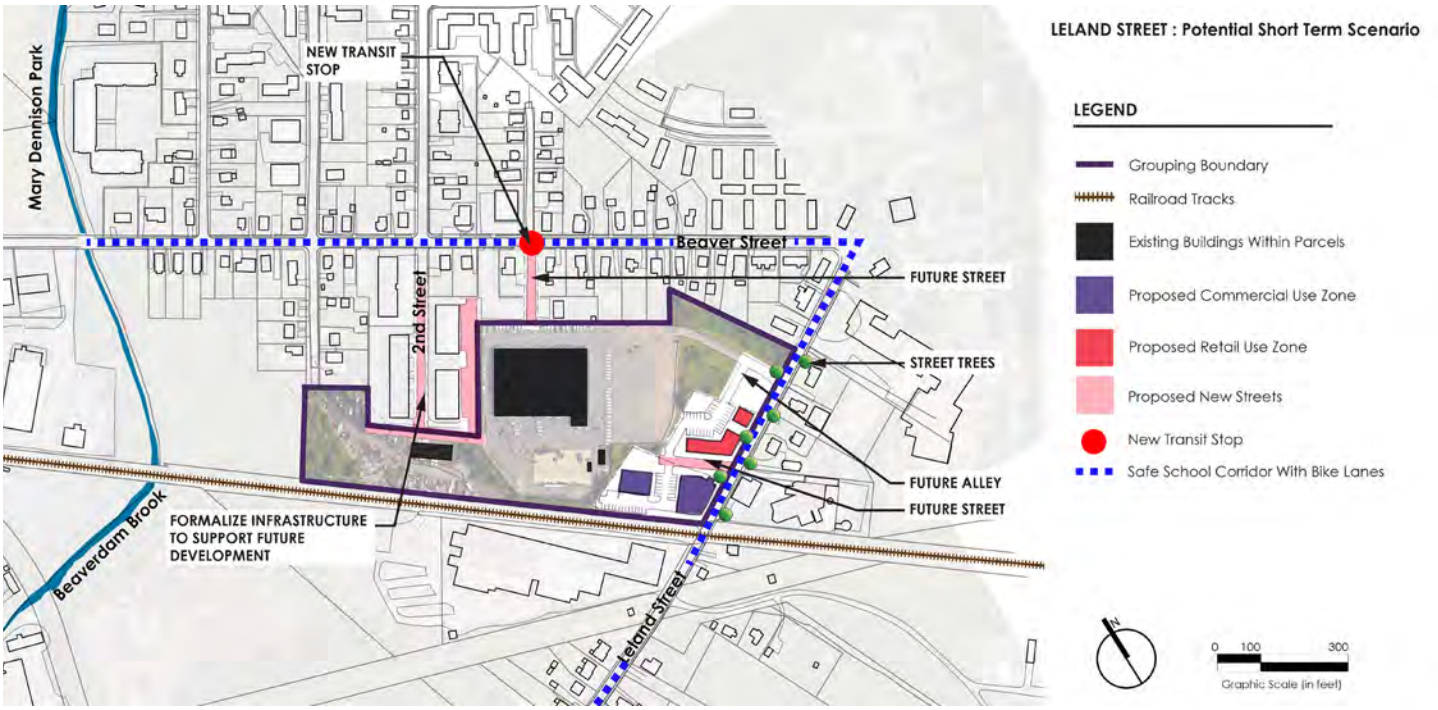


Figure 15: Short Term Recommendations - Leland Street Grouping

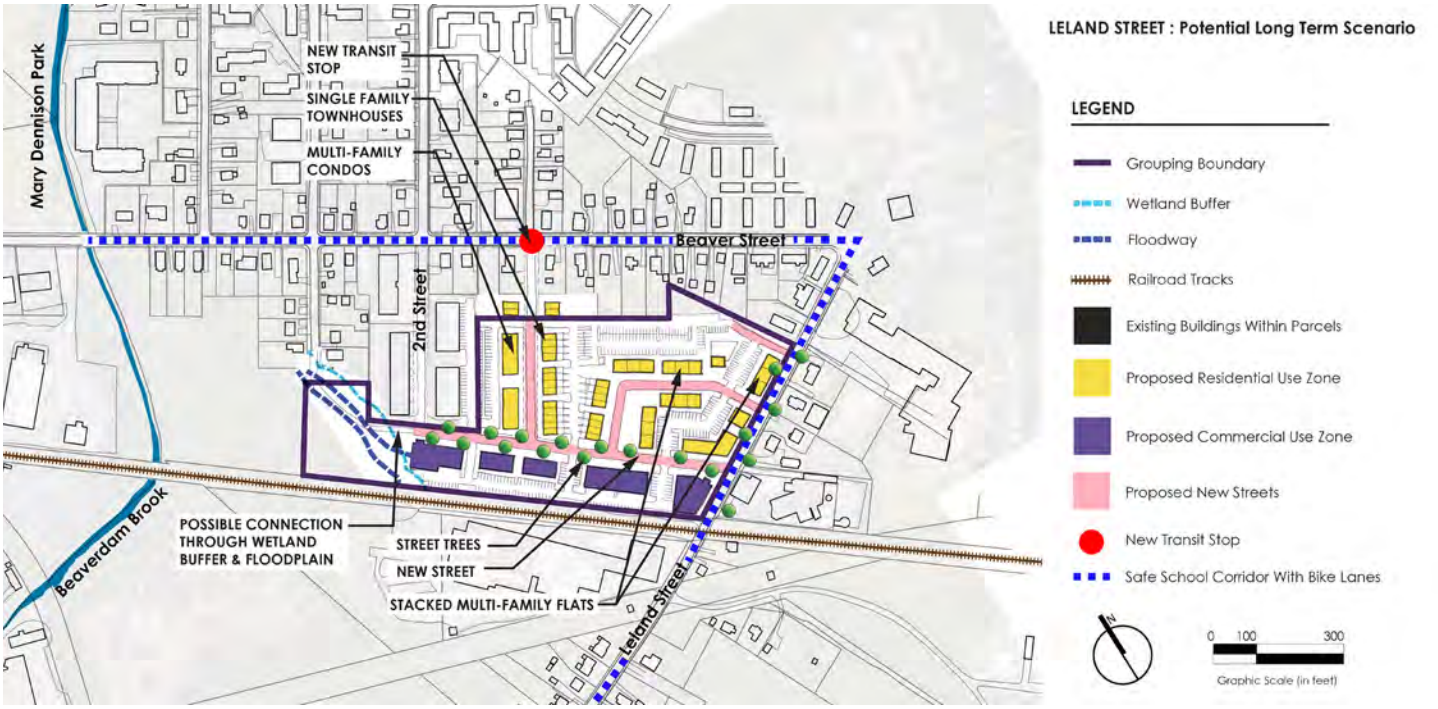


Figure 16: Long Term Recommendations - Leland Street Grouping

3.6 Tripp Street Grouping

3.6.1 LAND USE HISTORY

The Tripp Street grouping was already developed for industrial purposes by 1897. At this time, a rubber manufacturing company which featured a coal shed, naphtha[5] house, and railroad spur, operated to the west of Wellington Avenue. Two rattan companies (furniture manufacturing) operated on both sides of Wellington Avenue and included varnishing and machine shops. The rattan company on the east side of Wellington Avenue was no longer present by 1903. By 1909, the remaining rattan company had been replaced by a produce company, and a coal and wood yard was also present off of Wellington Avenue.

Industrial activity expanded into 1915, when an additional rubber manufacturing company was established along Tripp Street, and hat and leather product manufacturers operated along Wellington Avenue. A junkyard was also present along Wellington Avenue at this time, as were several residential buildings. The coal and wood yard was replaced by an asbestos company by 1922, which operated until circa 1930. An oil station featuring two oil storage tanks was located on the west side of Wellington Avenue.

A steel valve and fittings manufacturer occupied the industrial facility along Wellington Avenue in 1930, while rubber manufacturing continued along Tripp Street. These industrial activities remained generally consistent into the late 1940s, though the rubber manufacturing facility expanded and included two fuel oil tanks. A facility identified as a chemical factory was present between Tripp Street and Wellington Avenue, adjacent to the railroad spur.

By 1968, the layout of the industrial structures within the grouping was similar to present-day conditions. A "solvent tank" housed in a six foot concrete pit was located at the southern end of the rubber manufacturing facility along Tripp Street. The metal fittings facility had expanded to include a chemical warehouse just south of Herbert Street. Mapping depicting historical land use of this grouping is included in Appendix C.

3.6.2 DOCUMENT RELEASE HISTORY

Two oil and/or hazardous materials releases have been documented within this grouping, where a variety of industrial activities, including solid waste management and rubber manufacturing have been conducted, along with operation of a rail spur which was abandoned in the 1980s. One release consisted of a spill of dielectric fluid from a pole-mounted transformer which was immediately recovered and did not impact soil or groundwater. Thus, a condition of No Significant Risk was achieved. The other release consisted of petroleum-product attributed to transfer from a railroad spur to a UST. This release was also cleaned up to a condition of No Significant Risk, though residual petroleum-compounds are reported to be present in the environment. No limitations on land use in the form of an AUL have been implemented for this grouping.

[5] "Naphtha" generally refers to liquid petroleum-based hydrocarbon mixtures.

Five separate releases of petroleum have been reported at the Massachusetts Correctional Institution (MCI) located at 99 Loring Drive and abutting the grouping to the east. These releases were attributed to leaking USTs and surface spills of petroleum or petroleum-product. Response actions achieved conditions of No Significant Risk for each of the five releases at the MCI.

In addition to the releases at the MCI, four releases of a variety of oil and/or hazardous materials have been reported at other abutting properties. A release of petroleum from an AST located at a solid waste management facility within the grouping, along Wellington Avenue, reportedly migrated to abutting 25 Loring Drive. No record of cleanup of the AST release was identified. As such, petroleum contamination inconsistent with a condition of No Significant Risk may be present at the northeastern portion of the grouping, in the vicinity of the AST. The remaining three releases at abutting properties have been addressed to conditions of No Significant Risk, including a release of volatile contaminants at 95 Eames Street which was addressed via implementation of an AUL prohibiting residential and child care activities, and requiring operation of a ventilation system to protect indoor air from vapor intrusion.

3.6.3 OPPORTUNITIES FOR LAND USE IMPROVEMENTS

While this grouping is called Tripp Street, the area also includes Herbert and Aaron Streets that intersect with Loring Drive north of the MCI and ADESA. This area of Southeast Framingham is a mix of single family homes (some converted to multi-family) and older, large-footprint, industrial uses. Many of these buildings have structures and parking areas within the Beaverdam Brook floodplain or within the required wetland buffers. A map depicting existing conditions in the grouping is attached as Figure 17.

Tripp Street is very isolated from most of Southeast Framingham. It is important to connect the residential areas along Herbert and Aaron Streets to the rest of the neighborhood. One of the recommendations to accomplish this unification in the long term is to plan for a new street, bike path, or walking trail that connects Loring Drive to Tripp Street just north of the wetlands and parallel to Herbert Street, in the approximate location of the former railroad spur. Wellington Avenue would no longer be a dead-end and would provide street frontage for infill housing, increasing the number of residents in this part of the neighborhood and reducing isolation.

In the short term, the emphasis should be placed on environmental issues. The buildings and portions of structures that are located in sensitive areas should be removed to improve stormwater management and water quality issues. A phased investment in streetscape improvements by the Town will improve the viability of the area, both commercially and residentially. While the specific uses may change over time, retaining businesses that provide jobs for the local residents is very important to the sustainability of Southeast Framingham.

Potential ways to increase investment and community benefits in the Tripp Street Grouping include:

- Increase residential along the Wellington Street corridor to strengthen Aaron Street pocket neighborhood.
- Improve connectivity of Aaron Street to the Herbert Street and Wellington Street corridors by extending the public right-of-way through construction of a new street and/or alternative transit connection along the former railroad spur corridor.
- Consolidate and expand existing industrial and commercial activities concentrated along the Tripp Street corridor.
- Buffer residents and the open spaces from the impacts of industrial uses.
- Make streetscape improvements to enhance aesthetics, improve safety, and attract economic development.

Short term and long term concept changes are depicted on Figures 18 and 19, respectively.

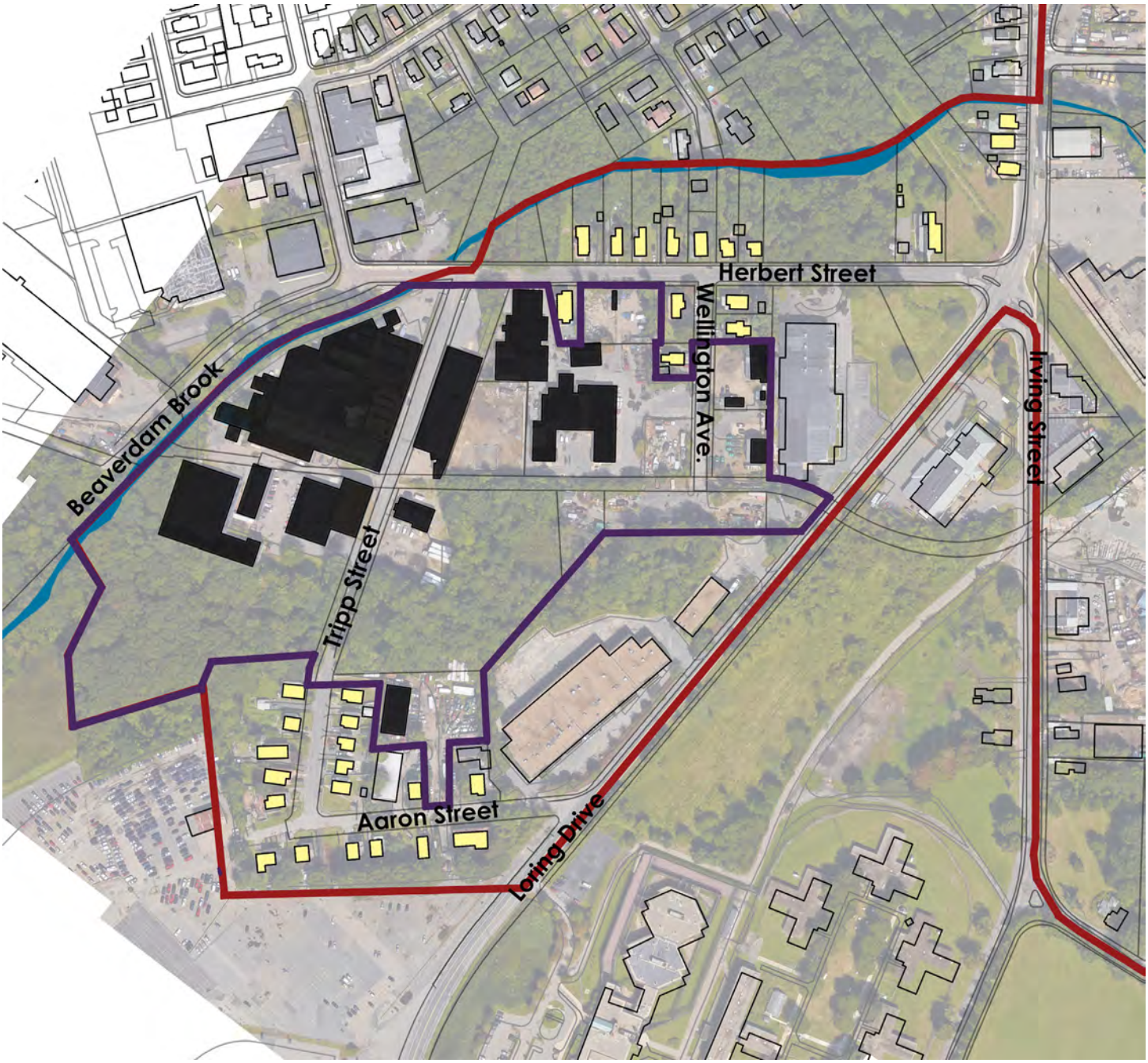


Figure 17: Existing Conditions - Tripp Street Grouping

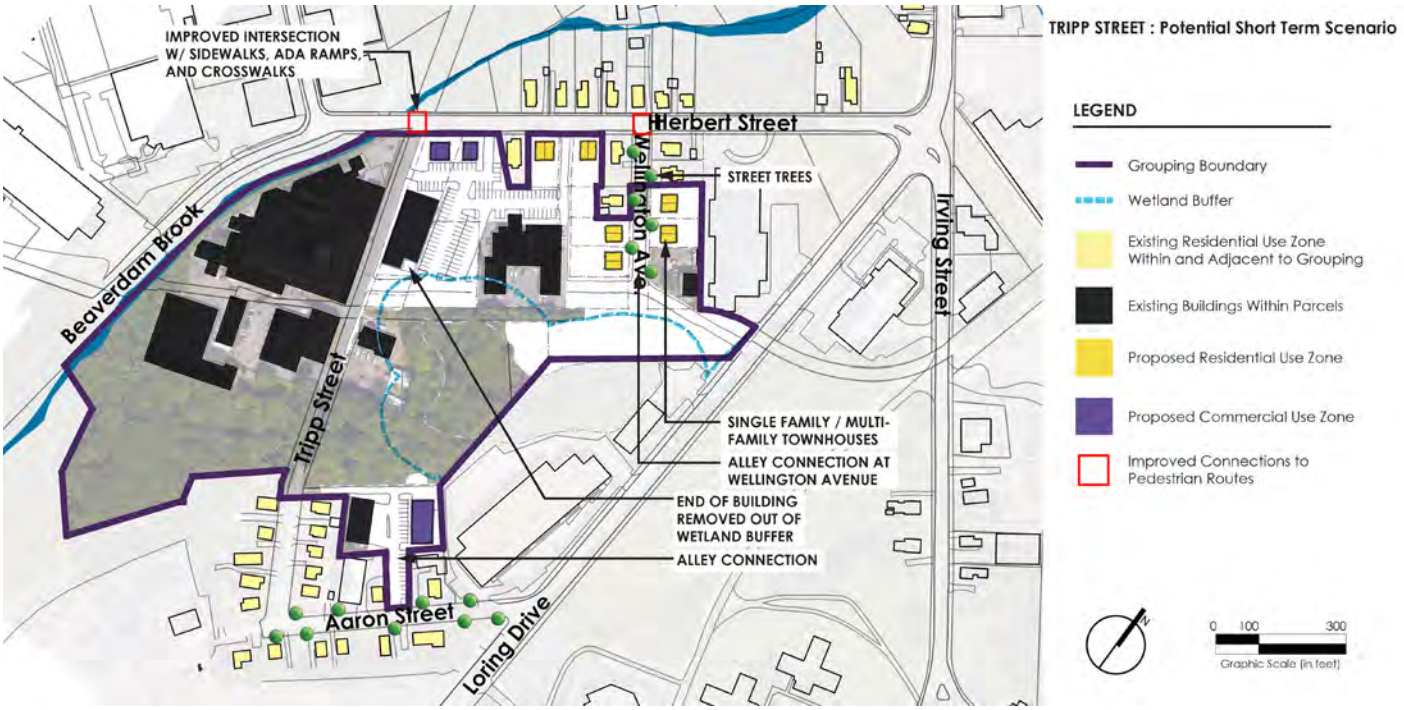


Figure 18: Short Term Recommendations - Tripp Street Grouping

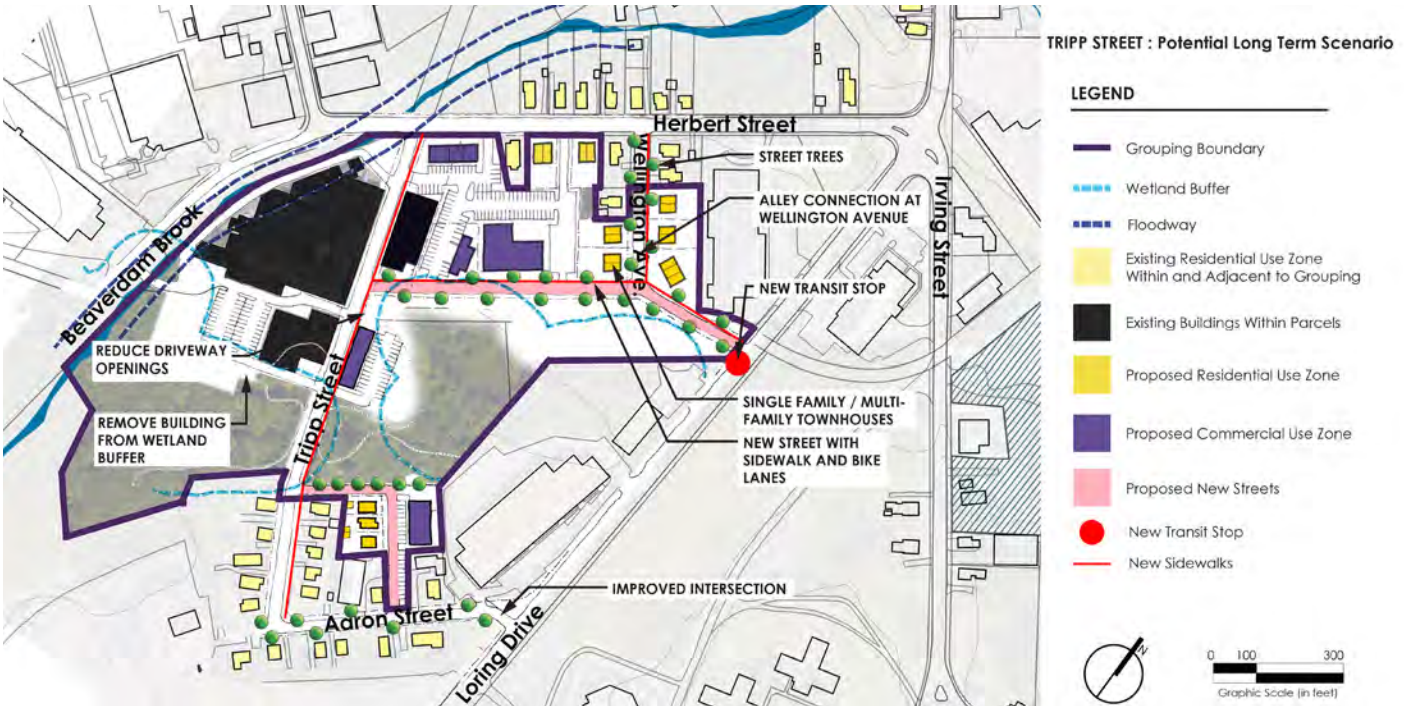


Figure 19: Long Term Recommendations - Tripp Street Grouping

4. Recommendations

As discussed herein, a wide range of actions are available to better position brownfield properties in Southeast Framingham for increased investment and more productive redevelopment. As discussed above, if collaboration of larger groupings of properties can be feasible, the resulting redevelopment options would likely substantially increase the values of redevelopment, improve the cost-effectiveness of cleanup, and increase the benefits to the Southeast Framingham community. Successful repositioning of brownfield properties and groupings will best be enabled through a balance of public and private investment incurred in incremental steps over a number of years. Each step of the incremental process should be targeted toward increasing the attractiveness, livability, environmental quality, and development viability of the properties in the community.

The recommendations discussed below, which focus on cleanup strategies and municipal initiatives, are intended to be suggestions that the Town can support or consider implementing to promote its vision of the study area. Through review of existing planning studies and evaluation of potential brownfield development strategies, the following range of suggested recommendations can further the Town's vision for improving investment in the Southeast Framingham community.

4.1 Environmental Justice Considerations

As noted previously, the neighborhoods in Southeast Framingham are considered Environmental Justice areas. MassDEP is currently evaluating challenges in the neighborhood pertinent to Environmental Justice concerns, including a relatively high density of brownfield and contaminant-impacted properties, a relative dearth of green space, and the degraded nature of surface waters of Beaverdam Brook. The general improvement of environmental quality in Southeast Framingham is of great benefit to the community and will help to spur investment in the community. Some of the broad actions the Town can take to help facilitate improvement of environmental quality and mitigate impacts to the Environmental Justice population include:

- **Brownfield Remediation and Re-Use:** The continued remediation and clean-up of brownfields and other contaminated sites in the area will be addressed as properties are redeveloped. Framingham's Brownfields Program can continue to provide funding and expertise in the productive re-use of contaminated property in ways that are safe and beneficial to the community.

- **Low Impact Development and Sustainable Design Techniques:** The reduction of impervious areas, management

of storm water, revitalization of Beaverdam Brook, and the increase in filtration of stormwater in new development and infrastructure investments can all substantially improve the environmental quality and reduce flooding risk of the area.

- **Public Green Space Development:** The redevelopment of Mary Dennison Park, as well as other pocket park and green space opportunities on both public land, and as part of private developments, will add valuable amenities and improved environmental quality to the neighborhood.

The broader goals specified set the basis for the selection of more specific recommendations presented in subsequent sections, which have the potential to promote improved environmental quality, economic viability, and quality of life for the Environmental Justice population of Southeast Framingham.

4.2 Brownfield Cleanup and Redevelopment Strategies

4.2.1 SOIL EXCAVATION AND OFF-SITE DISPOSAL

Physical removal of contaminated soil from a brownfield site and off-site disposal can be a cost effective, timely, and straightforward approach to cleaning up brownfield sites. This approach typically involves excavation of contaminated soil above the water table, transport of soil to an appropriate off-site receiving location, and assessment of the limits of the excavation to evaluate whether contamination has been sufficiently removed. Imported clean fill is then used to restore necessary grades.

This strategy is most effective for relatively small volumes of impacted soil which often result from specific point sources of contamination, such as discrete surface spills or leaking tanks. Excavation and disposal may also be coupled with other cleanup strategies (such as capping, described below) to address discrete "hotspots" of contamination and reduce overall risk attributed to more widespread conditions.

Disposal options for excavation projects can be tailored to achieve cost savings. Depending on the type and level of contamination, impacted soil can often be disposed at local landfills as daily cover. MassDEP regulations also allow disposal of impacted soil at other properties where existing soil conditions are similar to those of the excavated material. If petroleum or petroleum-products are the contaminants of concern, recycling at an asphalt-batching facility is often a cost effective option. Depending on the volume of soil and the need for pavement as part of redevelopment, cost savings can be further realized by conducting asphalt batching on-site and reusing the resulting product.

While this strategy may be appropriate for all of the groupings due to its straightforward nature, it may be particularly beneficial at portions of the Morton, Blandin, and Beaver Street groupings. Historical records for these areas show a

history of generally small-scale commercial operations, typically automobile-related, and small-scale releases of petroleum. Releases typical of this type of land use are often addressed through excavation and disposal. This approach should also be considered at the Leland Street grouping, where separate phase petroleum in the subsurface has resulted in implementation of an AUL. The petroleum-impacted soil could potentially be recovered, recycled as asphalt-product, and reused as part of redevelopment, with the added benefit of removing the need for an AUL.

4.2.2 SOIL CAPPING

Construction of a physical barrier in the form of a cap over contaminated soil is a cost-effective approach for addressing more widespread soil contamination during redevelopment. Caps are typically comprised of hardscape surfaces (asphalt or concrete) and/or landscaped areas usually consisting of three feet of clean fill overlying existing soil. Building slabs and existing pavement are also considered acceptable components of caps. The objective of caps is to prevent exposure to impacted soil by site users, under normal daily site use.

This approach is particularly effective for use during redevelopment projects because regrading of existing soil, construction of new building slabs, and construction of new paved surfaces are often necessary components of redevelopment, regardless of cleanup needs. Capping is often combined with excavation and off-site disposal, either to address relative hotspots of contamination, or to support establishment of necessary finish grade elevations. Implementation of an AUL, discussed further below, is necessary in conjunction with capping as a means to ensure the long-term integrity of the cap.

Due to its overlap with common redevelopment steps, capping may be an effective cleanup approach at all of the groupings. However, the portions of the Morton and Beaver Street groupings that were operated as larger scale junkyards may be particularly good candidates for capping. Due to this land use history, the potential for widespread metals and petroleum contamination in soil exists. The same is true for the Tripp Street grouping, where extensive industrial activity may have resulted in relatively large areas of contamination. The potential volume of impacted soil at these areas could render excavation and off-site disposal financially infeasible as the sole remedial approach. As such, construction of a cap which keeps contaminated soil inaccessible under normal site operations may be an appropriate cleanup strategy.

4.2.3 ACTIVITY AND USE LIMITATION (AUL)

AULs are institutional controls in the form of deed restrictions that are filed with property deeds in conjunction with or in lieu of active cleanup. They are an increasingly common and inexpensive component to urban cleanup strategies, and typically do not have a significant impact on land value. AULs are generally implemented for two purposes – 1) to ensure the long term integrity of engineered controls such as soil caps or sub-slab depressurization systems (discussed below), and/or 2) to prohibit the use of the property for more sensitive purposes such as residences, schools, day cares, agriculture, and recreation. In essence, AULs allow higher levels of stable contamination to be left in place, in exchange for mitigating

the level of risk by limiting the types of activities that can occur at a property. Implementation of an AUL is often included as part of cleanup strategies for properties where unrestricted site use (i.e. children will be frequently present, and potential for soil exposure will be high) is not necessary as part of the foreseeable future use or where complete cleanup is infeasible. Such properties are usually commercial or industrial in nature. AULs have also been implemented at multi-family residential or mixed-use properties, where site activities can be limited by property managers, associations, or landlords.

The decision to implement an AUL as part of cleanup must include weighing the intended future use of the redeveloped land versus the cost to cleanup to levels which allow unrestricted use. If the redevelopment plan necessitates unrestricted use without an engineered control, or if the cost of conducting complete cleanup is feasible, implementation of an AUL may not be appropriate or necessary. In contrast, at groupings or portions of groupings where sensitive use is not part of a viable redevelopment plan and/or contamination is found to be widespread, implementation of an AUL may be an effective way of significantly reducing cleanup costs. The Tripp Street grouping, which has been heavily industrialized throughout its history and thus may be appropriate for enhanced and consolidated industrial use, particularly at the western portion of the grouping, is considered a good candidate for implementation of an AUL. The portions of the Blandin, Beaver, and Leland Street groupings which abut a railroad line, and thus commercial use may be preferred, may also benefit from implementation of an AUL. Furthermore, as noted above, construction of a soil cap would also necessitate implementation of an AUL.

It is important to note that AULs are not necessarily permanent restrictions and can be removed if necessary measures are taken. AULs can also be modified by an LSP to accommodate changes in property uses. Measures to remove AULS can include additional cleanup to achieve a condition of No Significant Risk under unlimited site usage scenarios, without the need for engineered controls, such as a soil cap. Removal or modification of an AUL may also be possible if additional human health risk assessment reveals that, based on conditions at the time of the assessment, a condition of No Significant Risk exists under appropriate site usage scenarios.

4.2.4 SUB-SLAB DEPRESSURIZATION SYSTEMS (SSDS)

Certain types of contaminants contain volatile compounds which tend to vaporize and migrate upwards, through the ground, and accumulate in overlying indoor air space, in a process known as vapor intrusion. This process is of particular concern at properties impacted by releases of light petroleum products, such as gasoline, or chlorinated solvents, which are often associated with metals degreasing or dry cleaning operations. In circumstances where complete removal of such contaminants is found to be infeasible, a sub-slab depressurization system (SSDS) may be constructed to mitigate risk posed by potential vapor intrusion. SSDS are generally comprised of a series of perforated horizontal pipes installed beneath a floor slab which are vented above the roof via vertical pipes. A vapor barrier is typically installed on the floor slab above the horizontal piping. An AUL is usually required to ensure that the SSDS is maintained and operates as designed. Installation of an SSDS can be coupled with strategic placement of structures at portions of the property

relatively far from residual volatile compounds.

The Leland Street grouping is abutted by the former General Chemical facility, where a long history of handling and storage of chlorinated solvents has resulted in a plume of volatile groundwater contamination migrating away from the property. Although MassDEP records show that the plume is migrating towards the southeast, away from the grouping, installation of an SSDS should be considered as a cost-effective and technically-feasible safeguard for protecting future site users from potential vapor intrusion emanating from the General Chemical facility. Such measures may also be beneficial from a public relations and local permitting standpoint, given the high profile nature of the General Chemical release.

4.2.5 MONITORED NATURAL ATTENUATION (MNA)

Petroleum compounds in the environment can readily breakdown via natural bacterial activity, in a process known as natural attenuation. In certain circumstances, where low level petroleum contamination persists in groundwater, natural attenuation can be an acceptable cleanup approach in lieu of other infeasible methods. However, in accordance with applicable state regulations, the approach must be augmented by regular groundwater monitoring to ensure that contaminant levels are decreasing and the footprint of the plume is stable or shrinking. Though the timeframe to achieve closure can take years, monitored natural attenuation (MNA) can be a cost-effective and technically-simple cleanup approach.

As mentioned previously, an MNA program was being implemented to address a gasoline release within the Blandin Street grouping at the time of this writing. As such, continuation of this program may be necessary as part of redevelopment activities within the grouping. MNA programs are typically implemented after other cleanup measures, such as excavation and off-site disposal, are conducted to address petroleum source areas in soil which have resulted in impacts to groundwater. Given the history of operation of numerous automobile-related businesses at the Morton and Beaver Street groupings, MNA may be a cost-effective component of a broader cleanup approach to address petroleum releases that have impacted both soil and groundwater.

4.2.6 CLEANUP COST MATRIX

The following table summarizes approximate costs associated with each of the above-summarized cleanup approaches. This table was based on circa 2016 costs and, with the exception of the AUL and MNA costs, excludes professional consulting costs (i.e. engineer and LSP costs). The approximate costs are provided for guidance only, and actual costs may vary based on specific site conditions and cleanup needs.

Cleanup Approach	Approximate Cost*	Key Implementation Considerations
Soil Excavation and Off-Site Disposal	$75 - $150 per ton[1]	Typically cost-effective for smaller scale/point source releases; can be supplemented with recycling for reuse
Capping	$50,000 - $100,000 per acre	Well-suited for widespread impacts; often overlaps with routine redevelopment steps such as paving; will require AUL
Activity and Use Limitation	$1,000 - $8,000[2]	No impact on redevelopment activities, but does limit future use options; can be removed under the right conditions
Sub-Slab Depressurization	$3 - $10 per square foot[3]	Cost-effective alternative if removal of vapor source is infeasible; will require AUL
Monitored Natural Attenuation	$2,000 - $10,000 per year[4]	Aside from cost of monitoring program, no active cleanup cost; can be lengthy process to achieve No Significant Risk

Notes

1 – assumes disposal as non-hazardous waste

2 – may vary based on needs to conduct land survey

3 – will vary depending on whether installation is concurrent with new construction

4 – assumes eight groundwater samples for light petroleum compounds and four quarterly monitoring events

*costs may vary

The cleanup approaches summarized above are commonly implemented during redevelopment and often do not add significant incremental cost to redevelopment projects. However, in less frequent, circumstances, implementation of more complicated cleanup techniques not discussed herein may be necessary. The Framingham Brownfield Program, discussed further in **Section 4.3.1**, should be considered a resource that may be able to assist with identifying financial resources and/or planning of cleanup projects, regardless of complexity, including LSP and engineering costs. Additional funding sources that may also be able to assist with cleanup and redevelopment projects are discussed in **Section 4.4.2 (Financial Incentives)**.

4.3 Policies and Program Recommendations

4.3.1 FRAMINGHAM BROWNFIELD PROGRAM

We recommend that the Town continue to operate and promote the municipal brownfields program as a Town priority, regardless of funding status with USEPA. The Town brownfield program should be a well-publicized asset to help facilitate development of the many brownfield properties, particularly in Southeast Framingham. The program should continue to annually seek USEPA Assessment Grant funding to offer direct development consulting expertise to prospective developers as it has since 2008. The Town program can also assist with the acquisition of Cleanup Funding grants for particular development projects as warranted. Even when USEPA funding is low in a particular year, the program can still offer benefits in identification of targeted public financing and low interest loan sources applicable to redevelopment properties, as well as promote public -private partnerships to secure such financial assistance during the development process. This may include providing direction and advice on other funding mechanisms including:

- The Town's willingness to enter public-private partnerships or tax stabilization agreements for the right types of development.
- Incentives offered by other organizations such as MassDevelopment, federal Housing and Urban Development (HUD), and USEPA.
- Site-specific assessment and cleanup grants targeted for key large properties that may be substantial redevelopment opportunities in the neighborhood.

The Town Brownfield Program, even when not well-funded, can also serve as a mechanism to keep the Town involved and aware of brownfield development on a positive basis through a program offering assistance and outreach to developers and property owners. When necessary, this should include leading a more proactive role in brownfield redevelopment by identifying high priority properties that present more substantial redevelopment challenges. Proactive municipal involvement may be critical to redeveloping relatively large properties, properties with more complicated environmental conditions, or properties where existing operations do not align with the Town's long-term vision for productive land use. Overcoming higher-level challenges posed by such properties has the potential to catalyze development in the surrounding area and serve as a visible example of the transformative impact that an active municipal brownfield program can have.

The primary concern with the relatively high density of brownfields properties in the Southeast Framingham neighborhood is that the environmental costs of redeveloping these brownfields is uncertain. This uncertainty is a substantial impediment to development investment in Southeast Framingham. The Town's Brownfield Program can continue to assess key brownfield development properties to provide a level of cost certainty in order to spur development investment.

4.3.2 SOUTHEAST FRAMINGHAM LAND USE VISION

The Town's illustration of an overall land use plan or vision can help guide potential land re-use scenarios. The Town's demonstration of its commitment to integrated and well placed compatible land uses would help spur more beneficial and compatible development proposals. Other land use-related actions that can help promote a land use vision in Southeast Framingham include:

- **Rezoning:** Land use regulation revisions that reflect the Town's land use vision would provide more certainty to potential developers on future land use and increase investment potential.
- **Pocket Parks:** Establish pocket parks at strategic parcels that could enhance greenspace and improve connectivity of neighborhoods, but otherwise present relatively low redevelopment value.
- **Streetscape Design Guidelines and Intents:** Integrate a Complete Streets approach for all modes of mobility and accessibility, including for handicapped and elderly residents. Establish streetscape design guidelines for the major streets to help guide the kind of development sought for the area. Diagrams showing pedestrian improvements, new transit stops, and street section designs for streets designated for Complete Street design and green infrastructure elements would be assets that would help market brownfield sites slated for more productive redevelopment and use. The identification of new bicycle and pedestrian connections near the brownfield sites would also incrementally increase the potential value of brownfield sites for redevelopment. Other aspects that may be included in the application of Complete Streets approach include:

    - **Sidewalk Improvements:** As part of showing the intent of Complete Streets planning, street widening should be avoided but improving and widening sidewalks should be evaluated. Conduct a detailed sidewalk audit to determine optimal locations for new curb/gutter and sidewalk investments and prioritize repairs. Prioritize high density residential areas for sidewalk improvements, such as along Beaver Street, where pedestrian access to amenities including parks and schools is critical. Improvements along the Morton Street corridor would also enhance the residential component of this area and improve connectivity to Mary Dennison Park.
    - **Signage:** Incorporate way -finding signage throughout the neighborhood to help the community and visitors navigate their way to other areas of interest in Framingham, Natick, and Sherborn. Such signage should be installed at gateway features, where Waverly Street intersects Beaver Street, and Taralli Terrace.
    - **Facades:** Utilize the sign and façade program to create storefronts that are more attractive. This would be particularly beneficial at highly visible and gateway areas, such as along Waverly Street and at retail areas fronting the Waverly-Blandin-Beaver intersection.
    - **Street Trees:** Increase the number of street trees along all streets to improve the aesthetics for pedestrians and assist against negative environmental impacts. Street tree installations can be designed as Low Impact Development stormwater infiltration features as well which help mitigate flooding and water quality issues. Street trees would greatly improve aesthetics along Taralli Terrace, Beaver Street, and Leland Street.

- **Buffering:** Mitigate and buffer impacts of non-residential uses on residents, streetscapes, and open spaces in public way and private development design. Use of street trees and vegetative screens where residential or public space abuts commercial or industrial space would be particularly beneficial and aesthetically pleasing buffers.
- **Bicycle and Pedestrian Improvements:** Improvements to streetscapes that encourage bicycle and pedestrian safety and use can contribute to livability of the area. Some observations include:

    - Waverly Street's wide right-of-way and shoulder area could easily accommodate on-street parking to reduce the speed of traffic and establish a more pedestrian friendly environment.
    - Incorporate bicycle lanes on Waverly Street, Beaver Street, Leland Street, and Blandin Avenue.
    - Incorporate handicap accessible panels at the intersections of roadways and sidewalks as new sidewalks are installed.
    - Incorporate bicycle signage and pedestrian crossing signalization where applicable.
    - Improve pedestrian safety by reducing curb cuts along Waverly and Beaver Streets.

Other zoning techniques that may be cost-effective ways to promote the Town's vision for functionality and aesthetics and increase redevelopment investment in Southeast Framingham include:

- **Railway/Industrial Use Locations:** Locate light industrial and manufacturing uses along railroad right-of-way.
- **Manufacturing Density:** Revise zoning to ensure manufacturing remains and encourage manufacturing companies to utilize the parcel(s) at a greater density.
- **Knowledge Uses at Waverly and Beaver Entrance Areas:** Incorporate professional office and/or business incubator type uses with neighborhood-serving retail along Waverly and the northern sections of Beaver Street.
- **Desired Use Permitting Ease:** Simplify the review process for desired uses to encourage investment and development of those uses.
- **Reduce Wasteful Parking Areas:** Change the current zoning requirements regarding parking to allow for reduced parking ratios and potential shared parking scenarios.
- **Smart Growth Encouragement:** Create an entrepreneurial zoning district that targets key redevelopment and enhancement areas through a Live-Work District or Chapter 40R Smart Growth Overlay District.
- **Screening Manufacturing Uses:** Develop a stringent set of fence and screening regulations for manufacturing-zoned properties that do not occupy the street frontage.
- **Code and Zoning Enforcement:** Continue to enforce regulations and work with property owners regarding property maintenance, building inspection, parking, noise, signage, lighting, and public space maintenance and trash removal to improve aesthetics.

4.3.3 SOUTHEAST FRAMINGHAM LAND USE RECOMMENDATIONS

As discussed above in the analysis of the five groupings, land use recommendations may help drive investment in the Town's vision for Southeast Framingham. These land use recommendations can be implemented through rezoning and the development permitting process. Land use considerations that would benefit Southeast Framingham include:

- **Mary Dennison Park Integration:** Use Mary Dennison Park as a recreational connection between multiple possible groupings. For instance, the Morton Street, Blandin Avenue, and Beaver Street groupings described herein would benefit from connectivity to a revitalized and safe Mary Dennison Park. This connectivity to the primary public green space amenity would strengthen the concept of a contiguous and connected mixed use neighborhood. Creation of a gateway to Mary Dennison Park from Waverly Street and addition of recreational walking/running paths around the perimeter of the park would also increase connectivity to and use by the neighborhood. Create new connections to and through Beaverdam Brook to connect residents to the adjacent Mary Dennison Park. Include plenty of bike racks in the park redesign.

- **High Density Residential Use:** Higher density residential uses could use the park as an organizing element. These uses might be considered in the rear of the properties in the Morton Street, and Blandin Avenue groupings, and along the frontage of Beaver Street in the Beaver Street grouping.

- **Waverly Street Frontage:** The Waverly commercial strip shows few vacancies and might be considered a longer term redevelopment effort. The properties along Waverly Street could maintain their revenue-producing characteristics until such time as it makes financial sense to redevelop. In the meantime, Morton Street represents short term opportunities for higher density mixed-use or residential infill. In the mid to long term, Waverly Street is envisioned as street fronting mixed use buildings with parking to the side or rear of the properties along a pedestrian friendly multimodal street. Greater connectivity between Waverly and Morton Streets and Blandin Avenue should be explored to create connected "blocks" of mixed-use activity as well as better connectivity to the park.

- **Beaver Street and Leland Street Frontage:** The frontage areas of the Beaver Street and Leland Street groupings seem suited to medium density residential, thereby strengthening, and supporting residential patterns already existing. The rear of these properties abuts the railroad, and as such, would be conducive to lower density light industrial or incubator space.

- **Tripp Street Grouping:** The Tripp Street grouping offers other potential opportunities and is detached from the attributes of the other grouping areas of the Southeast Framingham neighborhood. This grouping is in an industrial part of Town and thus should be considered for expanded industrial, service, or manufacturing uses

providing additional job opportunities and enhanced tax base to the community. Residential land uses should be better buffered from this manufacturing area. This grouping is comprised of larger lots which will make it easier for a sequential redevelopment process if one is to occur. Another likely scenario for this area might be the expansion of existing businesses within the sites. The issues of political will and commitment, and many of the public investment recommendations, may apply to this area as well.

4.3.4 GROUPINGS EDUCATION AND PLANNING RECOMMENDATIONS

As discussed herein, larger groupings of properties will yield greater development options and result in creating higher development values. The Town can reach out to property owners in target groupings to determine if the potential for redevelopment collaboration can be generated, or facilitate the delineation of new groupings through educating owners and potential developers to the benefits of grouping parcels. The Town can take actions to improve the marketability and development value of brownfield properties in areas where cooperation of owners will result in larger groupings, working collaboratively on productive re-use. Actions that may be warranted include:

- Site remediation and cleanup planning can be funded and addressed through the Town Brownfield Program as a means to help prepare sites for cleanup and development.
- The Town could take a more active role in compelling property owners to remove trash and debris or demolish select structures to enhance development potential and prepare sites for development.
- Creating better connectivity between groupings, amenity areas, and gateway areas can help the marketing of potential development groupings. For instance, using the groupings discussed herein, better connectivity of the Tripp Street and Beaver Street groupings, or potential connection of the Morton Street grouping to Beaver Street grouping and Mary Dennison Park, would be public-way investments that would improve the marketability of the groupings.

4.3.5 LOW IMPACT DEVELOPMENT RECOMMENDATIONS

As public infrastructure and private development improvements are implemented, the incorporation of low impact development (LID) and sustainable design requirements would be a cost effective means to improve environmental quality, public health, and desirability of the area. These measures can be implemented as incentives in the development permitting process or requirements for development via regulation, and include the following:

- **Green Infrastructure:** Green infrastructure such as filtration planting beds, swales, and raingardens can be implemented in both public ways and as part of private brownfield redevelopment plans. These LID structures can help mitigate flooding and improve water quality in the study area. On brownfield sites where infiltration to groundwater may mobilize pollutants, stormwater filter systems should have an impermeable liner. Filter systems

with liners still provide the benefits of improved water quality and a small reduction in runoff volume through evapotranspiration from the plant materials. Specific examples of green infrastructure techniques include the following:

- **Tree Box Filters:** Tree-box filters are a viable stormwater treatment option even in relatively poor soils or within small, constrained locations. Tree-box filters can be installed where street trees are already planned and modified with concrete or structural plastic but with open bottoms and sides to allow large shade trees to flourish. These structures incorporate a traditional sediment removal chamber followed by a sand/organic filter bed with a mulch surface layer. The filter bed is equipped with an overflow device and underdrain that allows filtered stormwater to be connected to the public storm drain system. These treatment practices allow for routine maintenance with conventional public works equipment to remove sediment and trash and replace the mulch layer. Assuming street trees are spaced at intervals of 40-50 feet, approximately one tree box filter every fifth tree provides effective treatment.

- **Vegetated Treatment Systems:** As with tree box filters, vegetated treatment practices are used to filter stormwater runoff with sand or organic blended filter media and plant materials. These systems can be installed on developed sites as a retrofit to treat runoff and are appropriate for industrial or commercial sites. They are highly-effective at removing pollutants from runoff and can be adapted into the landscape to provide an amenity when properly designed. Examples of vegetated treatment systems include rain gardens, sand filters, and bioretention basins.

- **Subsurface Sand Filter/Organic Filter:** These stormwater practices are self-contained filtration structures placed below ground and connected to a downstream drainage system or stormwater outfall. Although expensive, these products can be placed within small, constrained sites where other structures may not fit. They are very effective at removing pollutants that are commonly found on industrial sites by using one of a variety of available organic, inorganic, or manufactured synthetic media filters.

- **Permeable Pavement:** Permeable concrete, asphalt, concrete pavers, open-joint pavers, and grass pavers are some options that are appropriate for both commercial and residential developments on brownfield sites. Permeable pavements can be unlined or lined with an underdrain to address soil and groundwater conditions. The greatest challenge for using permeable pavements on brownfield sites is that a clean, crushed stone "reservoir" layer several feet deep is required below the pavement to temporarily store water and to prevent freezing of rigid types of permeable pavements (e.g. porous concrete or asphalt). In addition to the cost of the stone, contaminated materials may need to be removed and disposed to allow the installation of the stone reservoir, which adds to the cost of construction when compared to surface treatment systems, such

as bioretention. The amount of soil removal is a significant limiting factor to widespread use on brownfields sites, but is worth considering where feasible for overflow parking lots or parking bays and outdoor landscape walks and patios. Consideration must also be given to the long-term maintenance of permeable pavement and the proposed use for the surface to avoid clogging of the pore spaces in the pavement. Permeable pavements in vehicle travel areas typically require less sanding than conventional paving materials in winter, which in turn reduces sweeping maintenance costs. However, regenerative-vacuum sweeping is necessary four or more times per year compared to twice per year for conventional paving materials.

- **Subsurface Infiltration:** In areas where the soil characteristics and groundwater depth are suitable, and not impaired by environmental conditions, subsurface infiltration can be placed within public roadways and on private land. The advantage to subsurface systems is that they can improve water quality and reduce runoff while keeping usable land available for roads, parking, landscaping, walkways, and other necessary functions of public and private land. These systems can be installed to make use of existing stormwater infrastructure and can be placed in narrow alignments, typical of roadways that contain other utilities.

- **Water Harvesting:** On development sites, water harvesting of roof runoff in storage tanks or barrels can be used for irrigating small landscape areas. For larger sites, the system becomes more complex because it must incorporate larger storage tanks, pre-treatment filters, and pumps to irrigate plants that are farther from the building structure. Large landscapes also require significant volumes of water that are challenging to provide by harvesting practices during the summer months. This strategy is appropriate for predominately smaller residential and commercial/retail uses.

- **Miscellaneous Practices:** Vegetated Filter Strips adjacent to narrow pavement areas, such as a driveway or walkway, can treat stormwater runoff without excavations or installation of filter media. The ideal filter strip uses low-maintenance native grasses with a gentle slope. A reduction in paved surfaces is an effective way to improve water quality. When parking can be shared by multiple uses, a more efficient use of available land will allow for smaller or fewer paved lots.

- **Beaverdam Brook Flooding:** LID and sustainable design should also be incorporated into stormwater practices and the revitalization of Beaverdam Brook to reduce flooding potential and improve surface water quality in this amenity. Require properties with impervious surfaces and structures within the floodway of Beaverdam Brook to be removed and the riverfront area restored when the sites or buildings are redeveloped.

4.3.6 LOCALLY SOURCED FOOD RECOMMENDATIONS

Locally-sourced food markets and community gardens are amenities that improve the livability of an area and the health of the community. Actions which can promote these amenities include:

- **Community Gardens:** Suggest program types and locations for community gardens based on the locations of potential contaminants and the general risks posed by those contaminants associated with the identified brownfield sites. Incentivize the inclusion of these types of amenities in development plans to increase the amount of community gardens in the neighborhood. Community gardens centrally-located within dense residential developments, such as those proposed along Morton Street and Beaver Street, would be a particularly attractive greenspace amenity. Use of raised beds and application of other best management practices recommended by MassDEP (Waste Site Cleanup Policy #14-910) may be appropriate to protect against residual environmental impacts. Investigate a cooperative business model that uses underutilized land for fresh food production in a hydroponic greenhouse.

- **Farmers Market:** Establish a farmers market at the parking lot for Mary Dennison Park on Beaver Street. The farmers market could be an opportunity to capitalize on the cultural diversity of the area and attract visitors from outside the neighborhood by featuring specialty food vendors and local restaurants.

- **Grocery Stores:** Identify crucial areas for grocery stores and bodegas that carry locally-sourced and healthy food options. Highly-visible and high-traffic areas along existing or enhanced transit routes should be prioritized, including Waverly Street and the Beaver Street-Blandin Avenue intersection.

4.4 Incentives and Investments

4.4.1 INVESTMENTS IN PUBLIC-REALM SPACES AND SERVICES

Investments by the Town in public spaces will serve as a visible example of the Town's goal to enhance the redevelopment potential of Southeast Framingham. Priority should be given to the development of a multi-modal, attractive, and safe Waverly Street. This arterial thoroughfare is the primary connection to the downtown area and transit center from the subject neighborhoods. Use the "Complete Streets" approach in the planning of this corridor from downtown to Second Street to make the area a desirable destination for all modes of transportation (including pedestrians, bicyclists, and public transit riders), including widening and improving sidewalks. This could include extending the footprint of and/or connectivity to Mary Dennison Park.

Incorporation of the gateway features from Waverly Street into the Morton Street at Taralli Terrace grouping will also help establish a welcoming element and neighborhood identity. Additionally, the triangle between Waverly Street and the railroad right-of-way (e.g. the area of the Blandin Avenue Grouping) should be considered a potential gateway to the mixed use neighborhoods, including placemaking features such as wayfinding, artistic elements, and signage unique to the neighborhood.

The Town should also work with Metrowest Regional Transit Authority to increase hours of operation during weekday evening hours and weekends. The limited public bus evening and weekend hours are an impediment for local residents to access job opportunities and service/retail amenities.

4.4.2 FINANCIAL INCENTIVES

Financial incentives, particularly those that support private investment of critical initial developments that support the overall Town vision, can incentivize private investment. In our experience, municipalities use many different types of investment that are discussed below, but the best practices involve selecting investments that leverage private investment dollars and the types of private development that best supports the Town vision. Incentives that the Town should evaluate include:

- **Public Private Partnership:** Throughout this report, opportunities for several infrastructure improvements that would improve the aesthetics, safety, and function of property use were identified in the Southeast Framingham groupings. Improvements to mobility, including defining gateway areas, improving sidewalks and bike paths, connectivity, and transit improvements noted throughout this report could improve the development value of proximal private properties. The Town should use a targeted strategy to invest in infrastructure that supports target areas or even target developments. Private developers investing in Southeast Framingham often want public investment in infrastructure as part of development investments. Selective use of partnerships for infrastructure to support impactful developments should be considered by the Town to facilitate initial developments that support the vision. Private developers want to drive increased real estate value and if the Town can select infrastructure investments to support preferable development value, the Town can help drive the types of development it seeks.

- **Tax Stabilization:** Programs include tax increment financing (TIF) and district increment financing (DIF). One of the primary ways a municipality can drive development is to offer tax stabilization, meaning a predictable tax payment for a development property owner over some multi-year development period. Often this type of tax deal involves the tax payments increasing in a predictable way more slowly than the land value increase would suggest in the absence of a tax stabilization deal. Effectively, the Town is giving a predictable tax break on the increased property value for a limited period of time in order to make development investment more manageable for the developer, thereby spurring the private investment in increasing the private real estate value and associated tax revenue. An important aspect of these types of deals from the developer perspective is the certainty that the

municipality will enter a tax stabilization deal from the very beginning. Some communities have a well-defined formal program that applies broadly to redevelopment projects while others negotiate tax stabilization on a project-by-project basis. Either can be effective but Framingham should make clear to municipal officials the types of development to which the Town would offer tax stabilization so that when approached by private developers considering investment in Town, the officials can firmly support a tax stabilization process. The Town needs to be proactive in assuring developers that tax stabilization can be attained in order to not convey uncertainty that may drive the developer to a different deal. For many developers, uncertainty from Town officials regarding tax stabilization is equivalent to no tax stabilization. The Town needs to determine when tax stabilization can be used in an effort to convey certainty to potential developers comparing development scenarios and investment strategies.

- **Economic Development:** Develop a program to encourage manufacturing companies to locate in Southeast Framingham or existing manufacturing companies to expand. Diversify businesses by attracting creative economy and businesses such as computer programing/gaming/arts, life science companies, and start-up companies. Leverage the arts, cultural activities and heritage, and area history as economic development tools.

- **Framingham Brownfield Program:** As discussed above, an active municipal brownfield program can acquire both town-wide and site specific development funding from various sources. The Framingham Brownfield Program should be maintained regardless of the level of funding and continue to seek annual funding to support development in Southeast Framingham. This is an incentive that generates its own funding from outside of the Town. The Framingham Brownfield Program should maintain awareness of other programs in Massachusetts that support brownfield redevelopment including:

    - **Tax Credits:** Several tax credits are typically available to developers of Brownfield properties in Massachusetts:

        - Massachusetts Brownfields Tax Credit Program can provide a tax credit ranging between 25% and 50% for environmental clean up activities conducted during brownfield redevelopment.
        - Massachusetts Historic Tax Credit of 20% can be available for historic Brownfield properties on the state Register of Historic Places.
        - Federal Brownfields Tax Deduction Program allows for 100% of cleanup costs to be deducted from federal tax income.

- **MassDevelopment Funding:** MassDevelopment maintains a brownfield development program with insurance, loan, and grant funding for brownfield redevelopment. The availability of funding ranges up and down in these programs so potential applicants should contact either MassDevelopment or the Framingham Brownfield Program staff for more information.

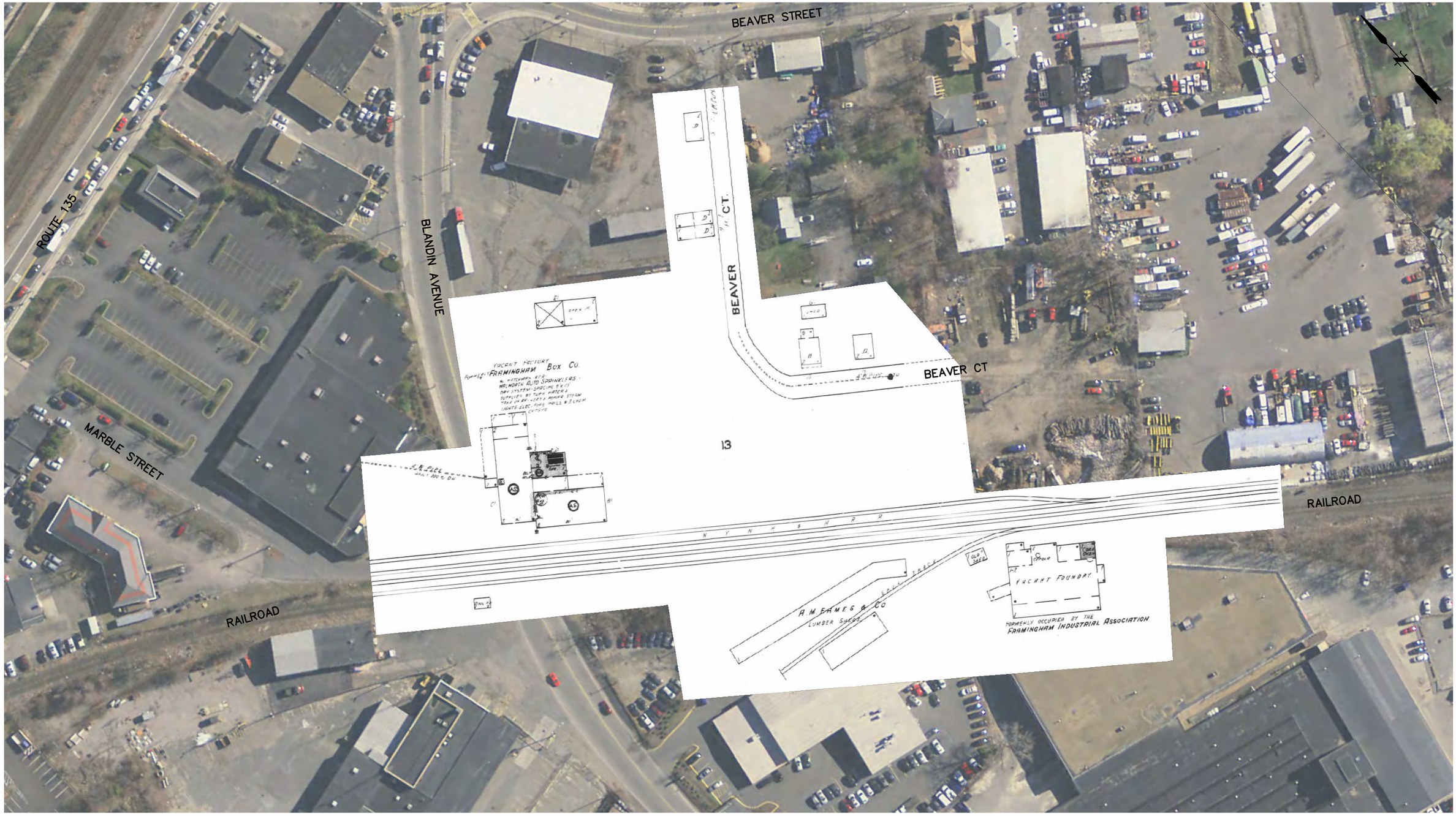
- **Brownfield Covenant Not to Sue:** The Massachusetts Attorney General has established a liability protection to incentive cleanup and redevelopment of brownfield sites. To protect current owners or prospective buyers who commit to revitalization of a Brownfield site, the Attorney General can enter into Brownfields Covenant Not to Sue Agreements with performing parties working to cleanup more complicated Brownfield sites. These agreements can be tailored based on the individual needs of the performing parties. For example, liability relief can be extended to a responsible party who caused the contamination, who is partnering with a developer to cleanup and redevelop the contaminated site. Establishment of such an agreement can be critical to financing redevelopment because it would provide lenders certainty with respect to liability.

- **Smart Growth Zoning Incentives:** A Smart Growth Overlay District incentivizes the creation of dense residential or mixed-use districts in areas of existing development by allowing eligibility for payments from a Smart Growth Housing Trust Fund, under General Law Chapter 40R.

- **Local Expedited Permitting:** An additional Massachusetts program to promote redevelopment would be to regulate this area under expedited permitting provisions of General Law Chapter 43D. The Town has used expedited permitting under 43D at other areas and should consider it for the study area.

Appendix A

Land Use History of Blandin Avenue and Beaver Street Groupings



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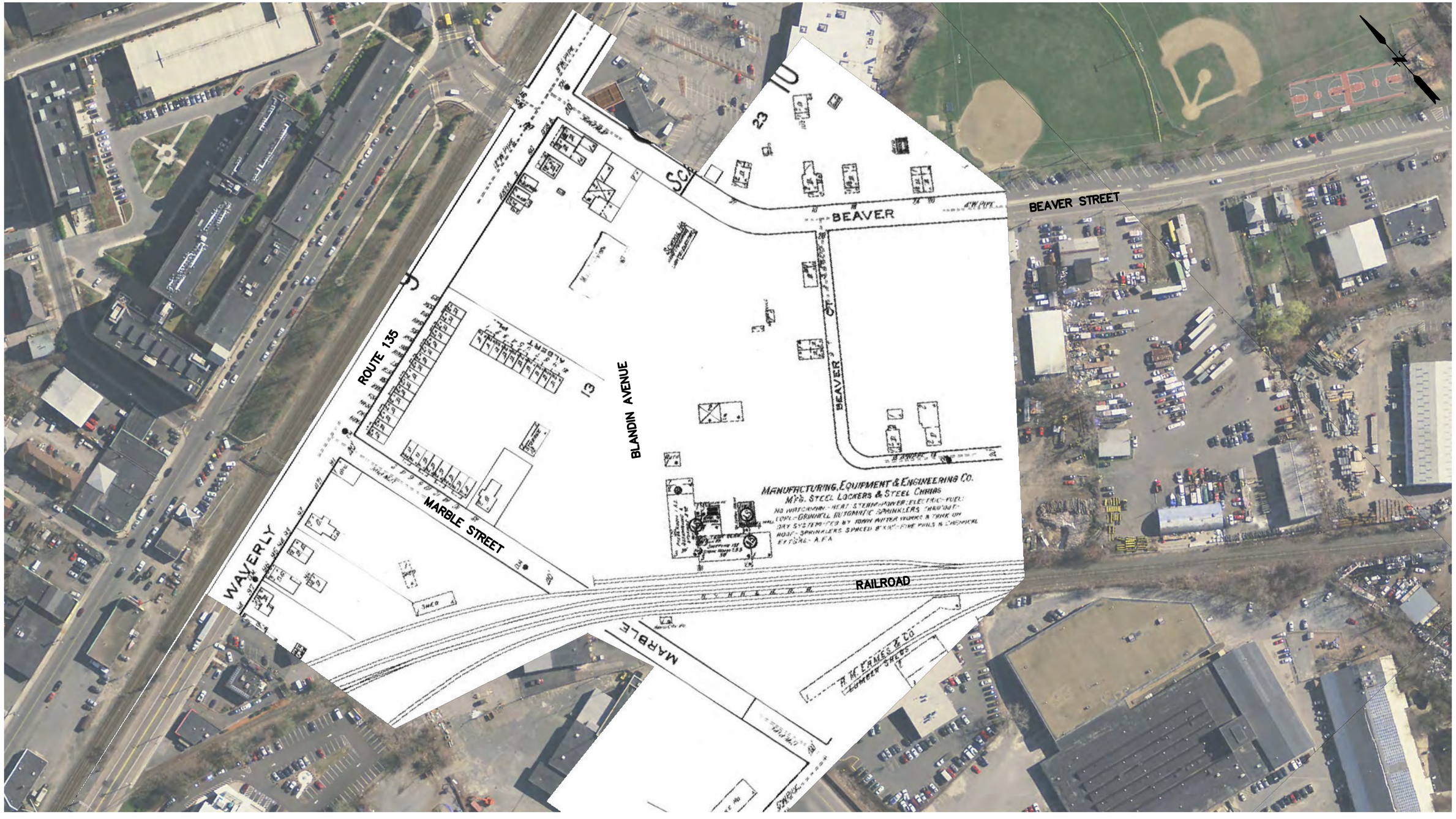
TOWN OF FRAMINGHAM

SITE PLAN - 1909

BLANDIN AVENUE/BEAVER STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
DATE: MARCH 2016



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TOWN OF FRAMINGHAM

SITE PLAN - 1915

BLANDIN AVENUE/BEAVER STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
DATE: MARCH 2016

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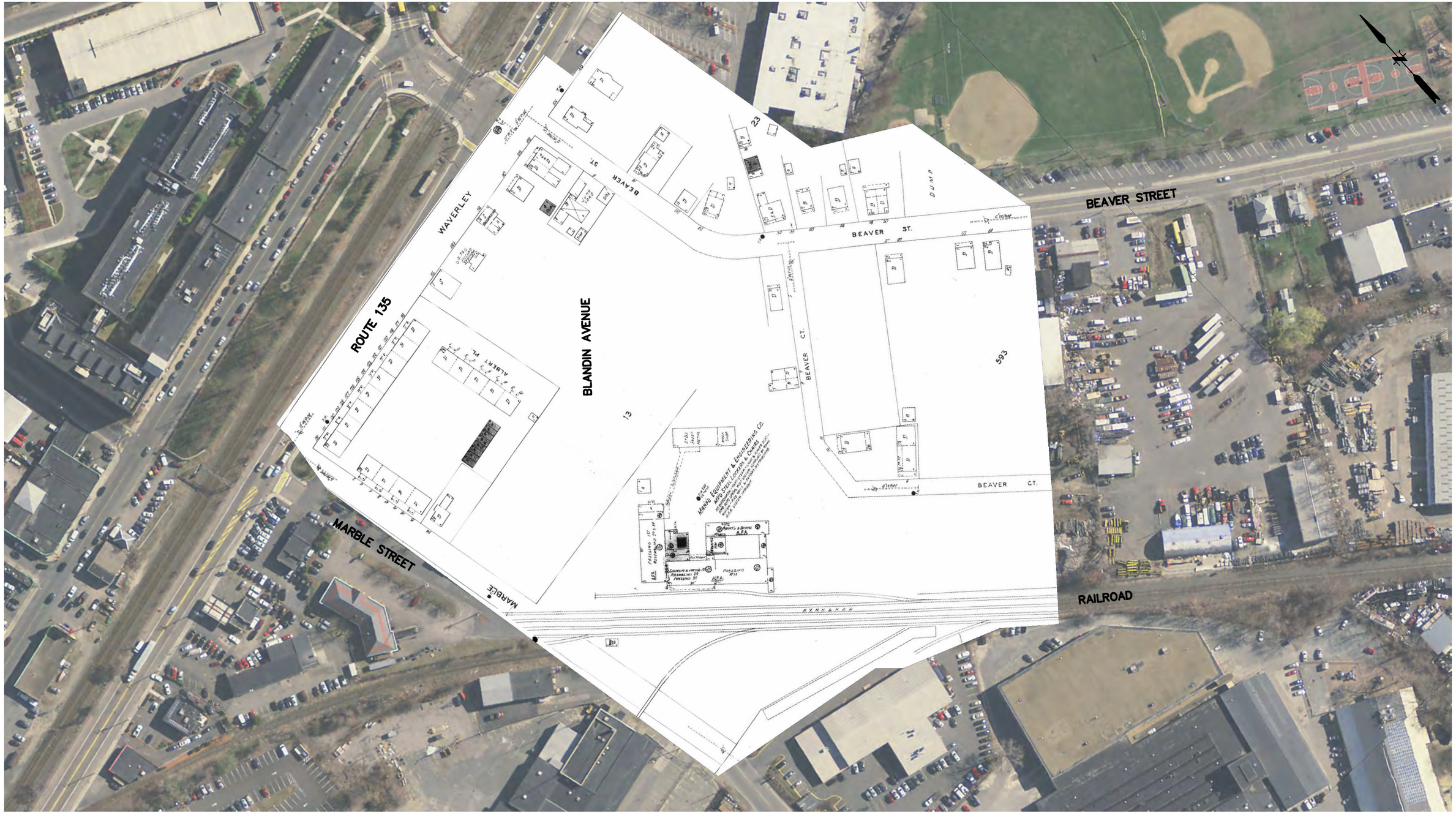

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TOWN OF FRAMINGHAM

SITE PLAN - 1930

BLANDIN AVENUE/BEAVER STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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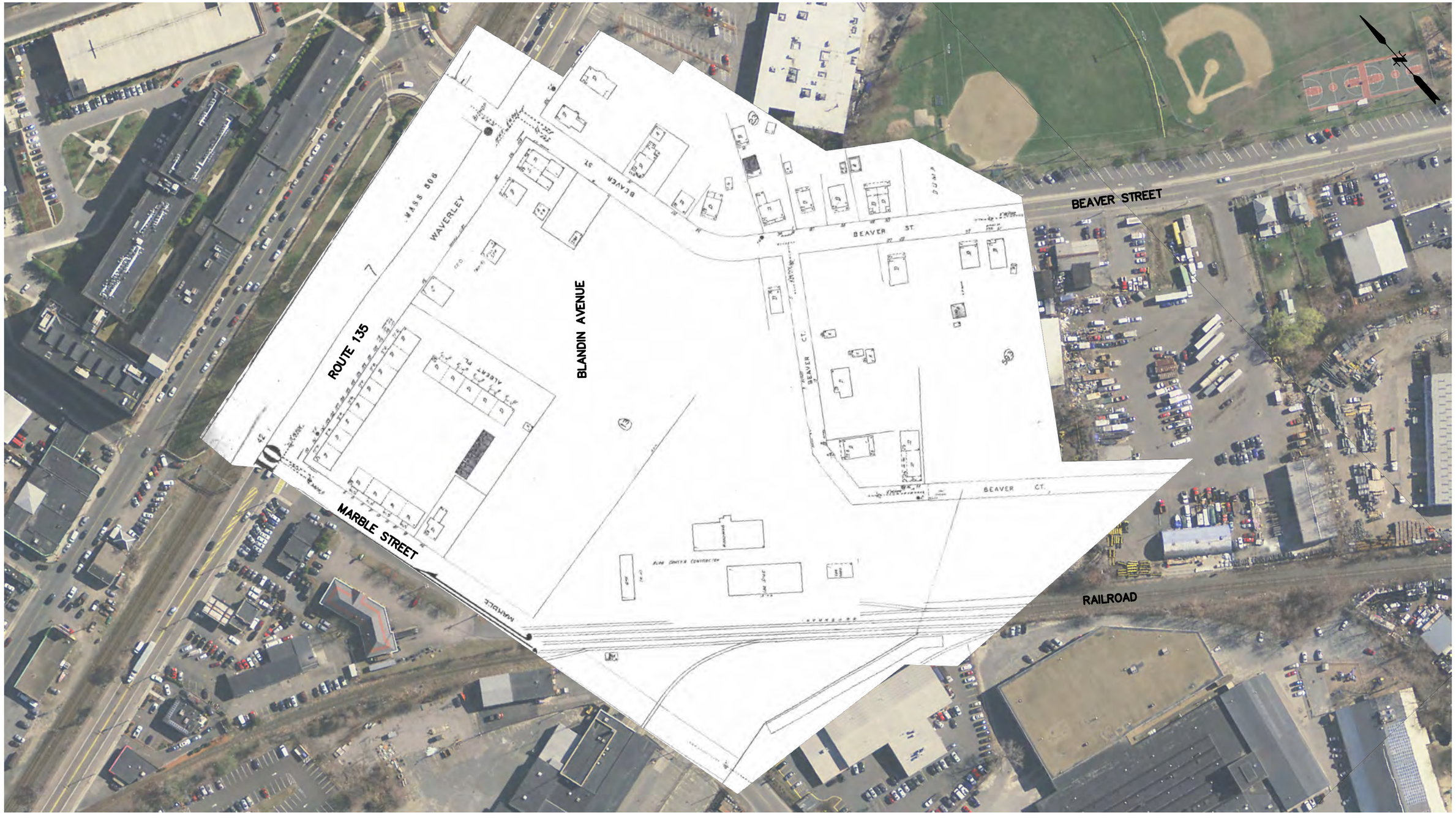

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TOWN OF FRAMINGHAM

SITE PLAN - 1948

BLANDIN AVENUE/BEAVER STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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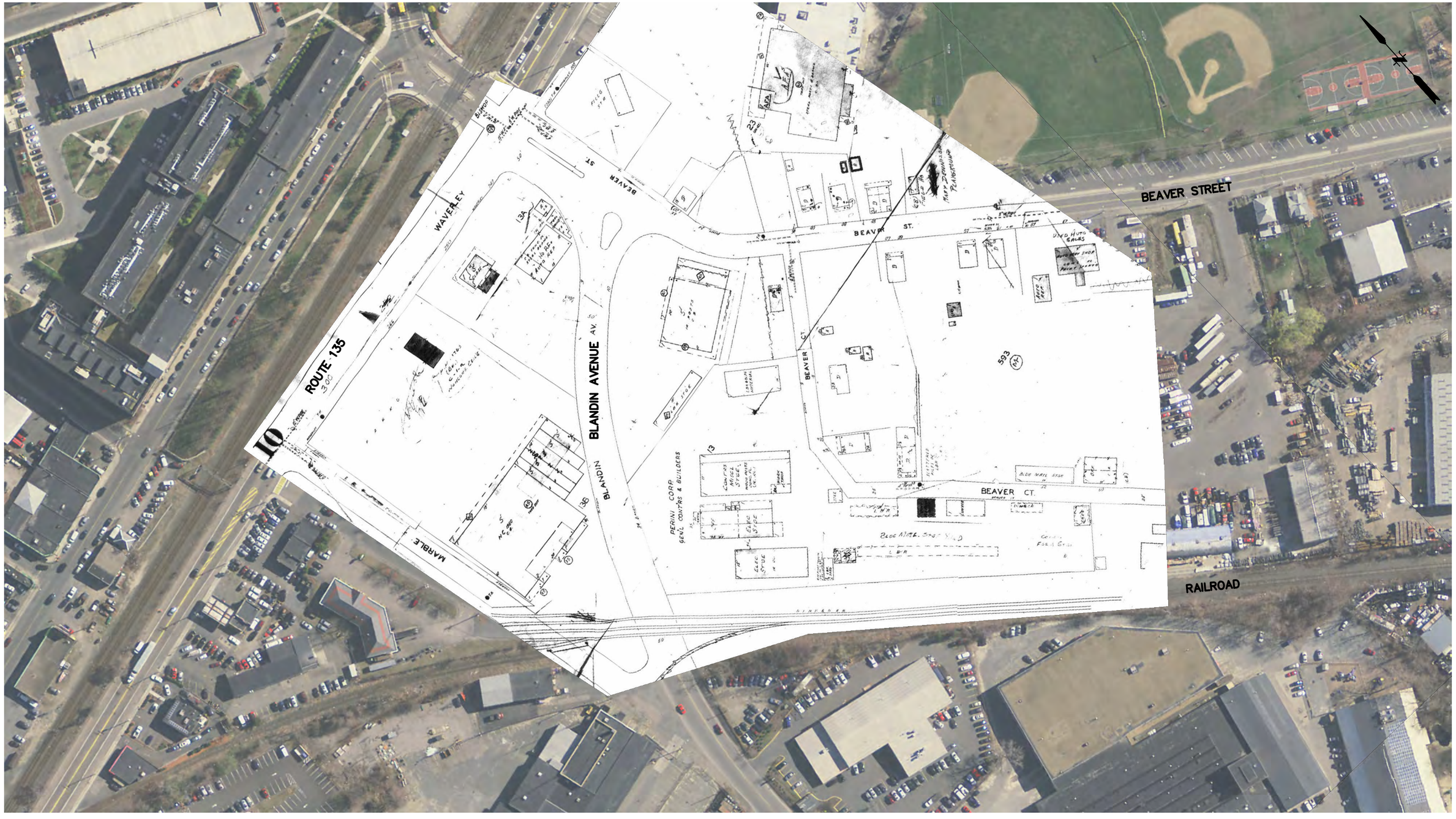

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TOWN OF FRAMINGHAM

SITE PLAN - 1968

BLANDIN AVENUE/BEAVER STREET GROUPING

FRAMINGHAM MASSACHUSETTS

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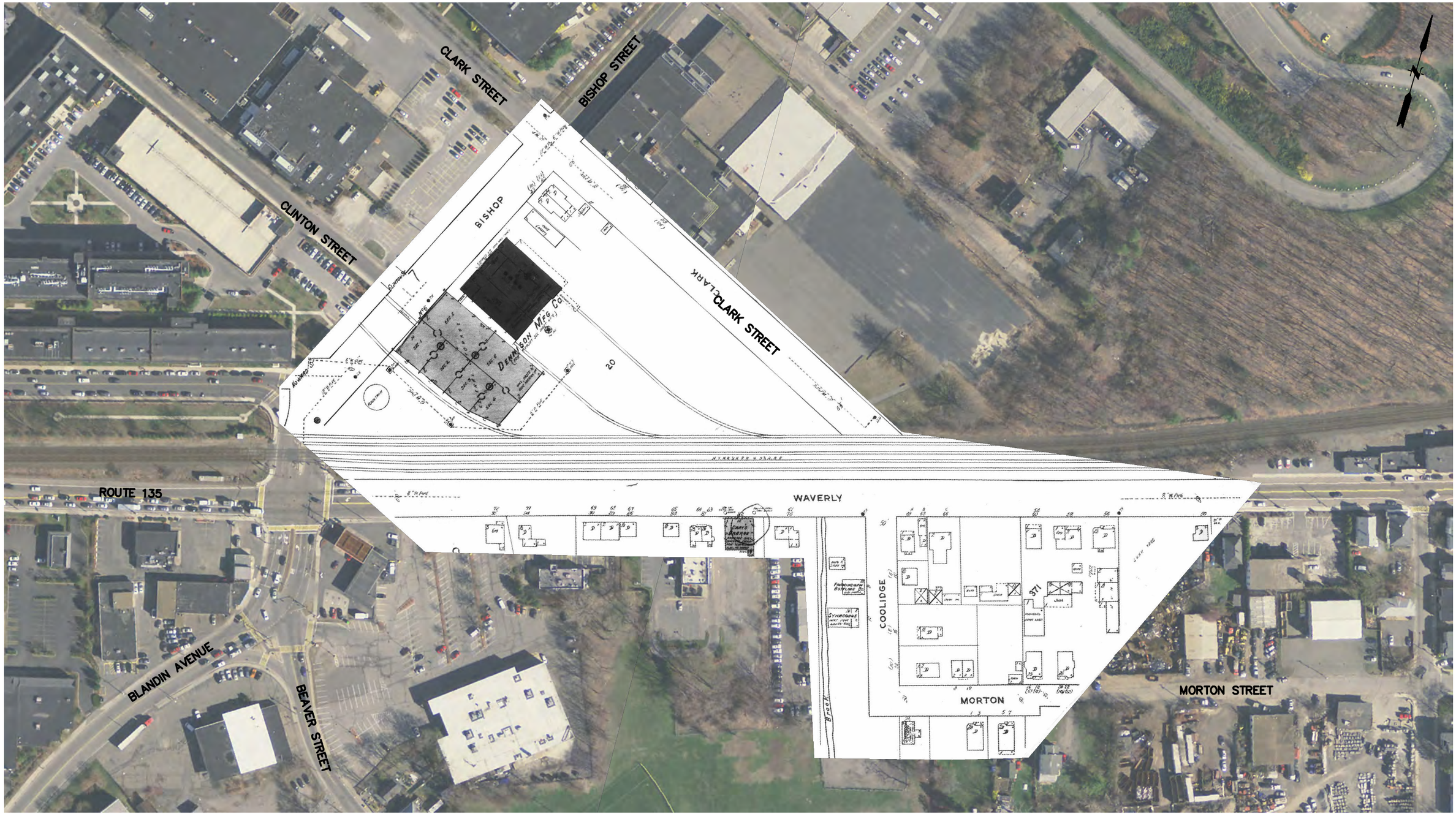
Appendix B
Land Use History of Morton Street Grouping



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TOWN OF FRAMINGHAM

SITE PLAN - 1922

MORTON STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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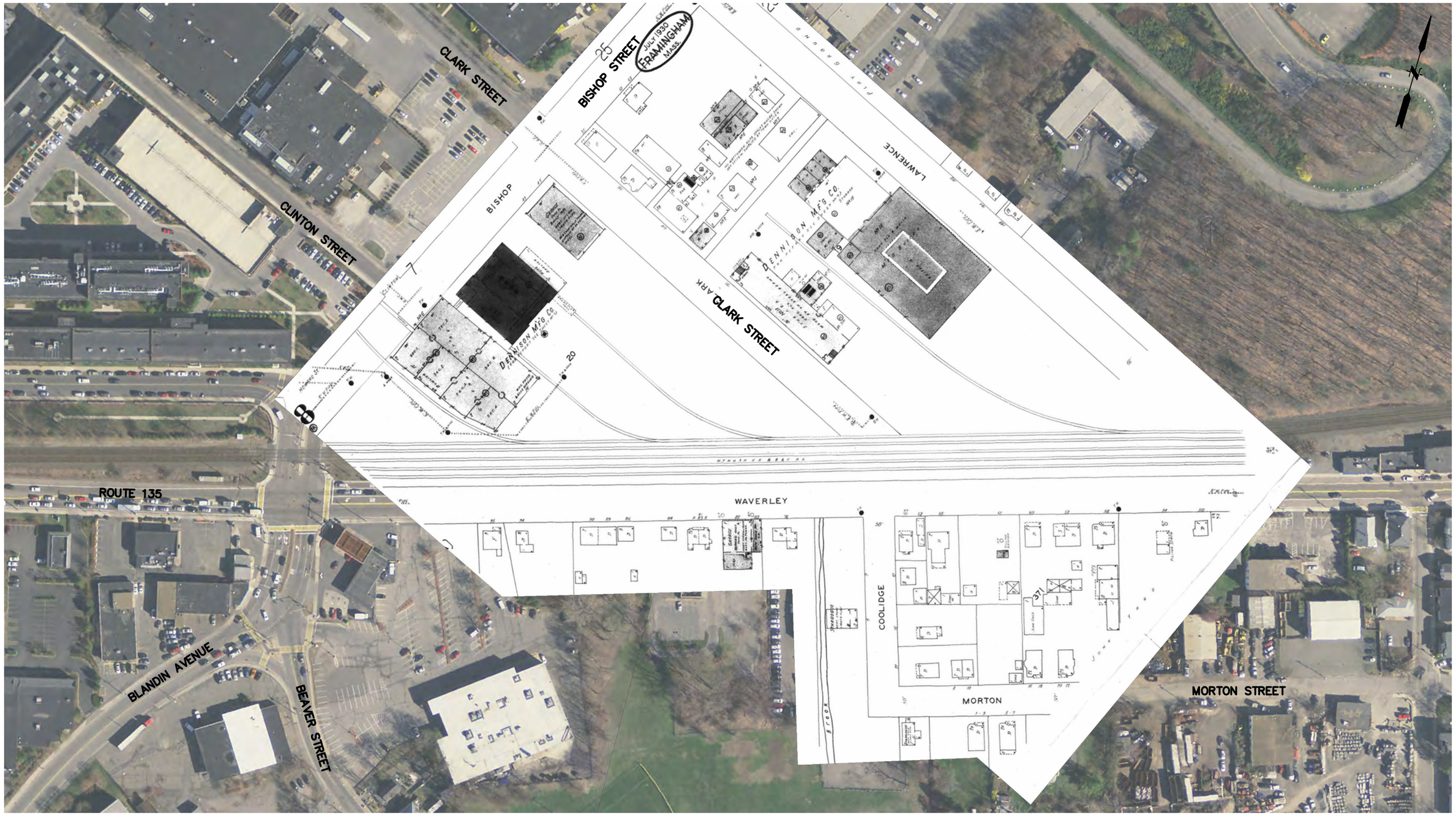

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TOWN OF FRAMINGHAM

SITE PLAN - 1930

MORTON STREET GROUPING

FRAMINGHAM MASSACHUSETTS

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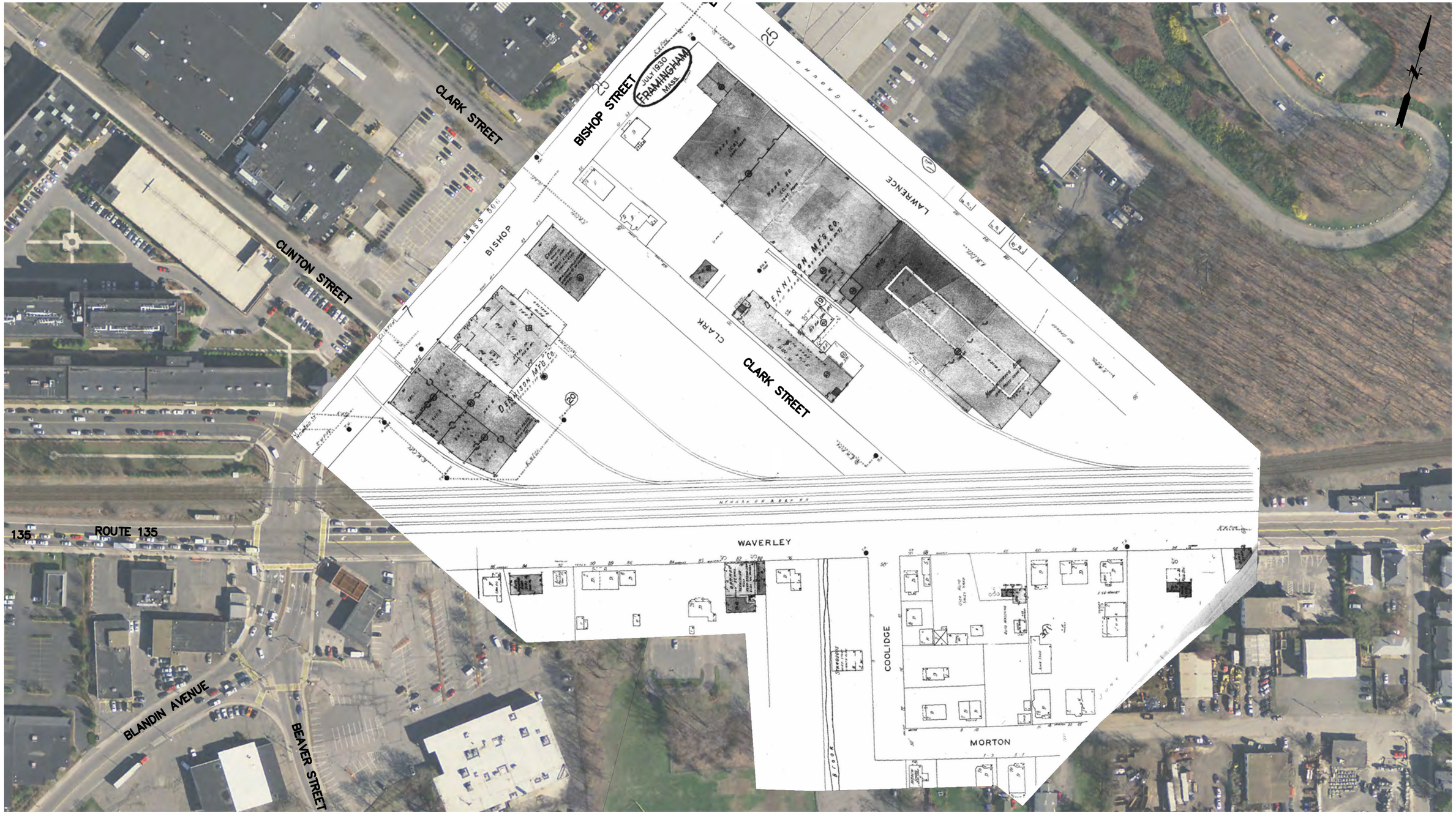

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TOWN OF FRAMINGHAM

SITE PLAN - 1948

MORTON STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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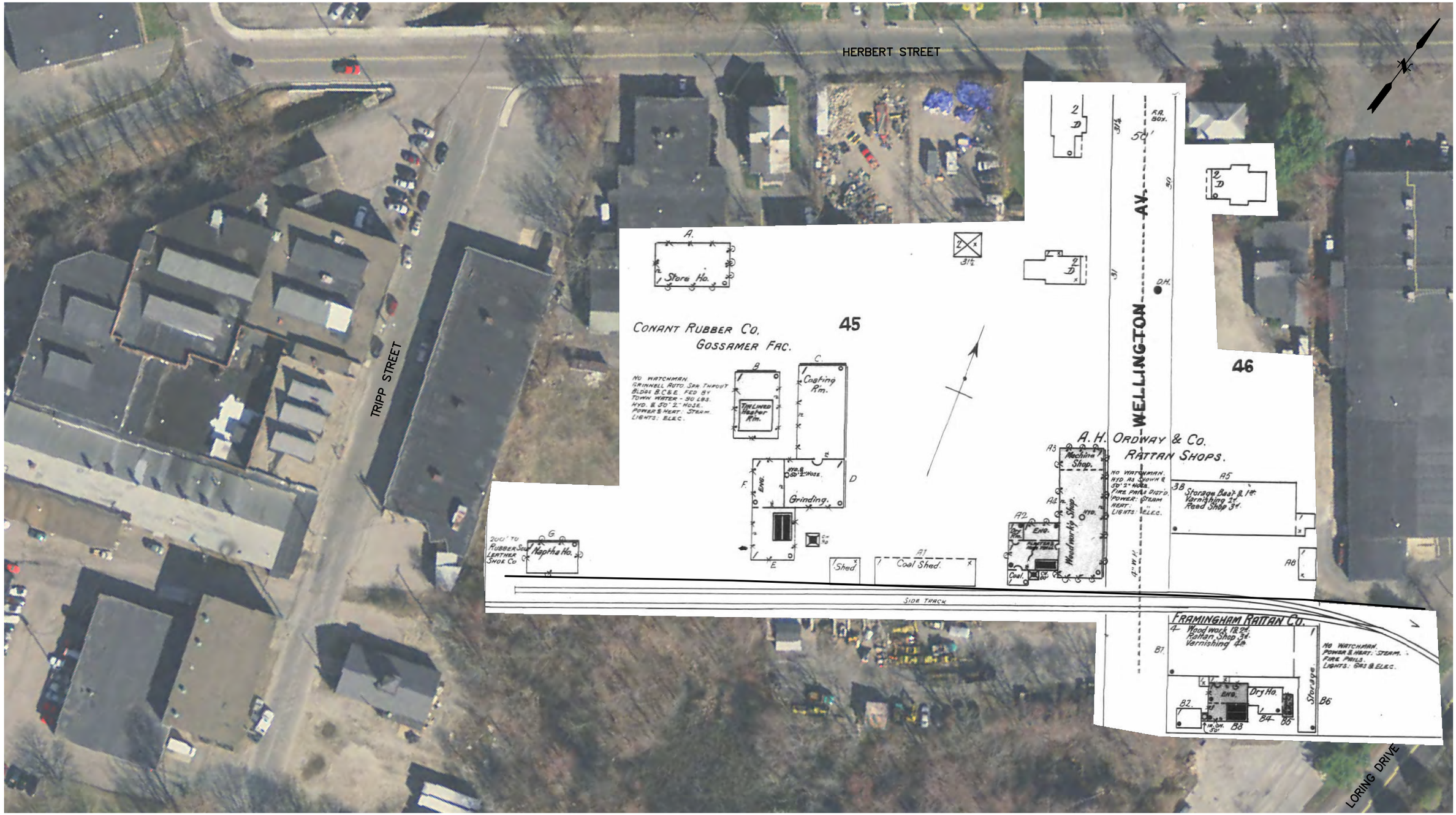
Appendix C
Land Use History of Tripp Street Grouping



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TOWN OF FRAMINGHAM

SITE PLAN - 1897

TRIPP STREET GROUPING

FRAMINGHAM MASSACHUSETTS

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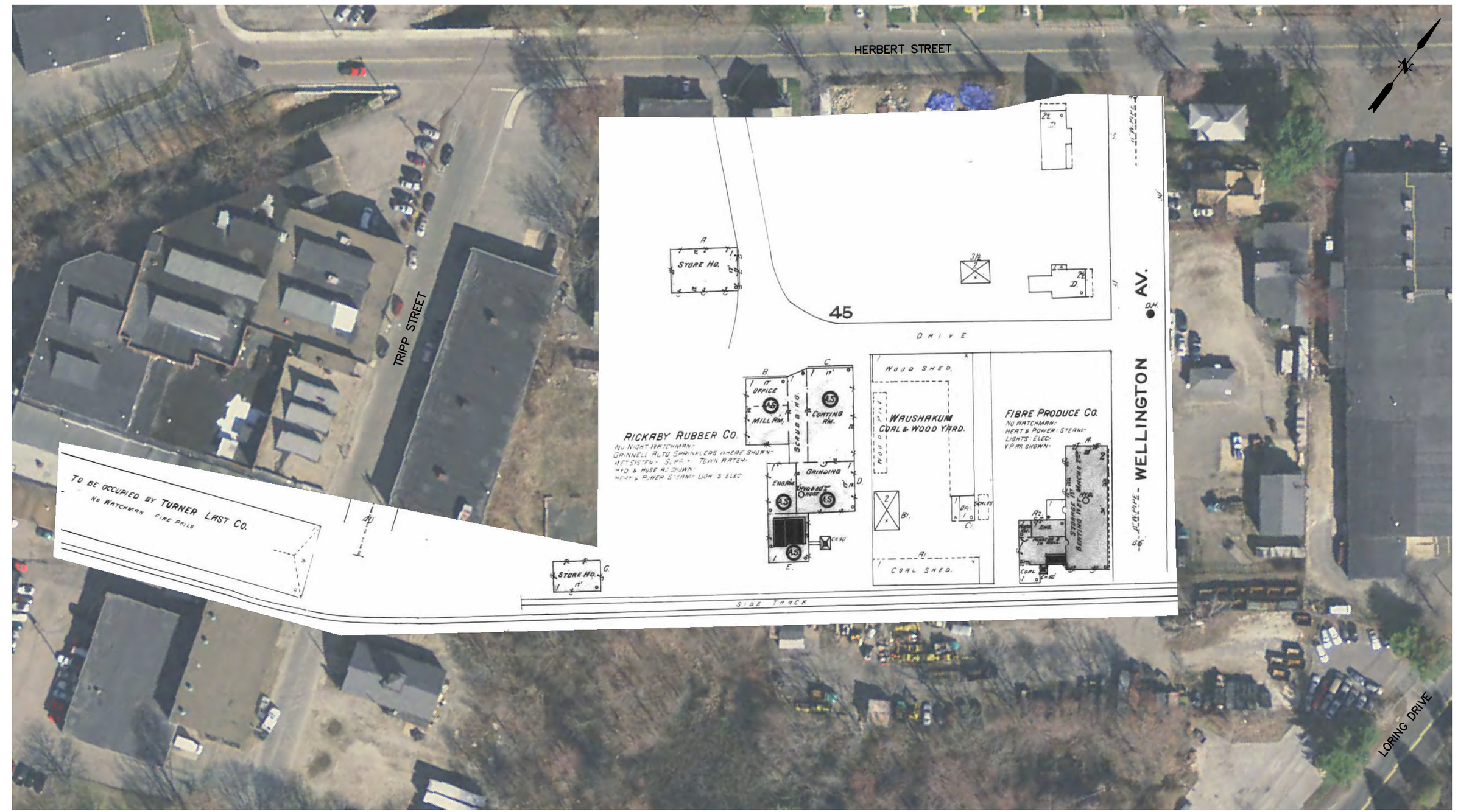
HERBERT STREET

TRIPP STREET

LORING DRIVE



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TOWN OF FRAMINGHAM

SITE PLAN - 1909

TRIPP STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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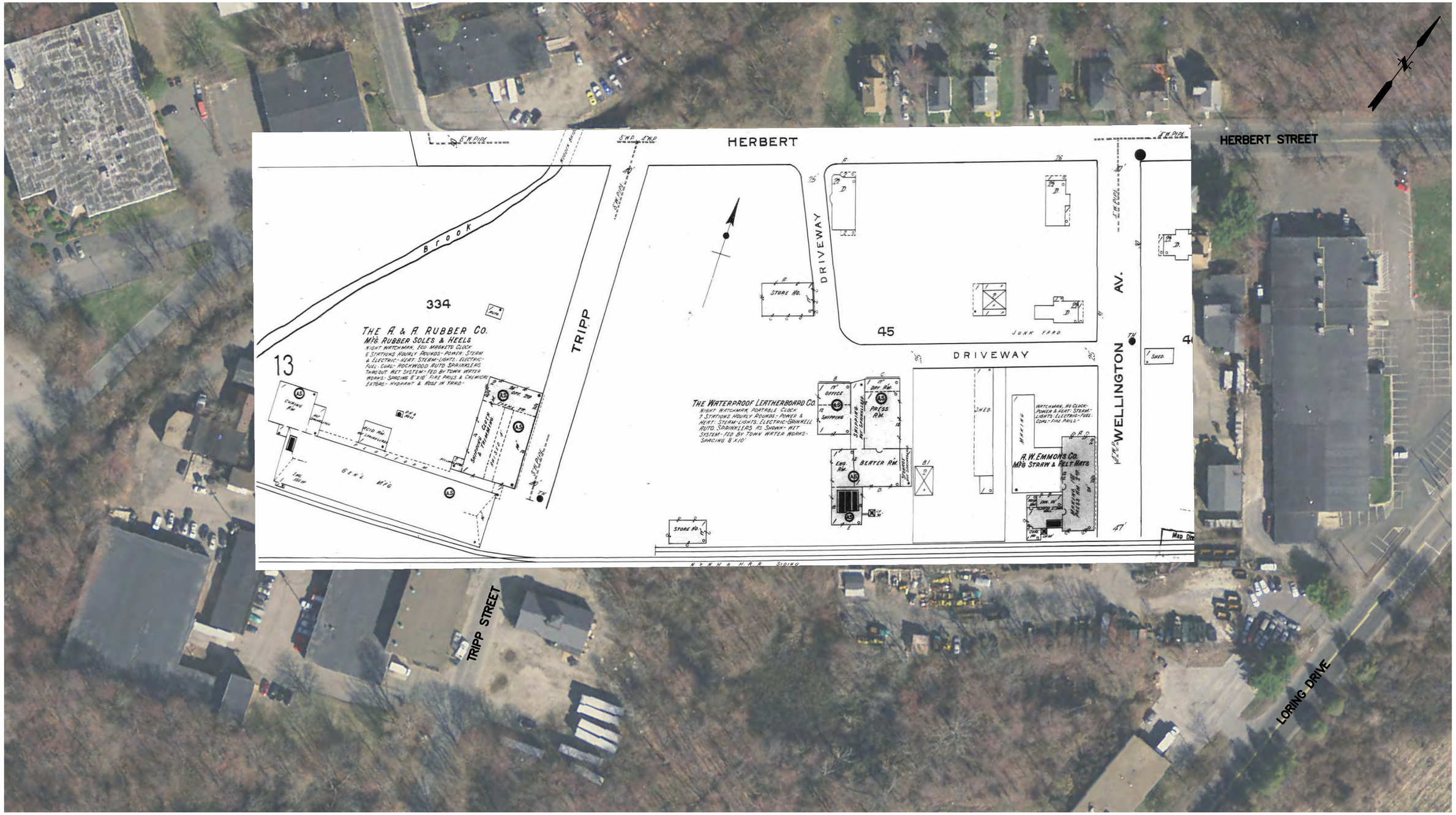

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TOWN OF FRAMINGHAM

SITE PLAN - 1915

TRIPP STREET GROUPING

FRAMINGHAM MASSACHUSETTS

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DATE: MARCH 2016

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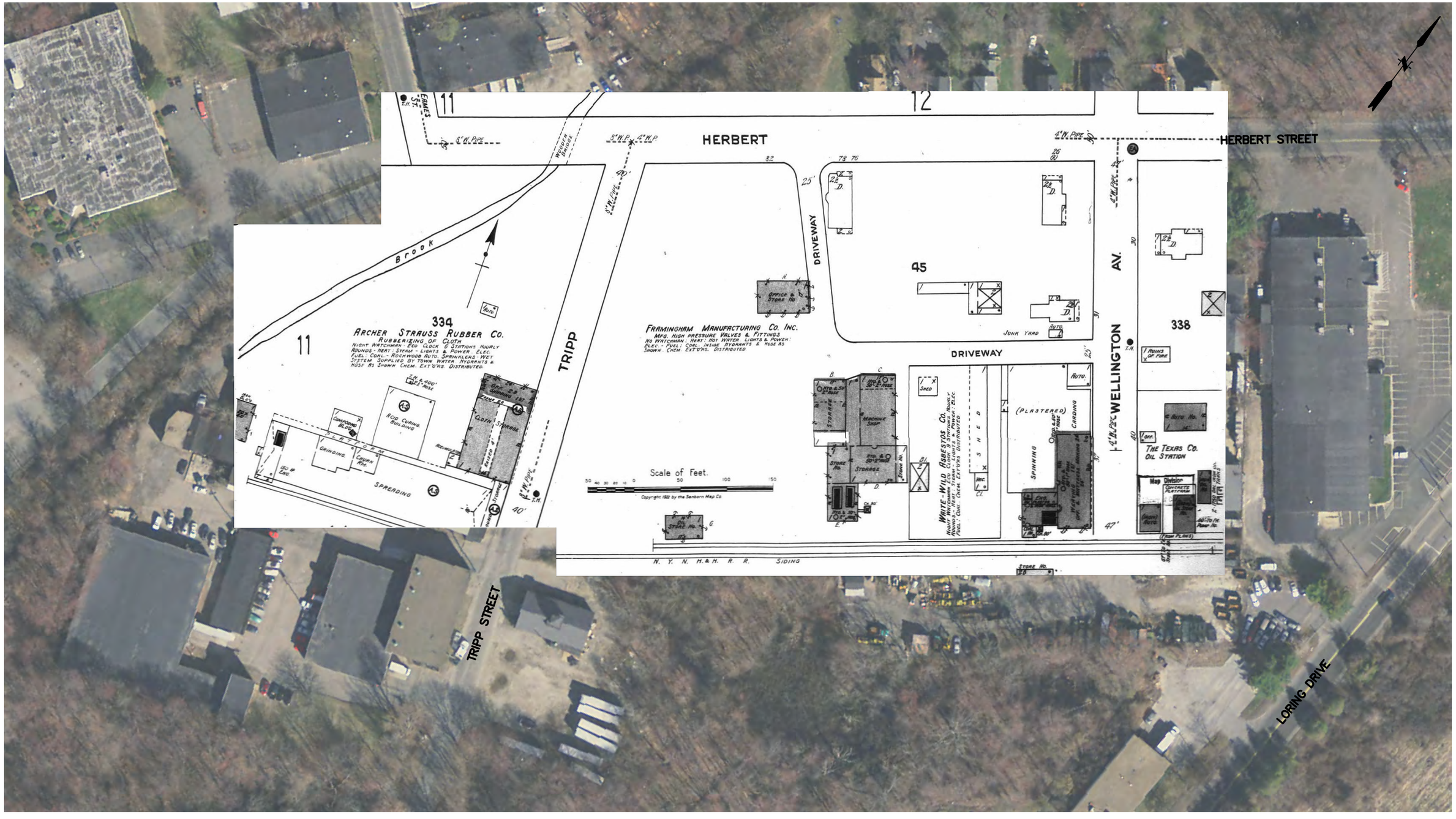

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TOWN OF FRAMINGHAM

SITE PLAN - 1922

TRIPP STREET GROUPING

FRAMINGHAM MASSACHUSETTS

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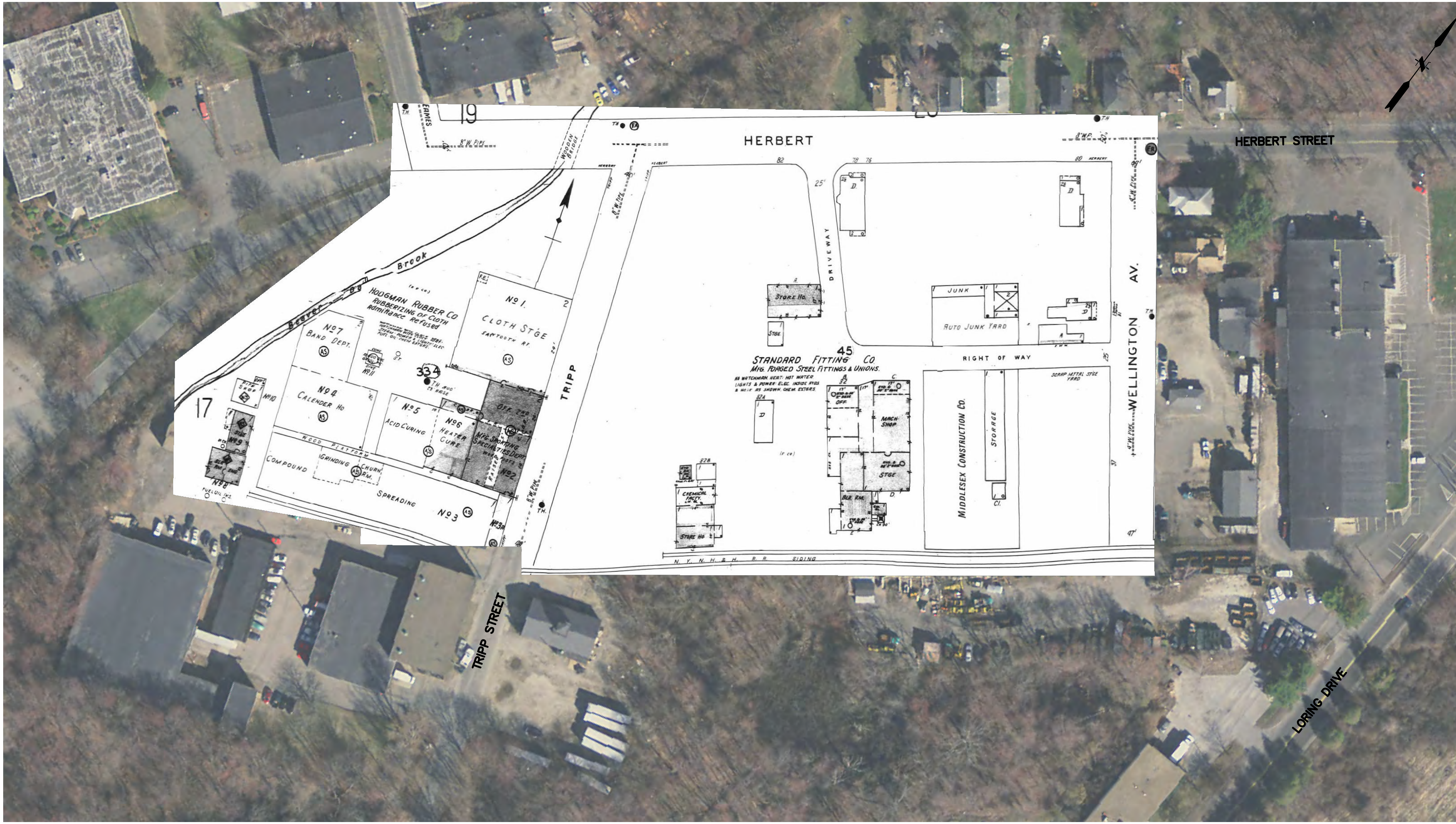

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TOWN OF FRAMINGHAM

SITE PLAN - 1948

TRIPP STREET GROUPING

FRAMINGHAM MASSACHUSETTS

PROJ. No.: 20081389.D10
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