

Permitting Submission

Biogen Building 8 – Tanks & Enclosure

125 Broadway | Cambridge, Massachusetts

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Prepared for Applicant

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Project Overview

Project Description

The project site is located at 125 Broadway in Cambridge, Massachusetts and is approximately 1.7 acres. The site is bound by Galileo Galilei Way to the west, an unnamed roadway to the east, and mixed-use high-rise developments directly to the north and south. Refer to Figure 1 for a locus map. Biogen's Building 8 occupies much of the project site, open space exists directly north of the building providing pedestrian walkways, a large plaza, children's play structure, and various planted areas. Refer to Figure 2 for an existing conditions aerial map.

The project includes installation of a new oxygen (O₂) tank and replacement of an existing carbon dioxide (CO₂) tank. The building has currently met the maximum allowable limits using bottled and dewatered O₂. The new O₂ tank is a capacity improvement, will provide bulk storage, and also remove storage from within the building. A new CO₂ tank is proposed to replace an existing bulk tank. The existing CO₂ tank was located within the existing loading dock and experienced failure in December 2021 due to overpressurization. The proposed location meets current code requirements and will continue to provide bulk CO₂ storage.

Each tank will also require various manifold and vaporizer equipment to be in close proximity. Although the layout of the tanks and equipment is being finalized, they will all be located within the enclosed area as shown (21' x 23.5') and will occupy approximately 500 square feet (0.01 acres) of the property. The enclosure will be located on the southern area of the site directly adjacent to the building and existing loading dock and enclosed on three sides. The area is currently mulched with four shrubs and in the proposed conditions would be concrete. Refer to Figure 3 for a proposed site plan and section.

As described above, open space for the parcel is primarily located on the north side of the building therefore the proposed location of the tanks maintains this large space. The project team did initially explore alternative locations; however, they were eliminated due the impact on open space, access requirements for maintenance, and maintaining existing piping within the building.

Visual Mitigation

The project proposes to screen the tanks and associated equipment by a visual screen on the south and east elevations and a fire rated wall on the west elevation. The visual screen will be 10-feet tall and will be made from perforated metal with a decorative applique. Graphics are proposed on the visual screen and will be consistent with recent similar installation at Biogen's Building 6 at 115 Broadway, Cambridge, see below.



Tank Enclosure at Biogen Building 6, 115 Broadway, Cambridge

The west elevation will be a fire rated wall approximately 15.5-feet in height comprised of bricks/masonry block. This wall is required to be fire rated because of the proximity to an existing louver and will provide required separation from the tank and vaporizer to the louver.

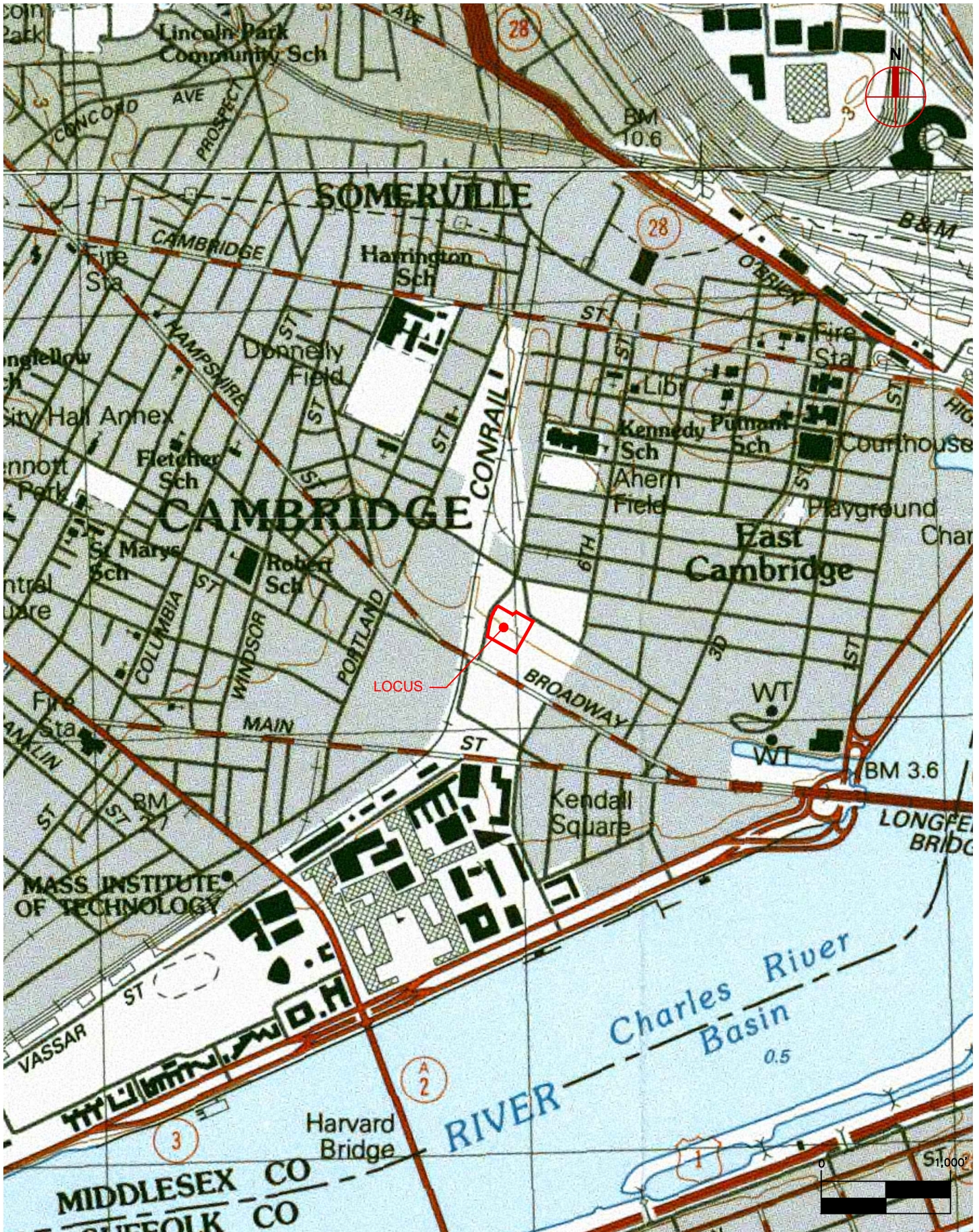
Vegetation existing directly south of the existing building will be relocated between the tank enclosure and the existing pedestrian path to serve as an additional buffer.

Renderings of the project's visual mitigation are included on Figure 4.

Maintenance Requirements

The tanks will be maintained by AirGas and will include refilling. Based on Biogen's use, it is anticipated that the tanks will be refilled once every 2 weeks or twice per month. A refueling truck will pull up adjacent to the enclosure from the access road via Broadway, and the truck's hose will connect directly to each tank's fill box. Refilling will be scheduled to occur during off-business hours, from approximately 8:00pm – 4:00am. As described above, the CO₂ tank that was previously located within the loading area had been refilled by this truck on a similar schedule.

A pair of steel bollards exist on either side of the pedestrian walkway just south of the project site. The project proposes steel bollards to continue along the existing curb line to for additional protection of the tanks and enclosure.



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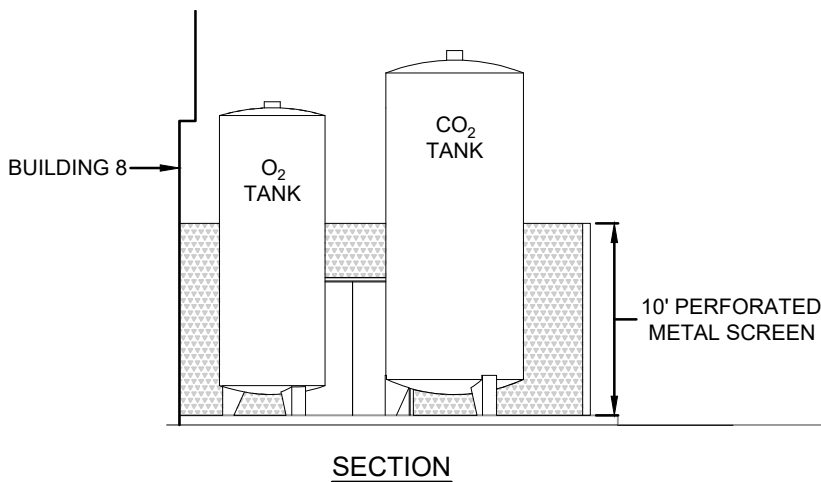
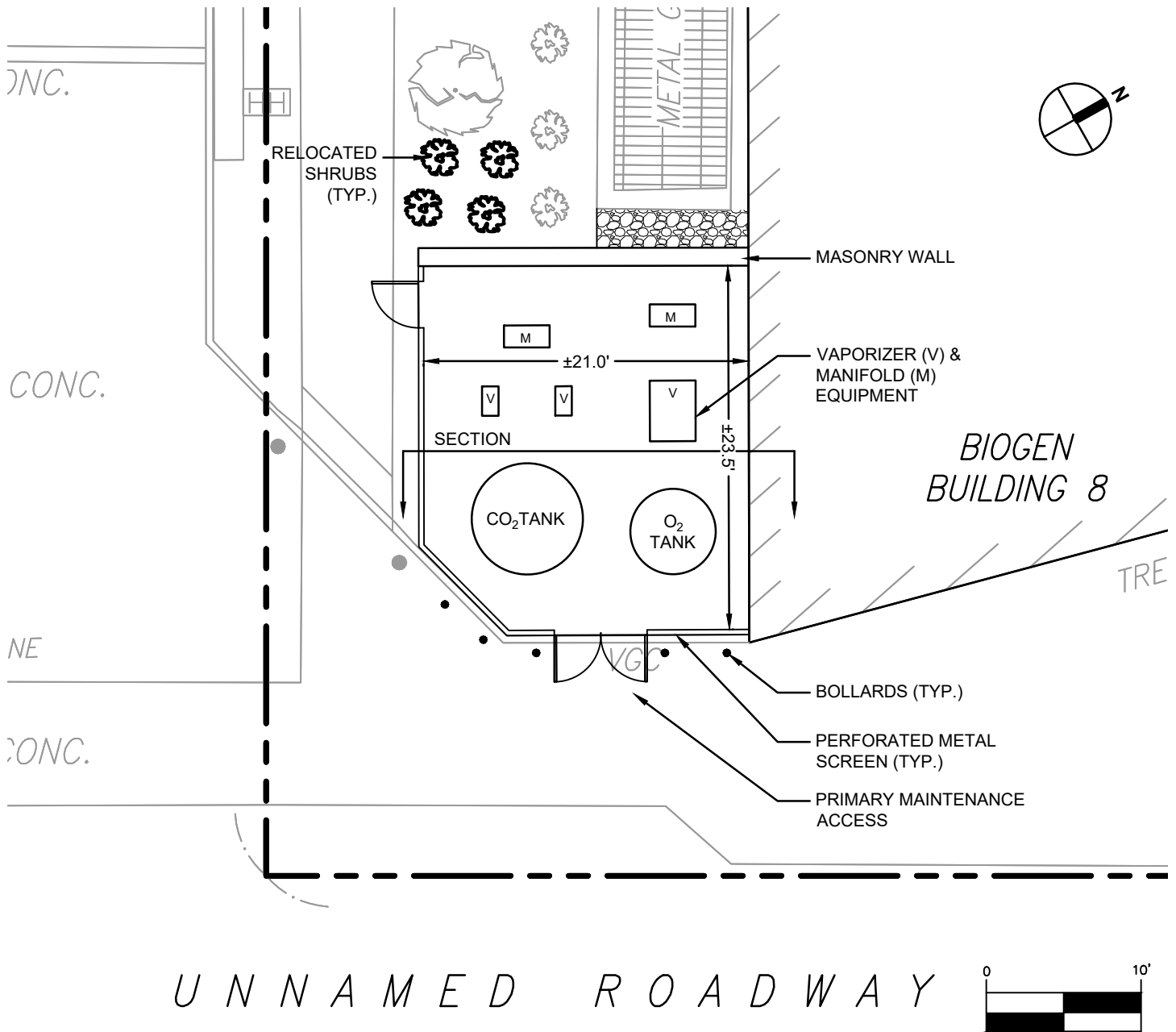
FIGURE 1: LOCUS MAP

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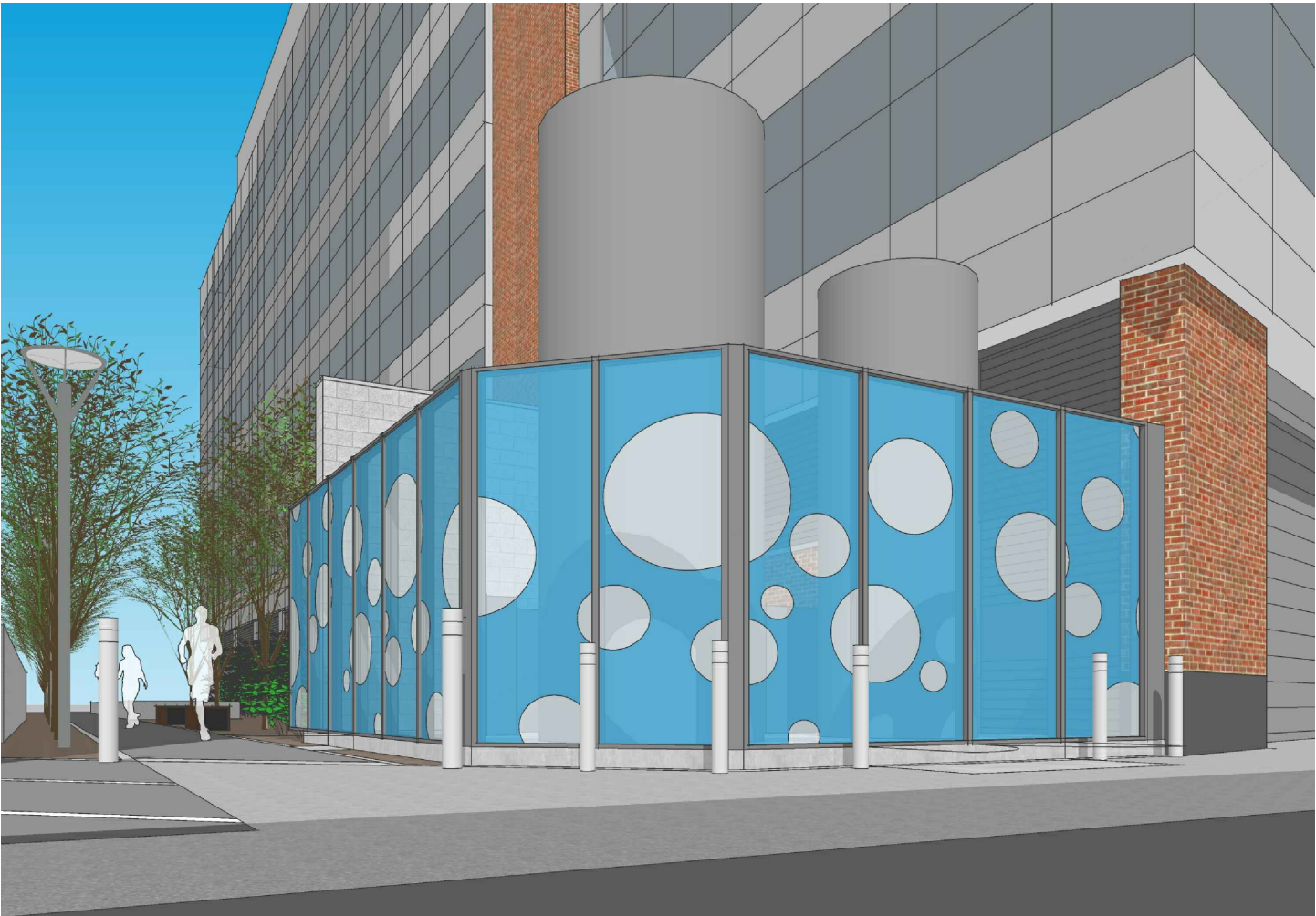
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FIGURE 2: EXISTING CONDITIONS AERIAL MAP

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BIOGEN BUILDING 8 - TANKS & ENCLOSURE
 FIGURE 3: PROPOSED SITE PLAN & SECTION

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VIEW FROM UNNAMED ROADWAY