

# Attachment D - Development Scenarios and Prototypes

The sections that follow will summarize the five development scenarios that were prepared for the financial feasibility analysis.

## Development Scenarios

Montgomery Planning staff prepared detailed development scenarios for five different planning contexts in the incentive zones:

1. A 0.75-acre lot in an urban area with overlay zone density
2. A three-acre lot zoned CR in a suburban area up with a maximum FAR of 3.0
3. A 25-acre lot zoned CRT in an exurban area with a maximum FAR of 1.25
4. A 20-acre lot zoned LSC and located within the Life Sciences Center with a maximum FAR of 1.25
5. A 25-acre lot transit-oriented site adjacent to Metrorail zoned CR with a maximum FAR of 3.5

For each scenario, planning staff developed at least two scenarios, including at least one standard method prototype and one optional-method prototype. Planning staff prepared detailed building assumptions, drawings, and modelling, based on development approved under the incentive zones in the various scenarios, which are summarized in the subsections below. The 0.75-acre urban site and the transit-oriented 25-acre site have multiple optional method prototypes as a variety of building types and sizes, with different magnitudes of financial feasibility, have been approved under the point system in those contexts since 2010.

Every prototype with a residential component assumes MPDUS in line with minimum requirements, meaning none of the prototypes assume a bonus density. Each prototype within the scenarios are summarized in subsections below, including building and site details as well as the public benefits associated with the optional method prototypes. In the first step of the financial analysis, the pro forma models determine the value of the incentive density by comparing the feasibility of optional method prototypes to the standard method prototype. However, every optional method prototype provides some public benefits that are worth points, there are inherent public benefits in the menu. For example, any residential building in an urban area must include a structured garage to accommodate parking, but the garage still earns the project public benefit points.

The description of each optional method prototype will list the inherent benefits assumed in step 1 of the feasibility analysis, and in most scenarios the inherent public benefits total less than the minimum required number of points for optional method development. The summary will also provide a list of the total public benefits assumed in each prototype for step 2 of the analysis, which evaluates the cost of providing public benefits up to the minimum points requirement. Staff determined the public benefit assumptions in each scenario, which are based on real-world optional method approvals in incentive zones.

## *Urban Scenario*

The urban scenario compares one standard method prototype to two optional method prototypes to understand the range of incentive density value. There are two optional method prototypes because

the urban scenario is based on development in Downtown Bethesda, which has an overlay zone. Projects may build up to the mapped FAR, or exceed if it purchases additional density from the overlay zone. As the overlay zone density is optional and adds an additional cost, this analysis tests one optional method prototype with the additional density, and one without. Table xxx summarizes the site assumptions for the urban scenario.

Table 1: Site Assumptions for Urban Scenario Development Prototypes

<b>Site</b>	
<b>Urban Standard Method Prototype</b>	<b>Assumptions</b>
Size (ac)	0.75
Size (sf)	32,670
Zoning	CR
Max. Standard Method FAR	0.5
Max. Allowable Development	16,335
Max. Optional Method FAR	6.5
Max. Allowable Development	212,355

Source: Montgomery Planning, 2023.

### **Standard Method Prototype**

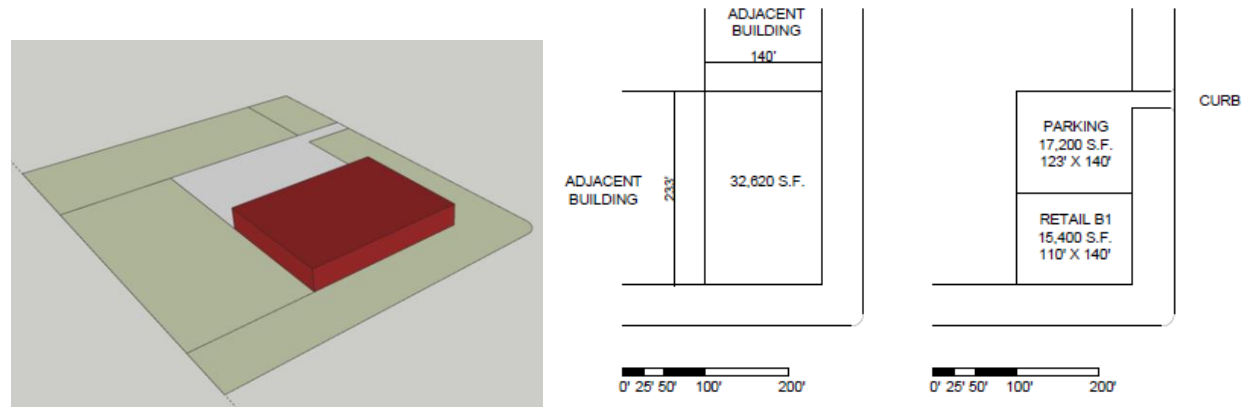
The site assumes a CR zoning, meaning standard method development is limited to 0.5 FAR, which equals 16,335 square feet on a 0.75-acre. Staff assume lot dimensions of approximately 235 feet by 140 feet. Staff developed models and floor plans to design the buildings based on these assumptions. For this urban site, staff assumed the prototype would be a single-story commercial development (i.e., retail pad site) totaling 15,400 square feet with a height of 20 feet. A development of this size would have surface parking, with staff assuming 52 spaces based on the dimensions of the lot. Table 2 summarizes the assumptions and Figure xx provides images of the prototype.

Table 2: Urban Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
Urban Standard Method Prototype	Assumptions
<u>Site</u>	
Max. Allowable Development	16,335
<u>Building</u>	
Total Built Area (sf)	15,400
Proposed FAR	0.47
Total Lot Coverage (sf)	15,400
Max. Building Lot Coverage	32,670
<u>Parking</u>	
Parking Type	Surface
Total Parking Spaces	52
Total Parking (sf)	17,200

Source: Montgomery Planning, 2023.

Figure 1: Urban Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

### **Optional Method Prototypes**

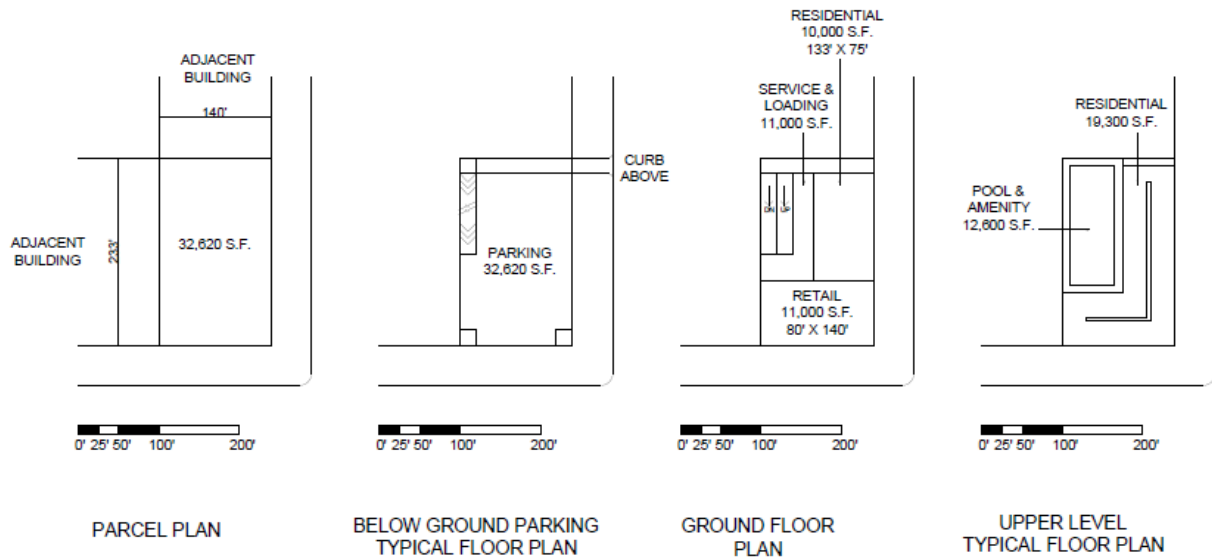
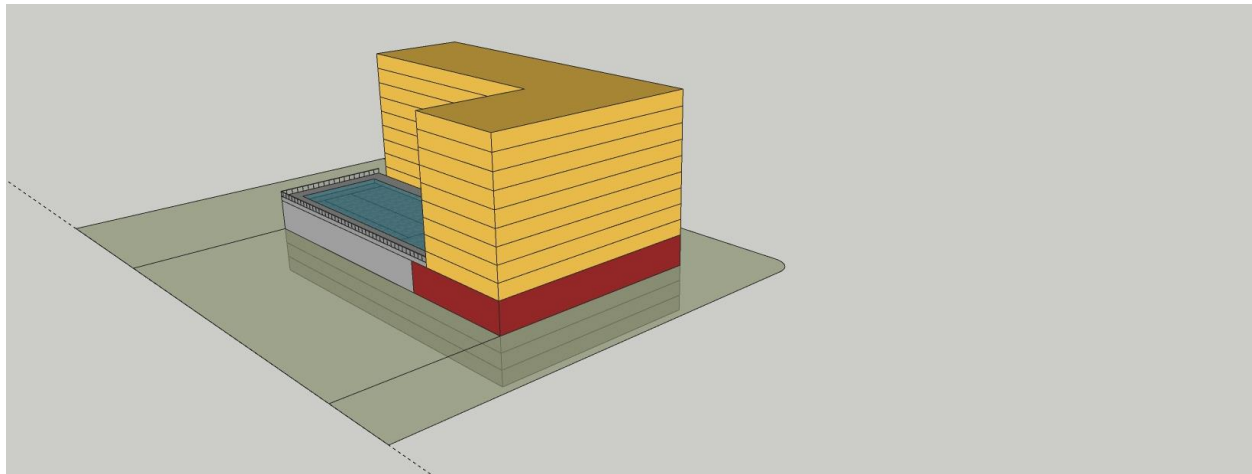
There are two optional method prototypes, with one applying overlay zone density and one building up to the mapped FAR only. The smaller prototype is an 11-story, 120-foot building with 207 units, including 15 percent, or 32 total, MPDUs. The prototype assumes 12,600 square feet of outdoor amenity space and 11,000 of ground-floor retail. Parking spaces are provided in a three-story, below-grade garage. Table 3 summarizes the prototype and Figure xxx provides images of the prototype.

Table 3: Urban Scenario Optional Method Prototype Summary

<b>Total Development Summary</b>	
<b>Urban Optional Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	212,355
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>207</b>
du per acre	276
<b>Total Built Area (sf)</b>	<b>205,700</b>
Proposed FAR	6.30
<b>Building Height (feet)</b>	<b>120</b>
Stories	14
Below Grade	3
Above Grade	11
<u>Apartments</u>	
<b>Total Units</b>	<b>207</b>
Market Rate	175
MPDU	32
<u>Retail</u>	
<b>Total Built Area (sf)</b>	<b>11,000</b>
<u>Outdoor Amenities &amp; Open Space</u>	
<b>Total Area (sf)</b>	<b>12,600</b>
<u>Miscellaneous</u>	
<b>Total Built Area</b>	<b>11,000</b>
<u>Parking</u>	
Proposed Spaces	261
Total Parking Size (sf)	97,860
Parking Structure Stories	3

Source: Montgomery Planning, 2023.

Figure 2: Urban Optional Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

The smaller prototype includes features that receive public benefit points but would be included in a project regardless of the point system as they are inherent to development. As shown in Table 4, the prototype would earn 39.2 public benefit points from exceptional Design, BLTs, Structured Parking, and Minimum Parking. The project is likely to earn exceptional Design points because it is assumed to be in Bethesda, where there is a Design Advisory Panel. BLTs are required and the parking public benefits are inherent to development. Based on similar projects, the prototype also assumes points for Energy Conservation and Generation, Tower Step Back, Through Block Connection, Wayfinding, and Vegetated Roof for a total of 109.2 points.

Table 4: Urban Optional Method Prototype Public Benefit Points

Public Benefit Points			
Inherent Benefits		All Public Benefits	
Exceptional Design	15	Exceptional Design	15
BLTs	4.2	BLTs	4.2
Structured Parking	16	Structured Parking	16
Minimum Parking	4	Minimum Parking	4
<b>Total</b>	<b>39.2</b>	Energy Conservation and Generation	15
		Tower Step Back	5
		Through Block Connection	15
		Wayfinding	10
		Vegetated Roof	10
		<b>Total</b>	<b>109.2</b>

Source: Montgomery Planning, 2023.

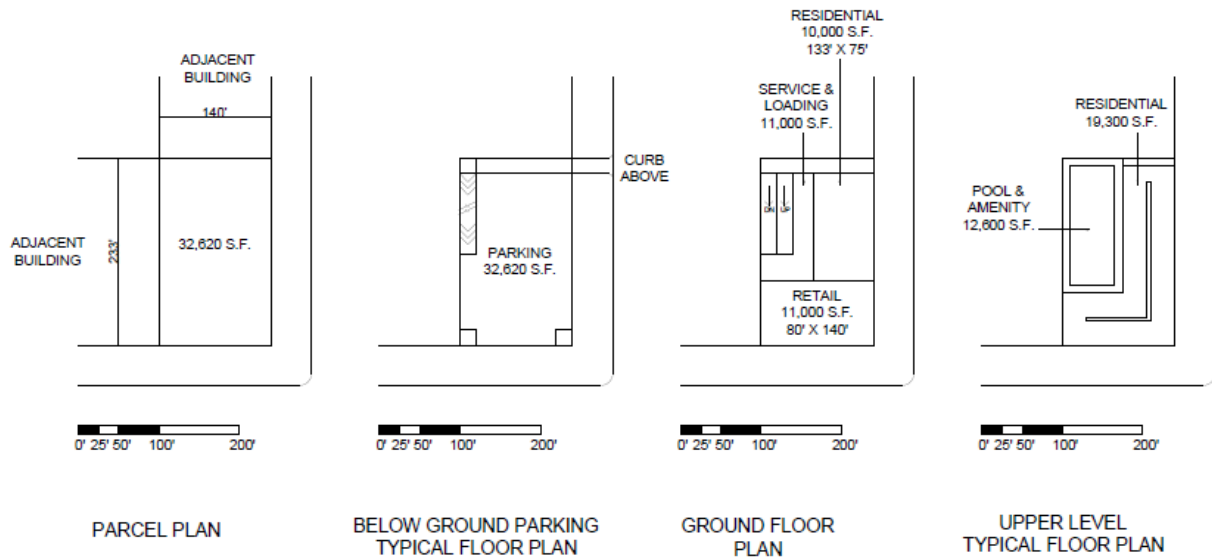
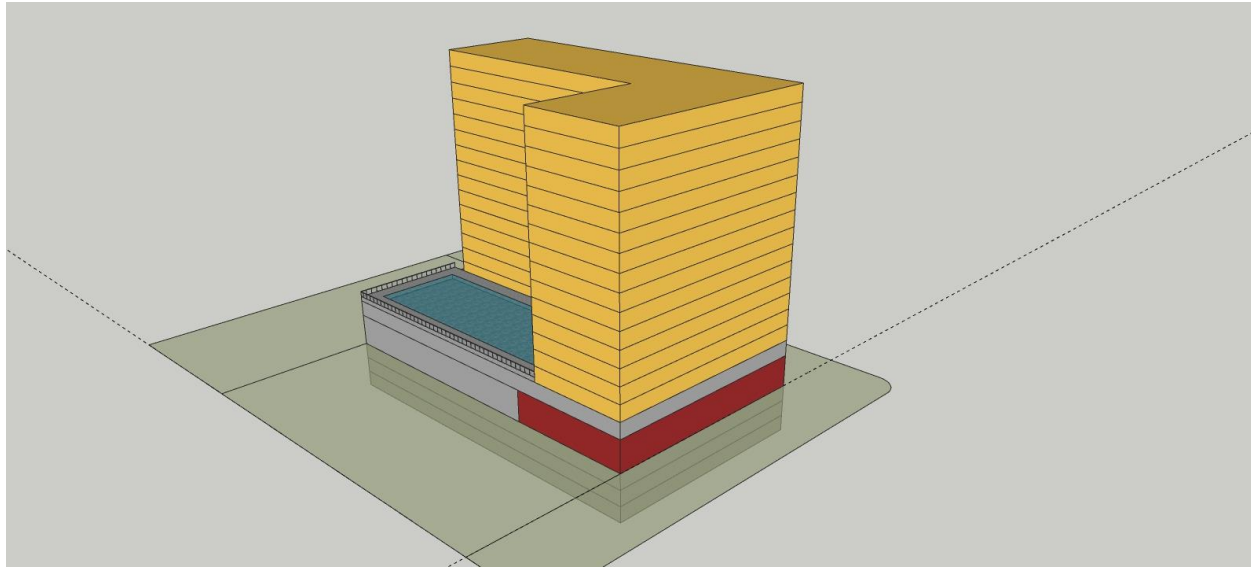
The larger optional method prototype with overlay zone density is a 17-story, 180-foot building with 354 units, including 26 MPDUs, and 11,000 square feet of ground-floor retail. The building is identical to the smaller prototype, but six stories taller. It also assumes the same choices of public benefits and total points. Table 5 summarizes the prototype and Figure xxx provides images of the prototype. Table 6 summarizes the public benefit points.

Table 5: Urban Scenario Optional Method (Overlay Zone) Prototype Summary

<b>Total Development Summary</b>	
<b>Urban Optional Method Prototype - OZ</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	212,355
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>338</b>
du per acre	451
<b>Total Built Area (sf)</b>	<b>321,500</b>
Proposed FAR	9.84
<b>Building Height (feet)</b>	<b>180</b>
Stories	20
Below Grade	3
Above Grade	17
<b>BOZ Density</b>	<b>109,145</b>
BOZ Density Price per sf (PIP)	\$12.49
BOZ Density Cost	\$1,363,221
<u>Apartments</u>	
<b>Total Units</b>	<b>338</b>
Market Rate	287
<u>Retail</u>	
<b>Total Built Area (sf)</b>	<b>11,000</b>
<u>Outdoor Amenities &amp; Open Space</u>	
<b>Total Area (sf)</b>	<b>12,600</b>
<u>Miscellaneous</u>	
<b>Total Built Area</b>	<b>11,000</b>
<u>Parking</u>	
Proposed Spaces	354
Total Parking Size (sf)	130,480
Parking Structure Stories	4

Source: Montgomery Planning, 2023.

Figure 3: Urban Optional Method (Overlay Zone) Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

The smaller prototype includes features that receive public benefit points but would be included in a project regardless of the point system as they are inherent to development. As shown in Table 6, the prototype would earn 39.2 public benefit points from exceptional Design, BLTs, Structured Parking, and Minimum Parking. The project is likely to earn exceptional Design points because it is assumed to be in Bethesda, where there is a Design Advisory Panel. BLTs are required and the parking public benefits are inherent to development. Based on similar projects, the prototype also assumes points for Energy Conservation and Generation, Tower Step Back, Through Block Connection, Wayfinding, and a Vegetated Roof for a total of 109.2 points.



Table 6: Urban Optional Method (Overlay Zone) Prototype Public Benefit Points

Public Benefit Points			
Inherent Benefits		All Public Benefits	
Exceptional Design	15	Exceptional Design	15
BLTs	4.2	BLTs	4.2
Structured Parking	16	Structured Parking	16
Minimum Parking	4	Minimum Parking	4
<b>Total</b>	<b>39.2</b>	Energy Conservation and Generation	15
		Tower Step Back	5
		Through Block Connection	15
		Wayfinding	10
		Vegetated Roof	10
		<b>Total</b>	<b>109.2</b>

Source: Montgomery Planning, 2023.

### Suburban Scenario

The suburban scenario has one standard method prototype and one optional method prototype. The scenario assumes a three-acre site in a suburban market like North Bethesda. The assumed zoning is CR 3.0 C1.0 R 3.0 H75. Site assumptions are summarized in Table 7.

Table 7: Site Assumptions for Suburban Scenario Development Prototypes

Site	
Suburban Standard Method Prototype	Assumptions
Size (ac)	3
Size (sf)	130,680
Zoning	CR
Max. FAR	0.5
Max. Allowable Development	65,340

Source: Montgomery Planning, 2023.

### Standard Method Prototype

The standard method prototype assumes a small, single-story strip retail center in an 'L' format. The build area totals 51,000 square feet, with approximately 47,800 square feet of surface parking. The total density is 0.39 FAR. Table 8 summarizes the suburban standard method prototype, and images of the model and floor plan are provided in Figure xxx.

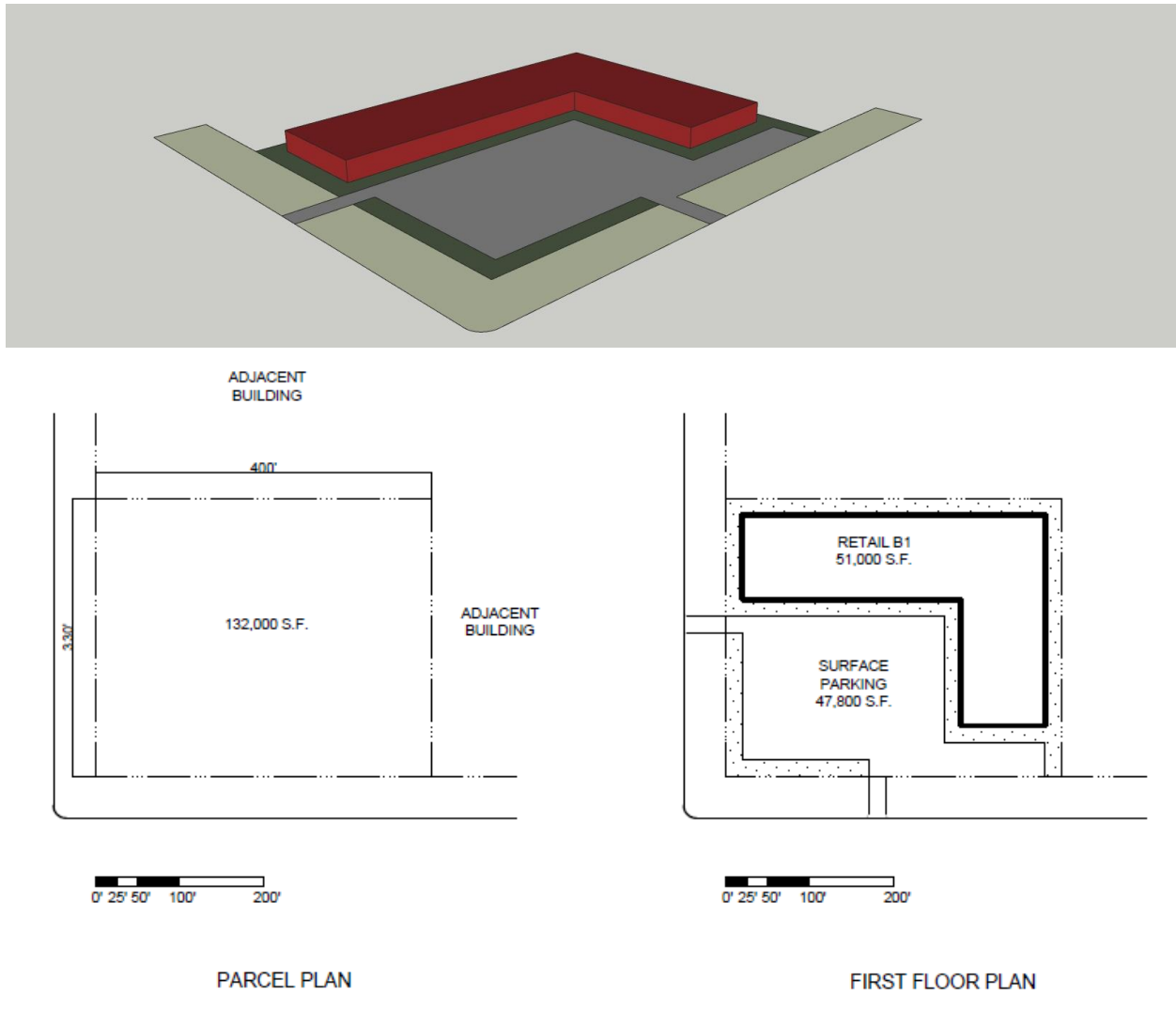
Table 8: Suburban Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
<b>Urban Standard Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	16,335
<u>Building</u>	
Total Built Area (sf)	15,400
Proposed FAR	0.47
Total Lot Coverage (sf)	15,400
Max. Building Lot Coverage	32,670
<u>Parking</u>	
Parking Type	Surface
Total Parking Spaces	52
Total Parking (sf)	17,200

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Source: Montgomery Planning, 2023.

Figure 4: Suburban Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

### **Suburban Optional Method Prototype**

The suburban optional method prototype assumes '5-Over-1' wood-built structure over a concrete podium. The concrete podium has a height of 20 feet, while the residential floors above it have a height of ten feet for a total building height of 70 feet. The prototype also includes 40,500 square feet of outdoor amenities and open space and no commercial development. Parking is included in an above-grade structured parking garage.

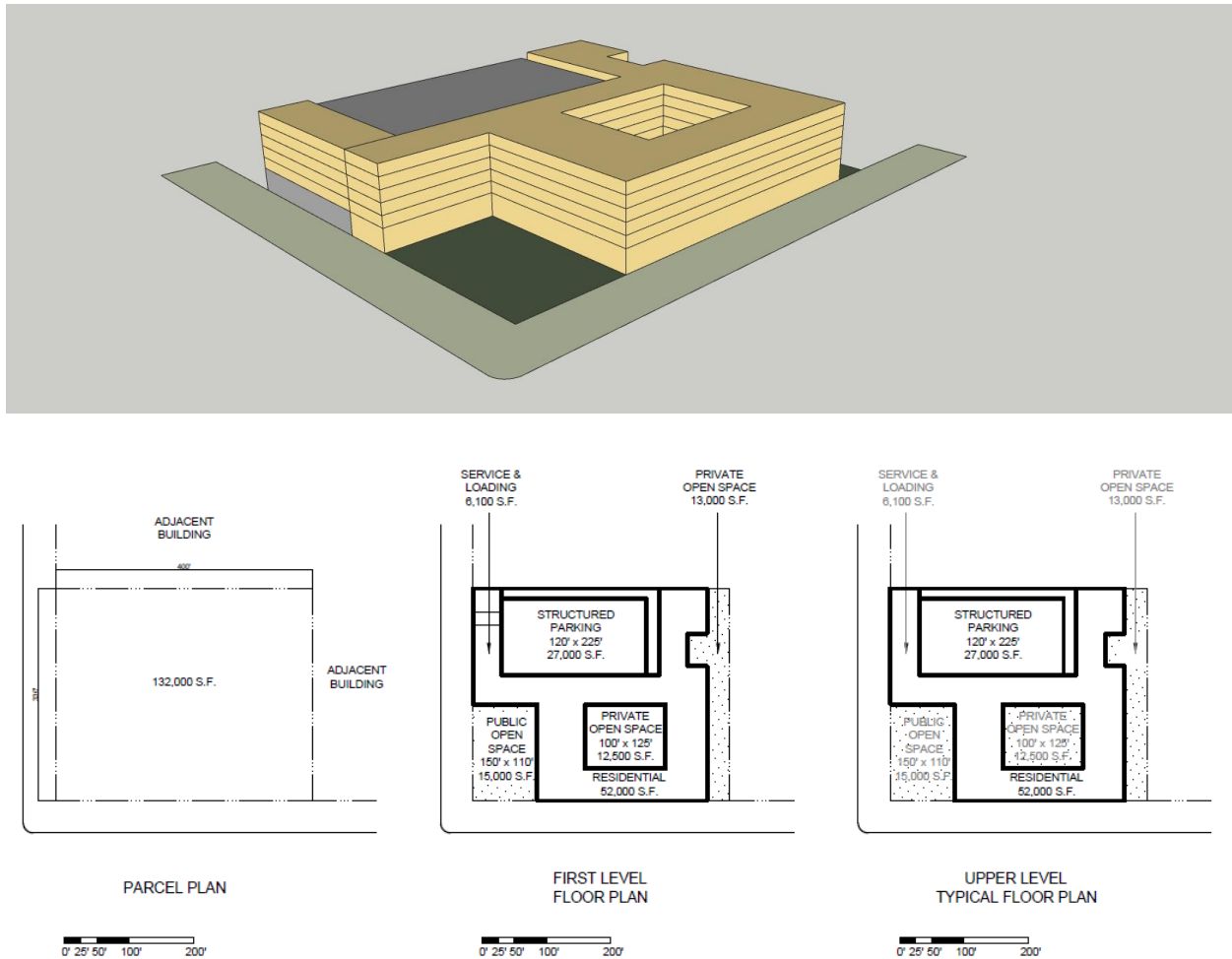
The building has a total size of 348,100 square feet, for a total FAR of 2.66. It includes 346 units, of which 302 are market rate and 44 (12.5 percent) are MPDUs. The market rate units have an average gross unit size of 1,000, while the MPDUs have an average gross unit size of 900 square feet. Table 9 summarizes the building details and Figure xxx shows models and a floor plan for the prototype.

Table 9: Suburban Scenario Optional Method Prototype Summary

<b>Total Development Summary</b>	
<b>Suburban Optional Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	392,040
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>346</b>
du per acre	115
<b>Total Built Area (sf)</b>	<b>348,100</b>
Proposed FAR	2.66
Max. Building Lot Coverage	130,680
<b>Building Height (feet)</b>	<b>70</b>
Stories	6
<u>Apartments</u>	
<b>Total Units</b>	<b>346</b>
Market Rate	302
MPDU	39,600
<u>Retail</u>	
<b>Total Built Area (sf)</b>	<b>0</b>
<u>Outdoor Amenities &amp; Open Space</u>	
<b>Total Area (sf)</b>	<b>40,500</b>
<u>Miscellaneous</u>	
<b>Total Built Area</b>	<b>6,100</b>
<u>Parking</u>	
Proposed Spaces	463
Total Parking Size (sf)	162,000
Parking Structure Stories	6

Source: Montgomery Planning, 2023.

Figure 5: Suburban Optional Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

The prototype would earn 42.6 public benefit points based on inherent features of the project. Staff assume the project is located up to one-half mile from Metrorail, which would generate 20 points. In addition, the structured garage and providing less than the maximum number of parking spaces add another 17 points, while the BLT requirement generates 5.6 points. Based on similar approved optional method developments, staff assume the rest of the public benefits would include Architectural Elevations, Exceptional Design, Enhanced Accessibility, Public Art, Wayfinding, and Exceptional Design. Step 2 of the feasibility analysis will test the impact of these benefits on the feasibility of the prototype and compare it to the value of the incentive density. In total, as shown in Table 10, the prototype would earn 102.6 points.

Table 10: Suburban Optional Method Prototype Public Benefit Points

Public Benefit Points			
Inherent Benefits		All Public Benefits	
Transit Proximity	20	Public Open Space	10
Structured Parking	10	Tree Canopy	7.5
Minimum Parking	7	Transit Proximity	20
BLTs	5.6	Structured Parking	10
<b>Total</b>	<b>42.6</b>	Minimum Parking	7
		BLTs	5.6
		Architectural Elevations	10
		Exceptional Design	5
		Enhanced Accessibility	10
		Public Art	5
		Wayfinding	5
		Exceptional Design	7.5
		<b>Total</b>	<b>102.6</b>

Source: Montgomery Planning, 2023.

### Exurban Scenario

The exurban scenario prototypes assume a large, 25-acre site generally in the Great Seneca Area and not proximate to transit. The site assumes a zoning of CRT 1.25 C 0.25 R1.25 H60, thereby allowing for a maximum density of 1,089,000 square feet. With CRT zoning, the standard method threshold is 1.0 FAR, not 0.5 FAR, and the minimum points requirement is 50 points. This is summarized in Table 11.

Table 11: Site Assumptions for Exurban Scenario Development Prototypes

Site	
Exurban Standard Method Prototype	Assumptions
Size (ac)	25
Size (sf)	1,089,000
Zoning	CRT
Max. FAR	1.0
Max. Allowable Development	1,089,000

Source: Montgomery Planning, 2023.

### Exurban Standard Method Prototype

The standard method prototype in the exurban scenario is a 100 percent residential development with a mix of townhome and two-over-two (i.e., piggyback townhome) units. Standard method development on large sites, particularly in the CRT zone where the optional method threshold is also high, is not uncommon. In fact, a standard method prototype with larger, more expensive units in the exurban context may be more valuable than a denser project that include more multifamily units depending on market conditions for rent and sale prices. Even if a denser optional method project in this context is feasible and more valuable in overall terms, the fee-simple transaction of selling expensive for-sale units may be less risky. Unlike in the urban and suburban scenarios, the standard method and optional method prototypes may generate similar value and have similar feasibility metrics.

The standard method prototype assumes 250 townhomes and 180 two-over-twos, with 33 and 23 MPDUs, respectively. The market rate townhomes have an average gross unit size of 2,800 square feet units with two tuck-under parking spaces, and the MPDUs have an average gross size of 1,800 square feet, with one tuck-under parking space. The total built area of the townhomes is 580,800 square feet.

For the two-over-twos, the upper units are assumed to be 1,600 square feet while the lower units are 1,200 square feet. All 23 two-over-two MPDUs are lower units. The total built area is 252,000. Parking assumes a mix of tuck-under spaces and surface parking in an alley between two rows of two-over-twos, as shown in Figure xxx below. The overall prototype also includes civic and other open space totaling 122,300 square feet.

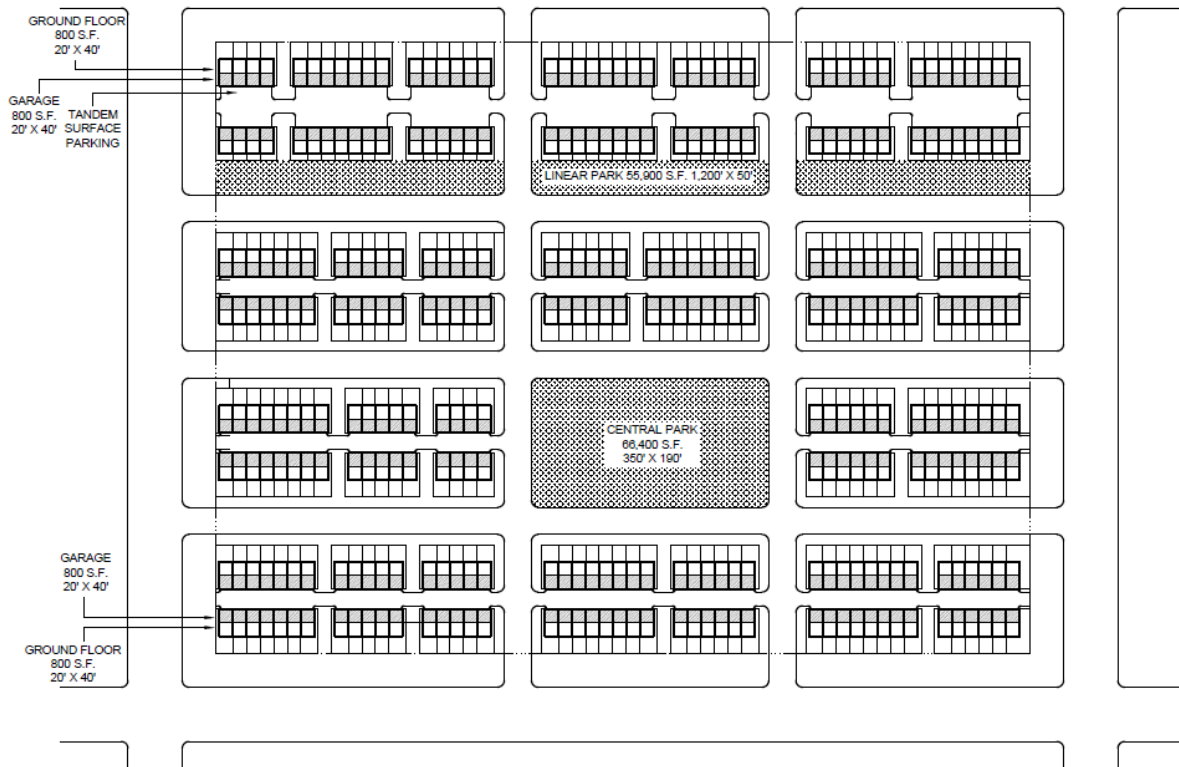
Table 12: Exurban Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
<b>Exurban Standard Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	52,800
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>433</b>
du per acre	17
<b>Total Built Area (sf)</b>	<b>832,800</b>
Proposed FAR	0.76
<b>Total Lot Coverage (sf)</b>	<b>261,200</b>
<u>Townhomes</u>	
<b>Total Units</b>	253
Market Rate	220
MPDU	33
<b>Total Living Area (sf)</b>	580,800
Market Rate	528,000
MPDU	52,800
<b>Total Parking (sf)</b>	94,600
Market Rate	88,000
MPDU	6,600
<u>Two-Over-Two</u>	
<b>Total Units</b>	180
Market Rate	157
MPDU	23
<b>Total Living Area (sf)</b>	252,000
Market Rate	224,400
MPDU	27,600
<b>Total Parking (sf)</b>	72,000
Market Rate	48,000
MPDU	24,000
<u>Outdoor Amenities and Open Space</u>	122,300

Source: Montgomery Planning, 2023.



Figure 6: Exurban Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

### Exurban Optional Method Prototype

The optional method prototype adds two multifamily units to the mix of townhomes and two-over-twos. The two multifamily buildings five stories of wood-built construction with no commercial space. The larger of two buildings has 373 units, while the smaller one has 355 units, including 54 and 51 MPDUs respectively. The market rate units have an average gross size of 1,000 square feet, while the MPDUs have an average gross size of 900 square feet. Each building is wrapped around an above-grade structured garage.

The townhomes assume the same dimensions as in the standard method prototype, with an average gross size of 2,400 and 1,600 square feet for the market rate units and townhomes, respectively. There are 144 townhomes assumed in the optional method prototype, 91 fewer than in the standard method prototype. The prototype also includes 152 two-over-twos, with all MPDUs in the lower units averaging 1,200 square feet, while the upper units have an average size of 1,600 square feet. The townhomes assume tuck-under parking while the two-over-twos have a mix of tuck-under spaces and surface parking.

In total, the prototype maximizes the maximum allowable density with a total built area of 1.37 million square feet. In addition to the built area, there is 57,600 square foot central park within the development, as shown in Figure xxx. Table xx summarizes the development program. As shown in Table yyy, the project would earn 35.8 points from inherent public benefits, and 65.8 in total, which meets the 50-point threshold in the CRT zone.

Table 13: Exurban Optional Method Prototype Public Benefit Points

Public Benefit Points			
Inherent Benefits		All Public Benefits	
Transit Proximity	20	Transit Proximity	20
BLTs	5.8	BLTs	5.8
Structured Parking	10	Structured Parking	10
<b>Total</b>	<b>35.8</b>	Public Open Space	10
		Cool Roof	5
		Enhanced Accessibility	7.5
		Vegetated Area	7.5
		<b>Total</b>	<b>65.8</b>

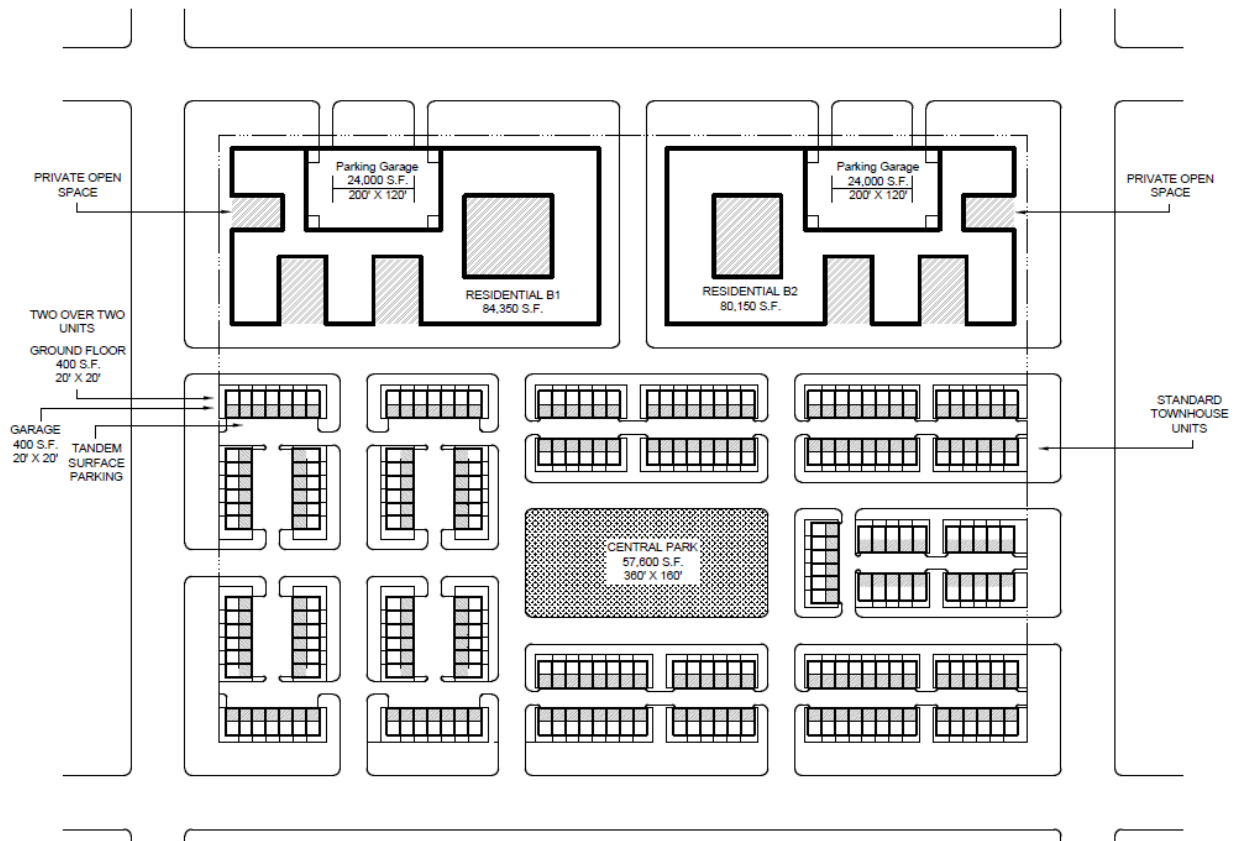
Source: Montgomery Planning, 2023.

Table 14: Exurban Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
<b>Exurban Standard Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	52,800
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>433</b>
du per acre	17
<b>Total Built Area (sf)</b>	<b>832,800</b>
Proposed FAR	0.76
<b>Total Lot Coverage (sf)</b>	<b>261,200</b>
<u>Townhomes</u>	
<b>Total Units</b>	253
Market Rate	220
MPDU	33
<b>Total Living Area (sf)</b>	580,800
Market Rate	528,000
MPDU	52,800
<b>Total Parking (sf)</b>	94,600
Market Rate	88,000
MPDU	6,600
<u>Two-Over-Two</u>	
<b>Total Units</b>	180
Market Rate	157
MPDU	23
<b>Total Living Area (sf)</b>	252,000
Market Rate	224,400
MPDU	27,600
<b>Total Parking (sf)</b>	72,000
Market Rate	48,000
MPDU	24,000
<u>Outdoor Amenities and Open Space</u>	122,300

Source: Montgomery Planning, 2023.

Figure 7: Exurban Optional Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

### Life Science Scenario

The life science scenario assumes a site in a similar location to the exurban model, generally near the Life Sciences Center of the Great Seneca Area along I-270. The site is assumed to be 20-acres with LSC zoning and a maximum FAR of 1.25, yielding a maximum allowable density of 1,089,000 square feet. IN the LSC zone, residential development is limited to 30 percent of total development. The standard method prototype is representative of life science development in the county generally, where the optional method prototype with a mix of uses has not yet been delivered in any of the LSC-zoned sites. Table xxx summarizes the site assumptions for the life science scenario.

Table 15: Site Assumptions for Life Science Scenario Development Prototypes

Site	
<u>LSC Standard Method Prototype</u>	<u>Assumptions</u>
Size (ac)	20
Size (sf)	871,200
Zoning	LSC
Max. FAR	1.25
Max. Allowable Development	1,089,000

Source: Montgomery Planning, 2023.

### Life Science Standard Method Prototype

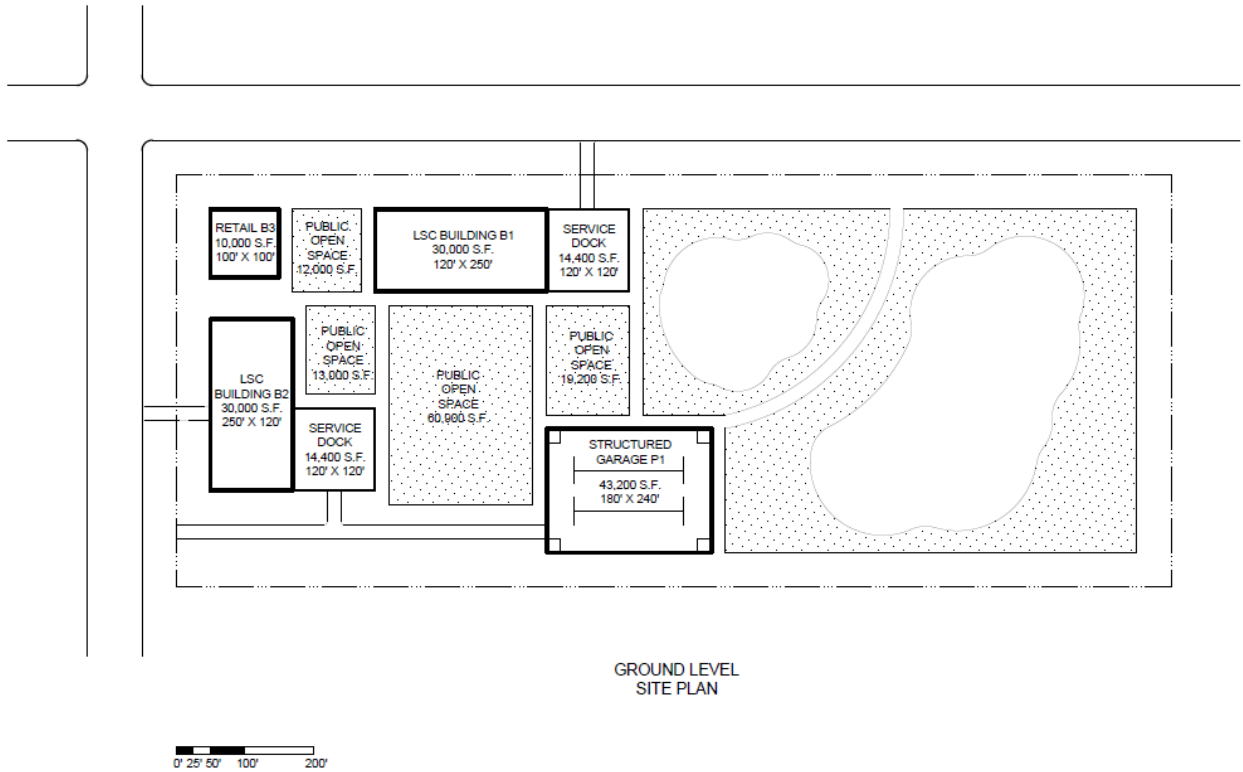
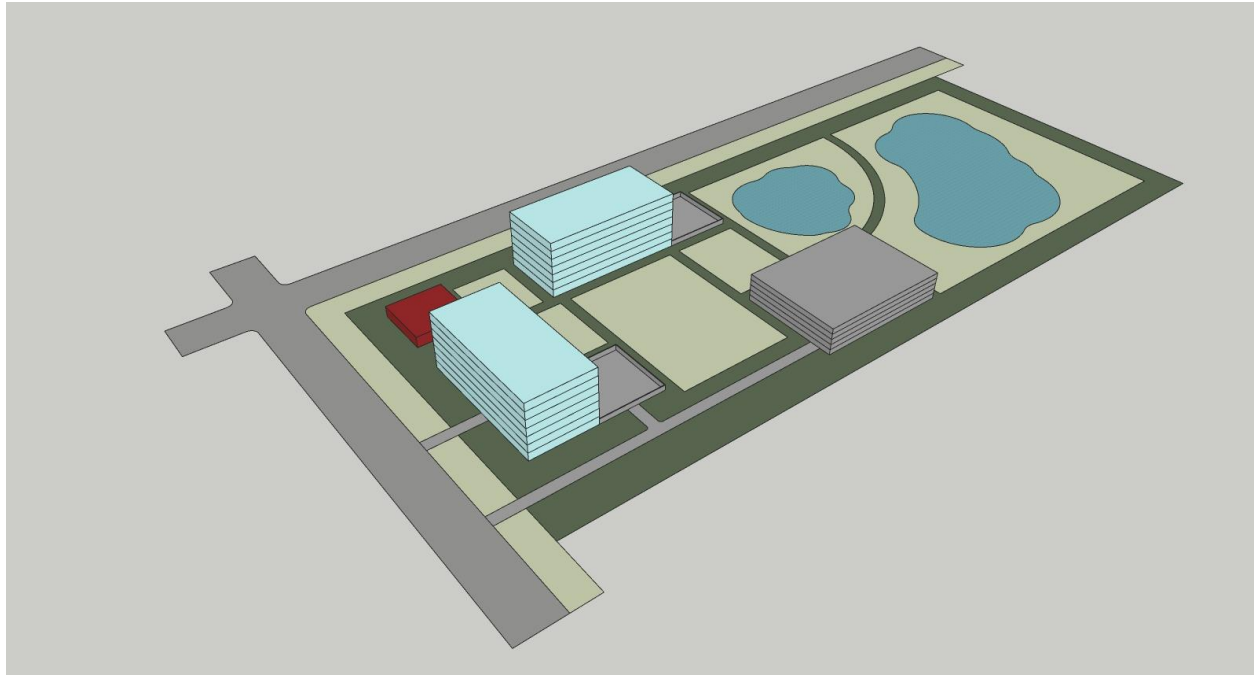
In the LSC zone, standard method development is limited to 0.5 FAR, which is equal to 435,600 square feet on a 20-acre site. The prototype includes two life science buildings, each with seven stories totaling 105 feet and 224,000 square feet in built area. Each building includes a 14,000 square foot loading and service area. The prototype also assumes a small strip retail center of 10,000 square feet and 105,100 square feet of open space. Parking is provided in an above-grade structured garage. The prototype is summarized in Table xxx and Figure xxx provides an image and a floor plan.

Table 16: Life Science Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
<b>Life Science Standard Method Prototype</b>	<b>Assumptions</b>
<u>Site</u>	
Max. Allowable Development	435,600
<u>Building</u>	
<b>Total Dwelling Units</b>	<b>0</b>
du per acre	0
<b>Total Built Area (sf)</b>	<b>430,000</b>
Proposed FAR	0.49
<b>Total Service and Loading (sf)</b>	<b>28,000</b>
<b>Total Built Area Lot Coverage (sf)</b>	<b>142,000</b>
<u>Life Science Office</u>	
<b>Total Built Area (sf)</b>	420,000
<u>Retail</u>	
<b>Total Built Area (sf)</b>	10,000
<u>Outdoor Amenities &amp; Open Space</u>	
<b>Total Area (sf)</b>	<b>105,100</b>
<u>Parking</u>	
Total Parking Spaces	740
Total Parking (sf)	259,200

Source: Montgomery Planning, 2023.

Figure 8: Life Science Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

## Life Science Optional Method Prototype

The Life Science optional method prototype adds one 5-Over-1 multifamily building, one more life science building, and maintains some retail, compared to the standard method prototype. As summarized in Table xxx, the multifamily building includes 289 units, of which 37 are MPDUs. All three life science buildings are of the same size (262,500 square feet) and have the same height (105 feet). Parking for the entire development assumes a shared parking program in three above-grade structured garages, as shown in Figure xxx.

Table 17: Life Science Scenario Optional Method Prototype Summary

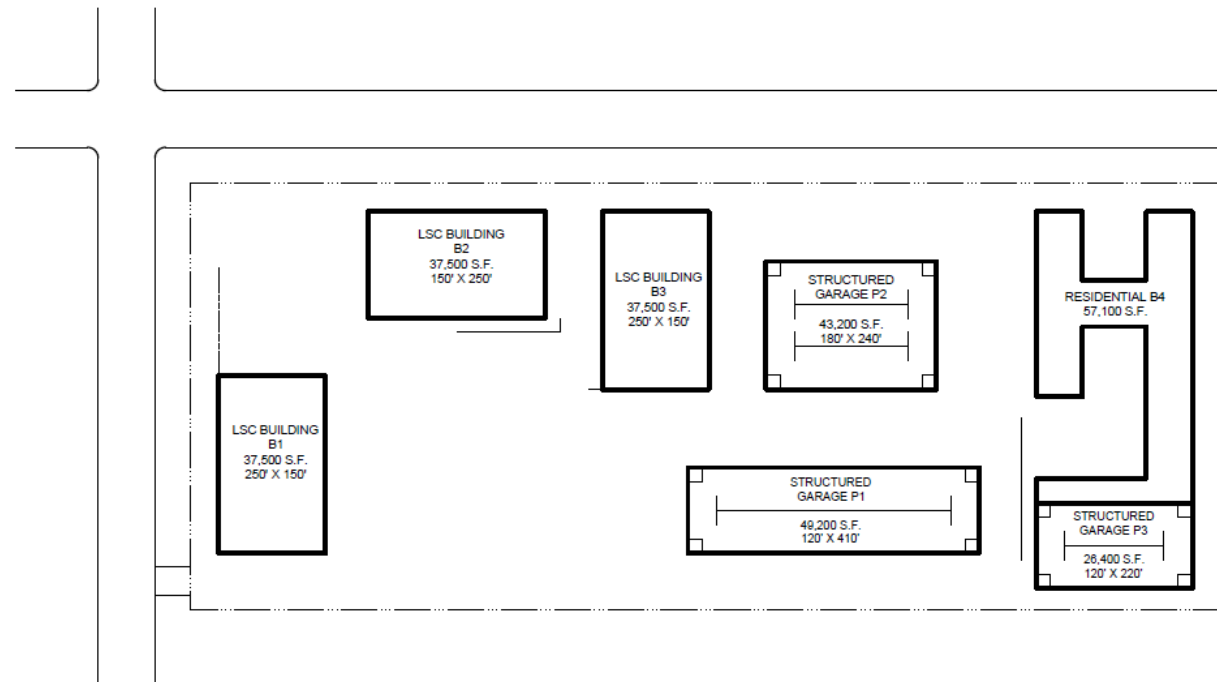
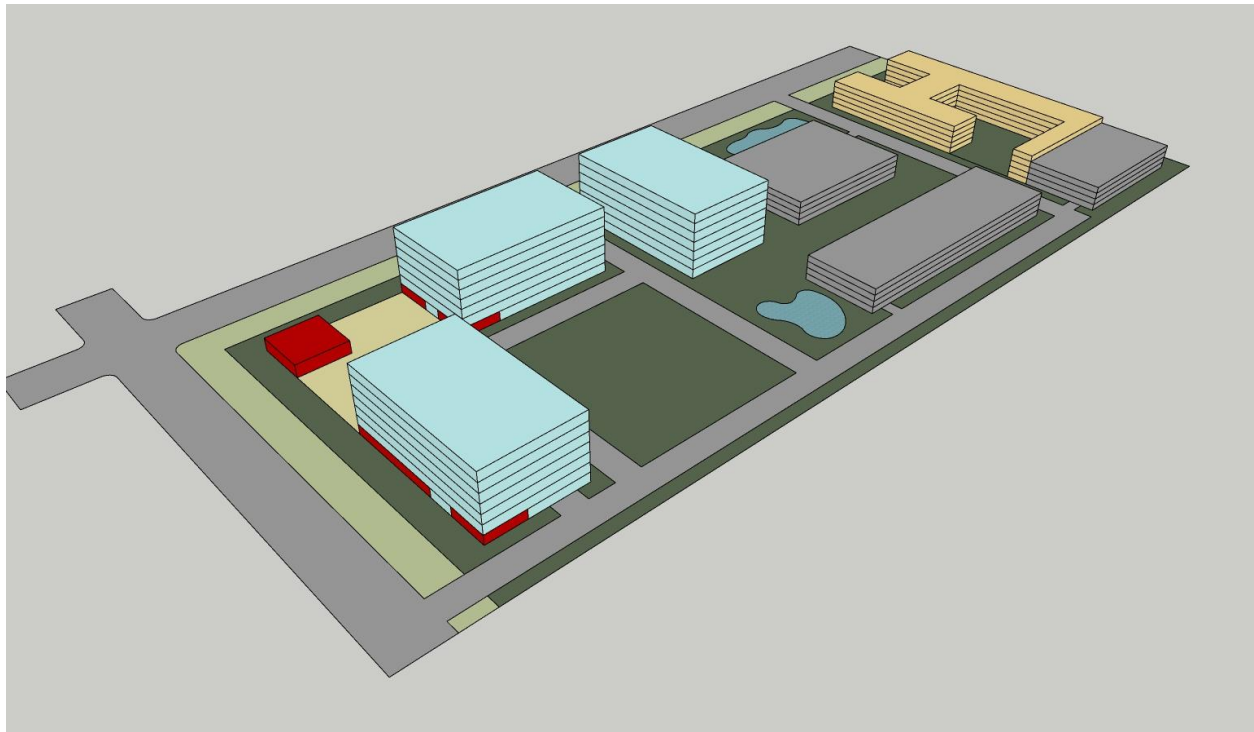
<b>Total Development Summary</b>	
<u>Site</u>	
Max. Allowable Development	1,089,000
<u>Building</u>	
<b>Total Built Area (sf)</b>	<b>1,079,400</b>
Proposed FAR	1.24
<b>Total Built Area Lot Coverage (sf)</b>	<b>294,800</b>
<u>Life Science Office</u>	
<b>Total Built Area (sf)</b>	486,200
<u>Retail</u>	
<b>Total Built Area (sf)</b>	6,400
<u>Residential</u>	
<b>Total Dwelling Units</b>	<b>289</b>
du per acre	14
Market Rate	252
MPDU	37
<b>Total Built Area (sf)</b>	285,500
<u>Outdoor Amenities &amp; Open Space</u>	
<b>Total Area (sf)</b>	<b>287,350</b>
<u>Parking</u>	
Total Parking Spaces	1,696
Total Parking (sf)	594,000

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Source: Montgomery Planning, 2023.



Figure 9: Life Science Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

The optional method life science prototype earns its minimum required 30 points through inherent features staff assumed in the project, including Structured Parking, BLTs, Adaptive Buildings, and a Cool Roof. However, the project would also be eligible to earn points for Energy Conservation and

Generation, Through Block Connection, and Public Open Space, raising the total points to 65. This is an instructive finding; although this is just one prototype, the model staff prepared suggests the minimum required number of points is insufficient for obtaining additional public benefits. Nonetheless, the feasibility analysis will determine whether the minimum required points is appropriate as it will test how much additional costs a life science development could support.

**PBs**

*Transit Oriented Development (TOD) Scenario*

The Transit Oriented Development (TOD) scenario also assumes a 25-acre site, like the Exurban scenario. However, the site is assumed to be within one-quarter mile of metro rail and has CR zoning with a maximum FAR of 6.5. Assumptions for the scenario are designed to simulate conditions in the Pike and Rose development in North Bethesda. This is notably a very significant development that requires a large investment from the developers and depends on strong market conditions.

*Table 18: Site Assumptions for TOD Development Prototypes*

<b>Site</b>	
<b>Exurban Standard Method Prototype</b>	<b>Assumptions</b>
Size (ac)	25
Size (sf)	1,089,000
Zoning	CR
Max. FAR	3.5
Max. Allowable Development	3,811,500

*Source: Montgomery Planning, 2023.*

**TOD Standard Method Prototype**

The TOD standard method prototype assumes a large neighborhood shopping center with a grocery anchor. The development would total 32,700 of retail with over 1,000 surface parking spaces. Table xxx and Figure xx summarize the prototype.

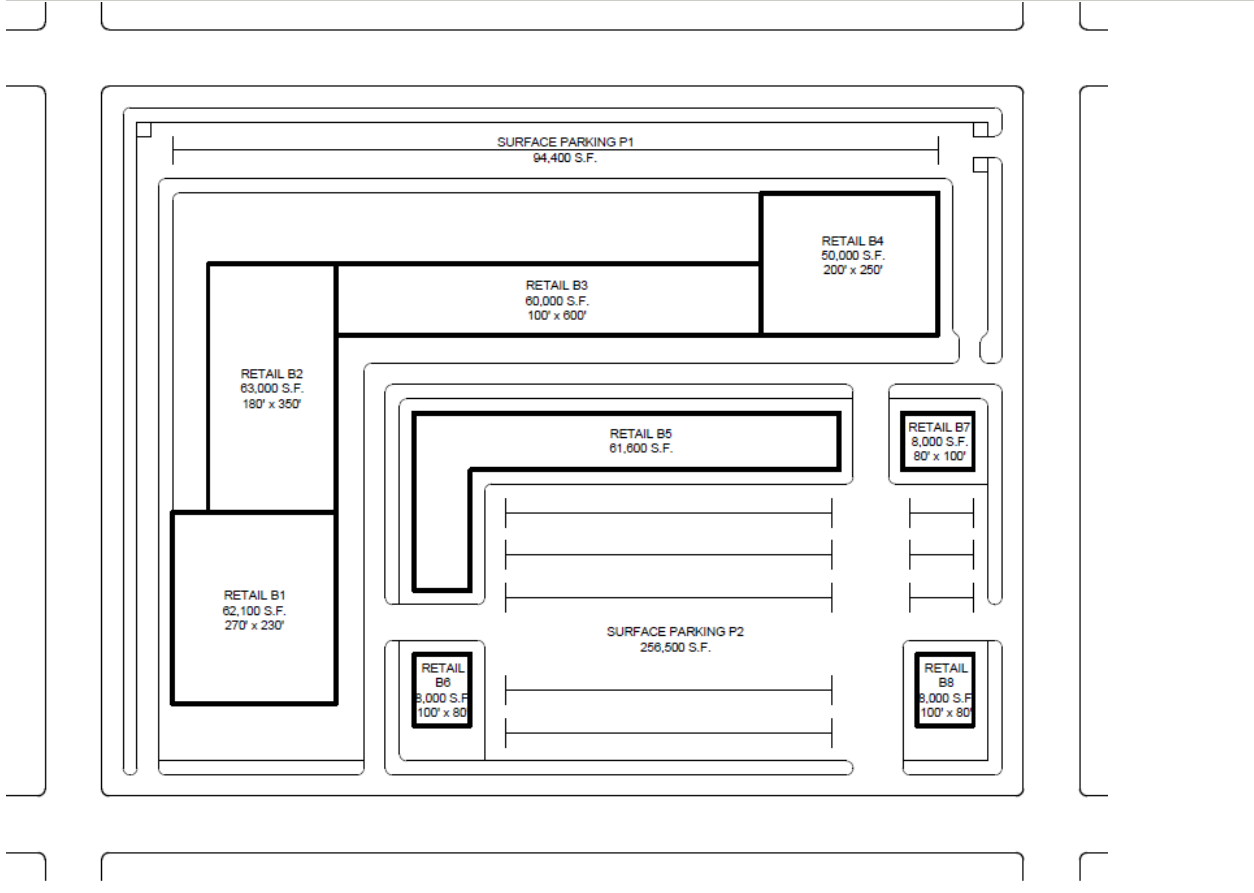
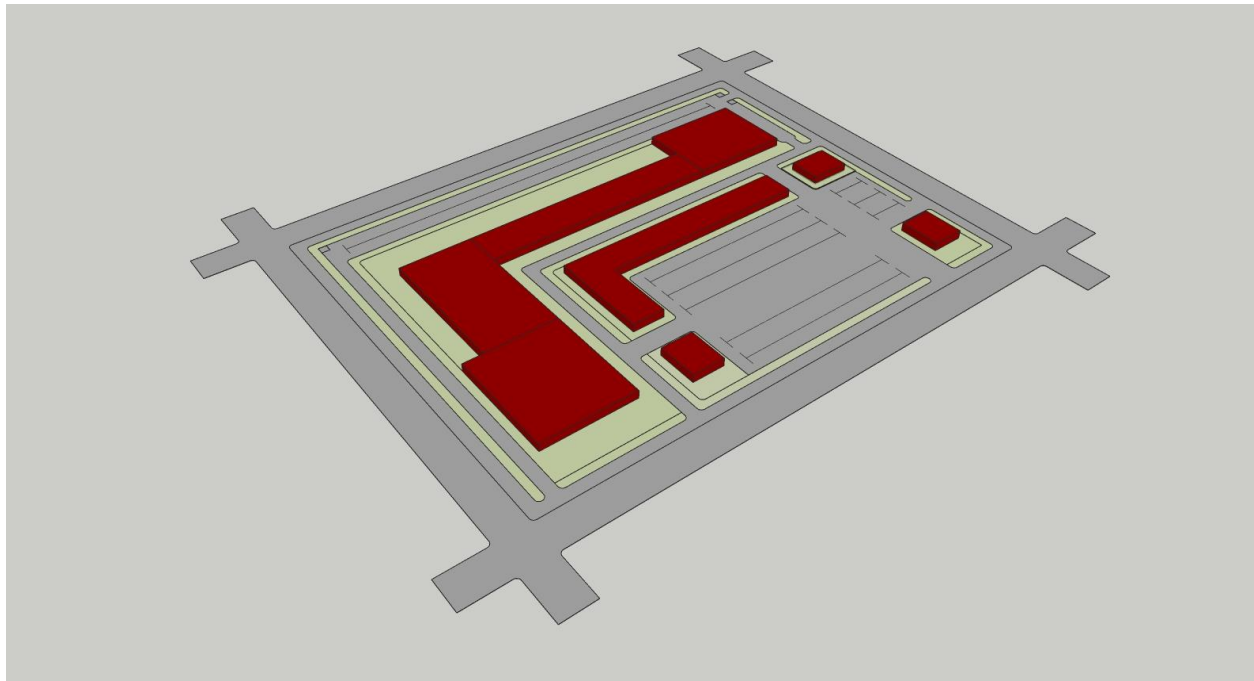
Table 19: TOD Scenario Standard Method Prototype Summary

<b>Total Development Summary</b>	
<u>Site</u>	
Max. Allowable Development	1,089,000
<u>Building</u>	
<b>Total Built Area (sf)</b>	<b>320,700</b>
Proposed FAR	0.29
<b>Total Lot Coverage (sf)</b>	<b>320,700</b>
<u>Streets, Alleys, and Stormwater</u>	
Total Size (sf)	499,600
<u>Parking</u>	
Total Parking Spaces	1,063

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Source: Montgomery Planning, 2023.

Figure 10: TOD Standard Method Prototype Model and Floor Plan



Source: Montgomery Planning, 2023.

### **TOD Optional Method Prototypes**

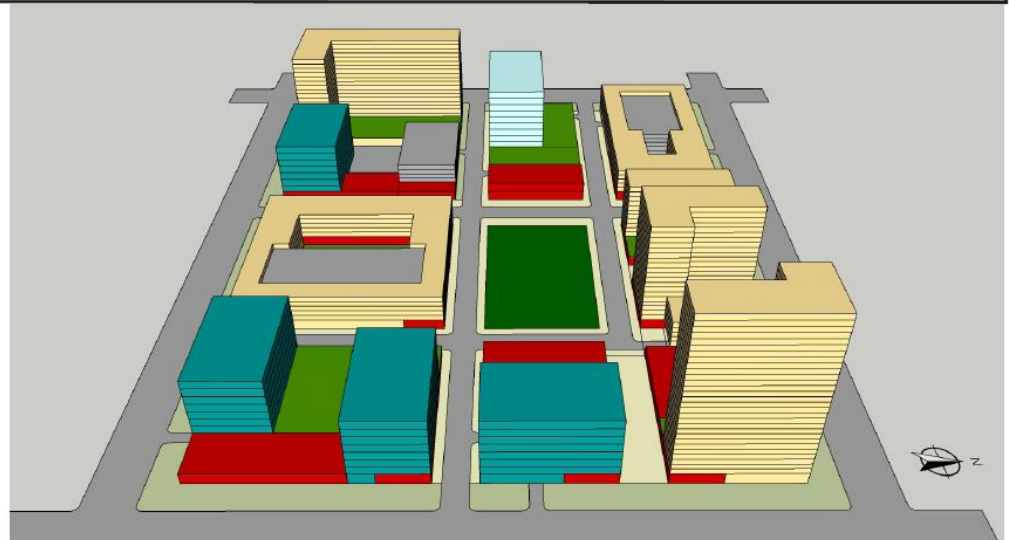
The TOD scenario assumes three optional method prototype given the range of possibilities on a large site with high mapped densities and heights. As noted, the scenario is modeled after the Pike and Rose development in North Bethesda. The first optional method prototype most closely resembles the Pike and Rose, with six multifamily residential buildings, four office buildings, one life science tower, and retail dispersed throughout the project. This program totals 2,466 dwelling units, 760,000 square feet of office, 301,800 square feet of life science development, and 247,900 square feet of retail. The projects would have shared parking program in seven structured garages. The prototype total 3.46 FAR.

The Pike and Rose was built prior to the pandemic, which has significantly reduced demand for new office development. Therefore, planning staff elected to test the feasibility of a program that would be viable in 2023. This alternative optional method prototype reduces the office development to 182,400 square feet, reduces retail development to 198,000 square feet, and maintains the life science building and the number of dwelling units. Staff assumes the alternative prototype has a total FAR of 2.69. The optional method prototype and the alternative are summarized below in Figure xxx and yyy

Finally, this analysis tested the feasibility of the exurban standard method prototype, which assumes the same site. The exurban standard method prototype has a proposed FAR of 0.76, comprised of townhomes and two-over-twos. In the CRT zone assumed in the Exurban scenario, the standard method threshold is 1.0 FAR, whereas the threshold is 0.5 FAR in the CR zone assumed for the TOD scenario. Therefore, the TOD optional method townhomes scenario would need to include public benefits, although the development program is identical. The exurban standard method prototype is summarized in Table 12 and Table 13.

Figure 11: TOD Optional Method Prototype Model and Summary

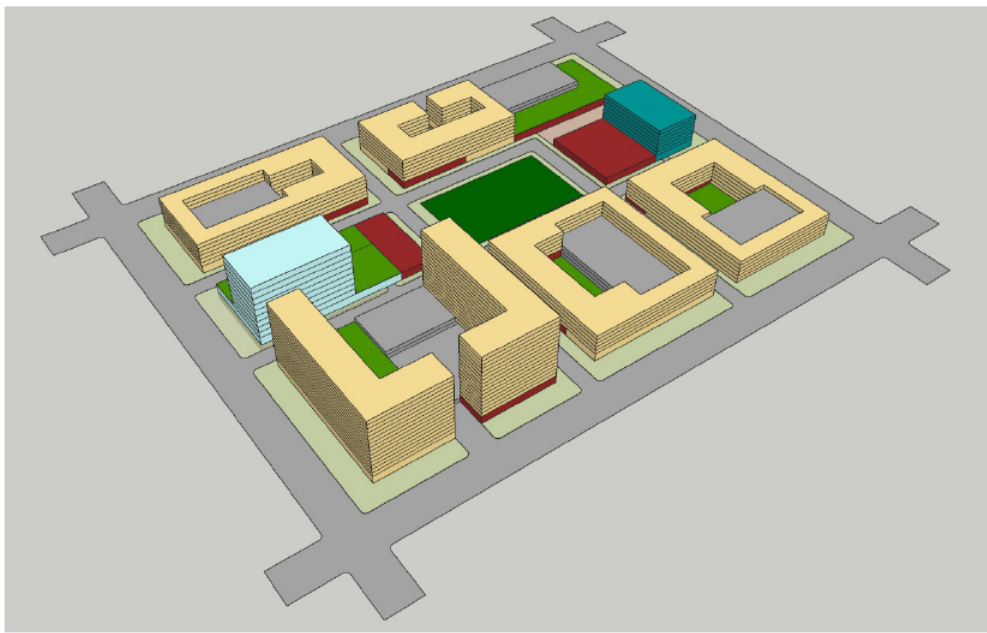
<p><b>Development Summary</b></p> <p>Site Area: 25 acres                  Total Life Science: 301,800 sf                  Total Office: 760,000 sf                  Total Residential: 2,431,200 sf; 2466 units                  Total Retail: 247,900 sf                  Total Parking: 1,807,200 sf; 4,965 spaces (1,056,000 sf Below Grade) (751,200 sf Above Grade)</p> <p>Proposed FAR: 3.46 (excludes parking)</p> <p><b>BLOCK 1</b>  <b>Building Height Assumptions:</b>                  Residential B1 - 210 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Office B1 - 125 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 15 ft floor to floor</p> <p>Parking Garage P1 - 60 ft above street level                  All floors - 10 ft floor to floor</p> <p>Retail - 20 ft above street level                  20 ft floor to floor</p>	<p><b>BLOCK 2</b>  <b>Building Height Assumptions:</b>                  LSC Building - 155 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 15 ft floor to floor</p> <p>Parking Garage P2 - 0 ft above street level                  All floors - 10 ft floor to floor</p> <p>Retail - 40 ft above street level                  First floor - 20 ft floor to floor                  Upper floor - 20 ft floor to floor</p> <p><b>Stories:</b>                  LSC Bldg. - 10 stories above street level                  Parking P2 - 2 levels below street level                  Retail - 1 story and 2 stories above street level</p>	<p><b>BLOCK 3</b>  <b>Building Height Assumptions:</b>                  Residential B5 - 70 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Parking Garage P3 - 60 ft above street level                  All floors - 10 ft floor to floor</p> <p>Retail - 20 ft above street level                  20 ft floor to floor</p> <p><b>Stories:</b>                  Residential B5 - 6 stories above street level                  Parking P1 - 7 levels above street level                  Retail - 1 story above street level</p>	<p><b>BLOCK 4</b>  <b>Building Height Assumptions:</b>                  Residential B6 - 70 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Parking Garage P4 - 60 ft above street level                  All floors - 10 ft floor to floor</p> <p>Retail - 20 ft above street level                  20 ft floor to floor</p> <p><b>Stories:</b>                  Residential B6 - 6 stories above street level                  Parking P1 - 7 levels above street level                  Retail - 1 story above street level</p>	<p><b>BLOCK 6 + 9</b>  <b>Building Height Assumptions:</b>                  Residential B2 - 130 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Residential B3 - 210 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Residential B4 - 310 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 10 ft floor to floor</p> <p>Parking Garage P5 - 60 ft above street level                  All floors - 10 ft floor to floor</p> <p>Retail - 20 ft above street level                  First floor - 20 ft floor to floor</p> <p><b>Stories:</b>                  Residential B6 - 6 stories above street level                  Parking P5 - 7 levels above, 2 below street level                  Retail - 1 stories above street level</p>	<p><b>BLOCK 7</b>  <b>Building Height Assumptions:</b>                  Office B2 - 125 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 15 ft floor to floor</p> <p>Office B3 - 125 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 15 ft floor to floor</p> <p>Parking Garage P6                  All floors - 10 ft floor to floor</p> <p>Retail - 20 ft above street level                  20 ft floor to floor</p> <p><b>Stories:</b>                  Office B2 - 8 stories above street level                  Office B3 - 8 stories above street level                  Parking P6 - 2 levels below street level                  Retail - 1 story above street level</p>	<p><b>BLOCK 8</b>  <b>Building Height Assumptions:</b>                  Office B4 - 125 ft above street level                  First floor - 20 ft floor to floor                  Upper floors - 15 ft floor to floor</p> <p>Parking Garage P7                  All floors - 10 ft floor to floor</p> <p>Retail - 30 ft above street level                  30 ft floor to floor</p> <p><b>Stories:</b>                  Office B4 - 8 stories above street level                  Parking P7 - 2 levels below street level                  Retail - 1 story above street level</p> <table border="1" data-bbox="1806 584 2037 747"> <tr> <td>3</td> <td>6</td> <td>9</td> </tr> <tr> <td>2</td> <td>5</td> <td>8</td> </tr> <tr> <td>1</td> <td>4</td> <td>7</td> </tr> </table> <p><b>BLOCKS KEY PLAN</b></p>	3	6	9	2	5	8	1	4	7
3	6	9													
2	5	8													
1	4	7													



Source: Montgomery Planning, 2023.

Figure 12: TOD Optional Method Prototype Model and Summary

Development Summary	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 6 & 9	BLOCK 7	BLOCK 8
<p>Site Area: 25 acres</p> <p>Total Residential: 2,382,400 sf</p> <p>Total Retail: 198,900 sf</p> <p>Total Life Science: 301,800 sf</p> <p>Total Office: 182,400 sf</p> <p>Total Parking: 1,113,600 sf, 3,589 spaces (Below Grade: 280,000 sf) (Above Grade: 833,600 sf)</p> <p>Proposed FAR: 2.69 (excludes parking)</p>	<p><u>Building Height Assumptions:</u></p> <p>Residential B1 - 170 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Residential B2 - 180 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B2 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Podium P1 - 20 ft above street level</p> <p>First floor - 10 ft floor to floor</p> <p>Upper floor - 10 ft floor to floor</p> <p>Garage P2 - 30 ft above street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Residential B1 - 16 stories above street level</p> <p>Residential B2 - 16 stories above street level</p> <p>Retail B2 - 1 story above street level</p> <p>Podium P1 - 2 stories above street level</p> <p>Garage P2 - 4 stories above street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Life Science B3 - 155 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 15 ft floor to floor</p> <p>Retail B3 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P3 - 20 ft below street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Life Science B3 - 10 stories above street level</p> <p>Retail B3 - 1 story above street level</p> <p>Garage P3 - 2 stories below street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Residential B4 - 80 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B4 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P4 - 50 ft above street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Residential B4 - 7 stories above street level</p> <p>Retail B4 - 1 story above street level</p> <p>Garage P4 - 6 stories above street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Residential B5 - 70 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B5 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P5 - 30 ft above street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Residential B5 - 6 stories above street level</p> <p>Retail B5 - 1 story above street level</p> <p>Garage P4 - 4 stories above street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Residential B6 - 80 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B6 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Retail B7 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P6 - 40 ft above street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Residential B6 - 7 stories above street level</p> <p>Retail B6 - 1 story above street level</p> <p>Retail B7 - 1 story above street level</p> <p>Garage P6 - 5 stories above street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Residential B8 - 70 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B8 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Retail B7 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P7 - 50 ft above street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Residential B8 - 6 stories above street level</p> <p>Retail B8 - 1 story above street level</p> <p>Garage P7 - 6 stories above street level</p>	<p><u>Building Height Assumptions:</u></p> <p>Office B9 - 90 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Upper floors - 10 ft floor to floor</p> <p>Retail B8 - 20 ft above street level</p> <p>First floor - 20 ft floor to floor</p> <p>Garage P8 - 20 ft below street level</p> <p>All floors - 10 ft floor to floor</p> <p><u>Stories:</u></p> <p>Office B9 - 8 stories above street level</p> <p>Retail B8 - 1 story above street level</p> <p>Garage P8 - 2 stories below street level</p>



Source: Montgomery Planning, 2023.