

# Missing Middle Housing Study: Expanding Housing Choice

## Zoning Committee Meeting

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November 16, 2022



# Public Comment

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- Written comments are encouraged
  - Online comment form ([arlingtonva.us](https://arlingtonva.us) – search “zoning committee”)
  - Paper comment forms available for in-person attendees
  - All written comments will be shared with ZOCO and posted
- Public comment will take place after ZOCO discussion, time permitting
- To sign up for speaker list:
  - *In-person attendees*: Sign-up sheet in the meeting room
  - *Virtual attendees*: Text first and last name to **571-348-3053**

# Feedback from ZOCO Meeting #1 (11/9)

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- ZOCO members requested site diagrams to illustrate key standards in the draft zoning text (site area, lot coverage, gross floor area, parking)
- Key questions:
  - What development scenarios would be precluded by minimum site area Option 2B?
  - How do parking, lot coverage, and other standards, impact what can be built, and how does this compare to new single-detached housing construction?
- Other questions and comments are being tracked in a response matrix

# ZOCO Meeting Objectives

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- Review new site diagrams and provide feedback on the following topics:
  - Site area
  - Lot coverage
  - Gross floor area (GFA)
  - Parking
  - Draft standards compared to status quo development
- Discuss design standards from draft zoning text

# Phase 2 Site Models

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# Phase 2 Site Models

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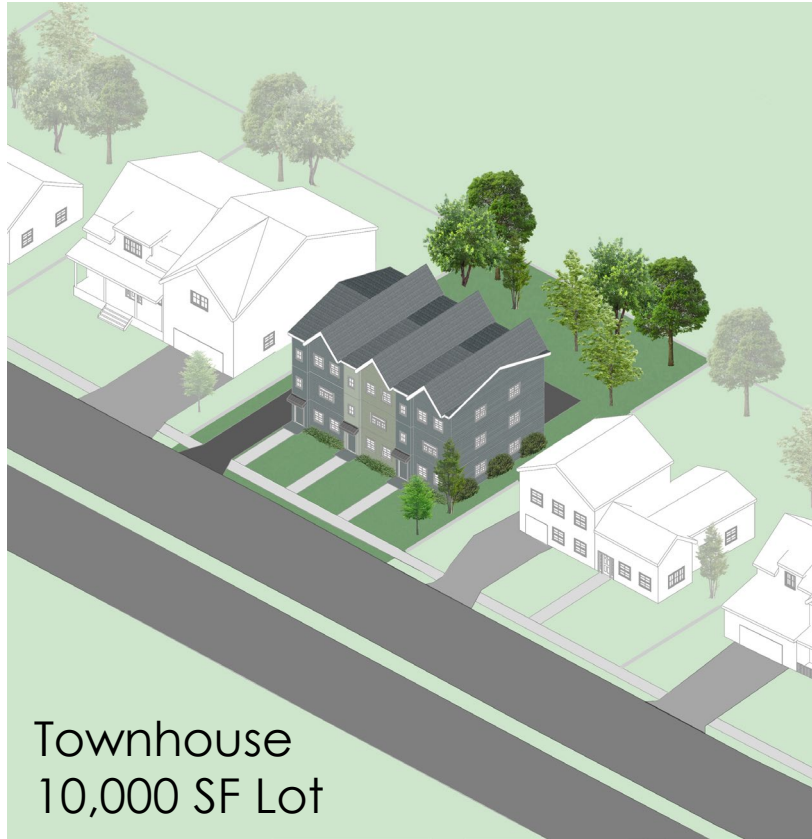
- Developed by consultant team during MMHS Phase 2
- Illustrate how different housing types could be integrated with existing housing on Arlington streets
- Depict potential alternatives to single-detached replacement houses
- Indicate scale and massing, not intended to convey architectural style or a single approach to design

# Phase 2 Site Models



- *Visualizations indicate scale of potential housing types within actual Arlington neighborhoods*
- *Examples are not intended to convey architectural style*
- *Examples were developed during Phase 2 to illustrate new housing types within an Arlington context*

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# Phase 3

# Concept Diagrams

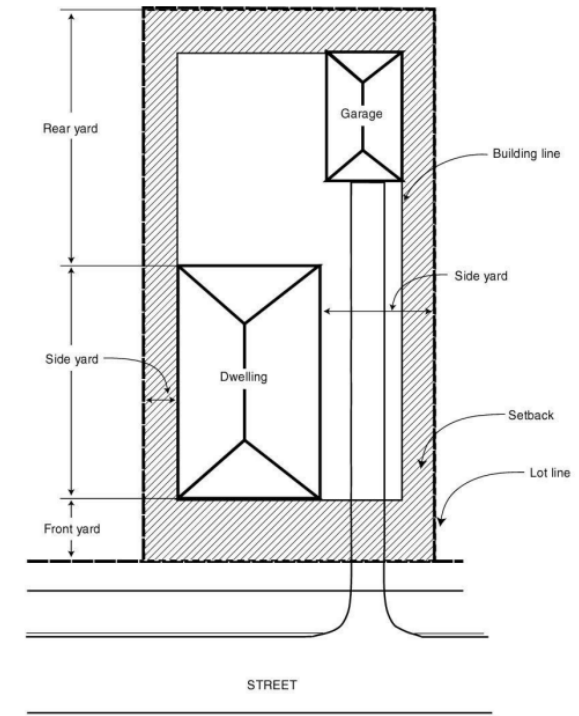
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# Factors that Determine Building Envelope

## Factors that apply to all development:

- Site area and dimensions
- Building height (35')
- Minimum setbacks from property lines
- Maximum coverage
  - Main building footprint (varies by zoning district)
  - Lot coverage (varies by zoning district)
- Minimum parking requirements
- **New draft standards for expanded housing option development:**
  - Maximum gross floor area
  - Design standards (parking locations, tree requirements)
  - Two options for lot coverage (4A and 4B)



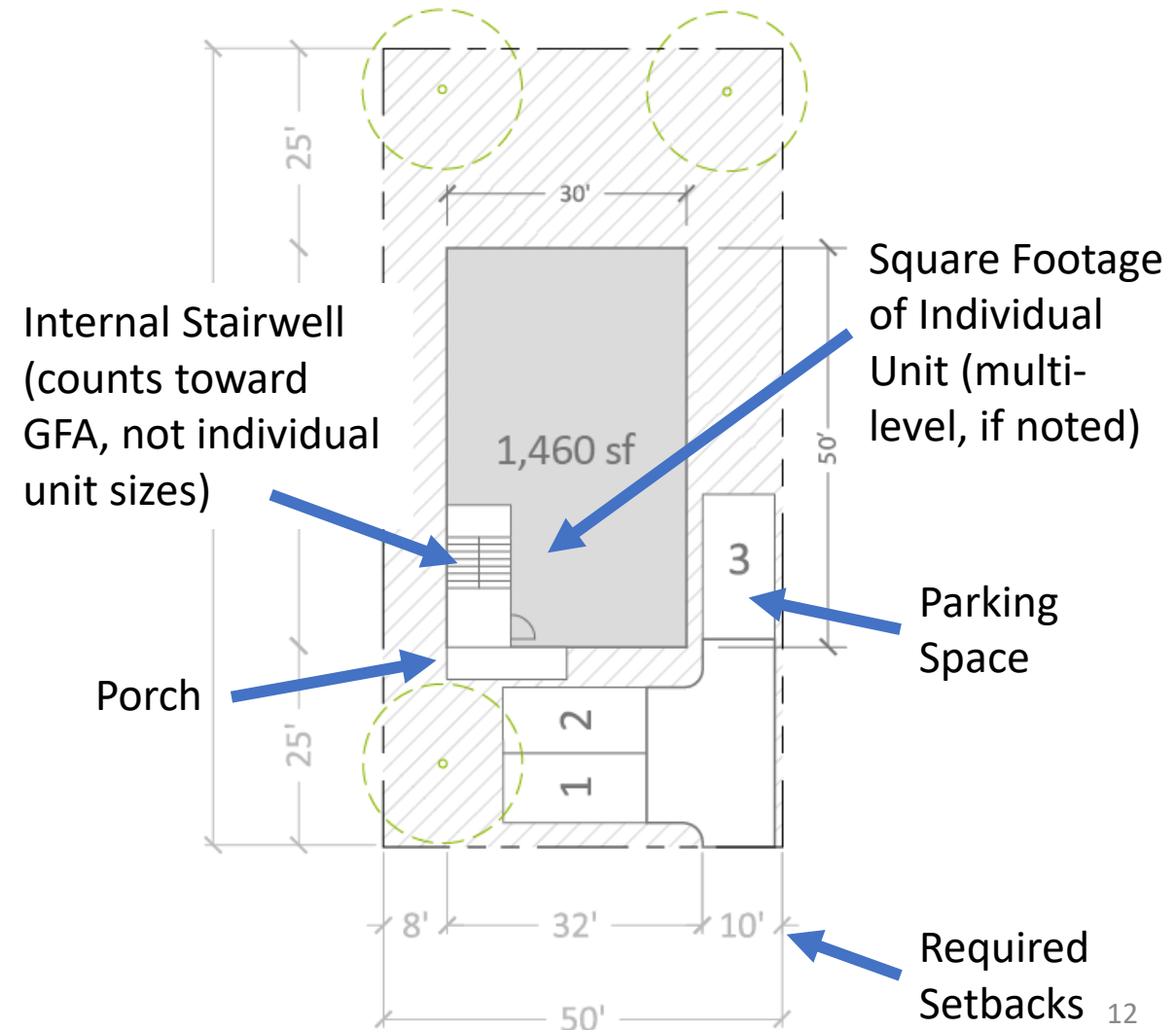
# Concept Diagram Assumptions for Expanded Housing Option Development

- Diagrams illustrate draft zoning standards, indicating where standards are not met
- Zoning Districts
  - Small lot (5,000 sf): R-5
  - Medium lot (7,500 sf): R-6
  - Large lot (10,000 sf): R-10
- Interior Lots
- 3 living levels
  - Partial basement + 2 stories or 3 stories above grade
- Parking
  - 1 on-site space per unit
  - No more than 2 spaces in front yard for small and medium lots, no more than 3 spaces in front yard for large lots
- Trees
  - 1 shade tree per unit, or more if needed to meet Chesapeake Bay Preservation Ordinance canopy standard
- Lot Coverage
  - All designs include front porch allowance

# Concept Diagram Key

## Concept diagrams

1. Illustrate how different zoning standards work together to determine a potential building envelope
2. Indicate which standard(s) are the limiting factor precluding a larger building footprint
3. Indicate the square footage of individual units within a building



# Matrix and Key Takeaways

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# Key Takeaways from Concept Diagrams

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- **Minimum Site Area for 6- and 8-unit buildings:**
  - 6-8 units and associated parking not feasible on smallest lots
  - 6-plexes can be feasible on medium-sized lots
    - Resulting housing options would be studio or small 1-bedroom units
- **Lot coverage:**
  - In some scenarios parking spaces and driveways account for much of the lot coverage, reducing the building footprint

# Key Takeaways from Concept Diagrams

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- **Gross floor area (GFA)**

- Draft GFA maximums can be a limiting factor for 2- and 3-unit buildings
- No expanded housing option buildings in diagrams exceed 6,000 square feet of GFA
- Expanded housing option uses would have comparable GFA to new single-detached houses, or lower GFA depending on parking

- **Parking**

- Parking requirements are a determining factor for whether multiplexes are feasible on small or medium-sized lots

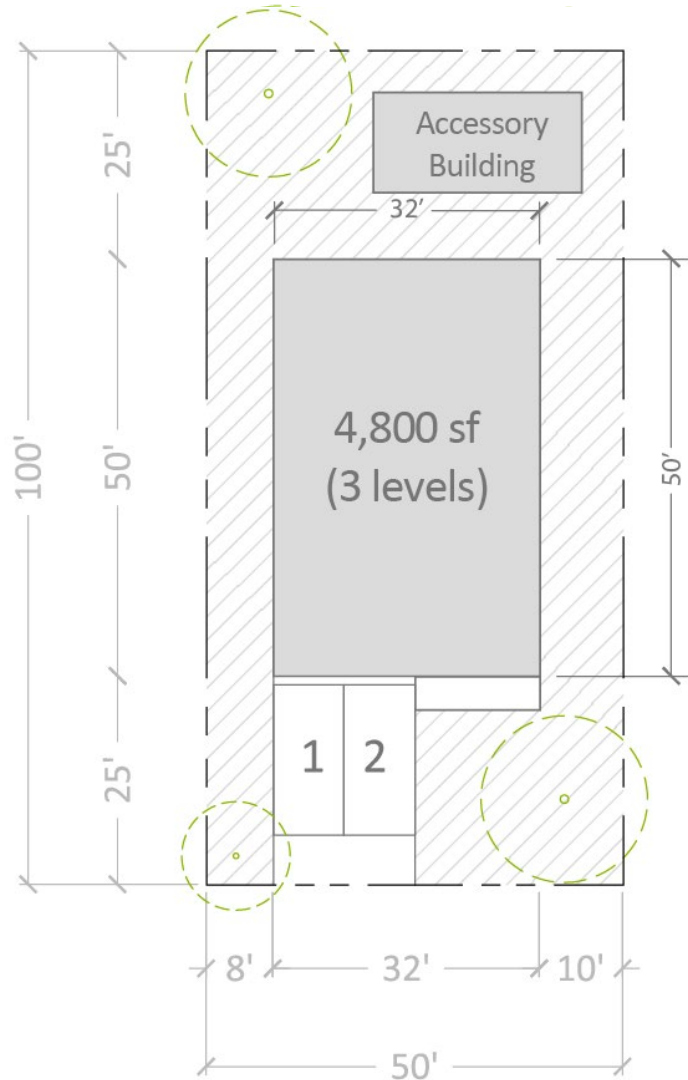
**Small Lot Size:  
5,000 SF**

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# Single-Detached on 5,000 sf Lot

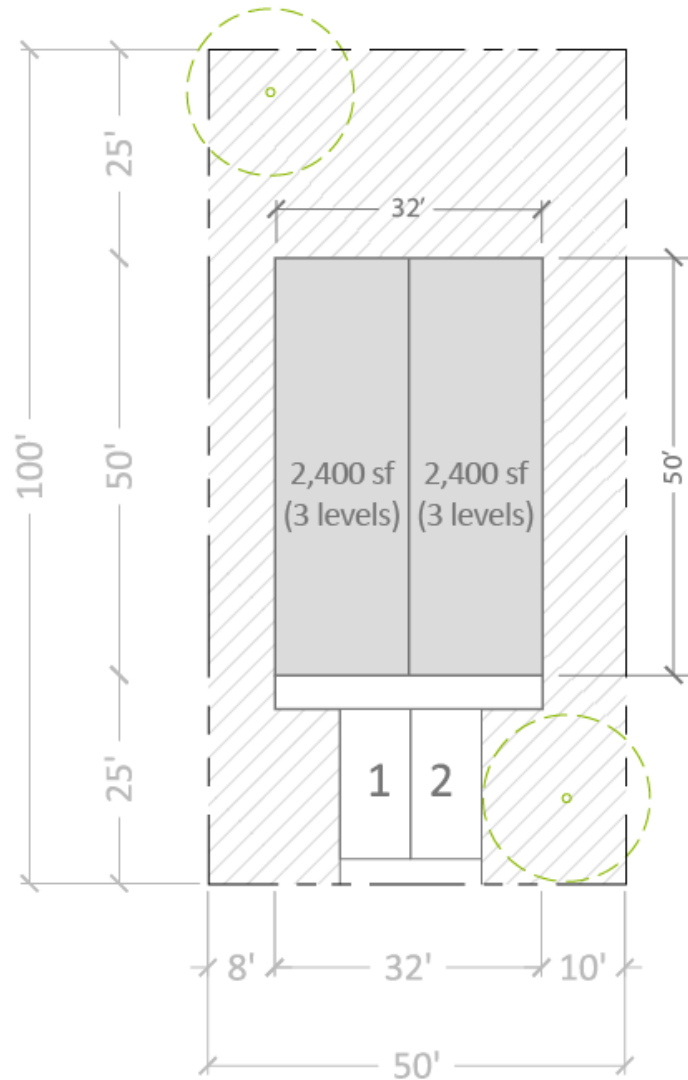


## Single-Detached (1 unit)

	Shown	Zoning Standard (R-5)
Main building footprint	33%	37%
Lot coverage	48%	48%
Gross floor area	4,800 sf	N/A

- Would likely include 5 bedrooms, 4.5 baths
- Limiting factor for building envelope: **setbacks**

# Semidetached on 5,000 sf Lot



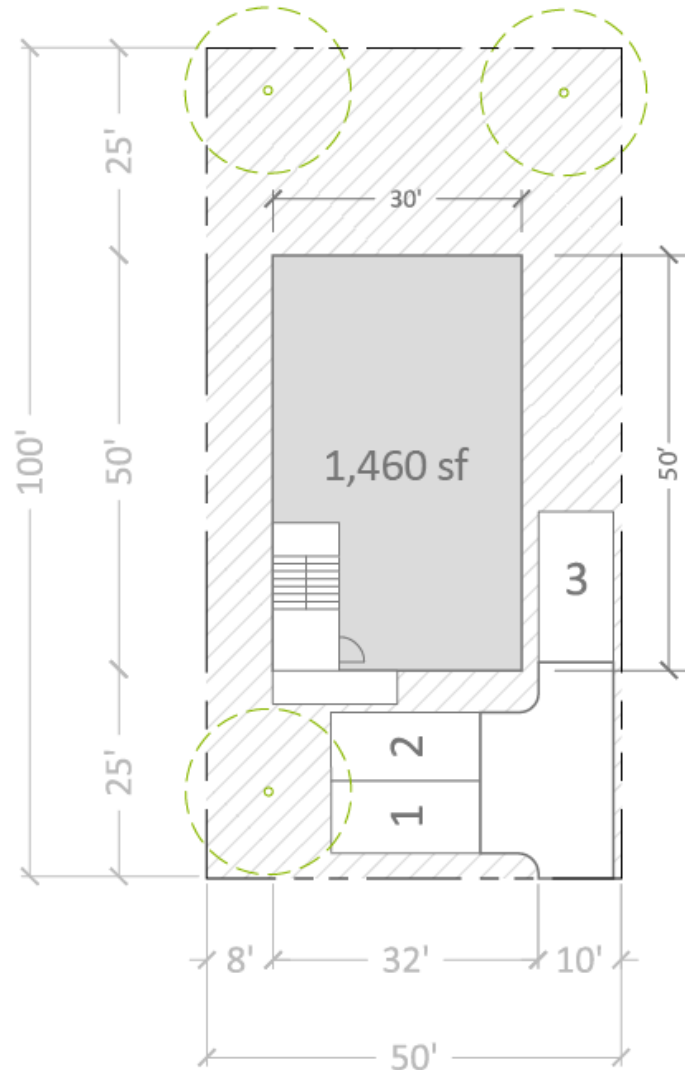
## Semidetached (2 units)

	Shown	Zoning Standard (R-5)
Main building footprint	33%	37%
Lot coverage	42%	Opt. 4A: 48% Opt. 4B: 53%
Gross floor area	4,800 sf	4,800 sf (2 units)

- Limiting factor for building envelope: **setbacks**

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Triplex on 5,000 sf Lot



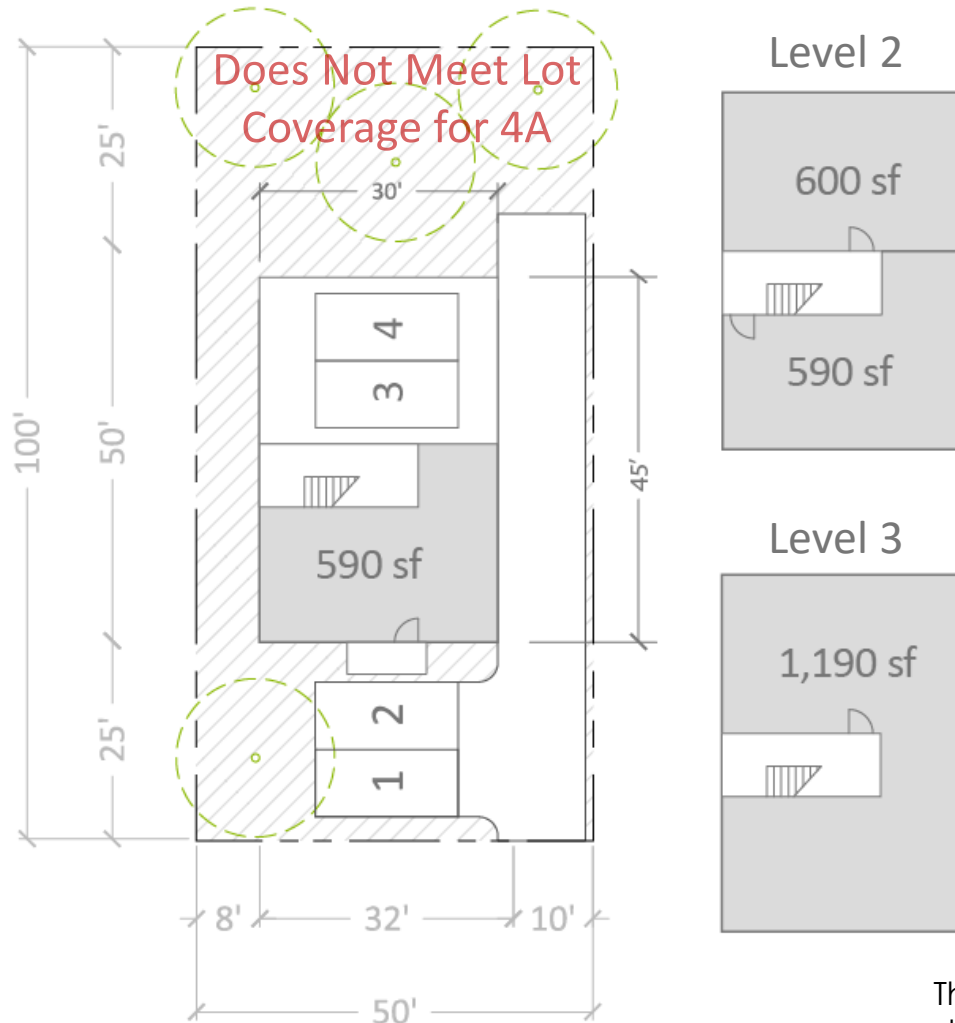
## Triplex (3 units)

	Shown	Zoning Standard (R-5)
Main building footprint	31%	37%
Lot coverage	48%	Opt. 4A: 48% Opt. 4B: 53%
Gross floor area	4,500 sf	6,000 sf (3 units)

- Floor plan repeated on three levels
- Limiting factor for building envelope: **setbacks, lot coverage**

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Fourplex on 5,000 sf Lot



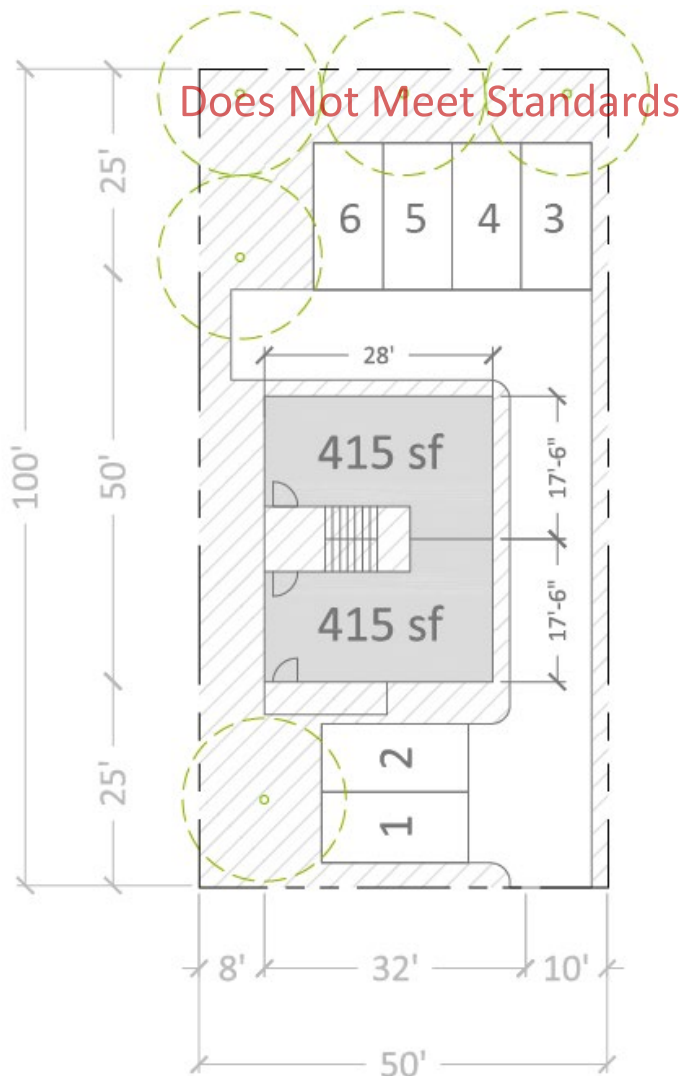
## Fourplex (4 units)

	Shown	Zoning Standard (R-5)
Main building footprint	28%	37%
Lot coverage	52%	Opt. 4A: 48% Opt. 4B: 53%
Gross floor area	3,500 sf	7,200 sf (4 units)

- Limiting factor for building envelope: **setbacks, lot coverage, parking**
- Lot coverage would exceed maximum for Option 4A (without rear detached garage allowance)

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Sixplex on 5,000 sf Lot



## Sixplex (6 units)

	Shown	Zoning Standard (R-5)
Main building footprint	21%	37%
Lot coverage	59%	Opt. 4A: 48% Opt. 4B: 53%
Gross floor area	2,940 sf	4,800 sf

- Floor plan repeated on three levels
- **Exceeds lot coverage standards**
- Would not meet minimum site area under Option 2B (10,000 sf for 6 units)

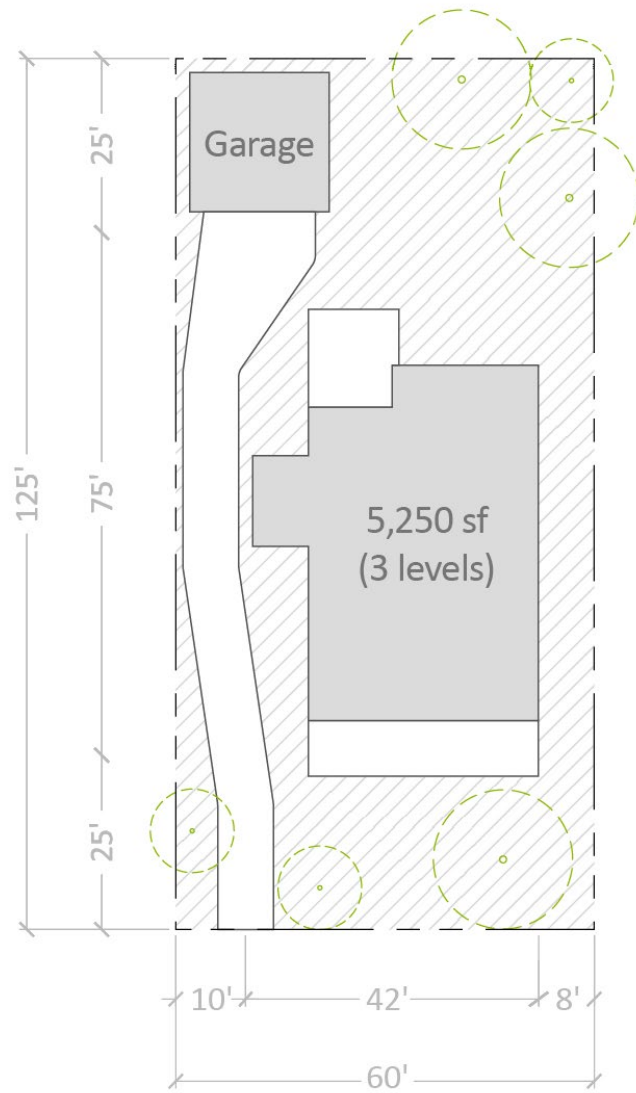
This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

**Medium Lot Size:  
7,500 SF**

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# Single-Detached on 7,500 sf Lot

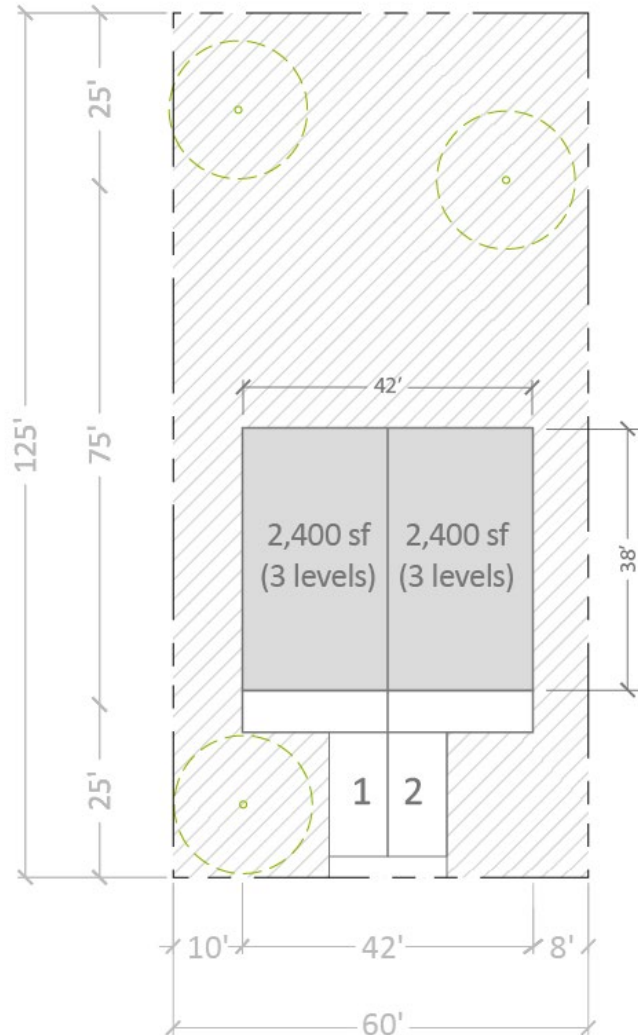


## Single-Detached (1 unit)

	Shown	Zoning Standard (R-6)
Main building footprint	33%	33%
Lot coverage	47%	48%
Gross floor area	5,250 sf	N/A

- House would likely include 5 bedrooms, 4.5 baths
- Limiting factor for building envelope: **lot coverage**

# Semidetached on 7,500 sf Lot



## Semidetached (2 units)

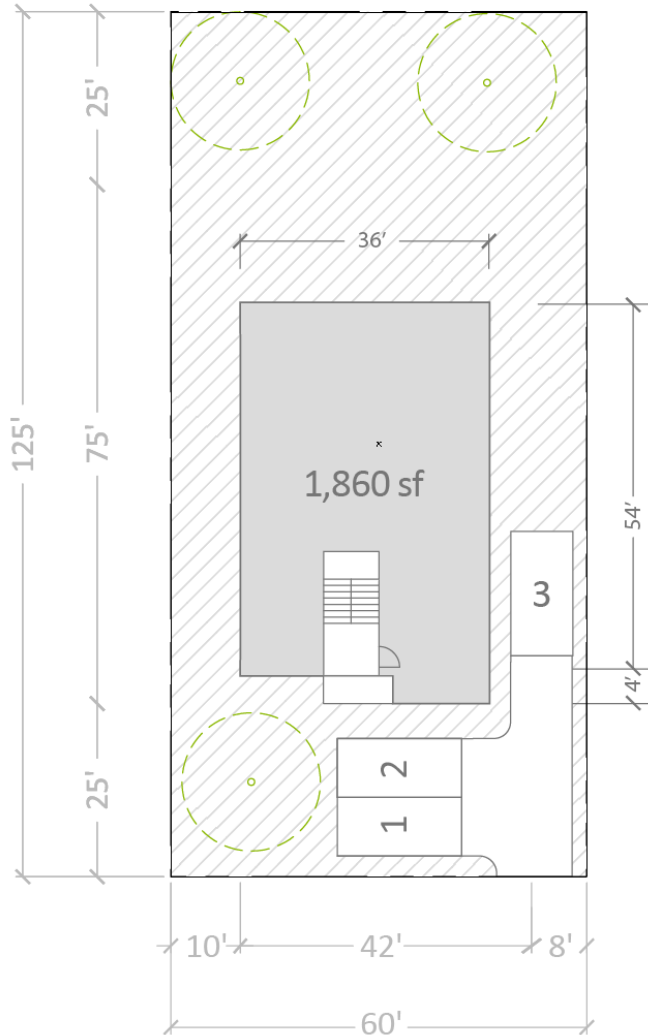
	Shown	Zoning Standard (R-6)
Main building footprint	24%	33%
Lot coverage	29%	Opt. 4A: 43% Opt. 4B: 48%
Gross floor area	4,800 sf	4,800 sf (2 units)

- Limiting factor for building envelope: **gross floor area**

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.



# Triplex on 7,500 sf Lot



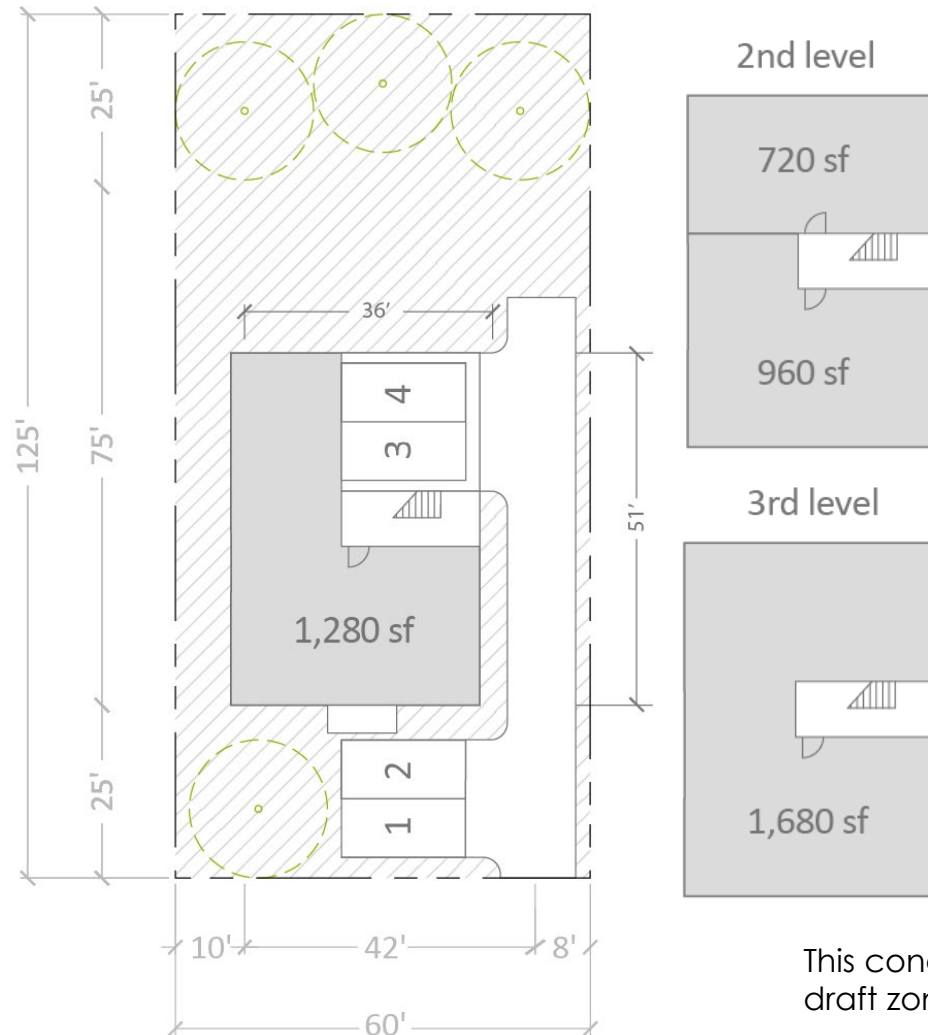
## Triplex (3 units)

	Shown	Zoning Standard (R-6)
Main building footprint	28%	33%
Lot coverage	40%	Opt. 4A: 43% Opt. 4B: 48%
Gross floor area	6,000 sf	6,000 sf (3 units)

- Floor plan repeats on 3 levels
- Limiting factor for building envelope: **gross floor area**

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Fourplex on 7,500 sf Lot



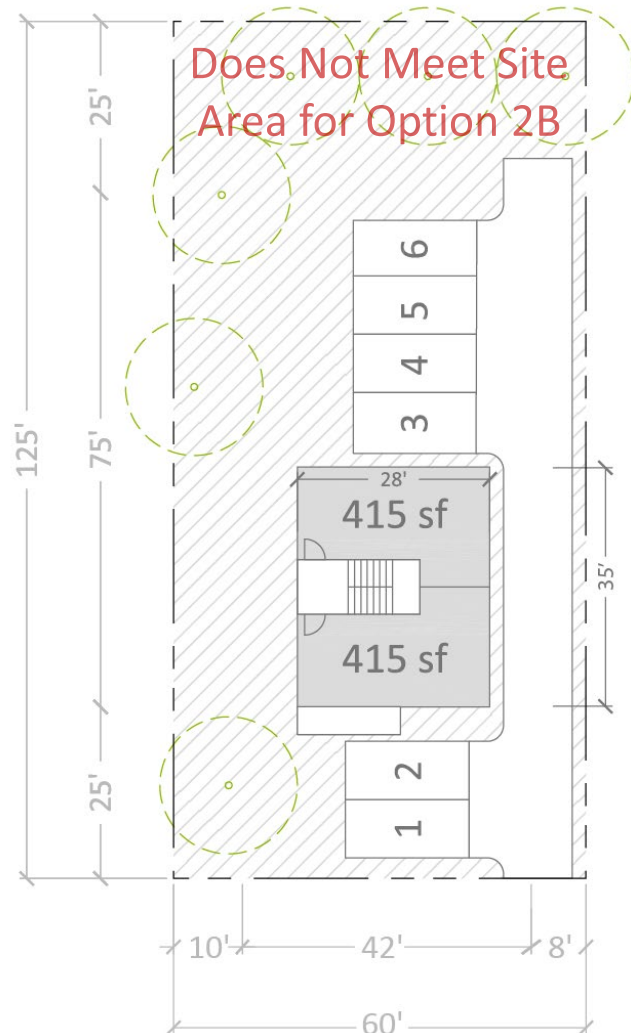
## Fourplex (4 units)

	Shown	Zoning Standard (R-6)
Main building footprint	25%	33%
Lot coverage	42%	Opt. 4A: 43% Opt. 4B: 48%
Gross floor area	5,110 sf	7,200 sf (4 units)

- Limiting factors for building envelope: **lot coverage and parking**

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Sixplex on 7,500 sf Lot



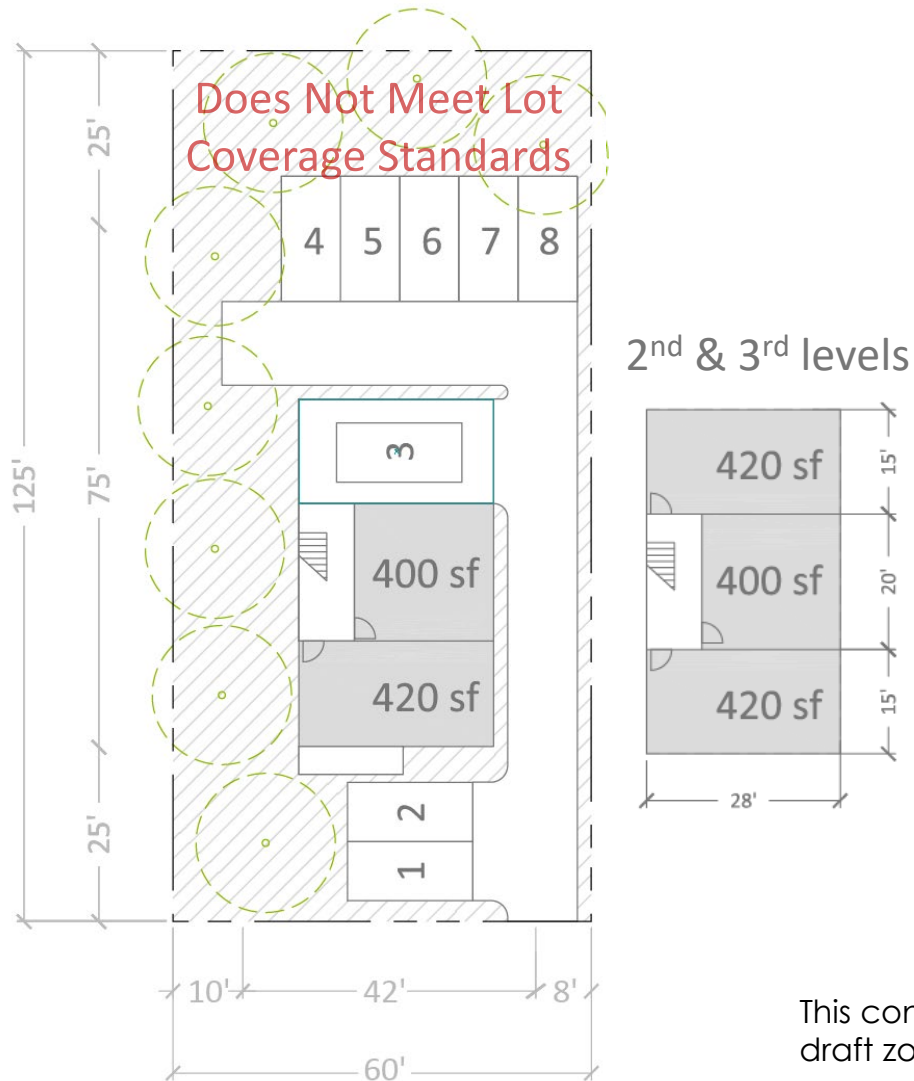
## Sixplex (6 units)

	Shown	Zoning Standard (R-6)
Main building footprint	14%	33%
Lot coverage	43%	Opt. 4A: 43% Opt. 4B: 48%
Gross floor area	2,940 sf	8,000 sf (6 units)

- Floor plan repeats on three levels
- Limiting factors for building envelope: **lot coverage and parking**
- Would not meet minimum site area under Option 2B (10,000 sf for 6 units)

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Eightplex on 7,500 sf Lot



## Eightplex (8 units)

	Shown	Zoning Standard (R-6)
Main building footprint	19%	33%
Lot coverage	57%	Opt. 4A: 43% Opt. 4B: 48%
Gross floor area	3,780 sf	8,000 sf (8 units)

- **Exceeds lot coverage standards**
- Would not meet minimum site area under Option 2B (12,000 sf for 8 units)

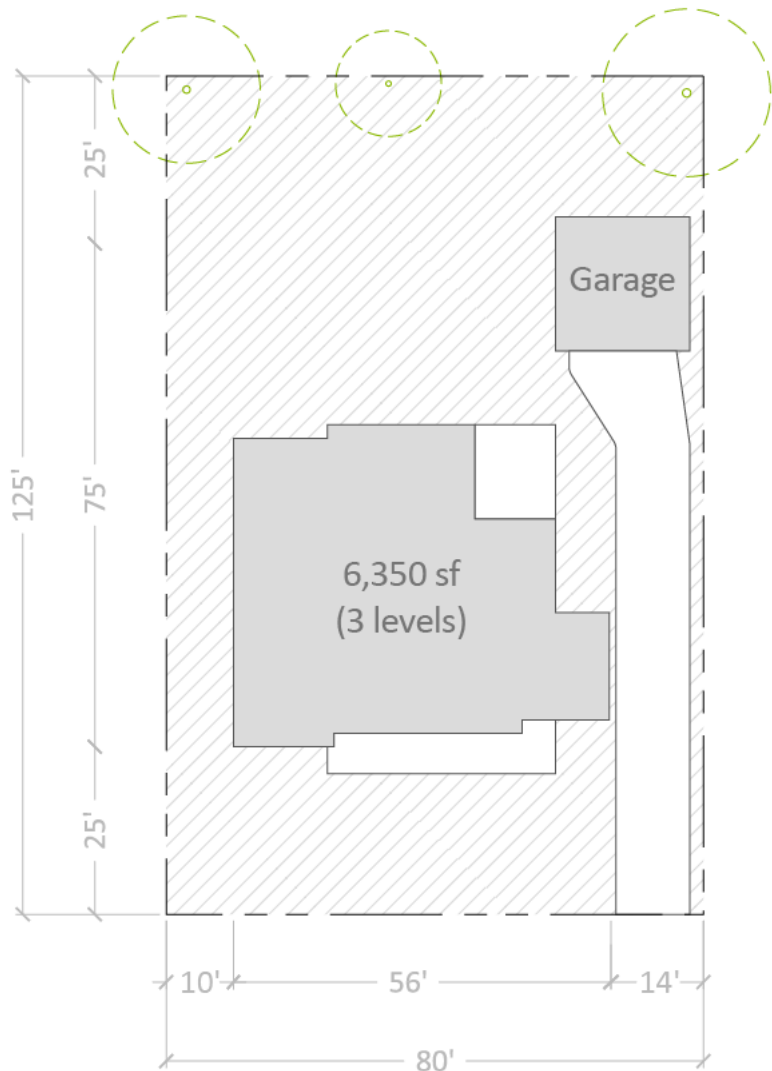
This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

**Large Lot Size:  
10,000 SF**

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# Single-Detached on 10,000 sf Lot

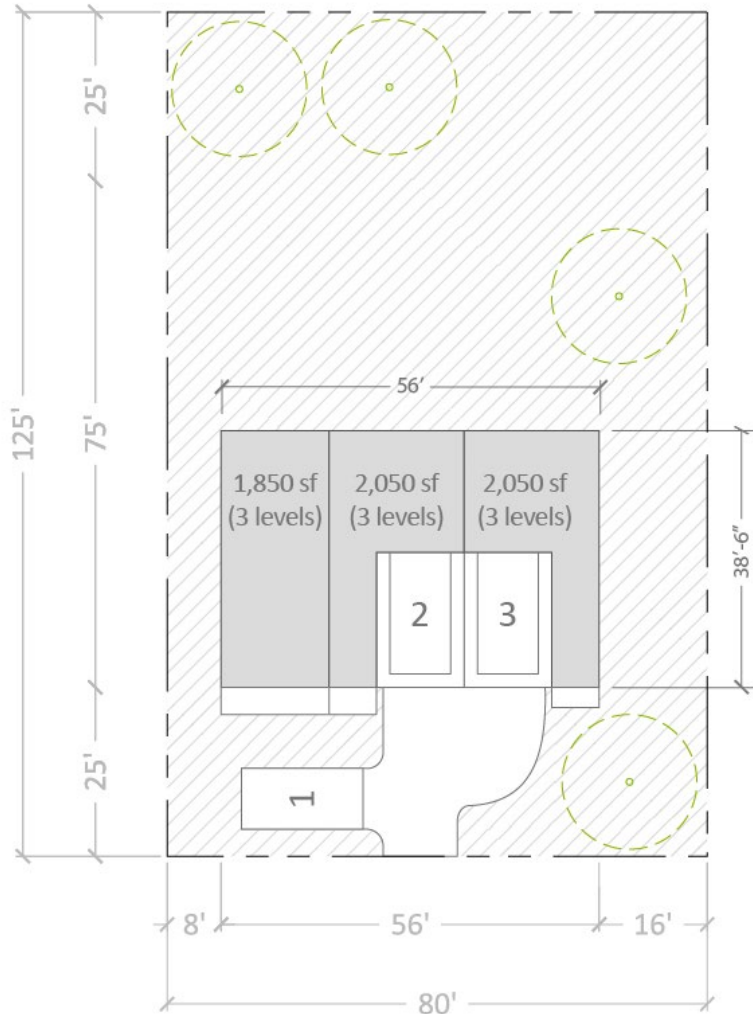


## Single-Detached (1 unit)

	Shown	Zoning Standard (R-10)
Main building footprint	27%	28%
Lot coverage	39%	40%
Gross floor area	6,350 sf	N/A

- House would likely include 6 bedrooms, 5.5 baths
- Limiting factor for building envelope: **lot coverage and main building footprint**
- Includes lot coverage allowance for rear detached garage

# Townhouses on 10,000 sf Lot



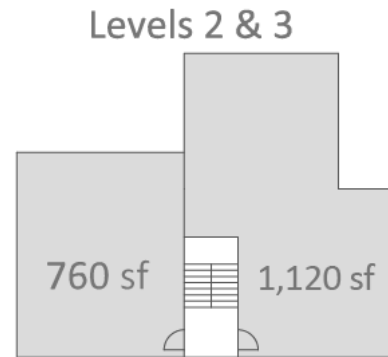
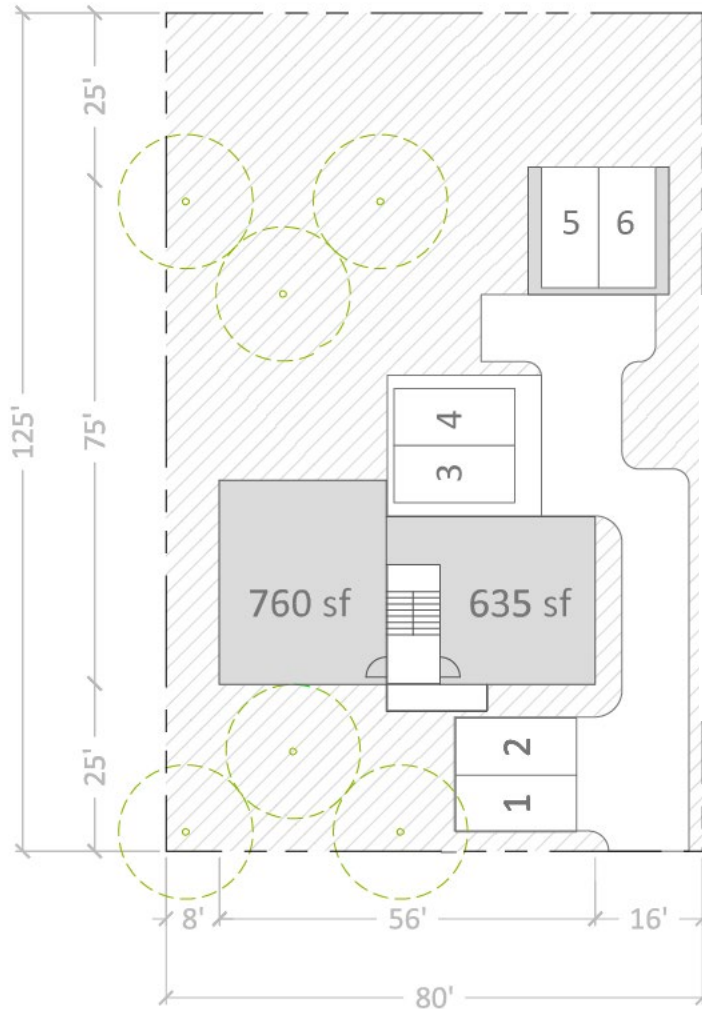
## Townhouses (3 units)

	Shown	Zoning Standard (R-10)
Main building footprint	23%	28%
Lot coverage	29%	Opt. 4A: 35% Opt. 4B: 40%
Gross floor area	5,950 sf	6,000 sf (3 units)

- Limiting factor for building envelope: **gross floor area**
- Front-loaded garages demonstrate design standard of < 50% of façade width

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Sixplex on 10,000 sf Lot



## Sixplex (6 units)

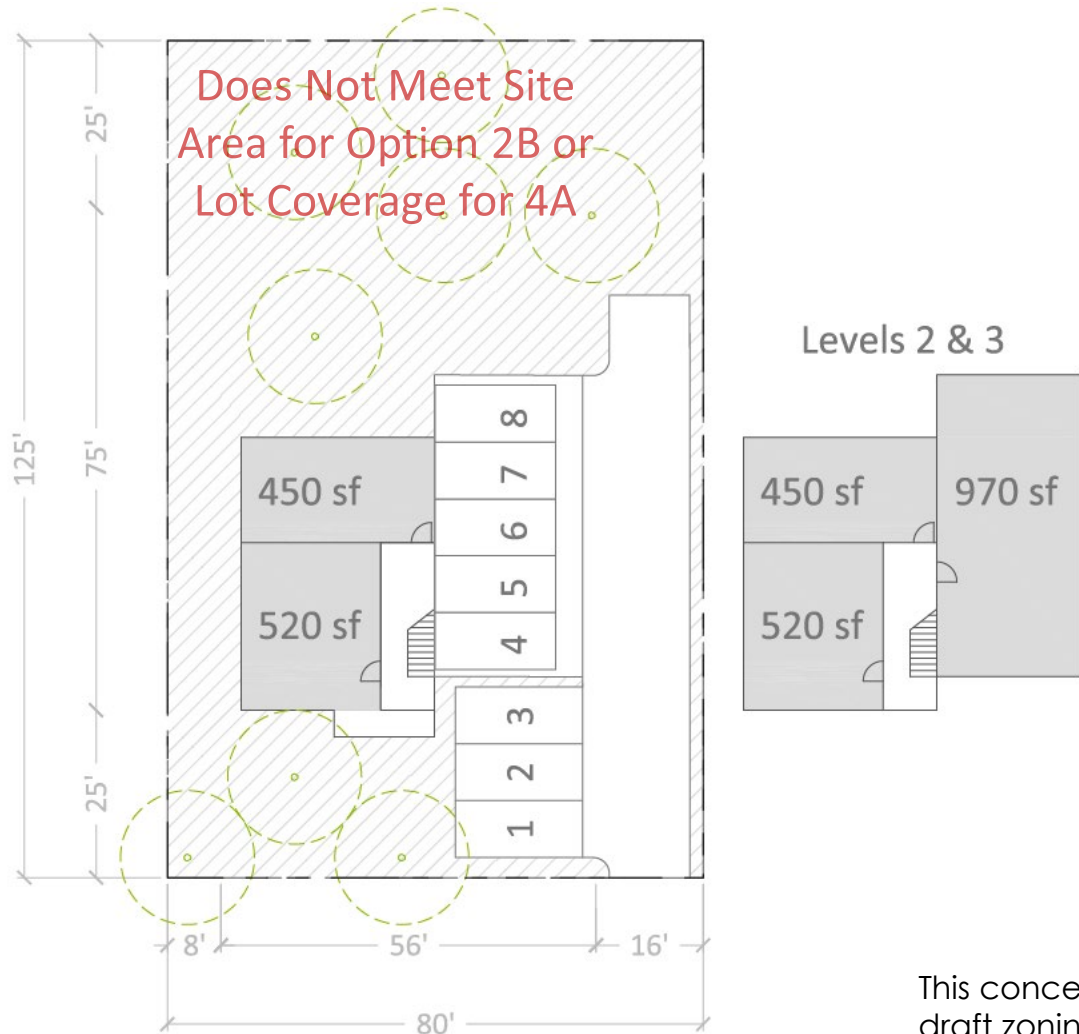
	Shown	Zoning Standard (R-10)
Main building footprint	21%	28%
Lot coverage	40%	40%
Gross floor area	5,730 sf	8,000 sf (8 units)

- Limiting factor for building envelope: **lot coverage and parking**
- Illustrates lot coverage allowance for rear detached garage

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.



# Eightplex on 10,000 sf Lot



## Eightplex (8 units)

	Shown	Zoning Standard (R-10)
Main building footprint	21%	28%
Lot coverage	40%	Opt. 4A: 35% Opt. 4B: 40%
Gross floor area	5,550 sf	8,000 sf (8 units)

- Lot coverage would exceed maximum for Option 4A (without rear detached garage allowance)
- Would not meet minimum site area under Option 2B (12,000 sf for 8 units)

This concept diagram illustrates one way that a lot could be developed under the draft zoning standards. Other site configurations are possible.

# Concept Diagram Matrix: 5,000 sf Lot

Housing Type	Units	Gross Floor Area	Unit Size(s)	Meets Minimum Site Area Standard	Meets Other Standards
Single Detached	1	4,800 sf	4,800 sf	N/A	Yes
Semidetached	2	4,800 sf	2,400 sf	Yes	Yes
Multiplex	3	4,500 sf	1,460 sf	Yes	Yes
Multiplex	4	3,500 sf	590 – 1,190 sf	Yes	Option 4B only
Multiplex	6	2,940 sf	415 sf	Option 2A Only	<b>No</b>

# Concept Diagram Matrix: 7,500 sf Lot

Housing Type	Units	Gross Floor Area	Unit Size(s)	Meets Minimum Site Area Standard	Meets Other Standards
Single Detached	1	5,250 sf	5,250 sf	N/A	Yes
Semidetached	2	4,800 sf	2,400 sf	Yes	Yes
Multiplex	3	6,000 sf	1,860 sf	Yes	Yes
Multiplex	4	5,110 sf	720 – 1,680 sf	Yes	Yes
Multiplex	6	2,940 sf	415 sf	Option 2A Only	Yes
Multiplex	8	3,780 sf	400 – 420 sf	Option 2A Only	<b>No</b>

# Concept Diagram Matrix: 10,000 sf Lot

Housing Type	Units	Gross Floor Area	Unit Size(s)	Meets Minimum Site Area Standard	Meets Other Standards
Single Detached	1	6,350 sf	6,350 sf	N/A	Yes
Townhouses	3	5,950 sf	1,850 – 2,050 sf	Yes	Yes
Multiplex	6	5,730 sf	760 – 1,120 sf	Yes	Yes
Multiplex	8	5,550 sf	450 – 970 sf	Option 2A Only	Option 4B Only

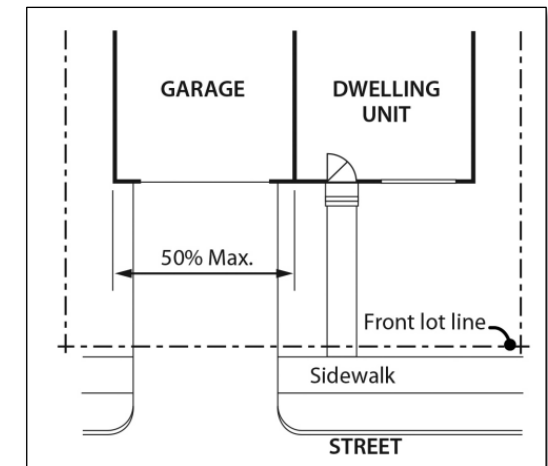
# Draft Zoning Text Design Standards

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# Expanded Housing Option Draft Design Standards Summary

Topic	Draft Standard
Parking Space Locations	<ul style="list-style-type: none"><li>• R-5, R-6, R-8 : Limit 2 spaces between building and street</li><li>• R-10 and R-20: Limit 3 spaces between building and street</li><li>• Open air “tuck-under” parking prohibited facing front or side yards</li></ul>
Garage Wall Width	<ul style="list-style-type: none"><li>• Width of street-facing, attached garage cannot exceed 50% of building façade along the street</li></ul>



# Expanded Housing Option Draft Design Standards Summary

Topic	Draft Standard
Exterior Entrance Orientation	<ul style="list-style-type: none"><li>• Duplex and Multi-Family<ul style="list-style-type: none"><li>• <u>At least one</u> entrance facing a street, or opening onto a front porch</li><li>• Interior lots: <u>no more than one</u> entrance facing each side yard</li><li>• Corner lots: <u>no more than one</u> exterior entrance facing each adjacent property line</li></ul></li><li>• Semidetached and Townhouses:<ul style="list-style-type: none"><li>• Each unit must have an entrance facing a street, or opening onto a front porch</li></ul></li></ul>
Trees	<ul style="list-style-type: none"><li>• Option 6A: minimum of one shade tree per dwelling unit (planted or retained)</li><li>• Option 6B: no tree requirement in Zoning Ordinance</li><li>• CBPO canopy requirements still apply for both options</li></ul>

# ZOCO Discussion

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# Additional Slides on Coverage and GFA

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# Main Building Footprint and Lot Coverage

- Main building footprint
  - Includes main building plus attached garages, porches, decks (>4' above grade), balconies, breezeways
  - Doesn't include accessory buildings
  - Allowance for front porch (>60sf, +3%)
- Lot coverage
  - Includes main building footprint plus accessory buildings (<150 sf), driveways, parking pads
  - Doesn't include walkways, patios (<8" above garage), HVAC, stormwater planters
  - Allowances for front porch (>60 sf, +3%), rear detached garage (+5%)
  - Draft zoning text Option 4B would re-allocate the 5% garage allowance to the base coverage percentage

# Gross Floor Area

Gross floor area: square footage of all interior floors of the main building, except areas used for parking

Number of Units	Max Gross Floor Area	Housing Type	Resulting Max Avg Sq Ft Per Unit (Gross)
2	4,800 sf	Semidetached or Duplex	2,400 sf
3	6,000 sf	Multiplex or Townhouses	2,000 sf
4	7,200 sf	Multiplex	1,800 sf
5-8	8,000 sf	Multiplex	1,000 – 1,600 sf