

AHBP: Opportunities Within Small Sites

In order to understand which waivers encouraged contextually appropriate increases in density on San Francisco's small sites, we looked at typical 25' and 50' wide lots. We focused on mid-block sites instead of corner sites because they are both common and a more difficult design problem owing to their lack of exposure. Similar to the work on larger sites completed by David Baker Architects, our study of small sites followed the standard development process.

We began with a conceptual design for each parcel which was a simple model of the project's scale, height, and overall volume. Digital modeling and representation were used to study a code-compliant development as exists under current zoning laws. We then looked at options for each size small site that either increased the number of units within a shorter building (assuming a removal of current density controls) or we increased the height by two stories while simultaneously increasing the unit count above the current limit. We looked at NC-2 zoning as our base case reference for these infill sites, which currently allows 1 residential unit per 800 square feet of lot area. This limits development to a maximum of 3 units on a 25' x 100' lot.

We had the following findings:

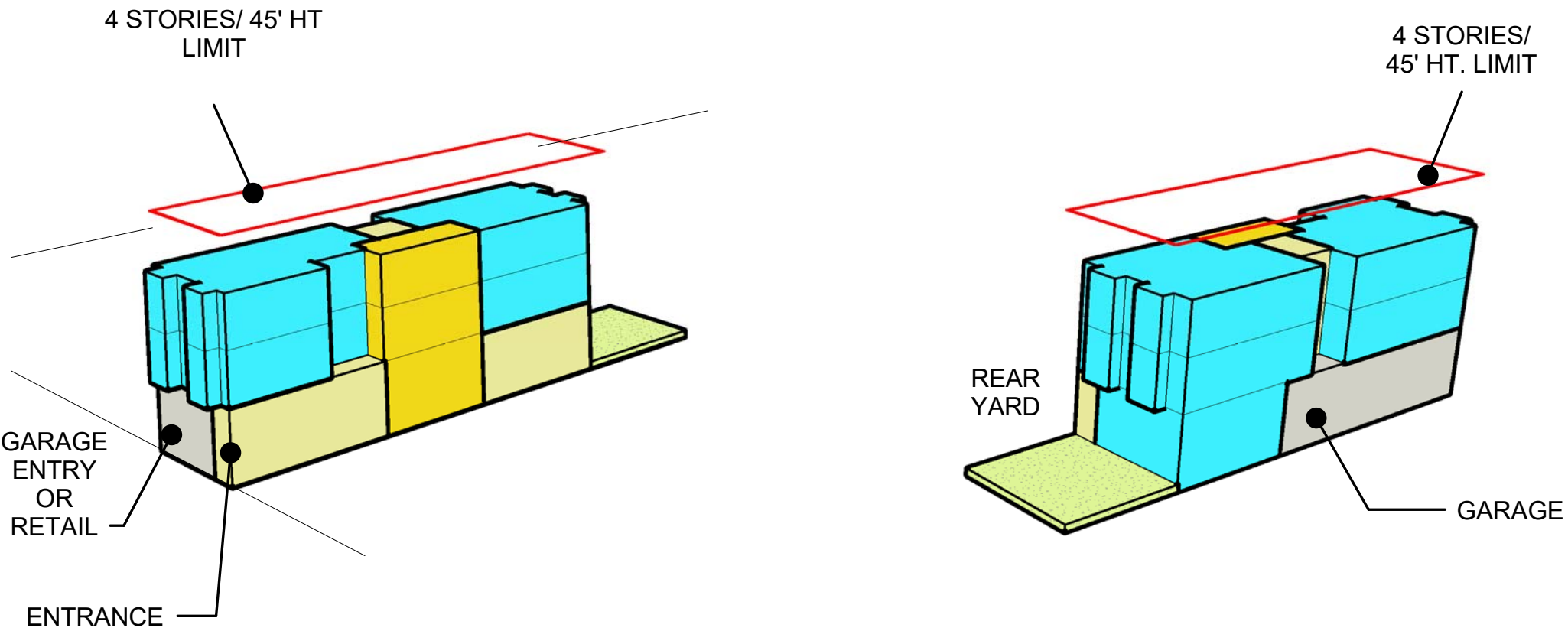
- On narrow (25' wide lots) shorter buildings may sometimes work better because less space is required for vertical circulation and the entire building can be constructed in wood framing. Three story buildings are often built without elevators and with a single exit stair.
- Taller buildings that utilize the density bonus height increase can more easily provide large family units.
- 25' wide sites are so small that it is harder to incorporate some proposed best-practice design guidelines. For example, on a small building stoops or a raised ground floor are much more difficult and costly to implement and often remove the opportunity to make a ground floor unit accessible.
- The two-story height increase is particularly useful on 50' wide sites, it provides a design opportunity to create buildings with similar massing and proportions to much of the city's older apartment housing stock.
- Unit mix requirements (i.e. requiring 40% two bedroom units or at least 50% of the bedrooms in 2 bedroom or greater units) is difficult but possible to achieve. It may be a deterrent to developing these projects in some neighborhoods or under

certain market conditions, particularly on the 25' wide sites where it results in a mix of small two bedroom units and studio units.

There is a need for the following waivers/concessions to make these buildings work:

- 1:1 parking was impossible in all of the prototypes, given the other requirements on the site like egress, circulation and providing a rear yard.
- The current 133 S.F. per unit open space requirement is impossible to achieve, particularly on the smaller sites, without adding a roof deck. For example, a required 25'x25' rear yard only provides enough open space for 4 units. Roof decks are expensive and often controversial in residential neighborhoods. They also require a second means of egress on all of the prototypes.
- The active ground floor requirements are difficult to comply with, especially if any parking is going to be included on a smaller site. In a 25' wide frontage, the garage door and building entrance will take up the majority of the street edge. Even on the 50' wide sites, only a small retail space can be provided if there is parking. Designers should review the city's design guidelines for recommendations on other ways (besides commercial space) to achieve an active ground floor in this context.

All the models in this study were executed at a conceptual level only. Any project electing to participate in either the State Density Bonus or Affordable Housing Bonus Programs will require more detailed design. The design guidelines currently in development for this program should also be consulted.



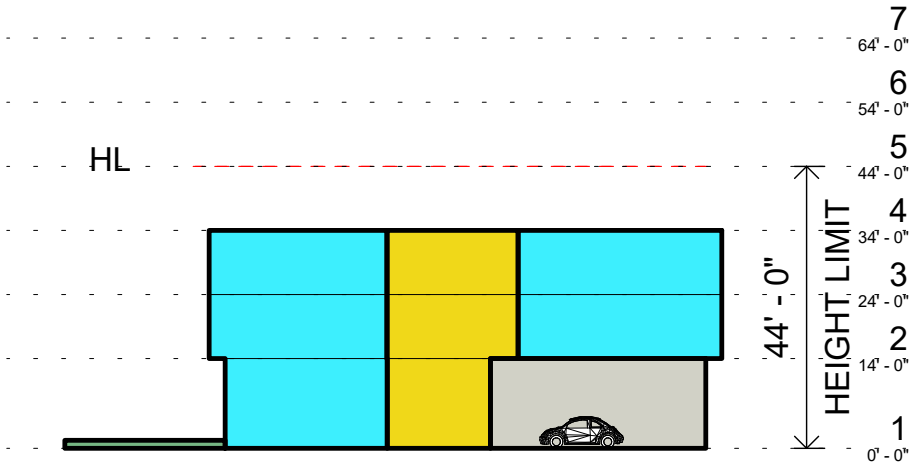
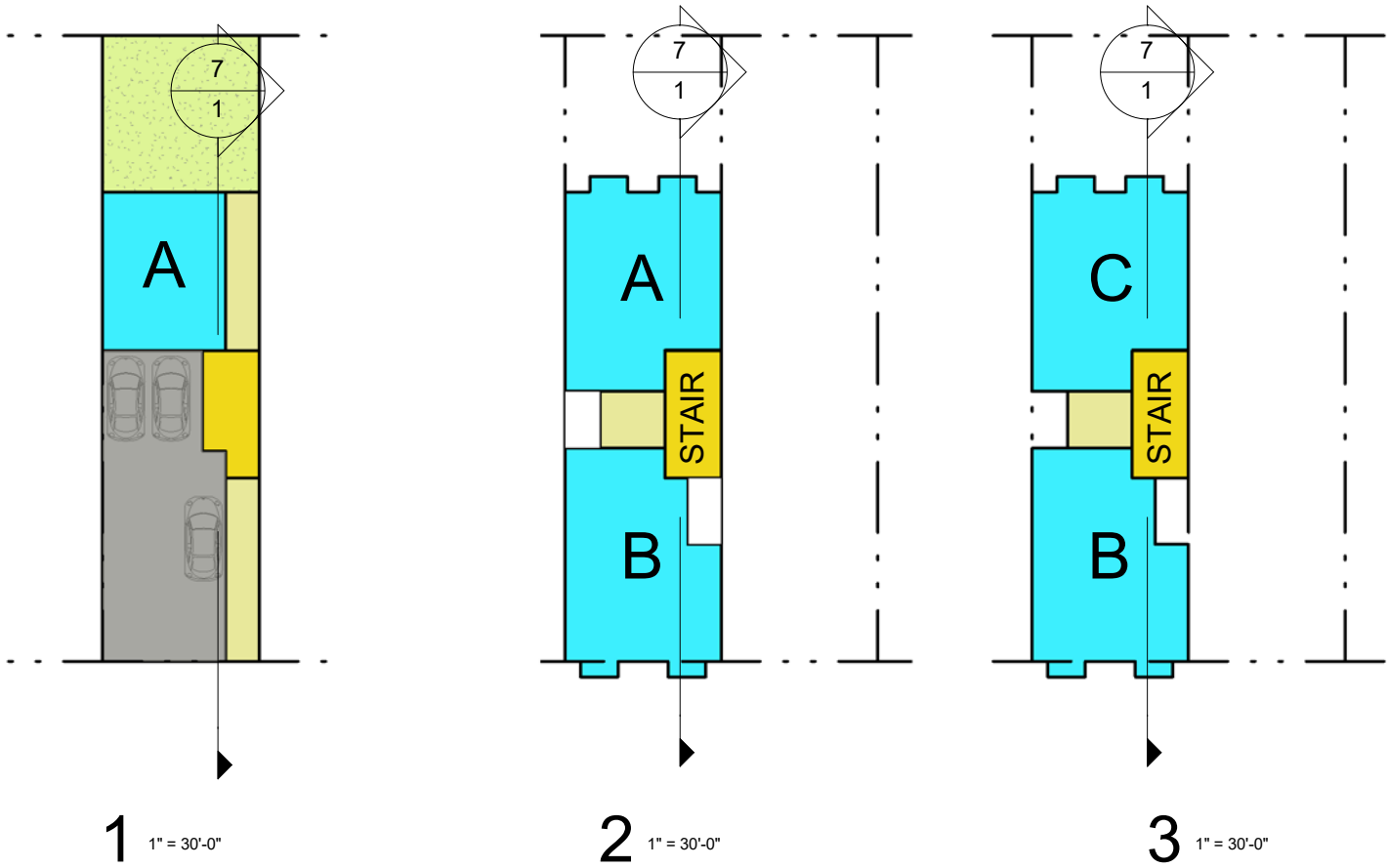
AREA SCHEDULE - 3 STORIES 25 FT LOT	
USE	AREA
CIRCULATION	1016 SF
OPEN SPACE	625 SF
PARKING	919 SF
RESIDENTIAL	3594 SF
	6153 SF

Open Space Required: 3 UNITS X 133 SF = **399 SF**
Average (mean) unit size 1,198 SF.

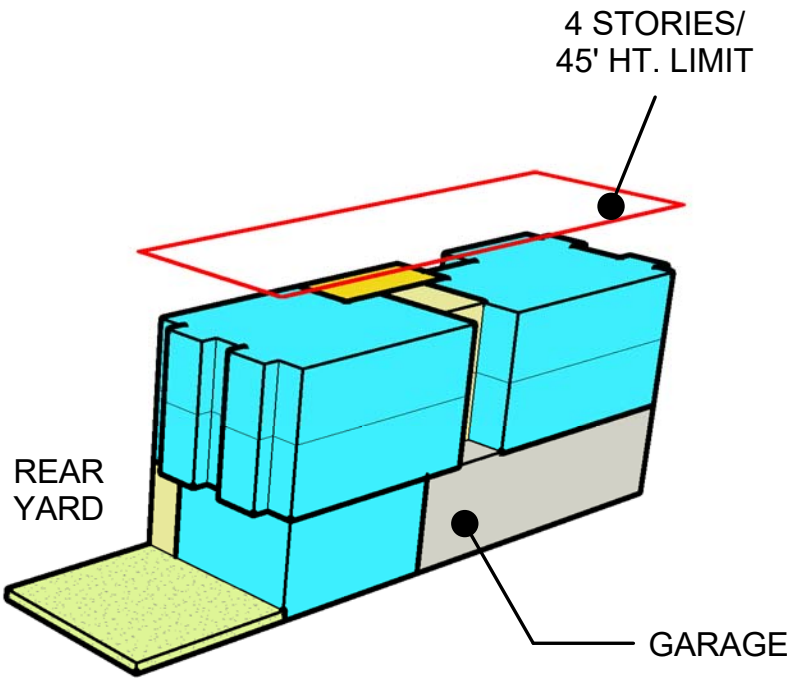
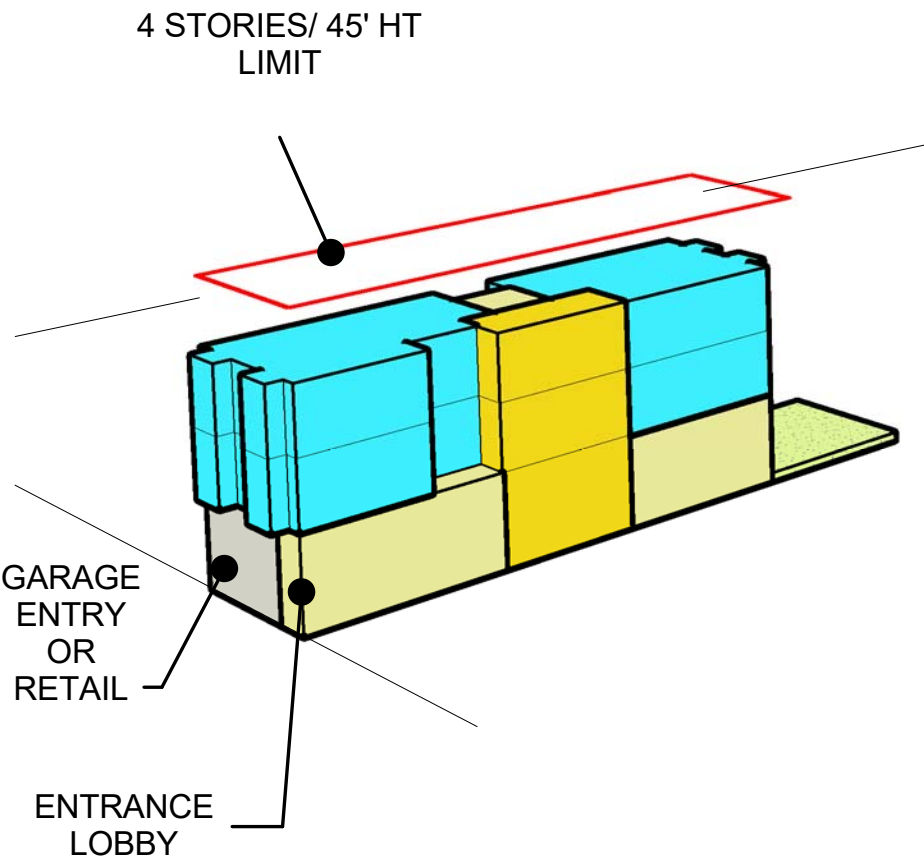
3 parking spaces required per zoning, 3 provided

Retail could be substituted for parking, but there is not room for both on site.

UNIT MIX	
2 BED	2
3 BED	1
TOTAL	3



Section 1" = 30'-0"



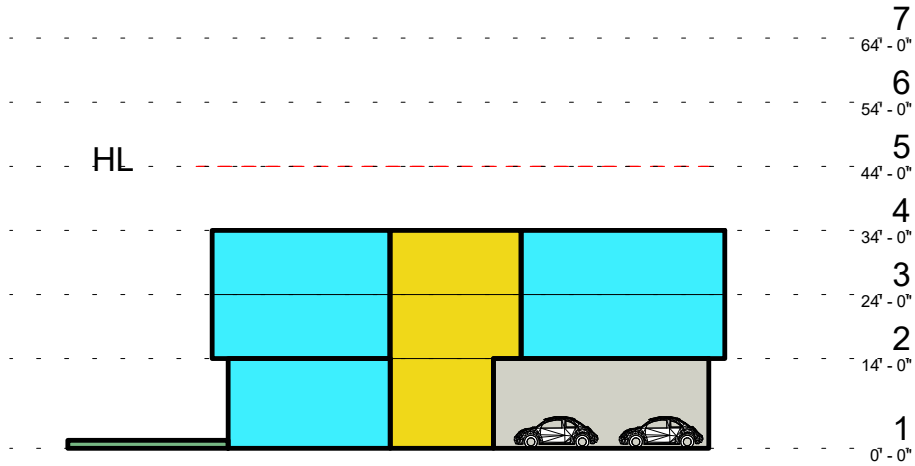
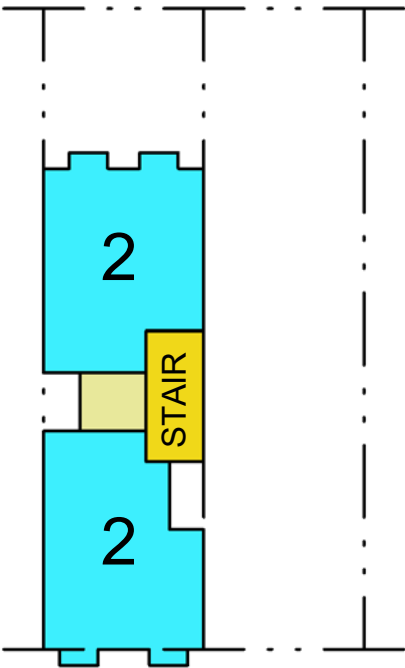
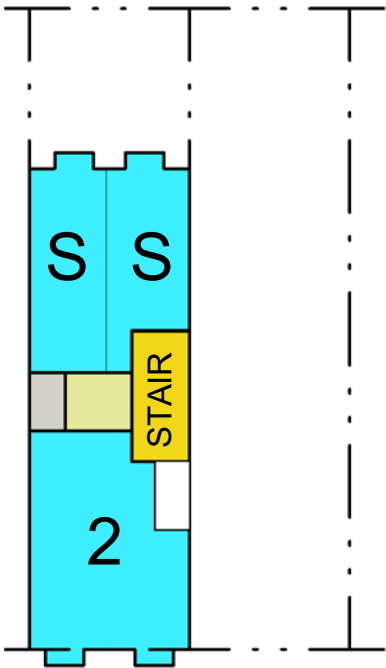
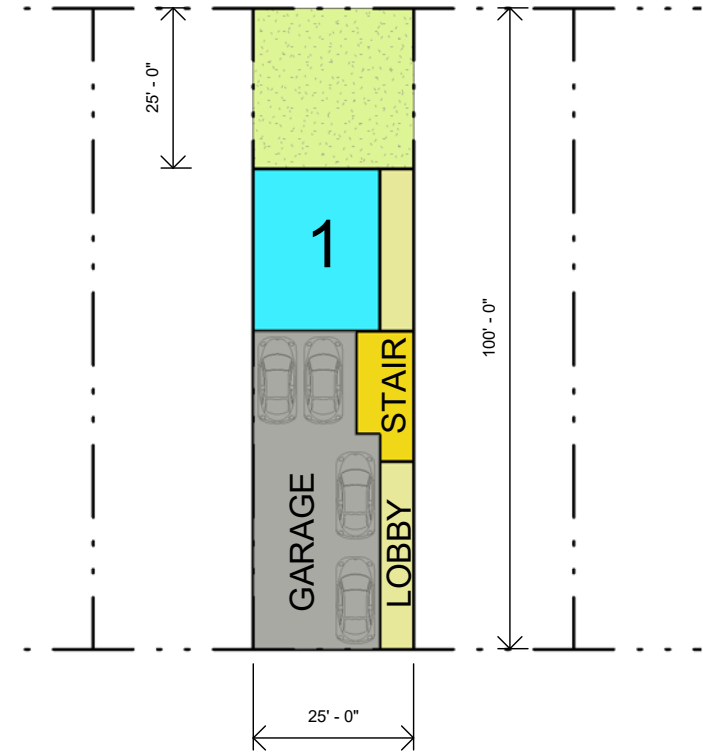
AREA SCHEDULE - 3 STORIES 25 FT LOT	
USE	AREA
CIRCULATION	1016 SF
OPEN SPACE	625 SF
PARKING	919 SF
RESIDENTIAL	3096 SF
	5656 SF

Open Space Required: 6 UNITS X 133 SF = **798 SF (does not comply)**
Average (mean) unit size 516 SF.

6 parking spaces required per zoning, 3-4 provided (takes advantage of 50% reduction)

Retail could be substituted for parking, but there is not room for both on site.

UNIT MIX	
STUDIO	2
1 BED	1
2 BED	3
TOTAL	6

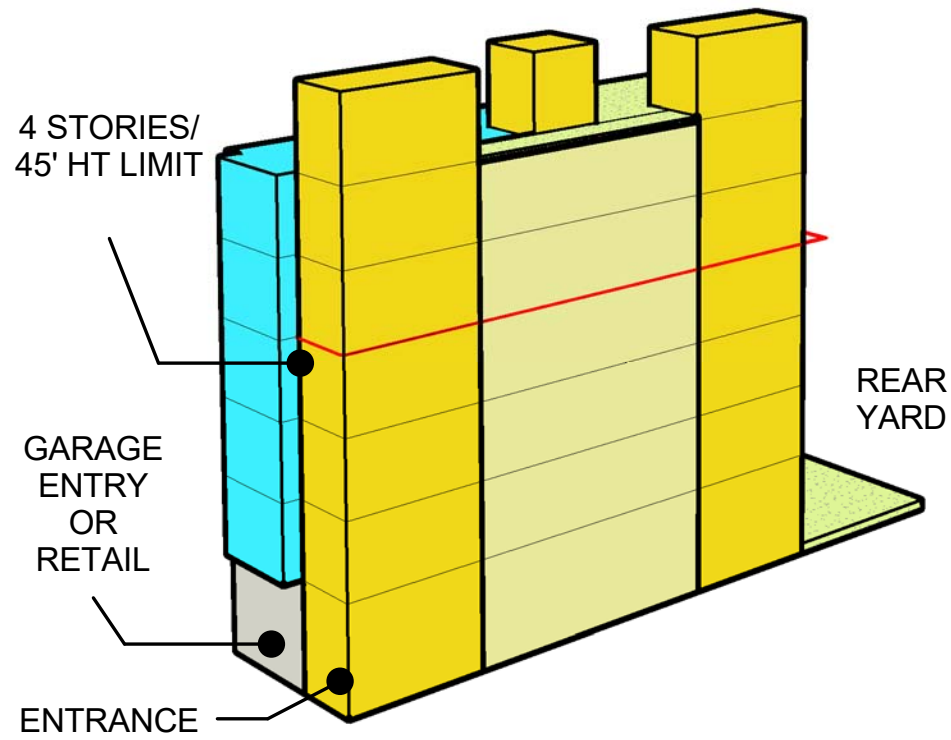


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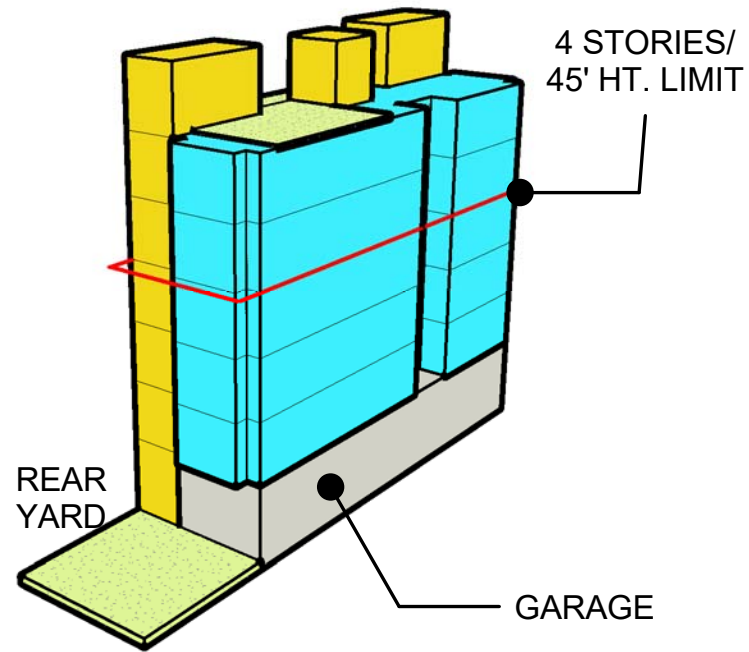
2 1" = 30'-0"

3 1" = 30'-0"

Section 1" = 30'-0"



④ SCHEME 2 3D View 2



⑤ SCHEME 2 3D View 1

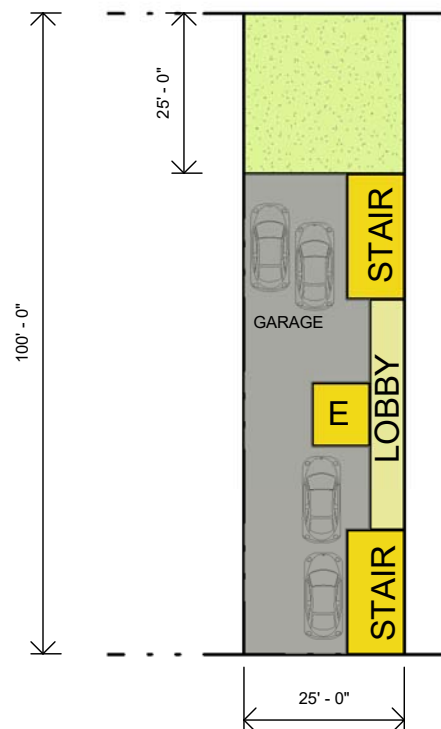
AREA SCHEDULE - 6 STORIES 25 FT LOT	
USE	AREA
CIRCULATION	4228 SF
OPEN SPACE	1319 SF
PARKING	1244 SF
RESIDENTIAL	6251 SF
	13042 SF

Open Space Required: 9 UNITS X 133 SF = **1197 SF**
Average (mean) unit size 691 SF.

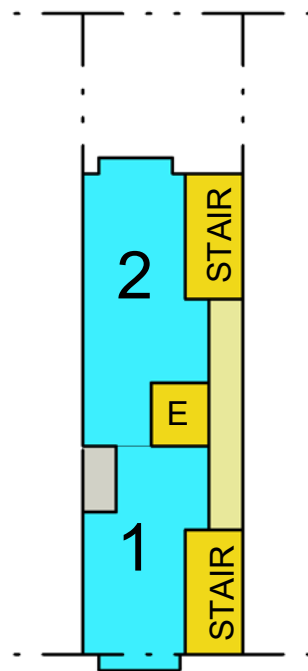
9 parking spaces required per zoning, 4 provided
(needs a larger than 50% reduction)

Retail could be substituted for parking, but there is not room
for both on site.

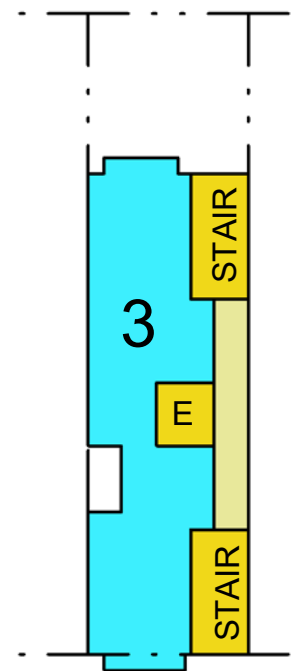
UNIT MIX	
1 BED	4
2 BED	4
3 BED	1
TOTAL	9



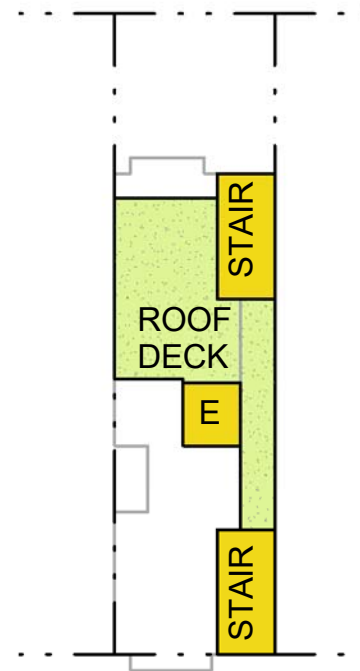
1 1" = 30'-0"



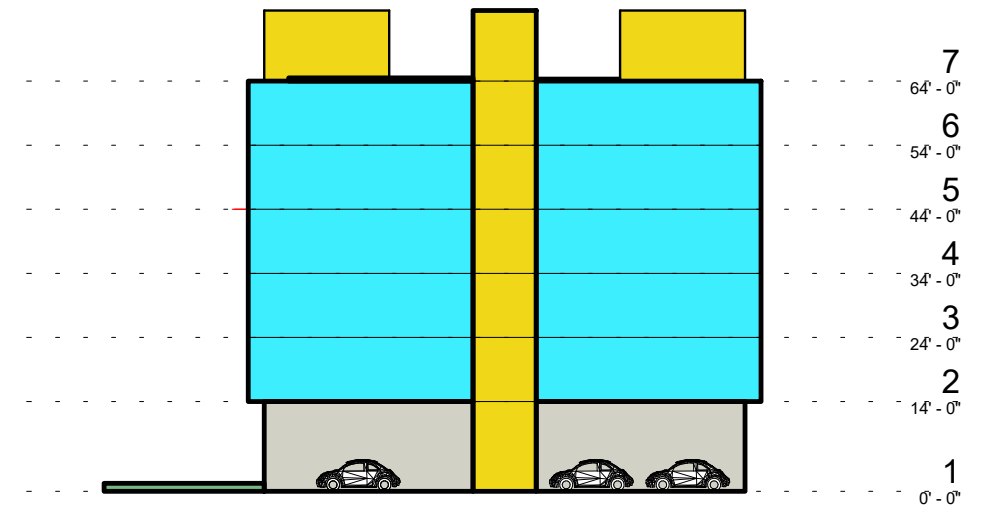
2-5 1" = 30'-0"



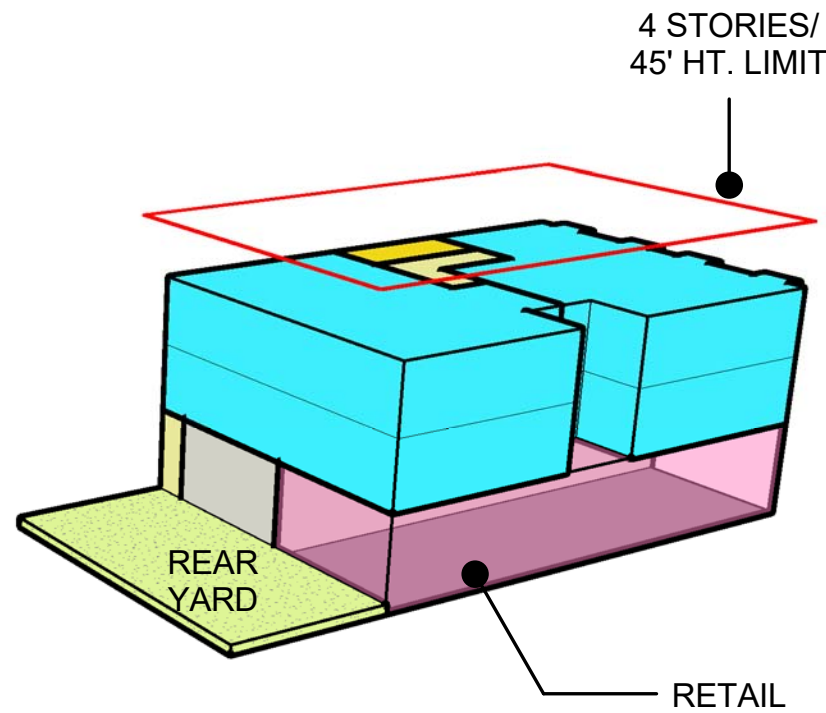
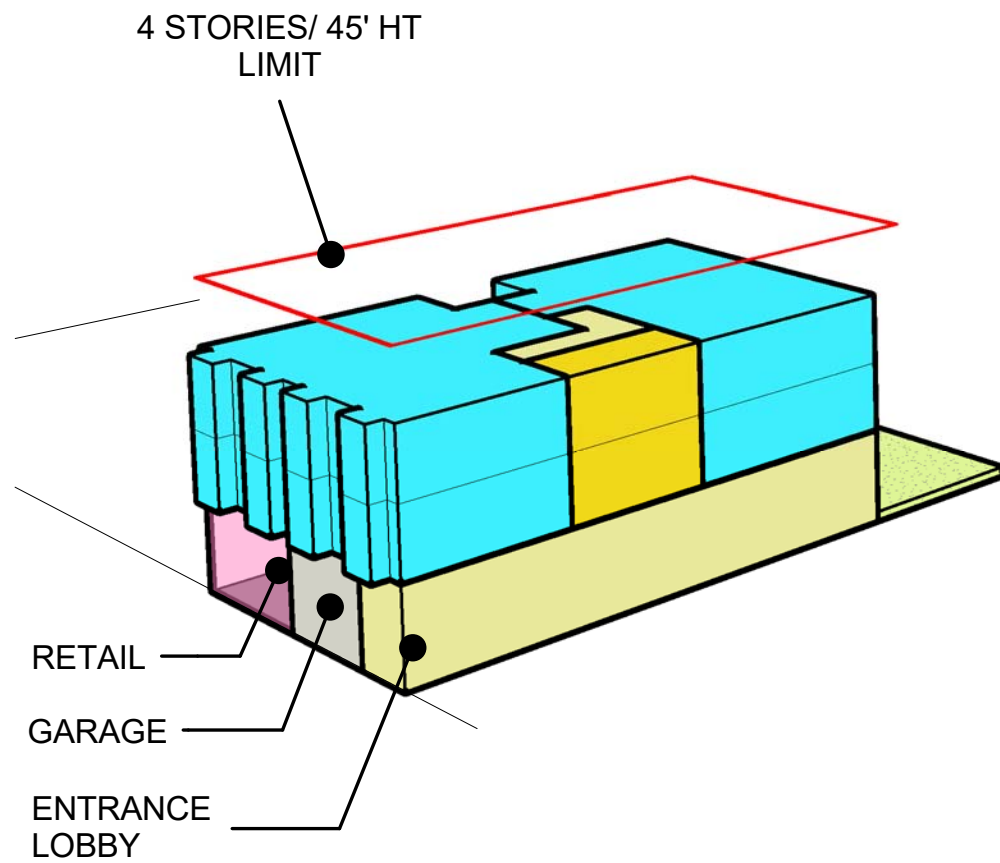
6 1" = 30'-0"



ROOF 1" = 30'-0"



Section 1" = 30'-0"



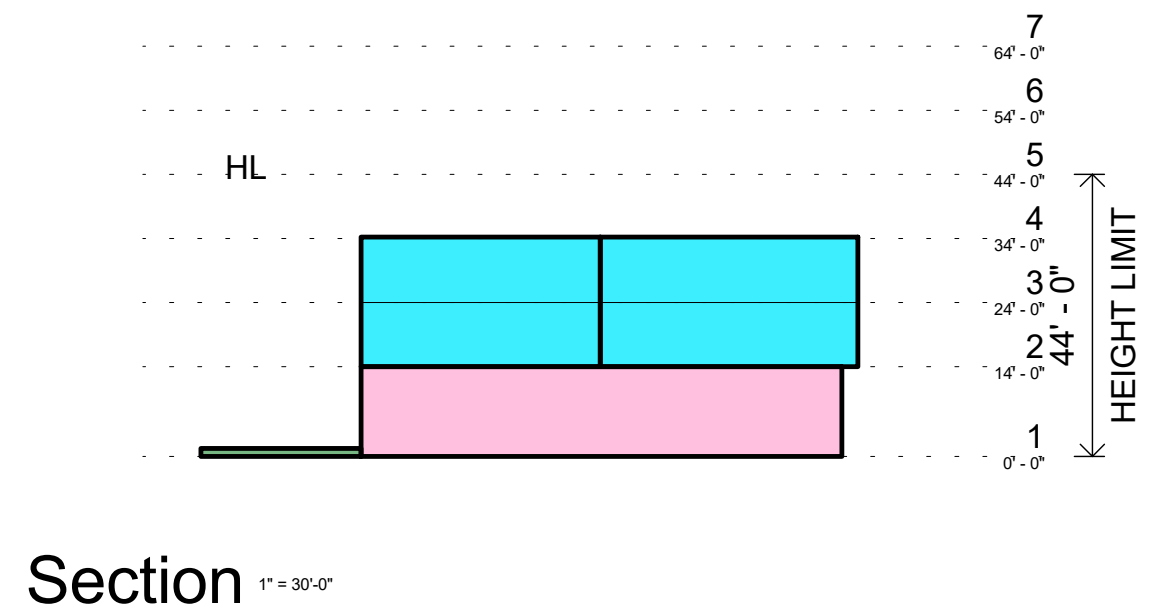
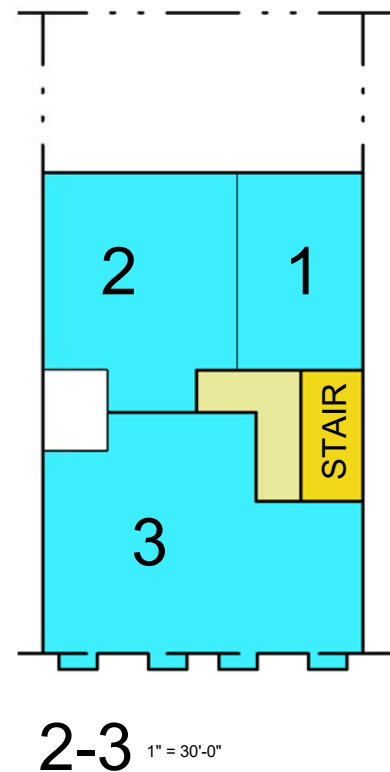
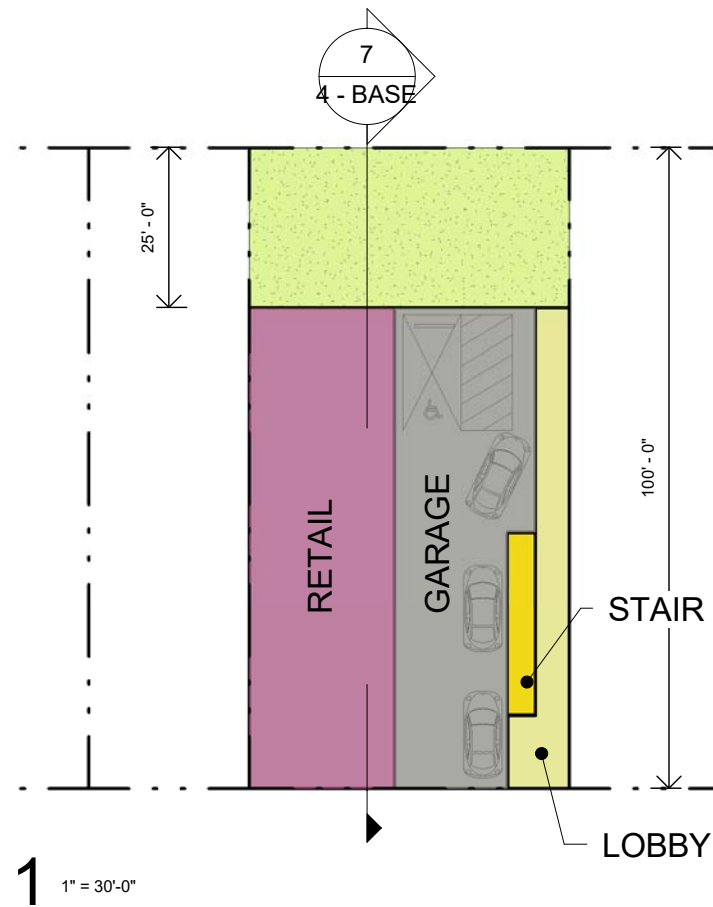
AREA SCHEDULE - 3 STORIES 50 FT LOT	
USE	AREA

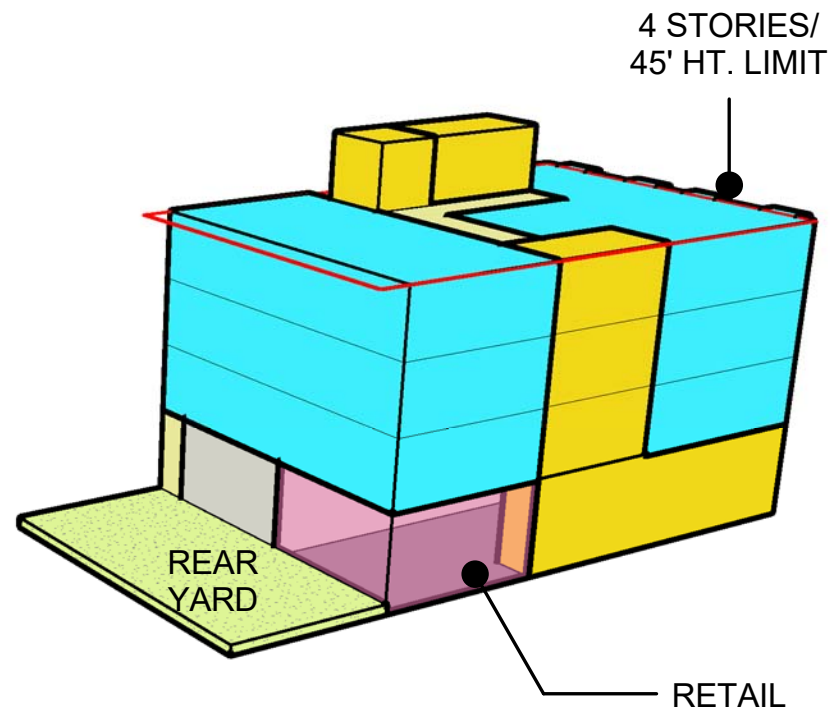
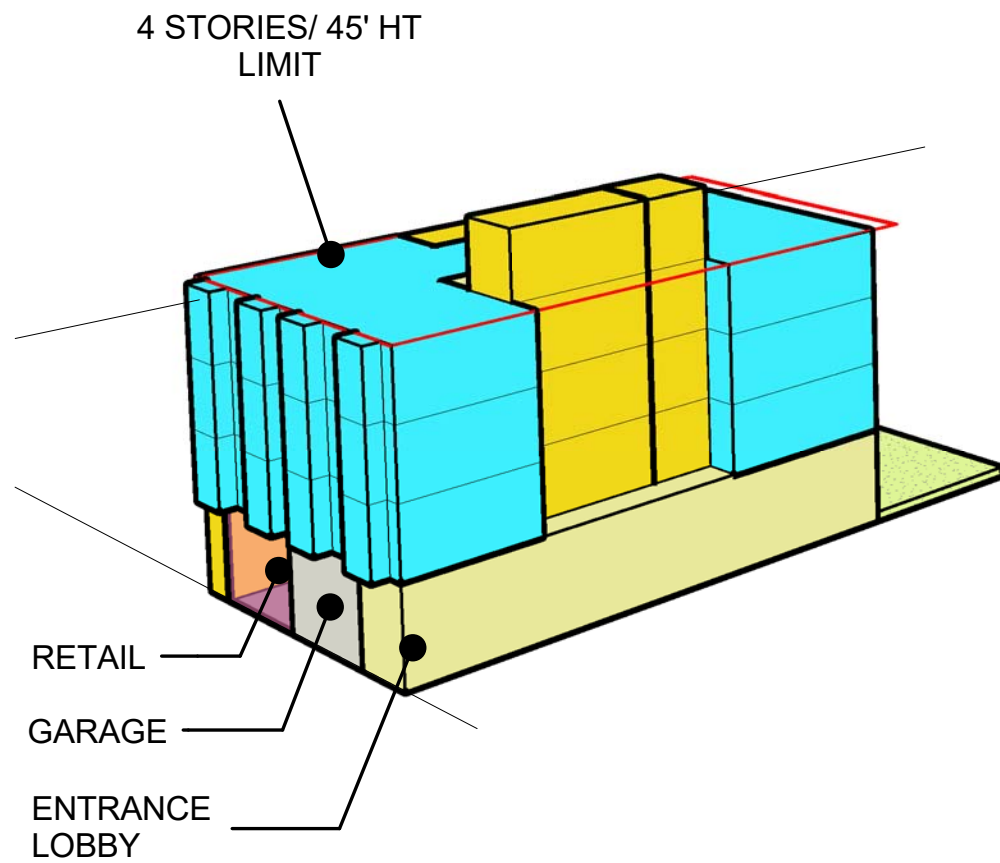
CIRCULATION	1784 SF
OPEN SPACE	1250 SF
PARKING	1475 SF
RESIDENTIAL	6564 SF
RETAIL	1701 SF
	12774 SF

Open Space Required: 6 UNITS X 133 SF = 798 SF
Average (mean) unit size = 1,094 SF

6 parking spaces required per zoning, 3-4 provided

UNIT MIX	
1 BED	2
2 BED	2
3 BED	2
TOTAL	6



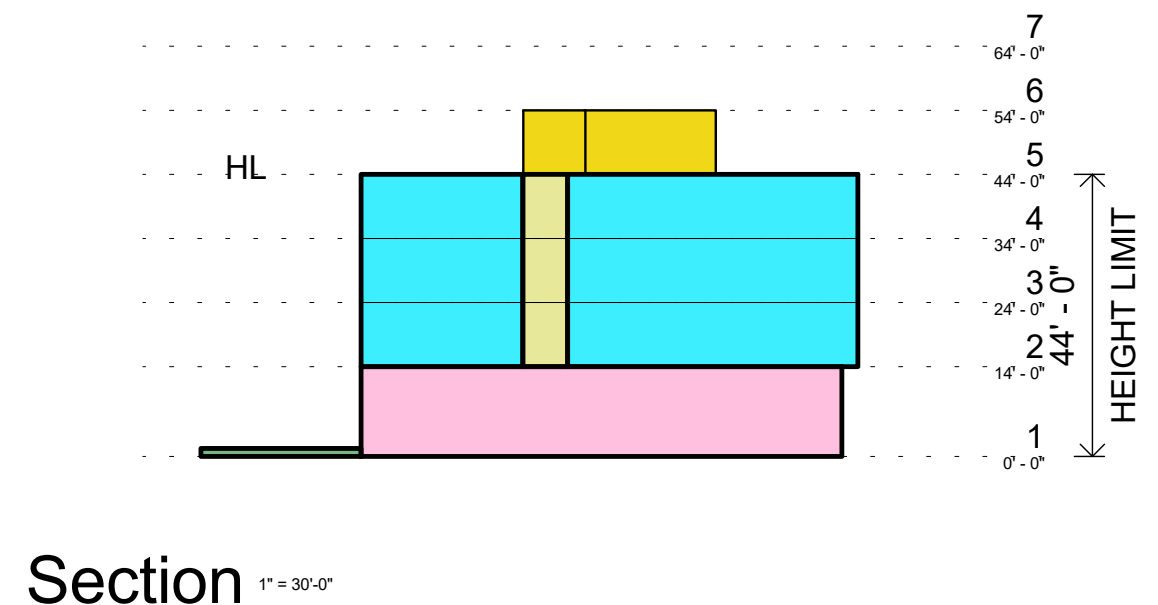
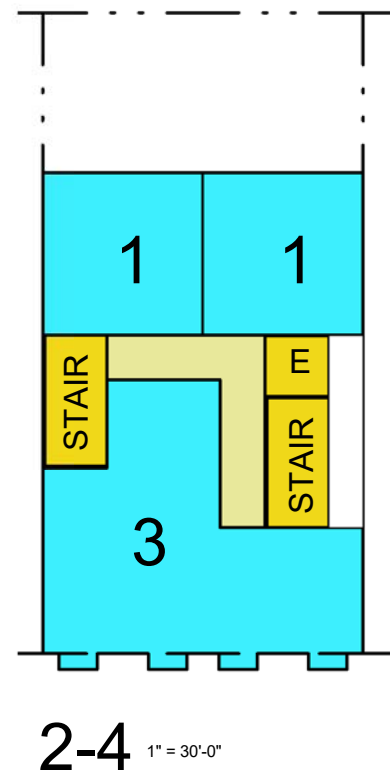
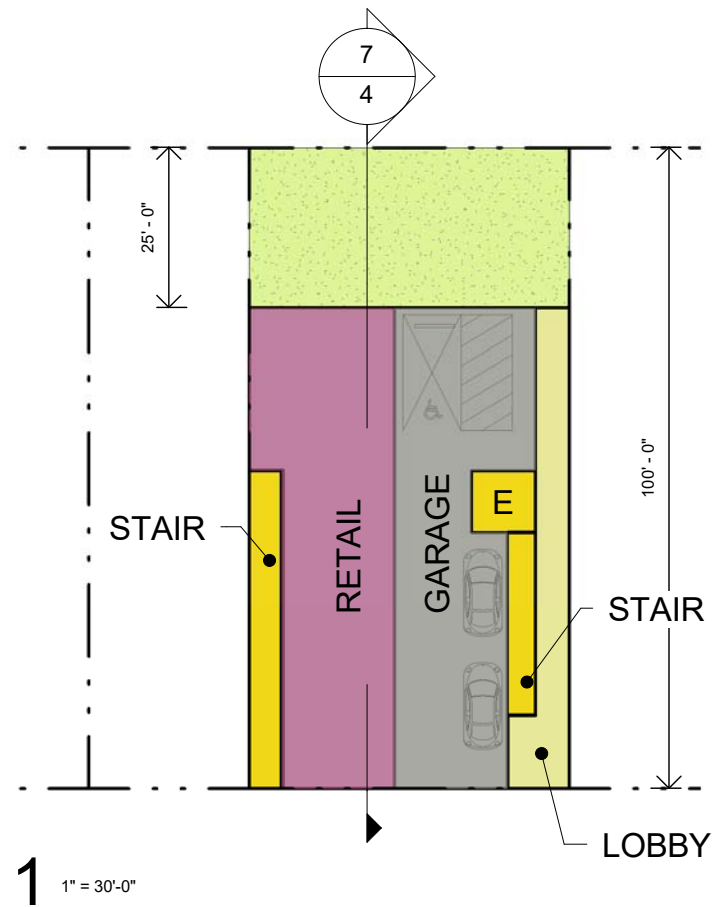


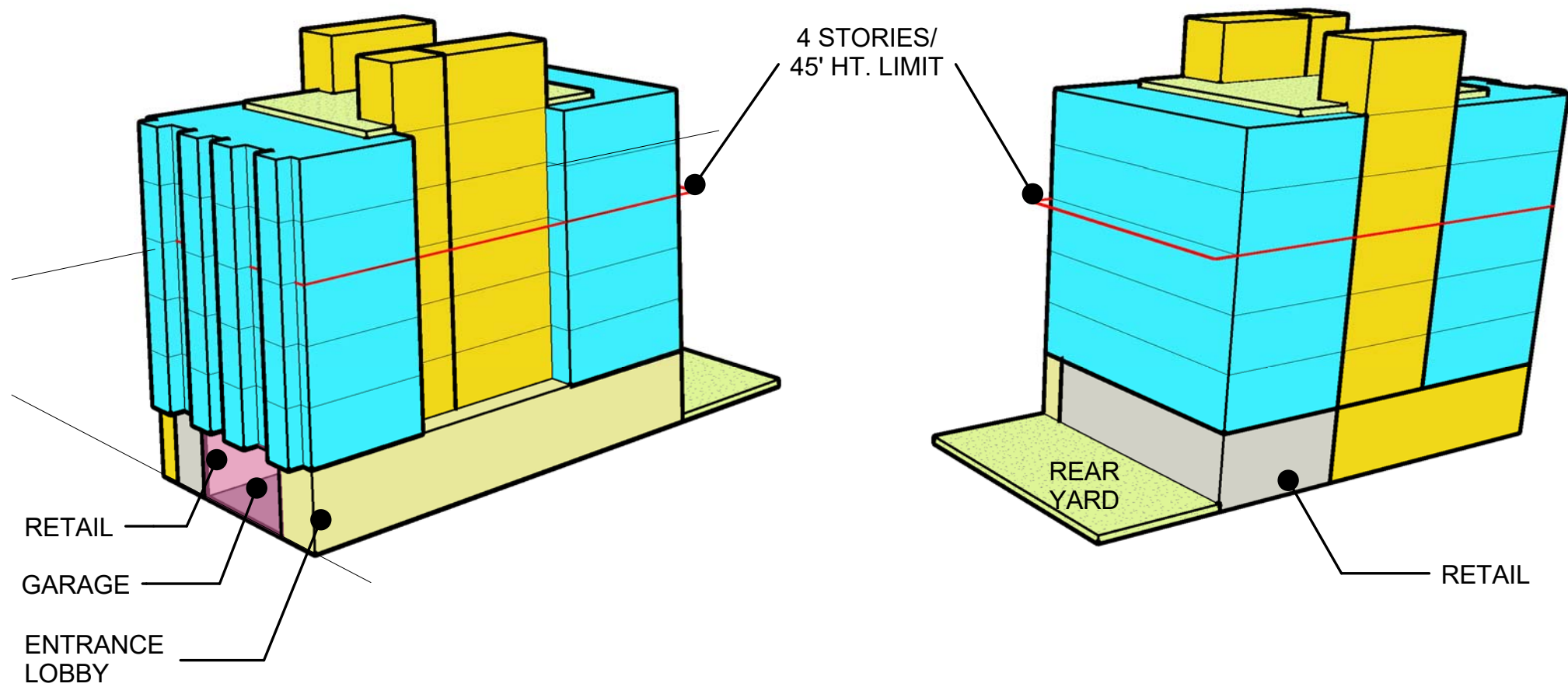
AREA SCHEDULE - 4 STORIES 50 FT LOT	
USE	AREA
CIRCULATION	3712 SF
OPEN SPACE	1250 SF
PARKING	1378 SF
RESIDENTIAL	8417 SF
RETAIL	1450 SF
	16208 SF

Open Space Required: 9 UNITS X 133 SF = 1,197SF
 Average (mean) unit size = 935 SF

9 parking spaces required per zoning, 3 provided

UNIT MIX	
1 BED	6
3 BED	3
TOTAL	9



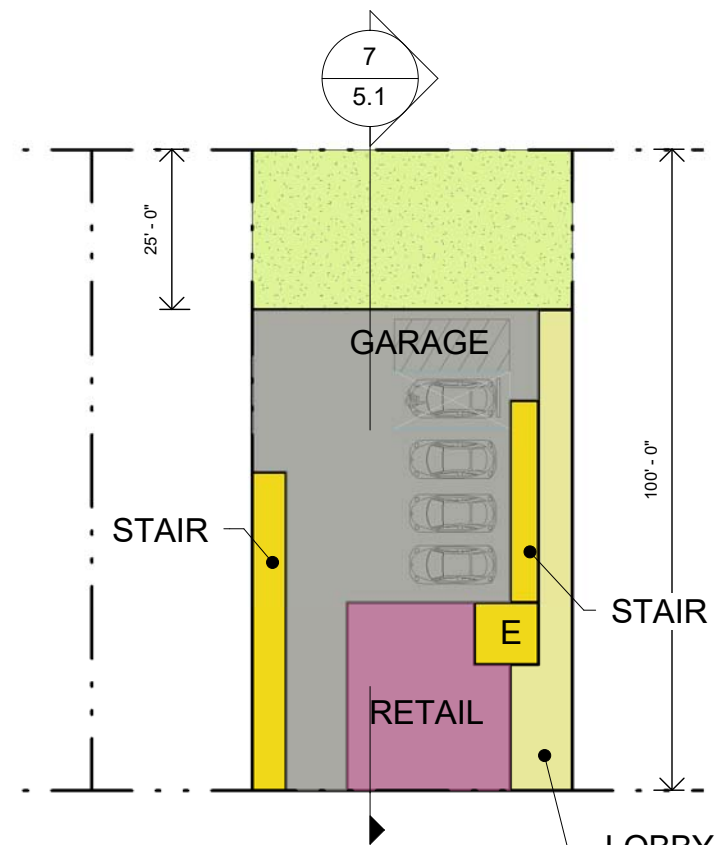


AREA SCHEDULE - 6 STORIES 50 FT LOT	
USE	AREA
CIRCULATION	5712 SF
OPEN SPACE	2642 SF
PARKING	2072 SF
RESIDENTIAL	14029 SF
RETAIL	694 SF
	25149 SF

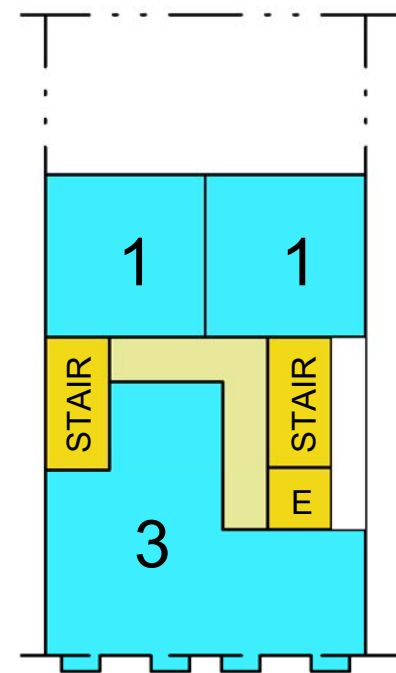
Open Space Required: 15 UNITS X 133 SF = 1,995 SF
Average (mean) unit size = 935 SF

15 parking spaces required per zoning, 4 provided

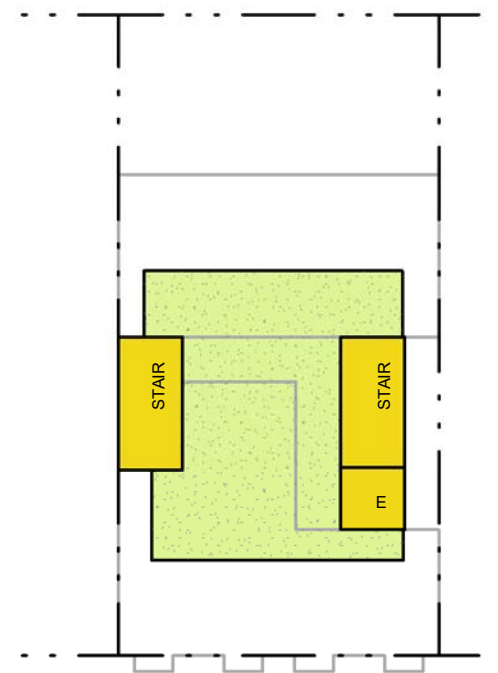
UNIT MIX	
1 BED	10
3 BED	5
TOTAL	15



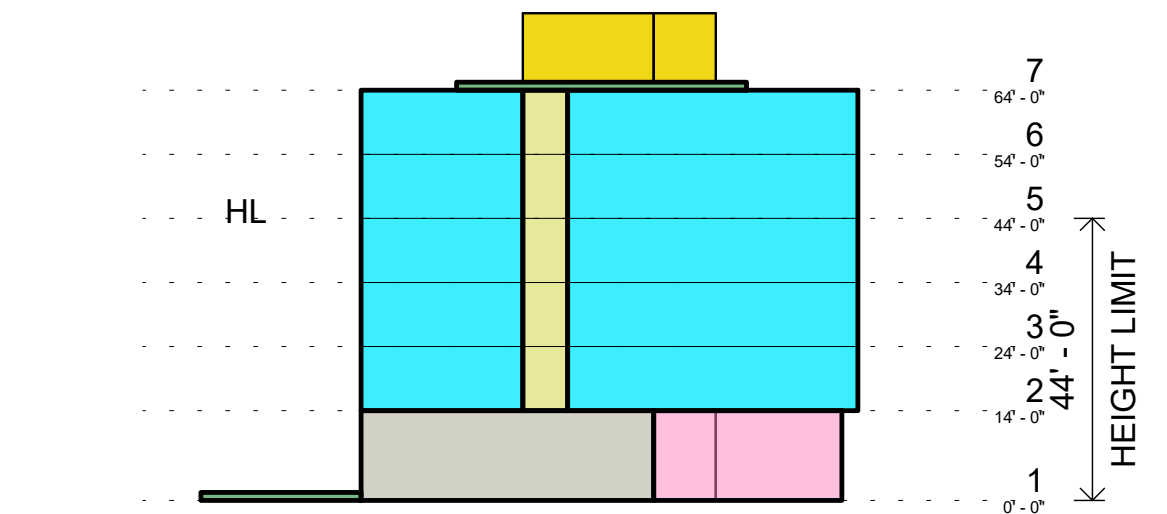
1 1" = 30'-0"



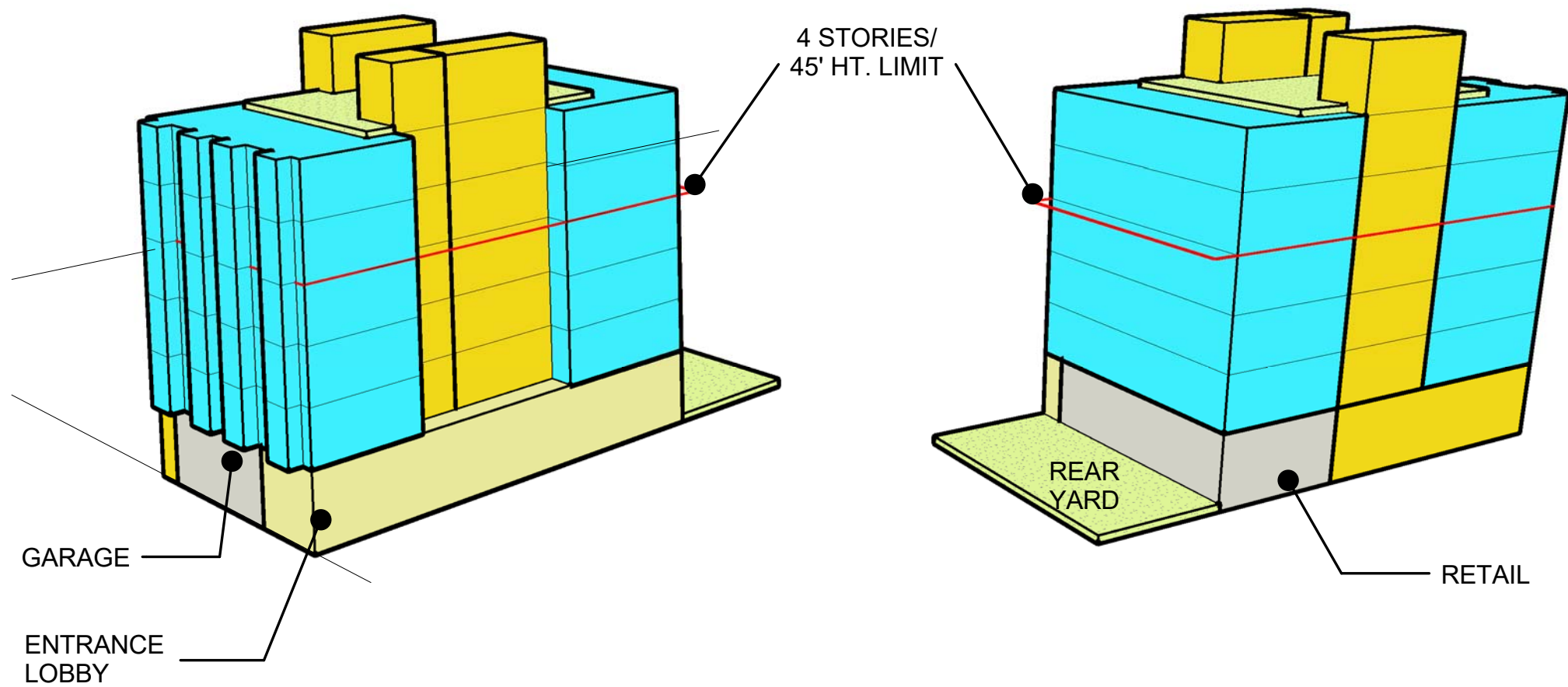
2-6 1" = 30'-0"



ROOF 1" = 30'-0"



Section 1" = 30'-0"

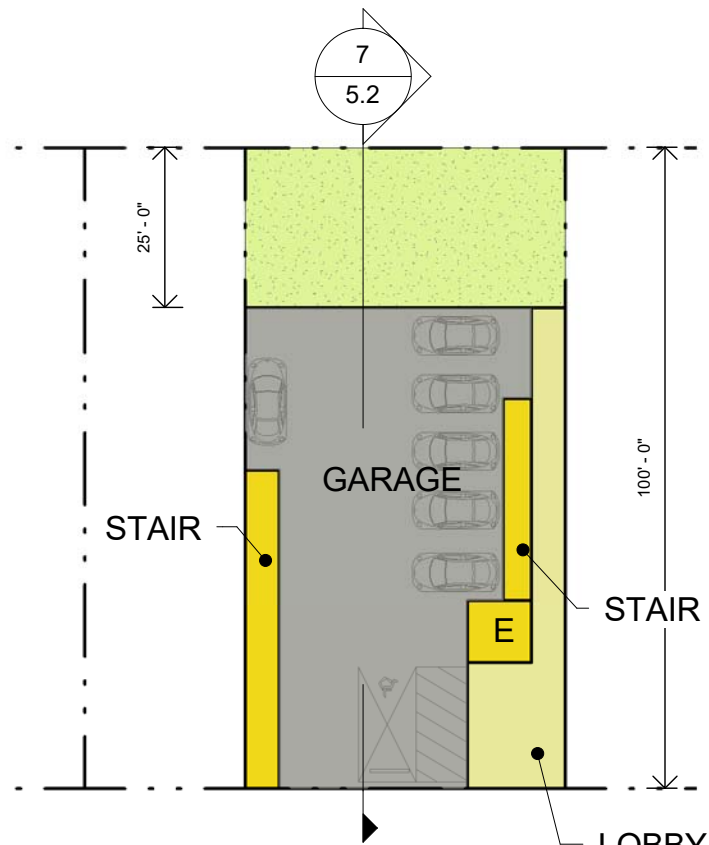


AREA SCHEDULE - 6 STORIES 50 FT LOT	
USE	AREA
CIRCULATION	5823 SF
OPEN SPACE	2642 SF
PARKING	2655 SF
RESIDENTIAL	14029 SF
	25149 SF

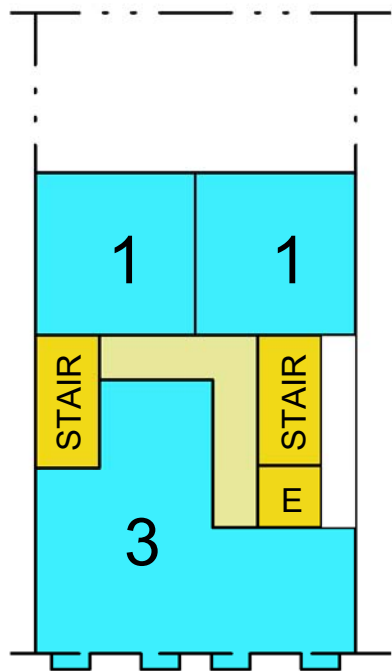
Open Space Required: 15 UNITS X 133 SF = 1,995 SF
 Average (mean) unit size = 935 SF

15 parking spaces required per zoning, 7 provided

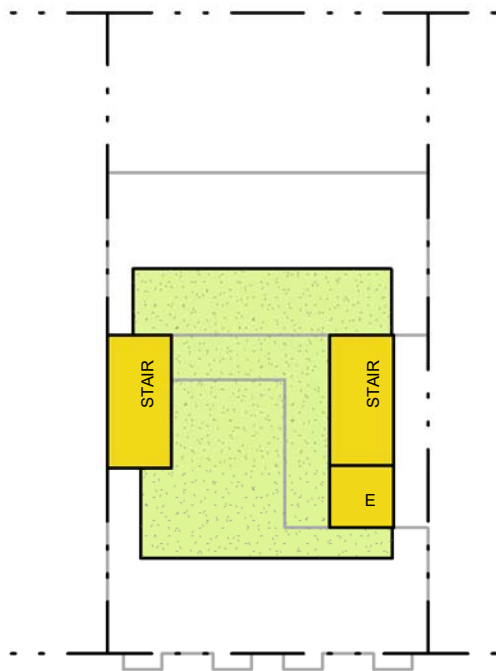
UNIT MIX	
1 BED	10
3 BED	5
TOTAL	15



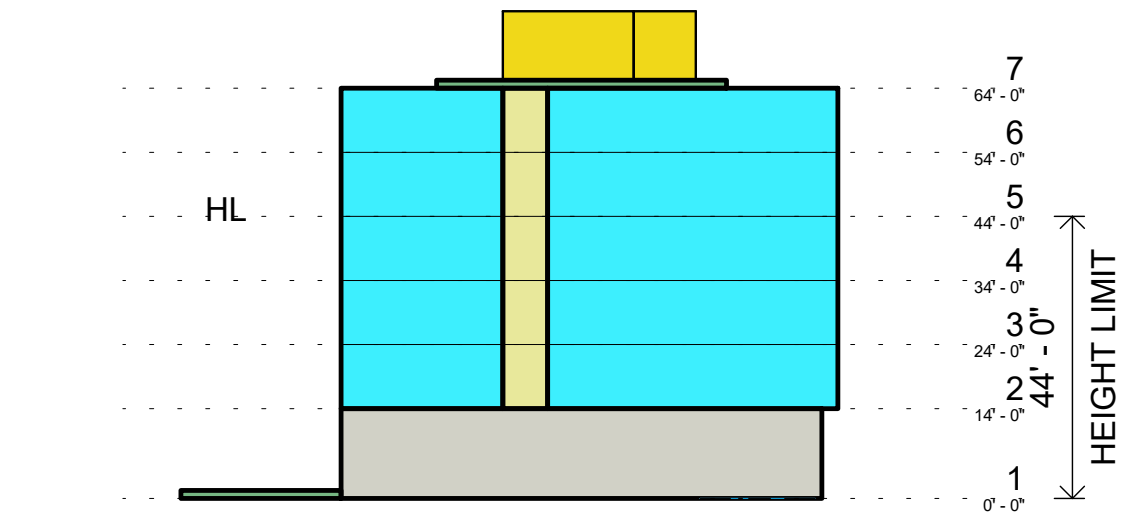
1 1" = 30'-0"



2-6 1" = 30'-0"



ROOF 1" = 30'-0"



Section 1" = 30'-0"