

## MEMO

Title: Building Design Narrative  
Project: 50 Webster Ave, Somerville, MA (Parcel D3.1)  
Date: 10/19/21

To: Urban Design Commission

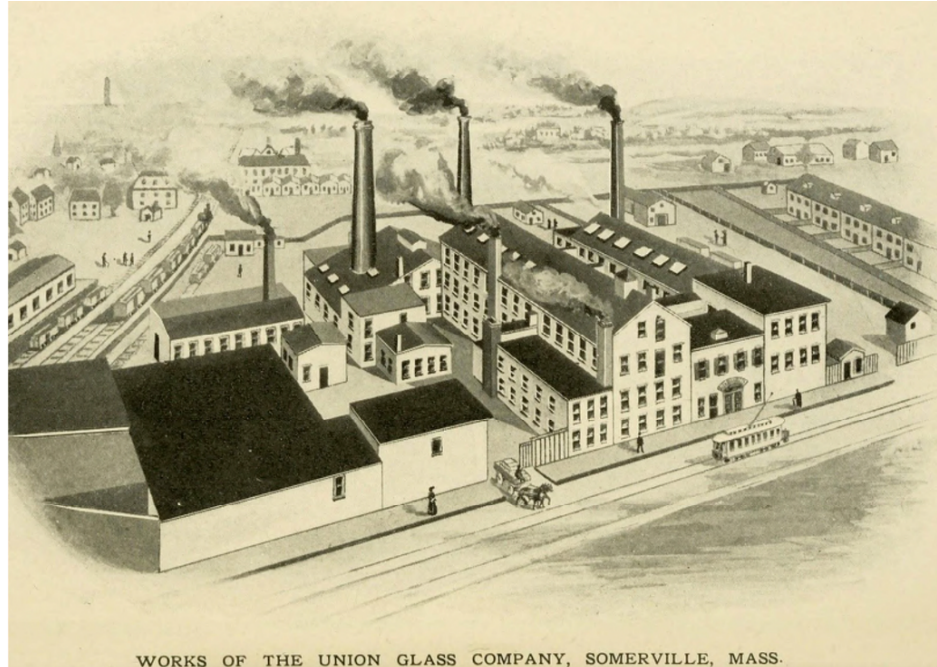
## Summary

The new building at 50 Webster Ave Somerville, on the D3.1 Parcel, is a part of the Union Square Development bringing 2.4 million SF of new development to Somerville. The project will promote the cities goals of create a transit oriented, pedestrian friendly, verdant, mixed use employment center. The building is to be approximately 280,000 SF, 9 stories above sunken parking podium. The primarily building use is to serve as commercial office space for the Life Science Laboratories, with some tenant amenities, and ground floor public retail along Prospect St and Webster Ave, connecting onto a 16,000 SF public plaza civic space. The building will be highly performing for energy and sustainability, with intention to achieve a USGBC LEED Gold rating.

## Context

The design of the building is inspired by, and will contribute to, its immediate surrounding built and planned surroundings in many ways. As contextual Architects, Marvel, in collaboration with SGA, envision a timeless building rooted in its history, and well serving its people, to help it become a valued part of the community.

The existing site has a non-contributing single-story utilitarian warehouse type building of no historic significance. Therefore, there is no historic preservation associated with this project. However, we are inspired by the Union Glass Company Building which previously occupied the site for nearly 80 years concluding in 1929 (see below image). The factory building produced the highest quality cut glass and art objects and employed 200 workers at its peak. The architecture was large, brick, and simple. The proposed design take inspiration from this building; its boxy brick forms, repetitive window fenestration, vertical proportions, punctuated by vertical smokestacks. We also intend to employ distinctive elements and features of glass, both in the architecture and civic space, to recall the story of the site. The design goal is a timeless and dignified presence for building workers and the city of Somerville.



The existing built architectural context contains a variety of styles, scales, and uses. This eclectic urban condition is stitched together by series of public sidewalks, public spaces, and streets of varied sizes and degrees of activity.

To the immediate North of the property is the rail line corridor, which presents both constraints and opportunities. The façade must employ strategies for noise mitigation, but also can capitalize upon the deep views toward Union Square and Downtown Boston, and opportunity for additional glazing since outside direct sun. The T Line extension stop is being installed at present, just to the north across the Prospect St Bridge. By meeting the bridge elevations with D3.1 plaza, we will be able to reduce the length of the narrow bridge sidewalk and creating more pedestrian friendly connections to Union Square and beyond. We imagine many people arriving by foot and bike and are proposing a lively ground floor, with distinctive chamfered concrete frames, with significant storefront glazing at retail spaces directly activating the plaza.

To the West is a busy 5-point intersection where Prospect Street and Webster Ave meet. The neighborhood here is primarily residential with intermingled institutional and commercial uses. The western edge is the primary public frontage of the building, which will be visible from many of the surrounding streets. We imagine the

building as an anchor terminus, as much as a gateway from the South to the Union Square neighborhood. Simple massing geometry is employed to help serve as an orientating landmark from various directions. The use of a simple dignified brick grid façade, composed of historic industrial proportions, will appear both historic and of its time.

To the South is the future D3.2 residential development site, and the quieter Columbia Street and Windsor Place streets which generally becomes less dense, more commercial, and industrial. To the East is the future D3.3 commercial development site, which connects to the Boynton Yards area of development. The projecting triangular southern wing will define the civic space edge, and continuity with the future D3.2 building.

A material palette of rugged and familiar materials is imagined, including brick, concrete, stone, glass fiber reinforced concrete, bronze, and glass. These are all found in the immediate neighborhood, are composed to promote both historic and contextual continuity. These materials along with the simple gridded façade articulation recalls the DNA of familiar industrial architecture typologies. The distinctive sawtooth top in the preferred façade concept, along with the chamfered storefront bays, and vertical metal louvers, promote an identity of innovation – appropriate to the high-tech scientific lab uses within.

The 50 Webster Ave building is intending to comply as-of-right with all aspects of the 2017 Union Square Zoning text, including for building form and bulk, use and occupancy, features, and articulation. We envision a building that is contextual, accessible, and equitable, employing best practices and site-specific solutions in Smart Growth Principles and Placemaking.

## **Sustainability**

Our holistic design strategy integrates sustainability from project outset, seeking ambitious but feasible performance targets, to form the critical pathways which shape the project development. Marvel, in close consultation with SGA and dbHMS (the sustainability consultant), will determine the right baseline energy goals by examining previous Union Square precedents, the site microclimate conditions, and the use typology, while applying or exceeding applicable mandates. We anticipate 50 Webster Ave to be a high-performance building, which will achieve a USGBC LEED Gold rating.

Our holistic approach to sustainability encompasses all systems and use, going beyond just focusing on energy efficiency and usage reduction. We focus on three key areas: energy, materials/resources, and wellness/community.

## Energy

- We will perform whole building performance simulations – energy modeling - at key stages of the design process to inform design decisions, reducing energy use and GHG emissions, while optimizing the performance of the building, balancing first costs with operational savings in the long run.
- Single aspect simulations - Run single aspect simulations such as daylight access, glare, shading, fenestration to wall ratio and shoebox model studies early in the design process to inform the design of the larger building.
- Energy benchmarking – Compare the predicted Energy Use Intensity (pEUI) of the building against established standards, while collaborating with the client to set and refine targets in achieving a high-performance building.
- Passive strategies - Study and implement appropriate passive strategies to contribute to performance, such as massing and orientation, natural ventilation, solar shading, etc.

## Materials & Resources

- Water - Intelligently managing site and interior water efficiency and consumption. Utilize rain and stormwater management best practices. If possible, process water reuse by developing a plan for recapturing / reprocessing stormwater, mitigating runoff through permeability, or capture/reuse greywater and blackwater.
- Resource-sensitive design - Specifying safe / responsibly sourced materials. Consider embodied carbon in the selection and sourcing of materials. Employ materials and plantings which mitigate the Urban Heat Island effect.
- Landscape and Ecology - We can study how the landscape is not only functional and beautiful but supports and contributes to local biodiversity and ecological health over time, while minimizing resource use through a low maintenance / water use strategy.

## Wellness & Community

- Wellness – Design for access to daylight, natural ventilation, and quality views, while ensuring thermal and acoustic performance and comfort.
- Equitable Communities – consider how the project engages the community and how it can promote inclusion and social equity. Project siting should address how the project can design for walkability, human scale, and alternative transportation to cars including bikes and mass transit.

- Resilience and change – Study design possibilities that can reinforce resilience and health through flexibility and adaptability. Understand risk profiles and survivability inherent to the site, community, and users.
- Climate change is accelerating, and we at Marvel feel obligated by posterity to treat every project as an opportunity for real climate leadership; not only will it serve the future biome, but it can save money while ultimately making for happier, healthier, more resilient, and vibrant communities.