

Affordable Housing Overlay (AHO)

Example Site Models

Cambridge Community Development Department (CDD)
July 1, 2020 (updated from June 20, 2019)

This version of the AHO Example Site Models has been revised to reflect the version of the AHO Zoning Petition referred by the City Council on June 8, 2020

With the support of design consultants HFMH Architects and OverUnder, CDD has worked to create conceptual site models based on the Affordable Housing Overlay (AHO) zoning petition. The purpose is to show the overall massing, configuration, and orientation of new residential development that might result from applying the proposed development standards on prototypical example sites. These prototypical sites are not meant to represent specific lots within the city, but they include varied lot sizes and types to illustrate the potential outcomes of the AHO on sites with different dimensions, orientations, and contexts.

Along with the development standards included in the AHO petition, each model includes assumptions about unit sizes and mixes based on contemporary affordable housing projects that receive funding from the Cambridge Affordable Housing Trust. The models also acknowledge basic building standards for residential spaces, such as access/egress routes and windows.

This package includes seven modeled development alternatives across three example sites. Most of the alternatives assume new construction on an empty lot to illustrate the results in a simple and straightforward way, although one alternative shows a potential addition to an existing building. In a real development scenario under the proposed AHO, a site would have a unique set of existing conditions that would factor into its design, and development could combine existing buildings (including non-conforming buildings) with new construction.

The examples include some alternatives where off-street parking is provided and some where it is not provided. Under the current AHO petition, there would be no minimum number of off-street parking spaces required.

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Affordable Housing Overlay (AHO) Example Site Models



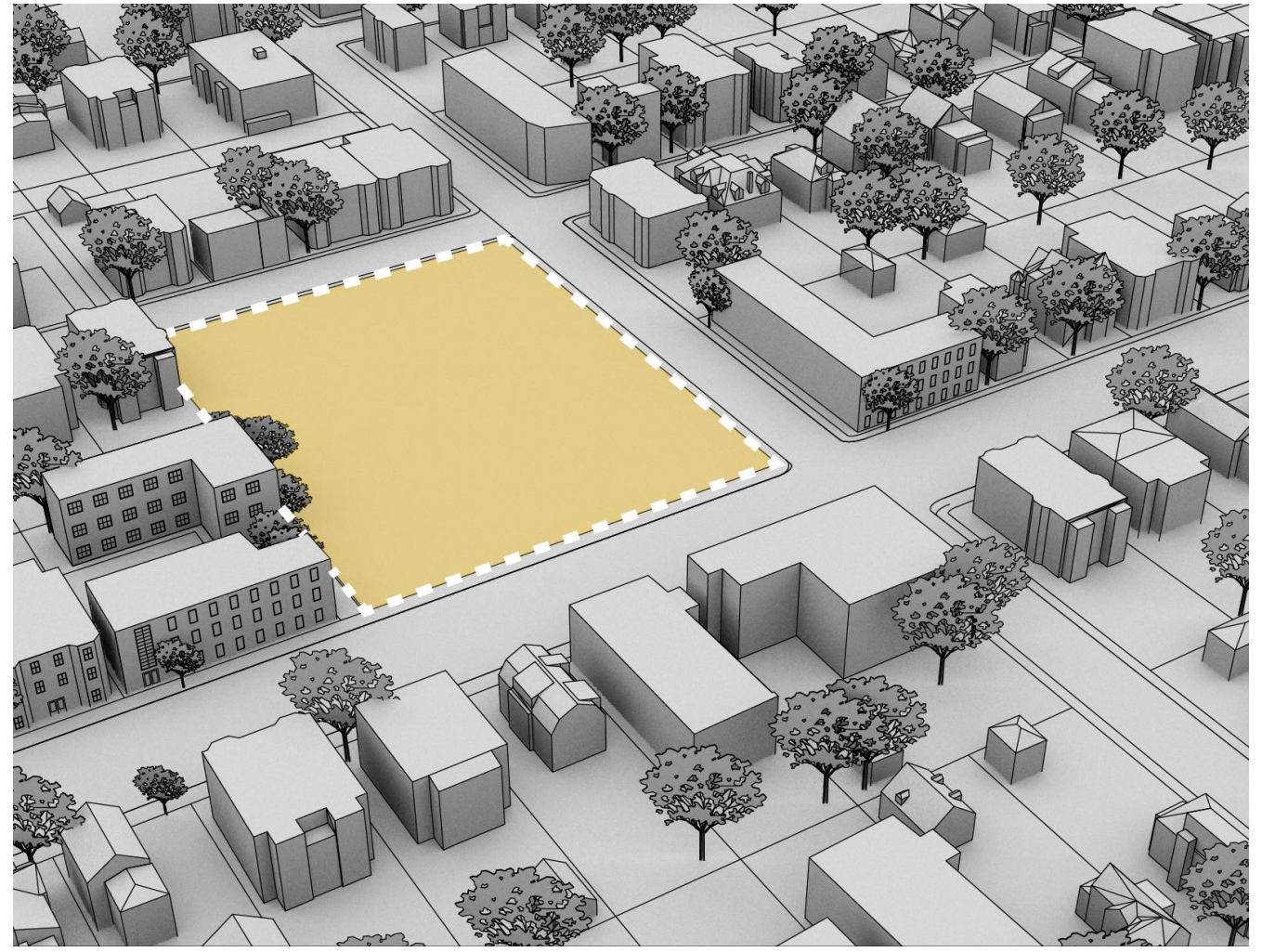
Site 1 – A 5,000 square foot lot; typical for Residence B, C, and C-1 districts.



Site 1 Alternative – A 5,000 square foot lot, typical for Residence B, C, and C-1 districts, with an existing three-story residential building that will remain.



Site 2 – A 10,000 square foot lot; typically found in higher density residential and mixed-use districts.



Site 3 – An atypically large (50,000 square foot) corner lot in a Residence A-1, A-2, B, C, or C-1 district context.

Site 1 - Alternative A

This prototypical 5,000 square-foot lot has a width of 50 feet and depth of 100 feet, which is a typical lot dimension in the Residence B, C, and C-1 districts. The width of the street (including sidewalks) is about 40 feet. These districts vary throughout the city but are generally characterized by a mix of single-family, two-family, and multifamily housing at a prevailing scale of 2-3 stories.

The model illustrates a new 4-story housing development on an empty lot. No on-site parking spaces are provided. The setbacks are consistent with proposed AHO development standards in lower-scale residential zoning districts.

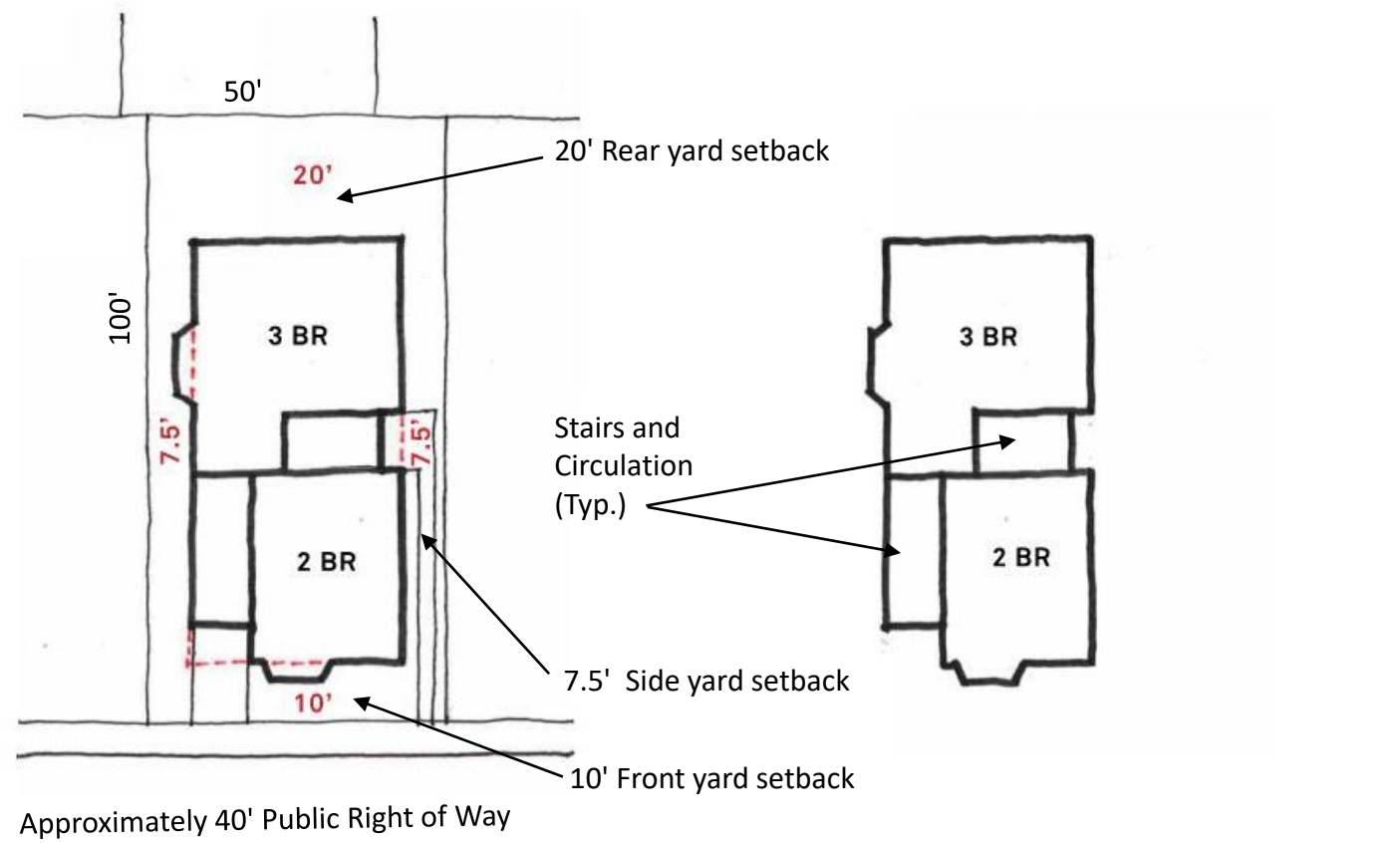
This model shows a 10-foot front setback, the minimum in a Residence C-1 district. The minimum front setback would be 15 feet in a Residence A-1, A-2, or B district, but could be reduced to the average of the four nearest buildings in order to match the site context.



4-story housing development with no on-site parking spaces

Dimensional Characteristics (ALL FIGURES APPROXIMATE)

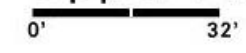
Stories Above Grade	4
Building Height	45 feet
Front Yard Setback	10 feet
Side Yard Setbacks	7.5 feet
Rear Yard Setback	20 feet
Building Footprint	2,450 square feet
Gross Floor Area (GFA)	9,800 square feet
Floor Area Ratio (FAR)	1.96
Dwelling Units	8 (4 two-bedroom, 4 three-bedroom)
Lot Area Per Dwelling Unit	625 square feet
Open Space Ratio	49%
Parking Spaces	0



Ground Floor Plan



Upper Floors Plan (2-4)



Street view from front



Street view from rear

Site 1 - Alternative B

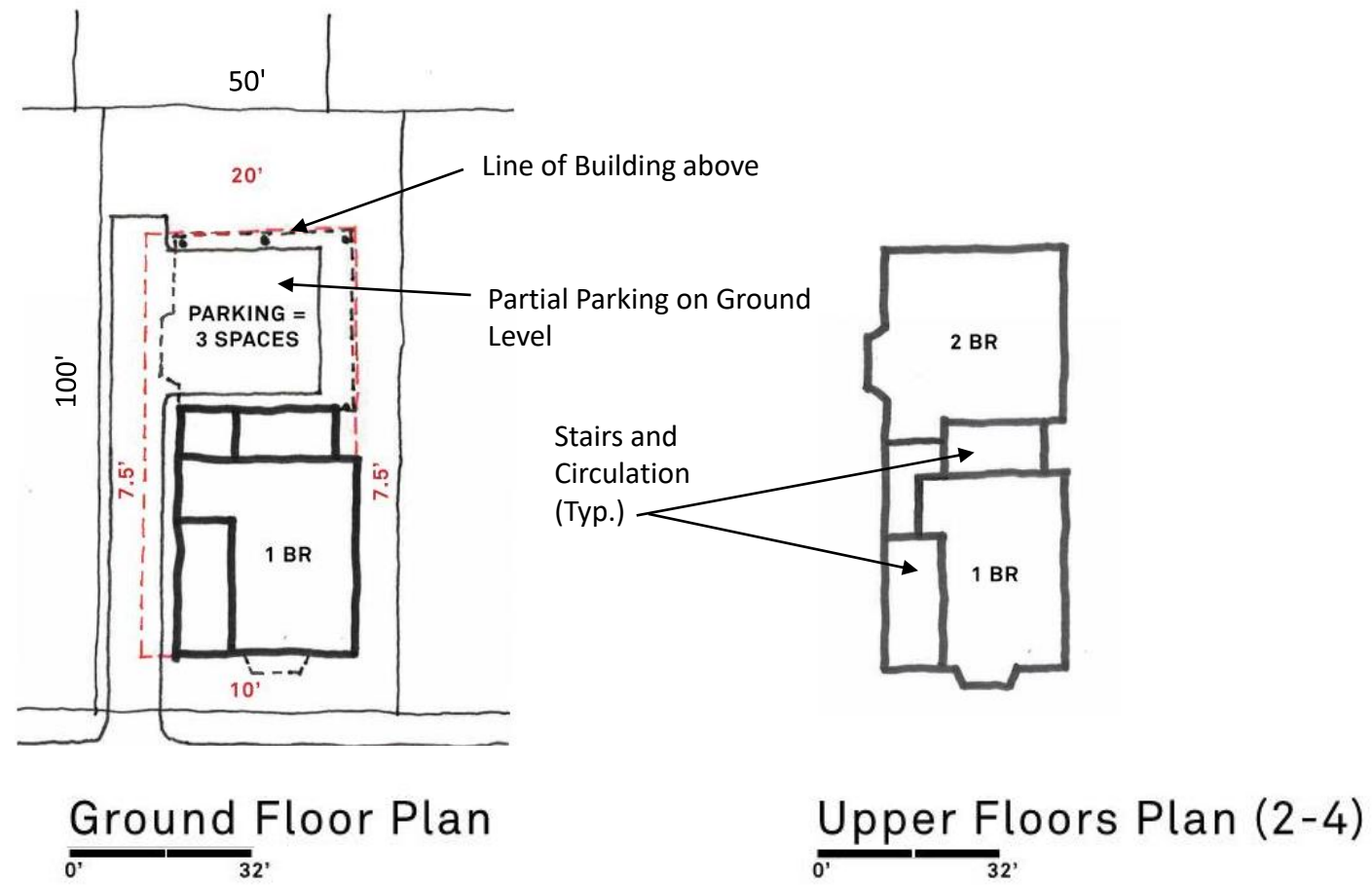
This prototypical 5,000 square-foot lot has a width of 50 feet and depth of 100 feet, which is a typical lot dimension in the Residence B, C, and C-1 districts. The width of the street (including sidewalks) is about 40 feet. These districts vary throughout the city but are generally characterized by a mix of single-family, two-family, and multifamily housing at a prevailing scale of 2-3 stories.

The model illustrates a new 4-story housing development on an empty lot. While no on-site parking spaces would be required under the proposed AHO zoning, 3 spaces are provided, a ratio of 0.4 spaces per dwelling unit (sp/du). The setbacks are consistent with proposed AHO development standards in lower-scale residential zoning districts.

This model shows a 10-foot front setback, the minimum in a Residence C-1 district. The minimum front setback would be 15 feet in a Residence A-1, A-2, or B district, but could be reduced to the average of the four nearest buildings in order to match the site context.



4-story housing development with on-site parking spaces at a ratio of 0.4 sp/du



Dimensional Characteristics (ALL FIGURES APPROXIMATE)	
Stories Above Grade	4
Building Height	45 feet
Front Yard Setback	10 feet
Side Yard Setbacks	7.5 feet
Rear Yard Setback	20 feet
Building Footprint	2,120 square feet
Gross Floor Area (GFA)	7,560 square feet
Floor Area Ratio (FAR)	1.5
Dwelling Units	7 (4 one-bedroom, 3 two-bedroom)
Lot Area Per Dwelling Unit	714 square feet
Open Space Ratio	42%
Parking Spaces	3



Street view from front

15 April 2020



Street view from rear

Site 1 - Alternative C

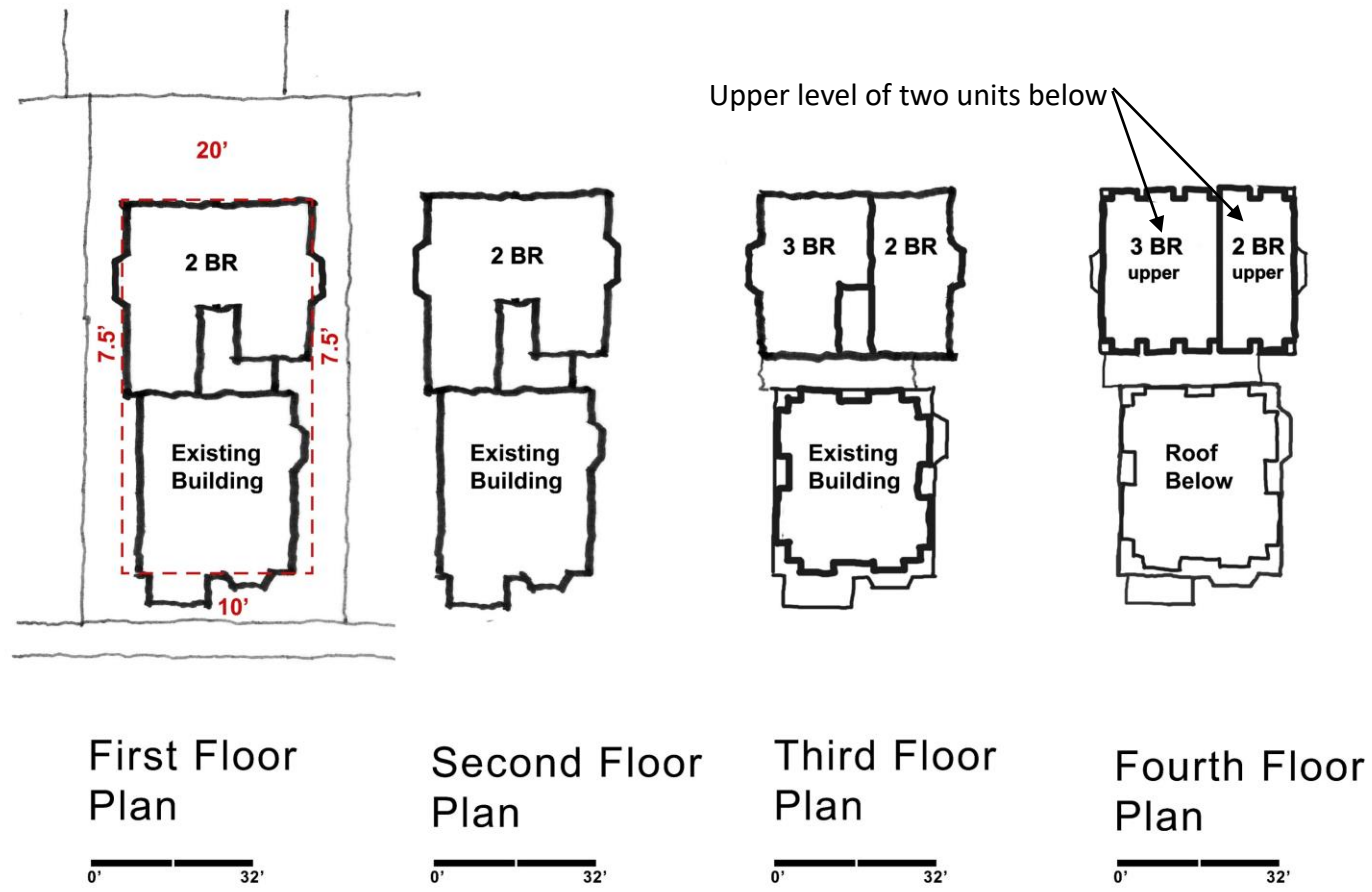
This prototypical 5,000 square-foot lot has a width of 50 feet and depth of 100 feet, which is a typical lot dimension in the Residence B, C, and C-1 districts. The width of the street (including sidewalks) is about 40 feet. These districts vary throughout the city but are generally characterized by a mix of single-family, two-family, and multifamily housing at a prevailing scale of 2-3 stories.

The model assumes an existing 3,000 square foot three-story residential building with space in its rear yard for a new addition. The existing building is preserved and converted into three affordable housing units. The new four-story addition of approximately 4,500 square feet would provide four additional affordable housing units, for a total of seven on the site.

No on-site parking would be provided. The setbacks for the addition are consistent with proposed AHO development standards in lower-scale residential zoning districts.



New four-story addition to existing building



Dimensional Characteristics (ALL FIGURES APPROXIMATE)

Stories Above Grade	3 in the existing building, 4 in the new building
Building Height	45 feet
Front Yard Setback	10 feet (existing)
Side Yard Setbacks	7.5 feet (addition)
Rear Yard Setback	20 feet (addition)
Building Footprint	1,000 square feet (existing) + 1,230 square feet (addition)
Gross Floor Area (GFA)	7,500 square feet (total)
Floor Area Ratio (FAR)	1.5
Dwelling Units	7 (1 one-bedroom, 5 two-bedroom, 1 three-bedroom)
Lot Area Per Dwelling Unit	714 square feet
Open Space Ratio	55%
Parking Spaces	0



Street view from front



Street view from rear

Site 2 – Alternative A (6 Stories)

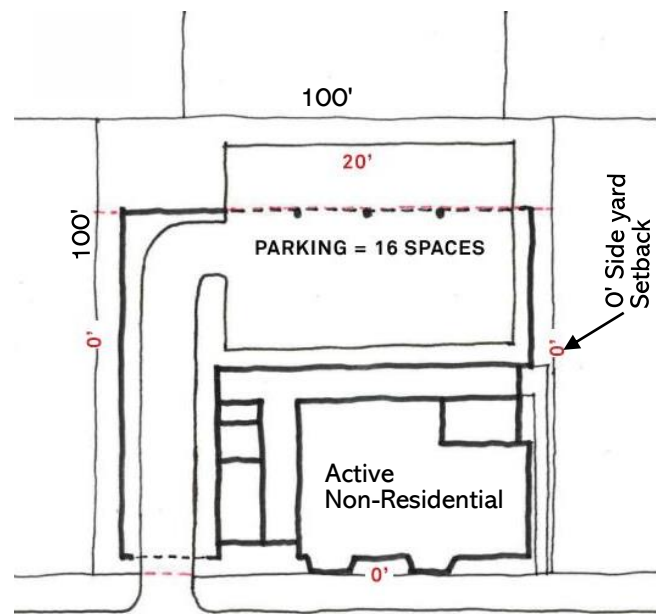
This prototypical 10,000 square-foot lot has both a width and depth of 100 feet, which is typical in higher-scale residential and mixed-use districts, although there tends to be a wide variation in lot sizes and dimensions in those districts. The street is about 100 feet wide (including sidewalks). The context is assumed to be a mixed-use corridor with a variety of commercial and multifamily residential building types ranging from one to four stories, though some districts might have taller existing buildings. Behind the mixed-use corridor is a residential neighborhood of 2-3 story buildings.

The model illustrates a new 6-story housing development, which would be the maximum allowed under the proposed AHO zoning in districts that otherwise allow heights of 40 to 50 feet. The building would step down to 4 stories within 35 feet of the rear lot line, consistent with the proposed AHO standards. The building includes a non-residential active-use space on the ground-floor.

While no on-site parking spaces would be required under the proposed AHO zoning, parking spaces are provided in this alternative at a ratio of 0.57 space per dwelling unit. This alternative depicts a mansard roof profile for the top floor.

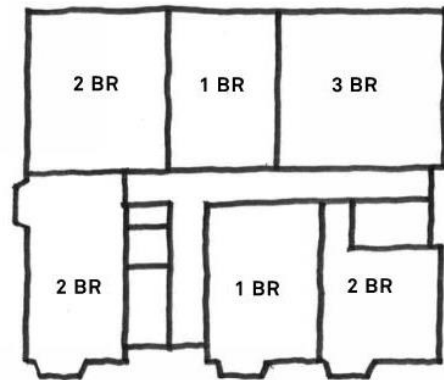


6-story housing development with on-site parking spaces at a ratio of 0.57 sp/du



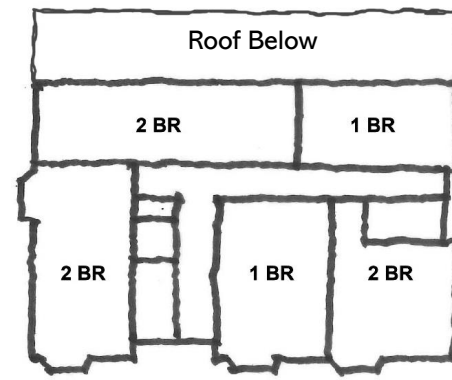
Ground Floor Plan

0' 32'



Upper Floors Plan (2-4)

0' 32'



Upper Floors Plan (5-6)

0' 32'

Dimensional Characteristics (ALL FIGURES APPROXIMATE)

Stories Above Grade	6
Building Height	65 feet
Front Yard Setback	0 feet
Side Yard Setbacks	5 feet (approx.)
Rear Yard Setback	20 feet
Building Footprint	6,860 square feet
Gross Floor Area (GFA)	39,810 square feet
Floor Area Ratio (FAR)	3.9
Dwelling Units	28 (10 one-BR, 15 two-BR, 3 three-BR)
Lot Area Per Dwelling Unit	357 square feet
Open Space Ratio	22%
Parking Spaces	16



Street view from front



Street view from rear

Site 2 – Alternative B (7 Stories)

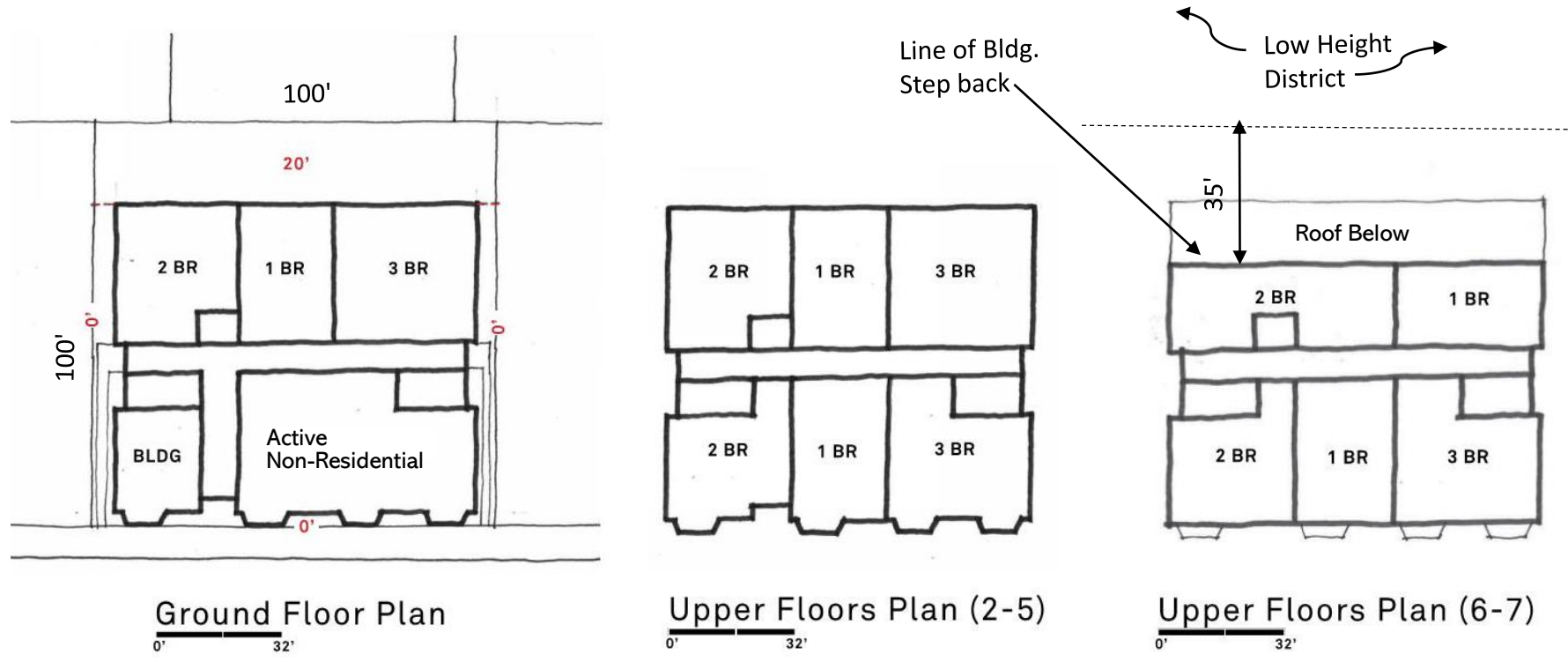
This prototypical 10,000 square-foot lot has both a width and depth of 100 feet, typical of higher-scale residential and mixed-use districts, although lot sizes and dimensions vary widely in these districts. The street is about 100 feet wide (including sidewalks). The area is generally assumed to be a mixed-use corridor with a variety of commercial and multifamily residential building types ranging from one to four stories, though some districts might have taller existing buildings. Behind the mixed-use corridor is a residential neighborhood of 2-3 story buildings.

The model illustrates a new 7-story housing development, which would be the maximum allowed under the proposed AHO zoning in districts that otherwise allow heights of more than 50 feet. The building would step down to 5 stories within 35 feet of the rear lot line, consistent with the proposed AHO standard. The building includes a non-residential active-use space on the ground-floor.

While no on-site parking spaces would be required under the proposed AHO zoning, parking spaces are provided in this alternative at a ratio of 0.4 space per dwelling unit.



7-story housing development with no on-site parking spaces



Dimensional Characteristics (ALL FIGURES APPROXIMATE)	
Stories Above Grade	7
Building Height	80 feet
Front Yard Setback	0 feet
Side Yard Setbacks	5 feet (approx.)
Rear Yard Setback	20 feet
Building Footprint	6,860 square feet
Gross Floor Area (GFA)	46,670 square feet
Floor Area Ratio (FAR)	4.7
Dwelling Units	37 (13 one-BR, 13 two-BR, 11 three-BR)
Lot Area Per Dwelling Unit	270 square feet
Open Space Ratio	31%
Parking Spaces	0



Street view from front



Street view from rear

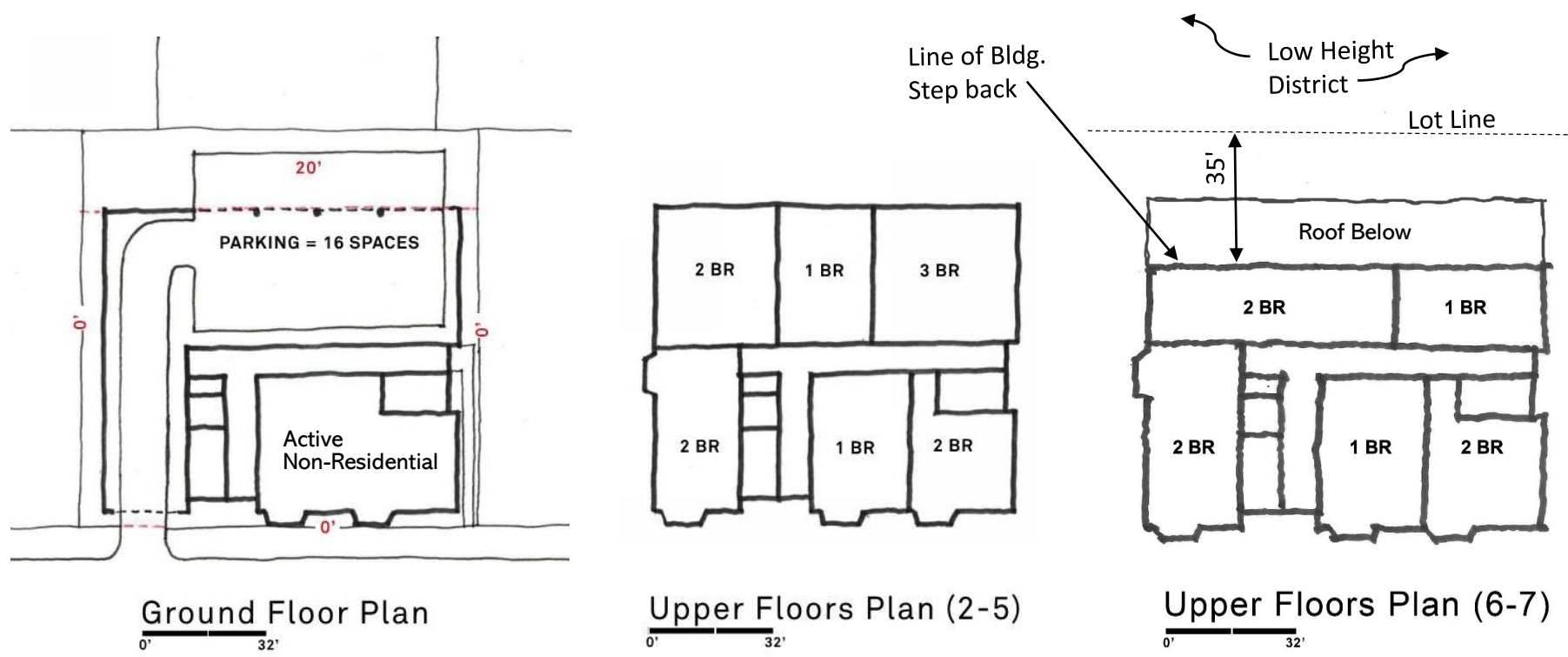
Site 2 - Alternative C (7 Stories)

This prototypical 10,000 square-foot lot has both a width and depth of 100 feet, typical of higher-scale residential and mixed-use districts, although lot sizes and dimensions vary widely in these districts. The street is about 100 feet wide (including sidewalks). The area is generally assumed to be a mixed-use corridor with a variety of commercial and multifamily residential building types ranging from one to four stories, though some districts might have taller existing buildings. Behind the mixed-use corridor is a residential neighborhood of 2-3 story buildings.

The model assumes the construction of a new 7-story housing development. The building would step down to 5 stories within 35 feet of the rear lot line, consistent with the proposed AHO standard. The building includes a non-residential active-use space on the ground-floor. Parking spaces are provided at a ratio of 0.4 space per dwelling unit. This alternative depicts a mansard roof profile for the top floor.



7-story housing development with on-site parking spaces at a ratio of 0.4 sp/du



Dimensional Characteristics (ALL FIGURES APPROXIMATE)	
Stories Above Grade	7
Building Height	80 feet
Front Yard Setback	0 feet
Side Yard Setbacks	5 feet (approx.)
Rear Yard Setback	20 feet
Building Footprint	6,860 square feet
Gross Floor Area (GFA)	42,470 square feet
Floor Area Ratio (FAR)	4.2
Dwelling Units	34 (12 one-BR, 18 two-BR, 4 three-BR)
Lot Area Per Dwelling Unit	294 square feet
Open Space Ratio	22%
Parking Spaces	16



Street view from front



Street view from rear

Site 3 - Alternative A

This prototypical 50,000 square-foot site is located on a corner lot and has a width of 200 feet and depth of 250 feet. It is assumed to be an atypically large lot in a Residence A-1, A-2, B, C, or C-1 district, and approximates about the largest-size lot on which an affordable housing development might occur in those districts. The fronting streets are about 70 feet and 40 feet wide (including sidewalks). The context is a mix of single-family, two-family, and multifamily housing at a prevailing scale of 2-3 stories.

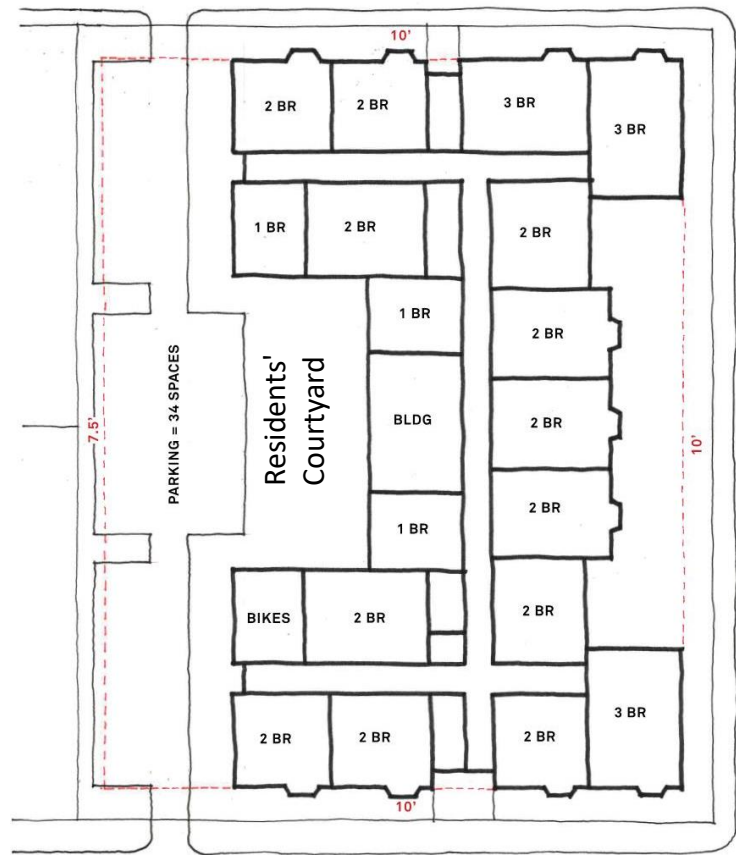
The model illustrates a new 4-story housing development that conforms to the FAR limit of 2.0 under the proposed AHO in the districts listed above. While no on-site parking spaces would be required under the proposed AHO, on-site parking spaces are provided in this alternative in a surface parking lot at a ratio of 0.4 space per dwelling unit.

This model shows a 10-foot front setback, the minimum in a Residence C-1 district. The minimum front setback would be 15 feet in a Residence A-1, A-2, or B district, but could be reduced to the average of the four nearest buildings in order to match the site context.

The building massing is modulated to provide courtyard breaks facing the street, to provide residents with open space amenity in the back or side yard, and to allow natural light to enter the residential units.

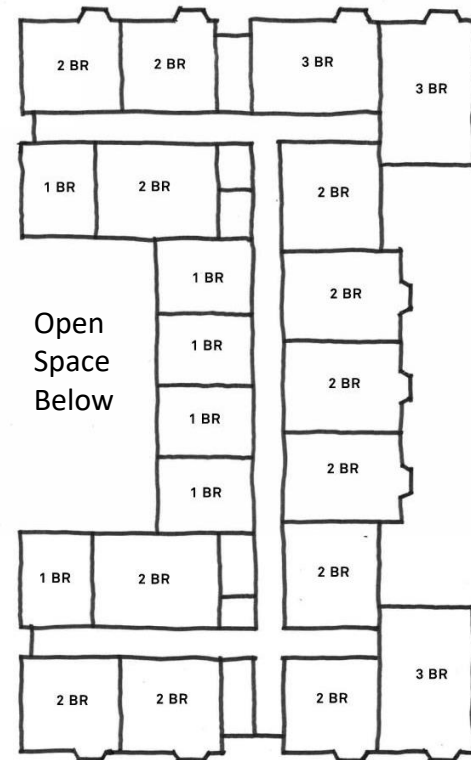


4-story housing development with on-site parking spaces at a ratio of 0.4 sp/du



Ground Floor Plan

0' 32'



Upper Floors Plan (2-4)

0' 32'

Dimensional Characteristics (ALL FIGURES APPROXIMATE)

Stories Above Grade	4
Building Height	45 feet
Front Yard Setbacks	10 feet
Side Yard Setback	7.5 feet
Rear Yard Setback	N/A
Building Footprint	25,230 square feet
Gross Floor Area (GFA)	100,920 square feet
Floor Area Ratio (FAR)	2.0
Dwelling Units	82 (22 one-BR, 48 two-BR, 12 three-BR)
Lot Area Per Dwelling Unit	609 square feet
Open Space Ratio	34%
Parking Spaces	33



Street view from front



Street view from corner