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# MEMO: DRAFT

**DATE:** May 18, 2020

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**SUBJECT:** Correlation of Maximum Height to Maximum FAR in Central City Plan District

The Zoning Code maintains a relationship between the maximum height and the FAR assigned to a site to ensure that the FAR can reasonably be used to develop residential and commercial office buildings through standard construction practices that are typically used by the development industry. This is based on both Zoning Code development standards, such as those regulating ground floor active uses, as well as standard metrics used by the development industry to create mid- and high-rise residential and commercial towers in Portland and elsewhere in North America.

It is important to note that the Central City is generally divided in a street/grid pattern that establishes 40,000 square foot blocks, one of the smallest typical downtown town block patterns found in North America. Therefore, it is typical for a development site to occupy an entire city block and when the Zoning Code assigns FAR to an area it assumes that a full block development will be able to use the development potential made possible by the assigned FAR allowances.

In many portions of the Pearl, Old Town/Chinatown, Central Eastside, Goose Hollow, South Waterfront, and University District/South Downtown, the Zoning Code has historically assigned a base FAR of 6:1 with the ability to earn an additional 3:1 FAR for a total FAR allowance of 9:1 FAR. On a 40,000 square foot site this allows 360,000 square feet of development potential.

Before a maximum building height is assigned to a site, certain typical building metrics are considered. These include the typical base floor to ceiling heights of the ground floor of a mixed-use building (which on average is 15') as well as those for all other floors in an office and/or residential building (which on average is a minimum of 12' for office buildings and 10' for residential buildings). The basic development metrics for residential and office development are presented in Tables 1 and 2 below.

Additionally, the average floor plate size of different types of buildings is also factored in. Generally, the floor area on each floor of the podium, the base of the building, is on average 38,000 square feet in area, and the total floors

included in a podium is 3 stories on average. Thus, the podium typically can use as much as 114,000 square feet on average. This leaves approximately 246,000 square feet available for the tower above the podium.

On average the floor plate size of a residential tower is assumed to be 18,000 square feet, and 30,000 square feet for an office tower.

When these metrics are applied to the development of a residential tower (assuming 10' floor to ceiling heights, 18,000 sq. ft. floor plates, and 246,000 sq. ft. of remaining development potential), the full use of the remaining allocated FAR would allow for the development of approximately 14 stories above the podium, which would result in a 175' tall, 17-story residential mixed-use building on average. The maximum height could vary depending on variations in podium size, tower floor plate sizes, and floor to ceiling heights, all of which vary from building to buildings. Thus, if all the FAR available through the base and bonus FAR is used (assuming this totals 9:1 FAR) the actual height necessary for this amount of FAR may vary between 175' to 250' for residential development.

For this reason, the maximum building height assigned by the Zoning Code to areas that have a base FAR of 9:1, or the ability to earn 9:1 through a combination of base and bonus FAR, typically ranges between 175' and 250' on average. Table 3 provides a list of precedent projects throughout the Central City that demonstrate this correlation between building height and FAR.

## Table 1: Basic Assumptions for Residential Towers

| | |
|---|---|
| **Base FAR:** | 6:1 |
| **Bonus FAR:** | 3:1 |
| **Total FAR:** | 9:1 |
| **Max Height:** | 200' |
| **Ground Floor Ceiling Height:** | 15' |
| **All other Floors:** | 10' |

| | 40,000 sq. ft. Site | 20,000 sq. ft. Site | 10,000 sq. ft. Site |
|---|---|---|---|
| **Total Buildable Area** | 360,000 sq. ft. | 180,000 sq. ft. | 90,000 sq. ft. |
| **Podium Height** | 35' (3 stories) | 35' (3 stories) | 25' (2 stories) |
| **Podium Floor Plate Size** | 38,000 sq. ft. | 20,000 sq. ft. | 10,000 sq. ft. |
| **Podium Building Area** | 114,000 sq. ft. | 60,000 sq. ft. | 20,000 sq. ft. |
| **Tower Floor Plate Size** | 18,000 sq. ft. | 18,000 sq. ft. | 9,000 sq. ft. |
| **Tower Building Area** | 246,000 sq. ft. | 120,000 sq. ft. | 70,000 sq. ft. |
| **Total Tower Stories** | 14 stories | 7 stories | 8 stories |
| **Total Building Height** | 175' | 105' | 105' |



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## Table 2: Basic Assumptions for Office Towers

| | |
|---|---|
| Base FAR: | 6:1 |
| Bonus FAR: | 3:1 |
| Total FAR: | 9:1 |
| Max Height: | 200’ |
| Ground Floor Ceiling Height: | 20’ |
| All other Floors: | 12’ |

| | 40,000 sq. ft. Site | 20,000 sq. ft. Site |
|---|---|---|
| Total Buildable Area | 360,000 sq. ft. | 180,000 sq. ft. |
| Podium Height | 42’ (3 stories) | 42’ (3 stories) |
| Podium Floor Plate Size | 38,000 sq. ft. | 20,000 sq. ft. |
| Podium Building Area | 114,000 sq. ft. | 60,000 sq. ft. |
| Tower Floor Plate Size | 30,000 sq. ft. | 20,000 sq. ft. |
| Tower Building Area | sq. ft. | sq. ft. |
| Total Tower Stories | 9 stories | 6 stories |
| Total Building Height | 150’ | 114’ |

## Table 3: Central City Development Precedents

| Project | District | Site Area | Total Height | Base/Bonus FAR | Total FAR |
|---|---|---|---|---|---|
| Pacific Tower | Old Town / Chinatown | 10,000 sq. ft. | 160’ | 9:1/12:1 FAR | 11.95 FAR |
| The Collective | University/South Downtown | 41,200 sq. ft. | 170’ | 6:1/9:1 FAR | 8.62 FAR |
| The 937 | Pearl | 20,000 sq. ft. | 172’ | 6:1/9:1 FAR | 9.5 FAR |
| The Elizabeth | Pearl | 35,000 sq. ft. | 175’ | 6:1/9:1 FAR | 9.55 FAR |
| The Louisa | Pearl | 40,000 sq. ft. | 175’ | 6:1/9:1 FAR | 7.26 FAR |
| The Cyan | University/South Downtown | 46,620 sq. ft. | 175’ | 6:1/9:1 FAR | 6.23 FAR |
| The Casey | Pearl | 10,000 sq. ft. | 175’ | 6:1/9:1 FAR | 14.53 FAR |
| The Wyatt | Pearl | 40,000 sq. ft. | 190’ | 5:1/8:1 FAR | 7.98 FAR |
| The Yards | Central Eastside | 32,470 sq. ft. | 206’ | 9:1/12:1 FAR | 9.58 FAR |
| 5 MLK | Central Eastside | 38,705 sq. ft. | 216’ | 9:1 FAR | 10.51 FAR |
| The Eliot | West End | 46,000 sq. ft. | 220’ | 8:1/11:1 FAR | 8.02 FAR |
| Riva | South Waterfront | 40,000 sq. ft. | 230’ | 6:1/9:1 FAR | 7.69 FAR |
| OHSU Center for Health & Healing | South Waterfront | 44,071 sq. ft. | 245’ | 6:1/9:1 FAR | 7.75 FAR |
| Ladd Tower | Downtown | 15,000 sq. ft. | 240’ | 6:1/9:1 FAR | 11.13 FAR |



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