Executive Summary

We see the new supportive housing project on Crooke Avenue as an opportunity for implementing new strategic initiatives and reinforcing CAMBA mission and identity. The “as of right” scenario allows for a relatively lower building (7+1 floor) that meets the requirements, but it does not offer opportunities for the implementation of these strategies.

An “MTA covenant” opens up new design opportunities, including an iconic front elevation facing the MTA and a better use of the outdoor space; however, the covenant alone does allow for a substantially lower building.

The “zoning variance”, reducing the backyard to 15’, allows for a more rational use of the lot, resulting in a low building of 5+1 floors or a substantial green outdoor space; however, the variance alone does not permit to develop the site to its full design potentials.

The combined benefits of “zoning variance” and “MTA covenant” produces substantial economies in terms of land use and number of units per floor, while unleashing important design opportunities.

Therefore, we strongly recommend pursuing both MTA covenant and variances.

Better Supportive Housing: a CAMBA Manifesto

- Improving the living experience of the residents and integrating the housing project with the surrounding urban and social environment in order to attract a diverse tenant population.
- Providing “program opportunities” within the new structure by integrating social and supportive services from CAMBA programs to help individuals and families achieving stability, independence, health and well-being.
- Fostering social interaction between the housing residents and the extended Flatbush community through selected public use of the housing facilities and the garden, while turning the building into a significant public asset for the community in which it is located.
- Promoting CAMBA identity as an advocate of contemporary, sustainable and affordable design, with an exemplar housing project that clearly represents CAMBA’s values and mission.
- Developing rational and sustainable design through the use of environmentally friendly technologies, resulting in a reduction of environmental impacts in their manufacture and minimize land filling or incineration of construction waste materials.
- Supporting prefabrication and promoting exceptional maintenance standards coupled with a significant reduction in operating costs over the life cycle of the building.
Site constraints and opportunities

The extreme geometry of the site challenges a conventional architectural response to the “infill” lot in the regular grid of the city. A lot that has literally no front elevation, with a forbidding triangular shape and bounded on one side by subway tracks offers new opportunities for rethinking the “automatic pilot” architecture of New York.

If the predictable use of the front elevation as natural “interface” of the building with the street and the community is not a viable option, the extensive side elevation offers a “sectional” representation of the building, exposing programs and uses that would otherwise be buried within the depth of the lot.

The triangular shape of the site suggests a building footprint that takes full advantage of the dynamic angles and orientations of the building as perceived from the street.

Large trees existing at the property line of the lot suggest the possibility of implementing a landscaped yard that would provide a relaxing experience for residents and visitors alike, as well as a buffer zone for sound and view protection from the adjacent properties to the living units open to the back elevation.

Site analysis

Zoning district r7-1 non contextual zoning

Article 2: chapter 2 use regulations; 22-13: use group 3
65 % Lot coverage permitted
8,226 sq ft x 0.65 = 5,247 sq ft permitted lot coverage

24-111: Maximum floor area ratio for certain community facility uses:
Floor area ratio: 3.44
8,226 sq ft x 3.44 = 28,300 sq ft permitted total sf

23-20 Density regulations: maximum number of dwelling units:
Factor for max. Number of dwelling units: 550
28,300 sq ft/550 = 51.45 Dwelling units

(According to this section of the code, the factor is 680. The design guidelines for the project list the factor at 550. This number will need to be confirmed, but we have used it to calculate the maximum number of units.)

24-36 Minimum required rear yards
Rear yard requirement: 30 ft
Side yard requirement: none

24-53 Alternate front setbacks: (narrow street, r7 district):
Front yard: 15 ft
Height above street line: 60 ft
Alternate sky exposure plane: 3.7:1

24-63 Outer court regulation
If an outer court is less than 20’ wide, the width of such outer court shall be at least on and one-third the depth of such outer court. If an outer court is 20’ or more in width, the width of such outer court must be at least equal to the depth of such outer court, except that such width need not exceed 40’.
Scheme 01: “FAR MAX”
The scheme is a direct application of the conventional double-loaded housing scheme, adjusted to the peculiarities of the triangular geometry, with a staggered elevation toward the MTA side and a marked setback from the street line. The resulting layout is rational and economic in terms of volume/envelope ratio and it provides the greatest number of units per floor. On the other hand, its increased depth makes the building somewhat “opaque” to the street. Also, when applied to the low building scenarios, the compact volume of the scheme tends to appear rather stocky and uninspiring.

Pros: Compact and efficient building  
Maximized number of units per floor

Cons: “Opaque” volume  
Odd front yard

Scheme 02: “TWO TOWERS”
The scheme responds to the geometric peculiarities of the site by articulating the two volumes following the two main references of the street line and the MTA tracks. Furthermore, it breaks up the program and total square footage into smaller units with slimmer proportions and stronger identities. The negative space between the building volumes offers the opportunity for landscaped courtyards that bring light to the ground level and a dynamic outdoor space at the upper levels. Outdoor corridors at the upper levels foster a stronger sense of community for the residents.

Pros: Slim and articulated volumes  
“Porous” building  
Good number of units per floor

Cons: Higher construction cost  
Increased building envelope

Scheme 03: “THE BLADE”
The scheme offers the advantages of a compact building envelope and rational sequence of spaces and circulation elements, yet lending to the building a distinguished character and presence in opposition to the anonymous building blocks surrounding the site. The reduced depth makes the building more “transparent” and permeable from the street, while the resulting backyard has the potential to become a substantial green open space. This is the scheme that offers greatest opportunities for special program at the two ends of the building and it also makes the best use of the MTA elevation.

Pros: Compact and efficient building  
“Pervious” building  
Opportunities for special program  
Maximized green open space  
Best use of MTA elevation
ARCHITECTURAL FEATURES

Open Ground Floor

The impossibility of a conventional front elevation to interface the building with the street suggests a strategic use of the ground floor in order to open the building and its facilities to a wider public and reinforce the connection of the building with the local community. We propose a ground level that is visually open to the street and promotes a regulated public use of the garden and access to the social activities on the upper floors.

The dynamic and articulated shape of the “2 towers” scheme has important repercussions in the use of the ground floor, as it allows for a footprint that is porous to the sky and brings natural light to the open lower level. The resulting sequence of outdoor spaces is intriguing for the residents and inviting to the potential visitor. Similarly, the slim body of the “blade” scheme facilitates any exchange that might take place at the ground level between the street and the inner garden, making the building more transparent and permeable.

Program Opportunities

Special needs and requirements by residents of the supporting housing offer the opportunity to integrate some of the services and programs offered by CAMBA with the housing program, in order to encourage a sense of community within the housing facility and promoting social interaction with the local community.

In all three schemes, the irregular geometry of the site provides formal opportunities for additional square footage in residual areas of the floor plate that would be otherwise underutilized.

Outdoor Circulation

Responding to the limited budget of the project and taking from a well-established tradition in advanced public housing projects in Europe and Canada, we would consider the use of outdoor corridors and stairs in the building. This feature does not substantially alter the comfort level of the residents as they leave or enter their units, while having important implications in the construction and running cost of the building.

The reduced area of building envelope, the additional natural light and ventilation reaching kitchens and bathrooms and the reduced heated and air-conditioned square footage are only a few examples of the advantages of an open circulation. Additionally, widening open corridors would transform into verandas during the summer, reinforcing the sense of community for the building’s residents.

Diagram showing the benefit of an open circulation at the ground floor

Diagram highlighting the opportunity of additional program

Diagram of the visual connections generated by an outdoor circulation

Example of outdoor circulation in a housing project by HDH
COMPARATIVE MATRIX

Scenario 01: "As of Right"
Scenario 02: "Building Variance" Only
Scenario 03: "MTA Covenant" Only
Scenario 04: "MTA + Variance"

Strategy 1: FAR MAX
Strategy 2: TWO TOWERS
Strategy 3: THE BLADE
Development scenario: MTA Covenant + Building Variance

Design strategy:
Far Max:

Number of units:
10 Units @ 6 Floors (5+1) = 50 Total

Pros:
Compact and efficient building
Maximized number of units per floor

Cons:
"Opaque" volume
Odd front yard

075 MTA + VARIANCE": FAR MAX

This solution presents a logical approach to the building, but the site remains fragmented and its full potential unrealized. Although the open area at the front of the site could be developed into a plaza-like space, the rear and side yards are not integrated into the building in a meaningful way. The result would be a solution to the architectural issues of the building, but a lost opportunity in regards to the open space on the site.
View from the street approaching the building
Placing the two building volumes at angles to each other creates 2 distinct open spaces at ground level which could be accessed from the street. Both spaces would become thresholds between the residents of the building and the surrounding neighborhood, reinforcing the role that CAMBA plays in the community. The open space near the lot line provides a quiet outdoor area for residents and the neighborhood to escape from the urban context around them. The 2nd area next to the MTA lot line opens the building to the neighborhood. Rather than isolating residents within the building, this space gives passers by a sense of the people who use and activities that happen in a supportive housing community.

Development scenario:
MTA Covenant + Building Variance

Design strategy:
Two Towers

Number of units:
10 Units @ 6 Floors (5+1) = 50 Total

Pros:
- Slim and articulated volumes
- Maximized number of units per floor
- “Porous” building
- Good use of MTA elevation

Cons:
- Higher construction costs
View from the street approaching the building
View of the outdoor circulation space
Condensing the building alongside the MTA lot line clearly places CAMBA at the threshold of the community and the supportive housing residents. By lifting the building one story off the ground, an open park space can emerge at the rear corner of the site. Residents and visitors would pass under the building and into a quiet green space in the rear yard. This park-like setting would provide an amenity for both residents and the surrounding community to enjoy.

**Development scenario:**
MTA Covenant + Building Variance

**Design strategy:**
The Blade

**Number of units:**
7 Units @ 8 Floors (7+1) = 49 Total

**Pros:**
Compact and efficient building
“Permeable” building
Opportunities for special program
Maximized green open space
Best use of MTA elevation

**Cons:**
Reduced number of units per floor
View from the street approaching the building

13 | MTA + VARIANCE: THE BLADE
View of the open circulation from the landscaped...
**Development scenario:**

MTA Covenant Only

**Design strategy:**

Two Towers

**Number of units:**

8 Units @ 7 Floors (6+1) = 48 Total

**Pros:**

Slim and articulated volumes

“Porous” building

**Cons:**

Higher construction cost

Odd front yard

---

### Zoning Text vs. Zoning Regulation

<table>
<thead>
<tr>
<th>Article</th>
<th>Permitted Lot Coverage</th>
<th>Proposed Lot Coverage</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-111</td>
<td>62% 6256 SF x .65 = 4030 SF</td>
<td>6256 SF x .65 = 4030 SF</td>
<td>Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Article</th>
<th>Permitted FAR for Community Use Facilities</th>
<th>Proposed FAR for Community Use Facilities</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-20</td>
<td>1x 8226 SF + 3.44 Max. Floor Area Ratio</td>
<td>28,300 SF / 8226 SF = .58 (58%)</td>
<td>Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Article</th>
<th>Min. Required Rear Yards</th>
<th>Proposed Rear Yard</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-52</td>
<td>30 FT</td>
<td>30 FT</td>
<td>Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Article</th>
<th>Min. Distance Between Required Windows and Certain Walls</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-65</td>
<td>Not Applicable</td>
<td></td>
</tr>
</tbody>
</table>
**Development scenario:**

**MTA Covenant Only**

**Design strategy:**

The Blade

**Number of units:**

6 Units @ 9 Floors (8+1) = 48 Total

**Pros:**

Compact and efficient building  
“Permeable” building  
Opportunities for special program  
Maximized green open space  
Best use of MTA elevation

**Cons:**

Reduced number of units per floor  
Reduced size of units  
“Tall” building

---

**Zoning Text**

<table>
<thead>
<tr>
<th>Zoning Text</th>
<th>Zoning Regulation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 2</td>
<td>Permitted Lot Coverage</td>
<td>65%</td>
</tr>
<tr>
<td>24-111</td>
<td>Max FAR for Community Use Facilities</td>
<td>1.99</td>
</tr>
<tr>
<td>24-112</td>
<td>Max No. of Dwelling Units/Building</td>
<td>51-45 dwelling units</td>
</tr>
<tr>
<td>24-360</td>
<td>Min. Required Rear Yards</td>
<td>30 FT</td>
</tr>
<tr>
<td>24-651</td>
<td>Min. Distance Between Required Windows and Certain Walls</td>
<td>20 FT</td>
</tr>
</tbody>
</table>

**Proposed**

<table>
<thead>
<tr>
<th>Proposed Lot Coverage</th>
<th>Proposed FAR</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.714 SF (9,014 SF x .36)</td>
<td>2.714 SF (9,014 SF x .36)</td>
<td></td>
</tr>
</tbody>
</table>

**Revised Plan**

- **Article 2 Permitted Lot Coverage:** 65%
- **Article 2 Max FAR for Community Use Facilities:** 1.99
- **Article 2 Max No. of Dwelling Units/Building:** 51-45 dwelling units
- **Article 2 Min. Required Rear Yards:** 30 FT
- **Article 2 Min. Distance Between Required Windows and Certain Walls:** 20 FT

**Revised Renderings**

- Renderings of the proposed design scheme within the urban context
- Plan of the proposed scheme

---

SIMONE GIOSTRA & PARTNERS

Lage

SIMONE GIOSTRA & PARTNERS

Plan of the proposed scheme
18. "BUILDING VARIANCE": FAR MAX

**Development scenario:**
Building Variance Only

**Design strategy:**
Far Max

**Number of units:**
9 Units @ 6 Floors (5+1) = 45 Total

**Pros:**
Compact and efficient building Maximized number of units per floor

**Cons:**
“Opaque” volume Odd front yard

---

### Zoning Text

<table>
<thead>
<tr>
<th>Zoning Text</th>
<th>Zoning Regulation</th>
<th>Proposed</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 2</td>
<td>Permitted Lot Coverage</td>
<td>65%</td>
<td>Proposed Lot Coverage</td>
</tr>
<tr>
<td>24-111</td>
<td>Max FAR for Community Use Facilities</td>
<td>5.4 SF</td>
<td>FAR of 5.0 SF</td>
</tr>
<tr>
<td>24-03</td>
<td>Max No. of Dwelling Units</td>
<td>34</td>
<td>Proposed Dwelling Units: 45</td>
</tr>
<tr>
<td>36-06</td>
<td>Max. Required Rear Yard: Ground Floor</td>
<td>15 FT</td>
<td>Proposed Rear Yard: 15 FT</td>
</tr>
<tr>
<td>24-03</td>
<td>Ground Floor</td>
<td>Required 15 FT</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>24-06</td>
<td>Typical Floor</td>
<td>Required 15 FT</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>24-03</td>
<td>Total SF</td>
<td>Required 28650 SF</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

---

**Plan of the proposed scheme**

**Renderings of the proposed design scheme within the urban context**
19. "BUILDING VARIANCE": THE BLADE

Development scenario:
Building Variance Only

Design strategy:
The Blade

Number of units:
6 Units @ 8 Floors (8+1) = 48 Total

Pros:
Compact and efficient building
"Permeable" building
Opportunities for special program
Maximized green open space

Cons:
Reduced number of units per floor
Units facing backyard
Tall building

<table>
<thead>
<tr>
<th>Zoning Text</th>
<th>Zoning Regulation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 2</td>
<td>Permitted Lot Coverage</td>
<td>Proposed Lot Coverage</td>
</tr>
<tr>
<td>24-111</td>
<td>Max FAR for Community Use Facilities</td>
<td>4.37% SF</td>
</tr>
<tr>
<td></td>
<td>Total SF</td>
<td>4,375 SF (6%)</td>
</tr>
<tr>
<td>26-20</td>
<td>Max No. of Dwelling Units/Unit</td>
<td>49</td>
</tr>
<tr>
<td>26-26</td>
<td>Min. Required Rear Yard:</td>
<td>17 FT</td>
</tr>
<tr>
<td>26-522</td>
<td>Front Yards are not required (see note)</td>
<td>Proposed Rear Yard:</td>
</tr>
</tbody>
</table>

- Front Court/Regulation:
  - A: 1.0 x width of court at least
  - B: 0.6 x depth of court
  - C: at least depth of recess
  - D: at least 30 FT
  - E: at least 60 FT

- Inner Court/Regulation:
  - No less than 600 SF and minimum dimension not less than 20 FT

- Freecast Between Required Windows and Certain Walls:
  - A: 20 FT from side lot line
  - B: 20 FT from rear lot line
  - C: 60 FT to street

- Inner Court Area:
  - Proposed Inner Court Area: 1,945 SF

- Outer Court/Regulation:
  - Proposed Outer Court: Not Applicable

SIMONE GIOSTRA & PARTNERS

1. Renderings of the proposed design scheme within the urban context
2. Plan of the proposed scheme
**Development scenario:**

As of Right

**Design strategy:**

Far Max

**Number of units:**

7 Units @ 7 Floors (6+1) = 49 Total

**Pros:**

Compact and efficient building

**Cons:**

"Opaque" volume
Odd front yard
Tall building

---

### Zoning Text

<table>
<thead>
<tr>
<th>Article</th>
<th>Zoning Regulation</th>
<th>Proposed Coverage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-111</td>
<td>Permitted Lot Coverage: 65%</td>
<td>4289 SF = 368 SF + 3921 SF</td>
</tr>
<tr>
<td>23-26</td>
<td>Max. FAR for Community Use Facilities: 2.44</td>
<td>SF = 3.44 SF = 28,300 SF</td>
</tr>
<tr>
<td>24-36</td>
<td>Max. No. of Dwelling Units: 550</td>
<td>Proposed Dwelling Units: 49</td>
</tr>
<tr>
<td>24-38</td>
<td>Min. Required Rear Yard: 30 FT</td>
<td>Proposed Rear Yard: 29 FT</td>
</tr>
<tr>
<td>24-63</td>
<td>Min. Distance Between Required Windows and Certain Walls: 20 FT</td>
<td>Proposed Front Setback: 29 FT</td>
</tr>
</tbody>
</table>

### Zoning Variance

- **Permitted Lot Coverage:** 4289 SF
- **Proposed Lot Coverage:** 368 SF / 4289 SF = 0.09 (10%)

- **Max FAR for Community Use Facilities:** 3.44
  - 8226 SF x 3.44 = 28,238 SF

- **Min. Required Rear Yard:** 30 FT
  - 24,361 Max. No. of Dwelling Units: 550
  - 28,238 SF / 550 = 51.45 dwelling units

- **Alternate Front Setback:**
  - Height above street: 60 FT
  - Narrow Street, R7 District

- **Alternate Sky Plane Exp.:** 3.7:1

- **Outer Court Regulation:**
  - Width of court at least 1.33 the depth of outer court
  - Height above outer court: 60 FT

- **Inner Court Regulation:**
  - No less than 600 SF and minimum dimension not less than 20 FT
  - Inner Court recess width:
    - if 0 - 20 FT = 2X depth of recess
    - if 20 - 40 FT = at least depth of recess
  - Recess width:
    - if 0 - 20 FT = 20 FT
    - if 20 - 40 FT = at least 20 FT

---

**Lage Giostra & Partners**

Renderings of the proposed design scheme within the urban context

Plan of the proposed scheme
Layout of the typical unit