# TOWNHOUSE FEASIBILITY STUDY + TESTFITPLAN

8849 NESBIT AVENUE NORTH
SEATTLE, WA 98103

02 JUNE 2021

dean alan architects pllc

1511 third avenue, suite 301, seattle, wa 98101
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dean alan architects pllc

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## Property Information

**Address:** 8849 Nesbit Avenue North
Seattle, WA 98103

**Parcel Number:** 0993000515

**Lot Number:** 7-8

**Legal Description:** BOULEVARD PLACE ADD E 100 FT
Plat Block: 9
Plat Lot: 7-8

**Existing Building SF:** 2,016

**Land SF:** 5,000
Per King County Plat Map: 50'x100'

## Zoning Information

**Zone:** NC3P-75 (M)
Neighborhood Commercial 3; Pedestrian; 75FT Height Limit; Mandatory Housing Affordability

**Village:** Aurora-Licton Springs Residential Urban Village

No Village specific overlay requirements.

**Land Use Code:** Seattle Municipal Code 23.47A

**Building Code:** Townhomes: 2018 Seattle Residential Code

## Summary

This report is a summary of our additional research, test fit plan, and recommendations for townhome options regarding the property located at 8849 Nesbit Avenue North, Seattle, Washington. For a more comprehensive study please review the previous feasibility report dated 05 March 2021.

### Project Review

The property located at 8849 Nesbit Avenue North is well positioned to benefit from residential townhome development. Several similar townhomes have been built in the neighborhood within the last few years and we anticipate that this trend will continue. In addition to its location, the property is poised well to benefit from Seattle's increasing housing demand, access to public transportation, and the relative profitability of townhome developments.

The following is a summary of our findings when considering requirements by the City:

#### *Townhomes*

In compliance with the Seattle Municipal Code, the Seattle Building Code, and the Seattle Residential Code, Dean Alan Architects determined that eight (8) townhome units is the highest and best use for the property when considering our client's goals. Each unit is three stories tall and approximately 1,520 SF with the option of including basement and rooftop deck alternates.

The townhomes are clustered in groups of four (4) units in compliance with Seattle Building Code Section R320. This is in line with our market research for recent townhome developments in the neighborhood.

#### *Rooftop Deck Alternate*

Rooftop decks would provide an additional 380 SF of usable space to each unit and is the market standard for new townhome developments in the area.

The Seattle Building Code and Municipal Code also allow for stairway penthouses and equipment storage on the rooftop deck, not to exceed 20% of the total footprint.

We estimate that adding rooftop decks would cost an additional $40-$72 per square foot.

#### *Basement Alternate*

The basement alternate would provide an additional 380 SF of livable space including a basement suite and bathroom. Per Seattle Residential Code R310, a window well and proper egress is also required.

It is important to note that this option requires retaining walls and substantial earthwork, greatly increasing the cost. Also, during our market research we did not find any comparable developments with basement additions.

We estimate that adding basements would cost an additional $180-$440 per square foot.

## Test Fit Plan

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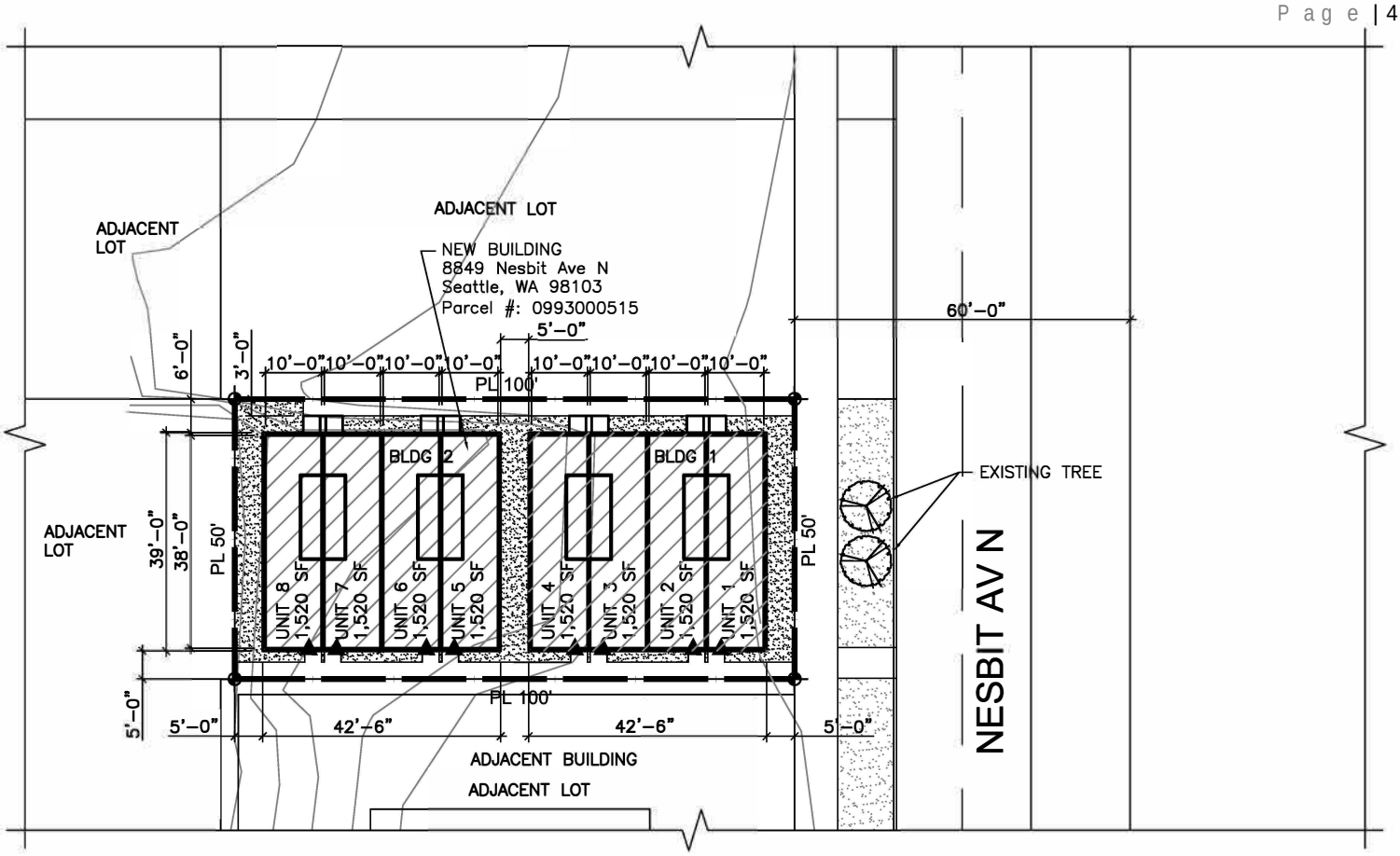


66.3% LOT COVERAGE

BUILDING INFORMATION
BUILDING AREA (FOOTPRINT): 1,657.50 SF
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BUILDING HEIGHT: 29'-4"
NUMBER OF FLOORS: 4 + ROOF DECK
TOTAL AMOUNT OF UNITS: 8
- UNIT 1 GROSS AREA – 1,520 SF
- UNIT 2 GROSS AREA – 1,520 SF
- UNIT 3 GROSS AREA – 1,520 SF
- UNIT 4 GROSS AREA – 1,520 SF
- UNIT 5 GROSS AREA – 1,520 SF
- UNIT 6 GROSS AREA – 1,520 SF
- UNIT 7 GROSS AREA – 1,520 SF
- UNIT 8 GROSS AREA – 1,520 SF

UNIT 1 – 8 INFORMATION
GROSS AREA – 1,520 SF W/OUT ROOF DECK

BASEMENT FLOOR AREA – 380 SF
- INCLUDES:
  - FAMILY ROOM
  - BATHROOM

1ST FLOOR AREA – 380 SF
- INCLUDES:
  - ENTRY
  - KITCHEN
  - LIVING RM

2ND FLOOR AREA – 380 SF
- INCLUDES:
  - BEDROOM
  - BATHROOM
  - WORKING AREA
  - W/D

3RD FLOOR AREA – 380 SF
- INCLUDES:
  - MAIN SUITE
  - BATHROOM
  - STORAGE

ROOF DECK AREA – 380 SF

# TOWNHOMES PLAN

**1/32" = 1'-0"**

**PAGE 1**


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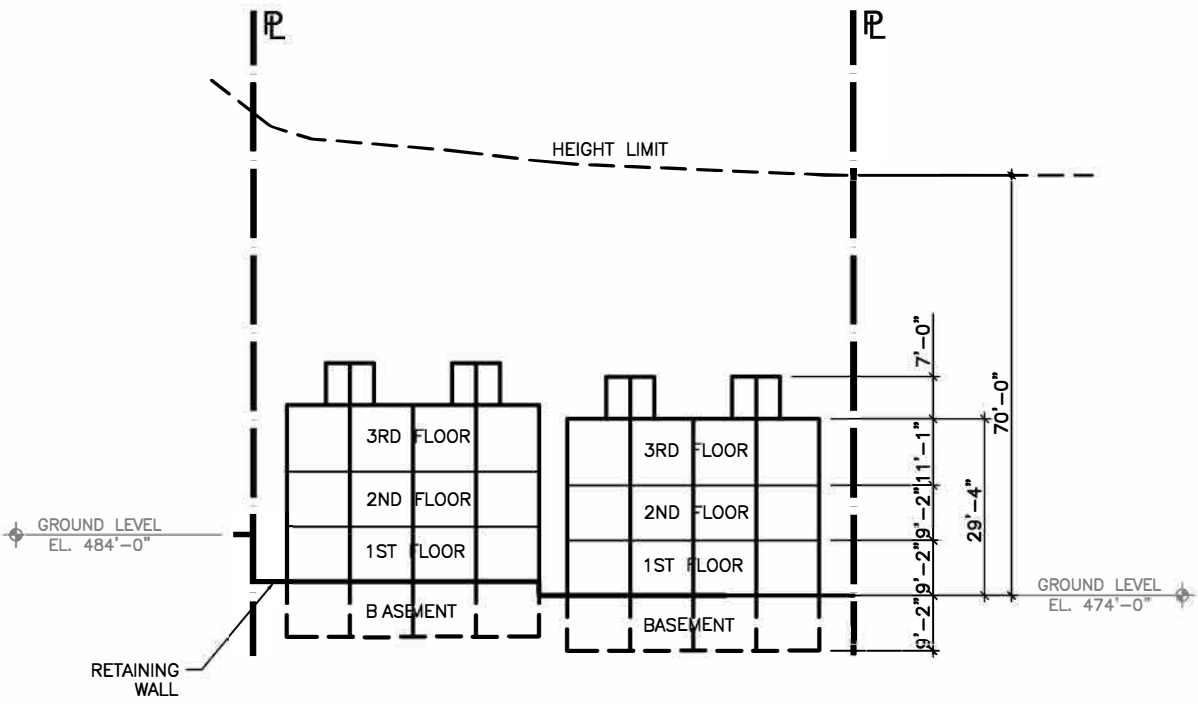
## FEASIBILITY STUDY

## 8849 NESBIT AVE N SEATTLE, WA 98103

**2 JUNE 2021**

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- W/D

3RD FLOOR AREA – 380 SF
INCLUDES:
- MAIN SUITE
- BATHROOM
- STORAGE

ROOF DECK AREA – 380 SF

# TOWNHOMES SOUTH SECTION

**1/32" = 1'-0"**

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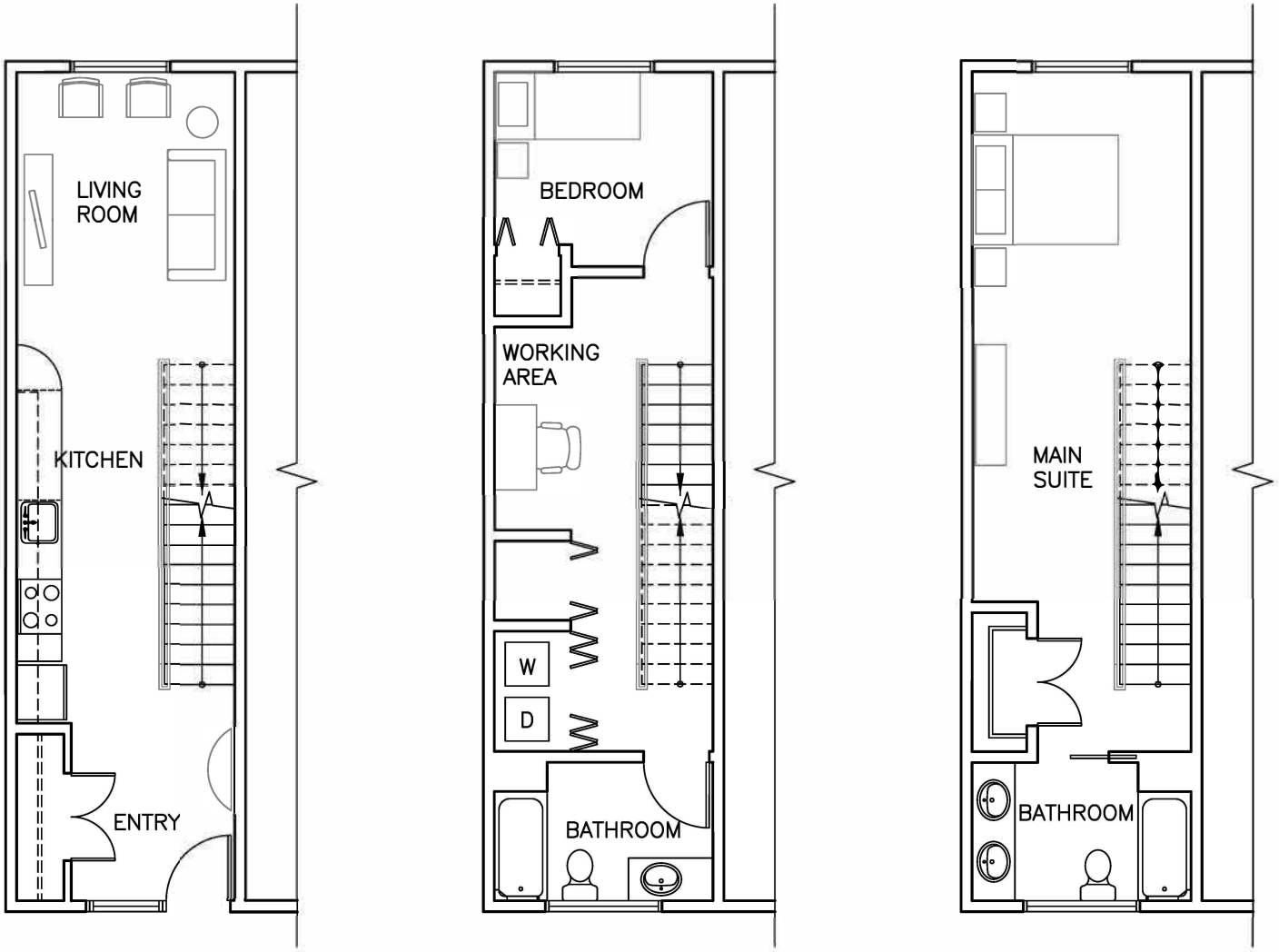


1ST FLOOR | 2ND FLOOR | 3RD FLOOR

# TOWNHOME UNIT PLANS

1/8" = 1'-0"

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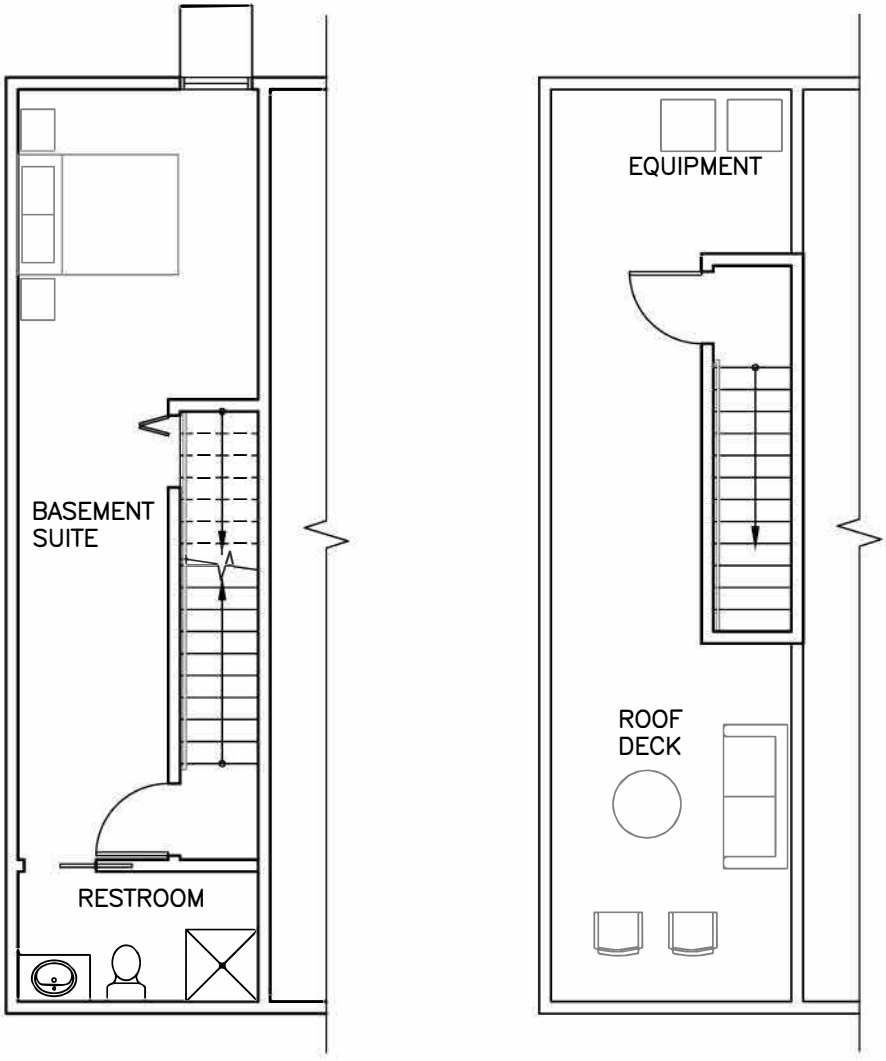


**BASEMENT** **ROOF DECK**

# TOWNHOME UNIT PLANS

**1/8" = 1'-0"**

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**2 JUNE 2021**

## ROM ESTIMATES & CODE RESEARCH

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# Research - Basements

## SEATTLE BUILDING CODE – CHAPTER 3: BUILDING PLANNING

**SECTION R305 CEILING HEIGHT**

*R305.1 Minimum Height*

Habitable space, hallways and portions of basements containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

7 feet minimum ceiling height

Exceptions:

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet (2134 mm).

2. The ceiling height above bathroom and toilet room fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a ceiling height of not less than 6 feet 8 inches (2032 mm) above an area of not less than 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

3. Beams, girders, ducts or other obstructions in basements containing habitable space shall be permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

*R305.1.1 Basements*

Portions of basements that do not contain habitable space or hallways shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

Exception: At beams, girders, ducts or other obstructions, the ceiling height shall be not less than 6 feet 4 inches (1931 mm) from the finished floor.

**SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENINGS**

*R310.1 Emergency escape and rescue opening required*

Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court providing an unobstructed path with a width of not less than 36 inches (914mm) that opens to a public way.

Exceptions:

1. Storm shelters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m2).

2. Where the dwelling unit or townhouse unit is equipped with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

2.1. One means of egress complying with Section R311 and one emergency escape and rescue opening.

2.2. Two means of egress complying with Section R311.

Emergency Escape and Rescue: One window (or door) in the basement, a habitable attic, and in each bedroom, must meet these requirements (SRC R310):

- The minimum net clear open area is 5.7 square feet (however, openings at grade floor may be a minimum of 5 square feet)
- The minimum clear open width is 20"
- The minimum clear open height is 24"
- The maximum allowed sill height is 44"
- The inside of the window wells must be a minimum of 9 square feet in area, with a minimum 3' width, and must allow the window to open all the way. A ladder is required if the bottom of the window well is more than 44" below the adjacent ground.

**SECTION R311** **MEANS OF EGRESS**

*R311.4 Vertical egress.*

Egress from habitable levels including habitable *attics* and *basements* not provided with an egress door in accordance with Section R311.2 shall be by a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7.

**Exception:** Stairs or ladders inside an individual *dwelling unit* used for access to areas of 200 square feet (18.6 $m^2$) or less, and not containing the primary bathroom or kitchen.

**SECTION R320** **ACCESSIBILITY**

R320.1 Scope.

Where there are four or more dwelling units or sleeping units in a single structure, the provisions of Chapter 11 of the International Building Code for Group R-3 shall apply.

**SEATTLE MUNICIPAL CODE**

**22.206.070 - Shelter**

Every building shall be protected so as to provide shelter for the occupants against the weather. Every basement used for human habitation shall be dry; and habitable rooms therein shall conform to all requirements of size, lighting and ventilation. No portion of a basement, or building used for human habitation shall have dirt floors.

**22.206.130 -**

B. Number of exits

**Requirements**

1. Occupied floors containing one or more housing unit(s) above the first floor or on any floor where the means of egress does not discharge within 4 feet, measured vertically, of adjacent ground level shall have access to not less than two unobstructed exits that meet the standards of Section 22.206.130; provided, that:

a. Housing units may have a single exit if located on a second floor that has an occupant load of not more than ten persons or in a basement that has an occupant load of not more than ten persons; or

b. A housing unit may have a single exit if the exit leads directly to a street, alley, other public right-of-way, or yard:

i. At ground level, or

ii. By way of an exterior stairway, or

iii. By way of an enclosed stairway with a fire-resistant rating of one hour or more that serves only that housing unit and has no connection with any other floor below the floor of the housing unit being served or any other area not a part of the housing unit being served; or

c. Housing units above the first floor or in a basement may have one exit if:

i. An approved automatic fire-sprinkler system is provided for exit ways and common areas in the building, or

ii. Built to the single exit requirements of the building code in effect when the building was constructed, altered, rehabilitated, or repaired.

# Research - Rooftop Decks

## SEATTLE BUILDING CODE

**SECTION 1510 ROOFTOP STRUCTURES**

*1510.1 General* The provisions of this section shall govern the construction of rooftop structures.

*1510.2 Penthouses* Penthouses in compliance with Sections 1510.2.1 through 1510.2.5 shall be considered as a portion of the story directly below the roof deck on which such penthouses are located. All other penthouses shall be considered as an additional story of the building.

1510.2.1 Height above roof deck. Penthouses con-structed on buildings of other than Type I construction shall not exceed 18 feet (5486 mm) in height above the roof deck as measured to the average height of the roof of the penthouse.

Exceptions:

1. Where used to enclose tanks or elevators that travel to the roof level, penthouses shall be per-mitted to have a maximum height of 28 feet (8534 mm) above the roof deck.

2. Penthouses located on the roof of buildings of Type I construction shall not be limited in height.

1510.2.2 Area limitation. The aggregate area of penthouses and other enclosed rooftop structures shall not exceed one-third the area of the supporting roof deck. Such penthouses and other enclosed rooftop structures shall not be required to be included in determining the building area or number of stories as regulated by Section 503.1. The area of such penthouses shall not be included in determining the fire area specified in Section 901.7.

1510.2.3 Use limitations. Penthouses shall not be used for purposes other than the shelter of mechanical or electrical equipment, tanks, exit stairways or vertical shaft openings in the roof assembly.

1510.2.4 Weather protection. Provisions such as louvers, louver blades or flashing shall be made to protect the mechanical and electrical equipment and the building interior from the elements.

1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such pent-houses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.

2. On buildings of Type I construction two stories or less in height above grade plane or

of Type II construction, the exterior walls and roofs of pent-houses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resis-tance rating as required by Table 602 and be con-structed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be con-structed of fire-retardant-treated wood.

3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096mm) or greater shall be permitted to be of Type IV or noncombustible construction or fire-retardant treated wood and shall not be required to have a fire-resistance rating.

510.6 Mechanical equipment screens. Mechanical equipment screens shall be constructed of the materials specified for the exterior walls in accordance with the type of construction of the building. Where the fire separation distance is greater than 5 feet (1524 mm), mechanical equipment screens shall not be required to comply with the fire-resistance rating requirements.

1510.6.1 Height limitations. Mechanical equipment screens shall not exceed 18 feet (5486 mm) in height above the roof deck, as measured to the highest point on the mechanical equipment screen.

Exception: Where located on buildings of Type IA construction, the height of mechanical equipment screens shall not be limited.

**SEATTLE MUNICIPAL CODE**

**23.45.514- Structure height**

I. Rooftop features

2. Open railings, planters, greenhouses not dedicated to food production, parapets, and firewalls on the roofs of principal structures may extend 4 feet above the maximum height limit set in subsections 23.45.514.A, 23.45.514.B, and 23.45.514.F.

Stair penthouse can extend 10ft beyond height limit and should not be greater than 15% of roof area or greater than 20% when including mechanical equipment

4. In LR zones, the following rooftop features may extend 10 feet above the height limit set in subsections 23.45.514.A and 23.45.514.F, if the combined total coverage of all features in subsections 23.45.514.J.4.a through 23.45.514.J.4.f does not exceed 15 percent of the roof area (or 20 percent of the roof area if the total includes screened mechanical equipment):

a. Stair penthouses, except as provided in subsection 23.45.514.I.6;

b. Mechanical equipment;

c. Play equipment and open-mesh fencing that encloses it, if the fencing is at least 5 feet from the roof edge;

4ft parapets

d. Chimneys;

Reference:
8841 Midvale Ave N
And
8819 Midvale Ave N

e. Wind-driven power generators; and

f. Minor communication utilities and accessory communication devices, except that height is regulated according to the provisions of Section 23.57.011.