Table of Contents

VOLUME 2 GRAPHICS

2.1 AHO Matrix Comments 2
2.2 Updated Renderings 4
2.3 Projection Study 9
2.4 Cornice Study 12
2.5 Landscape Plan 13
2.6 Perimeter Walls & Public Art 14
2.7 Fly Ash Information 16
## 2.1 AHO Matrix Comments

<table>
<thead>
<tr>
<th>Comment #</th>
<th>Dem 1</th>
<th>Comment</th>
<th>Source</th>
<th>CHA Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Consideration could be given to maintaining a cornice with a consistent projection that matches the walls below.</td>
<td>PB</td>
<td>We have updated the design in a handful of ways to draw more attention to the entrance and reduce the impact of the overhang at the addition:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Increased the width of the entrance to the site on Norfolk Street and left this gap in the site wall open instead of gazed in order to indicate this is the main entrance. In addition, we removed a second gate on the Norfolk Street side so after construction the only gap in the Norfolk Street wall will be the main entrance. This will draw attention to the main entrance to the site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added ornamental tops on masonry pillars at main entrance of site only for emphasis.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added signage including an illuminated &quot;A16&quot; on the masonry site wall next to the gate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Moved location of proposed public art from adjacent to the &quot;connector&quot; to the exterior site wall near the entrances to the site, both making the public art more public and help drawing people's eyes to the entrances to the site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Blended the grade of the south yard so that the landscape plan merges with the sole path that leads from the entrance to the site to the entrance of the building. This path is fully accessible.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Extended the canopy and added &quot;116 NORTFOLK&quot; in blue over the canopy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- We have made the front door larger since our last submission, to announce the entrance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Raised the height of the sills of the projection so that it aligns with the underside of the porch.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Relocated the proposed public art from below the projection to the street and now treat the facade under the projection similarly to the area above, helping the projection blend into the rest of the addition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td>Consideration could be given to increasing the visibility of the new entrance, and to reducing the intrusion of the addition's second floor into the entry area.</td>
<td>PB</td>
<td>We agree that the slope of the path should be blended into the lawn. The landscape plan blends the path's slope into the general slope so that both the grading of the south yard and path lead people directly to the new entrance. This is the most direct path that does not require a ramp with handrails.</td>
</tr>
<tr>
<td>3</td>
<td>X</td>
<td>Consideration could be given to raising the grade of the lawn adjoining the path to blend the path's slope into the general slope of the lawn as the path ascends to first floor level and providing a more direct path to the entry from Suffolk.</td>
<td>CDD</td>
<td>We agree that it is important to emphasize the entrance and advance the design of the connection. We have extended the glazing to the existing and new building in order to increase the amount of glazing and make the scale more residential. The curtain wall at the connector has been updated to include a band of metal panels at each floor level alternating with bands of glass. This helps to reduce the scale of the curtain wall assembly because it no longer looks so continuous from the ground up to the roof. The depth of some of the curtain wall Mullions has been adjusted to emphasize the horizontality of few bands. These changes help the connector relate to the adjacent projection. The horizontal lines of the connector relate to the curving, addition, and entrance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The glass rill design at the entrance has also been updated to allow transparency while providing some privacy for residents picking up letters and packages in the mailroom.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>X</td>
<td>Consideration could be given to providing a larger canopy above the entrance door, and to aligning it with the roof of the existing south porch.</td>
<td>CDD</td>
<td>We have raised the sills so that the underside of the sills align with the underside of the porch.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Consideration could be given to providing a larger canopy above the entrance door, and to aligning it with the roof of the existing south porch.</td>
<td>CDD</td>
<td>We are expanding the canopy at the entrance to 6' wide by 4' deep and adding the address [&quot;116 Norfolk&quot;] in a bright blue above the canopy to draw further attention to the entrance. We explored aligning the canopy with the roof of the existing south porch, however, that we felt crowded the entrance and was too high above the door to protect from rain and serve as a practical canopy.</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Consideration could be given to reducing the intrusion of the addition's second floor into the entry area. Another suggestion for the entry area was to pull back a portion of units 217 and 317 to create a three-window projection that provides additional visual space.</td>
<td>PB</td>
<td>We considered this, however, shrinking the projection to three windows, removes 35 square feet from units 217 and 317, reducing them from 370 SF to 335 SF, and making them difficult to furnish. In addition, this would allocate units 217 and 317 a door because the second window in the unit (closest to the connector) would be cut in shadow by the bay.</td>
</tr>
<tr>
<td>7</td>
<td>X</td>
<td>The main entrance door seems small, more of a wide door to the building than the main entrance.</td>
<td>PB</td>
<td>We have enlarged the front door and canopy at the main entrance.</td>
</tr>
<tr>
<td>8</td>
<td>X</td>
<td>Consideration could be given to adding apron on the new entry that relates to the design of the existing porch, thereby signaling the location of the new building entry.</td>
<td>PB</td>
<td>There's not enough space for a new porch along the addition or at the entrance. We feel a new porch would cram the entrance by blocking the view to the entrance from Suffolk Street. We also cannot raise the height of the entry given the challenges of connecting the floors of the two buildings while meeting the provisions in the AHO that doesn't allow the first floor to be over four feet from the ground (Section 11.207.7.4). Without raising the entry height, we cannot add an apron directly next to the entrance without crowding it.</td>
</tr>
<tr>
<td>9</td>
<td>X</td>
<td>Consideration could be given to using taller windows, or to giving the blank panels above them a three-dimensional relief treatment.</td>
<td>CDD</td>
<td>The proposed windows are large. 7'-5&quot; tall x 3'-2&quot; wide on the first floor, 6'-7&quot; x 3'-2&quot; on the second floor, 4'-11&quot; x 3'-2&quot; on the third floor. (Like on the existing building, the windows get smaller on the second and third floors.) On the first and second floors we have decreased the size of the frame above the windows to improve window to frame proportions. We have also added a reveal detail on the frame above the windows on the first floor. For 11.207.7.3, at least 20% of the area of the building facade facing a public street or a public open space shall consist of clear glass windows. Public facing facades on the proposed design have a window-wall ratio of 22%. By comparison, the window-wall ratio on the existing building is 18%.</td>
</tr>
<tr>
<td>10</td>
<td>X</td>
<td>Board members requested additional product information on the proposed windows with fly ash frames to ensure they are appropriate for the local climate.</td>
<td>PB</td>
<td>We are using Tuscaloosa siding &amp; trim, a fly ash product, for the exterior trim at 116 Norfolk, which will be above the brick base, around the windows, the underside of the projection, and at the cornice. Fly ash is an electricity generation power plant byproduct that forms cement when combined with water. The product is endorsed by the U.S. Green Building Council (USGBC) for use in construction materials and contains a minimum of 70% recycled content.</td>
</tr>
</tbody>
</table>
PCA/CCD COMMENTS & CHA RESPONSES

<table>
<thead>
<tr>
<th>Comment #</th>
<th>Done?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>X</td>
<td>Clarification on weather a handrail will be required for the proposed entrance walkway.</td>
</tr>
<tr>
<td>13</td>
<td>X</td>
<td>Look at path from pick up/drop off space from the street to the site to the entrance. Is it accessible given width of the sidewalks, tree placement, etc?</td>
</tr>
</tbody>
</table>

For pavements

PB | A handrail will not be required for the proposed entrance walkway due to the gradual slope at less than 1:20 feet.

Parking, Loading and Bike Parking

14 | X | Additional information about the planned management of motor vehicle parking for non-resident building visitors, such as full-time staff, service providers, and nurses |

PB | Full-time staff, service providers, and nurses will be able to park at the Fisian Center, a CHA property less than a half mile from 116 Norfolk. CHA’s Operations department will issue Fisian Center parking passes for the Elston Community Human Services service coordinators as well as CHA staff. There is ample parking available at the Fisian Center during business hours. Finally, people providing services at Cambridge residences qualify for City Business Permits that cost $50 a year for nonprofits and $200 a year for for-profit organizations. A service provider with this Business Permit can park for 2 hours in permit-only spaces during standard business hours when there is more street parking available.

15 | X | Consideration for providing expanded TDM measures |

PB | Please let us know if there are accessibility issues or concerns.

16 | X | Is there potential for the development to share parking with other destinations in the vicinity?

PB | SRA reached out to a nearby church, St. Bartholomew’s, and was told the church does not have any spaces available to rent to the GU and already shares parking with the City with its current church parking arrangement. Please respond to questions on potential parking space rentals. If it was informed by First Cambridge Realty, the owners of the apartment building across Norfolk Street from 116 Norfolk, that they are not able to rent out parking after 6 PM. As a result, we are not proposing to provide any rental parking spaces to residents. We expect 116 Norfolk to add roughly 5 cars to the neighborhood. Currently, only 3 residents have cars.

Site Design

17 | X | The deteriorated existing wooden fence at the north side will be removed. To make the benches in the south lawn that back onto the south walk (which is approximately four feet tall in that location) more inviting to use, consideration was given to replacing the wooden fence with a lattice that vines could grow on.

CCD | Residents and neighbors expressed interest in a visual connection to the 116 Norfolk entrance from the street, so we are not introducing a lattice for vines. Instead, we are proposing a metal picket fence to site atop the masonry wall to allow for more light and visibility. This will allow the entrance to be visible to Sulfur St.

18 | X | To enhance the north lawn’s presence as a useful open space for residents, consideration was given to creating steps down from the terrace to the site’s north yard. The perimeter wall and gate may be sufficient to obviate potential security concerns about creating a second door to the lobby.

CCD | We considered this, however, decided against it. Having stairs up onto the terrace but no ramp would create a completely different path from yard to terrace for people with mobility aides, which would not be equitable or accessible. Furthermore, we do not want to create another entry/exit on the terrace for security reasons. We want the terrace to be used, but there are units right next to the terrace, so we do not want it to be an entry/exit point. We are, however, adding plantings in front of the terrace walling to help soften the transition between yard and the terrace.

19 | X | The addition’s south setback is atypically large compared to other buildings on Sulfur Street. Consideration could be given to reducing it to the zone minimum.

CCD | The larger setback increases the amount of evening light that will reach the neighbor’s house on Suffolk and we added to the project a result of feedback from neighbors. This setback also gives a larger space for a tree to shade the public way on Sulfur. As the City noted, there is not much room on Sulfur for street trees, so having a setback here also gives us a place we can put a tree bordering Sulfur.

20 | X | No loading bays are shown on the site plans, but the 20’x20’ dimensional form notes 3 loading bays. A loading bay is not specifically required and the dimensional form should reflect the loading bay.

CCD | Thank you for bringing this error to our attention. We have corrected this in the latest dimensional forms.

21 | X | To address embodied carbon, staff suggests that the design team use LBC v 4.0 or v 4.1 materials and resources credit options and framework and procuring products/materials with a third-party verified environmental product declaration (EPD).

CCD | We have a sustainable design consultant, New Ecology Inc., who is evaluating the project to ensure compliance with Enterprise Green Communities (EGC) standards, the green building criteria that we are pursuing for 116 Norfolk. These standards are similar to LBC which promotes energy efficiency and environmental sustainability. EGC, however, is designed specifically for the affordable housing sector by taking into consideration cost-effectiveness, and is the industry standard for affordable housing developments.

While certification demands compliance with 40 points considered optional by EGC, CHA is committed to going far beyond this minimum by seeking a total of 96 optional points on top of EGC’s mandatory requirements.

EGC points regarding embodied carbon reduction are optional, and promote steel, concrete, and insulation with low global warming potential (GWP), roofing and paving with a high solar reflective index (SRI), and ISC or salvaged wood. We anticipate that the materials purchased for this neutralization will meet EGC criteria. Our materials selection includes the following:

1. Reuse of the existing 4.5 story building
2. Wood structural framing being used in lieu of steel for most of the new building
3. ISC wood for most specified wood products in addition to the modest amount of existing finished wood being reused in the new building.
4. Mineral wool or fiberglass insulation for the large proportion of the building’s interior and exterior, both of which have a high percentage of recycled materials and lower GWP than spray foam insulations.
5. New roofing specified as thermoplastic polyolefin (TPO), which is recyclable, and not polyvinyl chloride (PVC). It will also have a high SRI.
6. Concrete mix with low embodied carbon
7. Concrete masonry that embeds carbon in the curing process
8. Painting which is reflective due to its light color throughout the site with the exception of the brick sidewalks.

22 | X | Please show solar panels on next renderings.

PB | We have added solar panels on the renderings. They are visible in the aerial renderings, but are not visible in the street-level renderings because their slope has been designed to not be apparent from below.

23 | X | Consideration could be given to using a high-SRI roof system, and to providing rooftop PV panels or green roof as part of the initial construction.

CCD | We will have photovoltaic rooftop panels installed during construction. We plan to design and bid the contract for these solar panels in early 2024.
2.2 Updated Renderings

Studied reducing projection to 3-bay design, but kept 4-bay design given interior unit layout.
Refined west elevation of addition to blend façade below soffit and moved public art to perimeter wall.

Updated Connector and perimeter wall design to emphasize entrance.

Slope of path to front entrance is blended into the grading of the south yard landscape.

See Sections 2.3 & 2.6 (pages 9-11 & 14-15) for more details.

See Section 2.5 (page 13) for more details.

Updated Connector and perimeter wall design to emphasize entrance.

Slope of path to front entrance is blended into the grading of the south yard landscape.

See Sections 2.3 & 2.6 (pages 9-11 & 14-15) for more details.

See Section 2.5 (page 13) for more details.
Color of new building changed to “Hudson Bay Blue,” which is less gray and more blue.

Soffit height of projection and column height of existing porch are aligned in order to create one sightline and make the building entrance more spacious.

Refined west elevation of addition to blend facade above and below soffit.

Added metal picket fence on existing Suffolk St. perimeter wall in order to balance a sense of privacy and transparency.

Widened primary entrance along Norfolk Street and eliminated existing small gate. Access into south yard will be open rather than gated to provide ease of entry for all residents, with and without mobility aids.

Masonry pillars will have ornamental tops for added emphasis.

Illuminated “116” signage to further emphasize main site entrance.

Moved public art to perimeter walls near site entrances.

Example artwork, David Fichter

See Section 2.6 (page 15) for more details.
Mosaic wrapping around corner of perimeter wall at site entrance on Suffolk Street.

Added metal picket fence on existing Suffolk St. perimeter wall in order to balance a sense of privacy and transparency.

Refined detail of window frames.
- 1st floor: decreased size of frame above window to improve window and frame proportion; added reveal detail.
- 2nd floor: decreased size of frame above window to improve window and frame proportion.

Windows dimensions are designed to relate to the existing building. They are largest on the bottom floor and become smaller on higher floors.
- 1st floor: 7’-1” tall x 3’-2” wide
- 2nd floor: 6’-7” tall x 3’-2” wide
- 3rd floor: 4’-11” tall x 3’-2” wide
Window-to-wall ratio is 22% on the new building, versus 18% on the existing building.

We considered changes to the cornice design, but kept as is. We feel it creates a simpler, more regular outline to match the form of the existing building while providing additional interest to the new building through the detailing at the underside of the cornice.

See Section 2.4 (pages 12) for details.

Public art added on perimeter wall as you approach site from east.
NORTH YARD TERRACE
View without trees

- Expanded glazing in the Connector so that it reads as bands of metal panels alternating with bands of glass at each floor.
- Horizontality of the Connector helps link the existing and new buildings.
- Reduced scale of curtain wall assembly so that it no longer reads as a continuous massing from bottom to top.
- Plantings in front of terrace railing help soften the transition between the yard and the terrace.
2.3 Projection Study

3-WINDOW PROJECTION

Units 217 and 317 are reduced from 370 sqft to 335 sqft become difficult to furnish, especially the placement of a dining table.

The 3-bay design reduces the sense of crowding at the Connector, but it creates an alcove that will often be in shadow and reduces natural light to units 217 and 317 which only have two windows.
EXTEND PROJECTION INTO GROUND

Appears more seamless from Norfolk Street.
Heightens sense of crowding at entrance as seen from Suffolk Street.
Updated Design

Previous Design

4-WINDOW PROJECTION & CONNECTOR

Raised the bottom of the projection/soffit height to align with the top of porch columns to create one sightline and reduce the sense of crowding at the main entrance.

Enlarged door (6’ wide) and canopy (6’ wide x 4’ deep).

Added signage on canopy to emphasize entrance.

Increased glazing on Connector so it reads as bands of metal panels alternating with bands of glass at each floor, and reduces scale of curtain wall assembly.

Maintained horizontality of Connector to link the existing and new buildings.

Updated glass frit design at entrance to allow transparency while providing some privacy for residents picking up letters and packages in the mailroom.

Note: Plantings at entry and in front of porch are removed to clarify building design.
2.4 Cornice Study

As recommended by the Planning Board, we studied having the cornice line follow the massing below. After review, we propose to maintain the cornice as originally designed. The cornice takes the path that it does in order to give a simpler, more regular, outline to the addition. In this way, it helps relate the addition to the simple, regular form of the existing building. In addition, by not strictly following the path of the walls below it, the relationship between the cornice and the walls changes as you walk around the building, making its overall form more interesting.
2.5 Landscape Plan

Pick-up / Drop-off: Route to front entrance via sloped path is fully accessible.

- Overall sidewalk width is approximately 7'–5", with a 4'-1" width of the sidewalk between the street tree well and the site wall. This complies with the minimum 48" width required for accessibility.

Norfolk Street main entrance (widened double-width, no gate)

One tree, which our arborist noted as "low vigor" and in "fair / poor" condition that had old storm damage, will be removed and replaced for construction access.

Plantings in front of terrace railing help soften the transition between the yard and the terrace.

Slope of path to front entrance is blended into the grading of the south yard landscape.

- Most direct path from the street to front entrance.
- Less than 1:20 slope, no ramp or handrails required.
2.6 Perimeter Walls & Public Art

EXAMPLE ARTWORK

PUBLIC ART LOCATIONS

A: Next to primary site entrance on Norfolk Street
B: Wrapping the corner of the perimeter wall, by secondary entrance on Suffolk Street
C: At northeast corner on Worcester Street
We are using TruExterior Siding & Trim, a fly ash product, for the exterior trim at 116 Norfolk, which will be above the brick base, around the windows, the underside of the projection, and at the cornice. Fly ash is an electric generation power plant byproduct that forms cement when combined with water. The product is endorsed by the U.S. Green Building Council (USGBC) for use in construction materials and contains a minimum of 70% recycled content.

### Fly Ash Locations

- Above the brick base
- Around the windows
- Underside of the projection
- At the cornice

### TruExterior Product Information

- Contains a minimum of 70% recycled content—verified by SCS Global Services.
- Produced in a state-of-the-art LEED Silver certified facility and may qualify for LEED points.

TruExterior.com
Made in the USA
Page Intentionally Blank