Bike Parking in Portland: What's the Tea?

2023 Housing Regulation Survey Results

- The 2023 Housing Regulations Survey - bike parking was listed as top requirements the City of Portland should consider suspending or modifying to support increased housing production.
- PBOT staff directed to modify the current bike parking requirements

		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Total
1	Bicycle parking requirements	53	54	37	34	45	223
2	System Development Charges (SDCs) - timing of payment	66	35	46	26	45	218
3	Floor area ratio (FAR) limits	44	45	27	27	20	163
4	First floor active use requirement	31	44	31	27	23	156
5	Reduced public infrastructure requirements	29	27	25	36	28	145
6	Demolition delay requirements	29	23	32	26	26	136
7	Non-conforming upgrade requirements	24	23	26	37	22	132
8	Parking impacts analysis	30	19	35	18	28	130
9	Maximum height limit	35	28	21	27	17	128
10	Bird safe glazing requirements	15	23	28	20	38	124

DRAFT Proposals

1. In-unit design standards are difficult to comply with:

Staff proposal: Remove the alcove requirement and 15 ft distance from main entrance (permanent code change)

2. Large bike requirement take up too much space for "smaller developments"

Staff proposal: Remove the larger bike parking space (3' x 10' each) requirement of 5% of spaces (temporary change)

Note: Staff are continuing to talk through repercussions of temporarily reducing required amounts for residential units

Whad had happend was

ALCOVES

Looking at BDS friction with bike parking code, over 75% of the code review touches were the alcove requirement. When the only tool you have is an axe, everything looks like a tree.

Alcove requirement made Bicycle Parking the scapegoat of developers. They were Right! Too much cost and caused more headaches than it was worth.

Whad had happend was

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Developers sold or told a false bill of goods about the actual cost drivers of bike parking (here's a secret, it isn't the ratio) effectively excluding ⅔ of residents from an amenity space that attracts people to move here, live here and makes living here affordable.

What does it all cost?

Taking developers at their accounting:

5000 per in-unit bike parked?
OK!
=4351 collateral costs

3000 per bike parked in Bike rooms?
OK!
=2351 collateral costs

.. Wheelylift - CargoBike Storage Kit

$649.00 USD

What's the problem in code? NOTHING!

Seriously! There is too much empty space between racks and bikes.

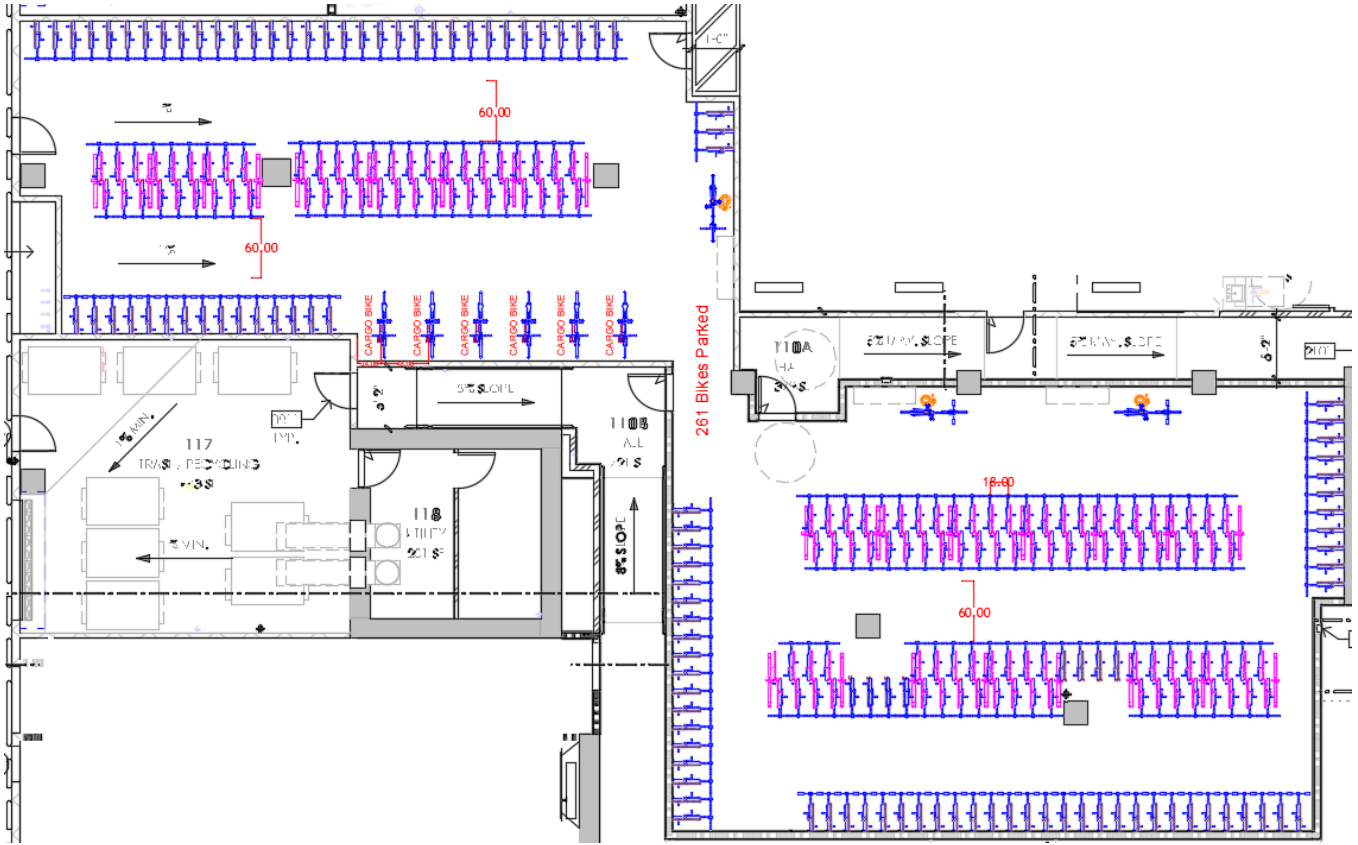
In unit bike parking requires 5x5 (25ft^2) clear space built around a bike.

Pre-2019 Code: 24" spacing between high density racks with 5' aisles between bikes. Bikes could be in bike room, units, common spaces.

2019 Update Bike: 17" between racks and 5'-8' aisles. Down from the historic 24" Spacing. BUT aisle spacing exceed ADA standards. Two tier standard of 8' is 2x industry standard operating minimum. Bikes in bike rooms and in unit only.

Effected no space savings in bike rooms and big open bike rooms that are comfortable to use

How much space did Bikes take up before the RRP?



No more cargo bike spaces. No More $5000 Alcove

Figure 266-12
Vertical Spaces

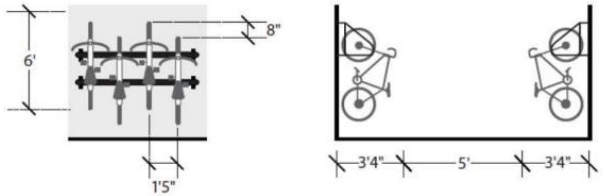


Figure 266-13
Stacked Spaces

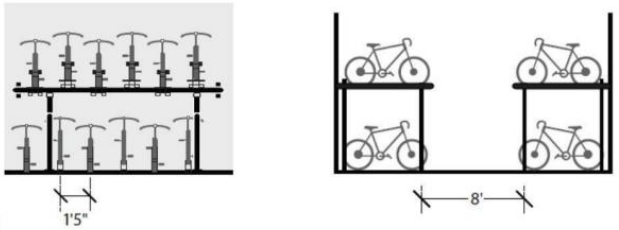


Figure 266-14
Large Bicycle Space

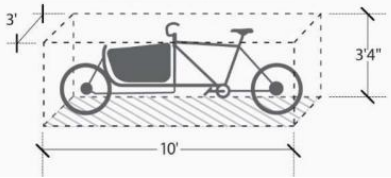


Figure 266-8
Standard Spacing Requirements

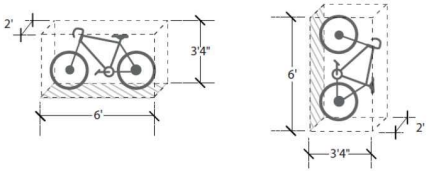


Figure 266-9
Horizontal Spaces: Side-by-Side

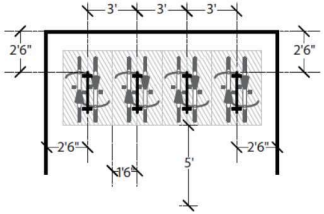


Figure 266-10
Horizontal Spaces: Wall Attached

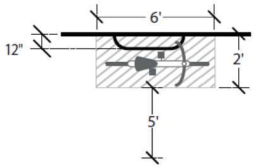
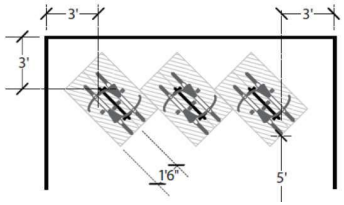


Figure 266-11
Horizontal Spaces: Diagonal (45-60 degree)



Advise against performing surgery with an Axe

Table 266-7
Minimum Dimensions for Bicycle Parking Spaces [1]

		Bicycle Space Depth	Bicycle Space Width	Bicycle Space Height	Maneuvering Area Width	Clearance to rack from walls
Standard Spacing						
	Standard Bicycle Space	6 ft.	2 ft.	3 ft. 4 in.	5 ft.	2 ft. 6 in.
Alternative Spacing						
	Horizontal: Side by Side	6 ft.	1 ft. 6 in.	3 ft. 4 in.	5 ft.	2 ft. 6 in.
	Horizontal: Wall Attached	6 ft.	2 ft.	3 ft. 4 in.	5 ft.	1 ft.
	Horizontal: Diagonal (45-60 degree)	6 ft.	1 ft. 6 in.	3 ft. 4 in.	5 ft.	3 ft.
	Vertical Spaces [2]	3ft. 4 in.	1 ft. 5 in.	6 ft.	5 ft.	--
	Stacked Spaces [3]	--	1 ft. 5 in.	--	8 ft.	--
	Larger Bicycle Space	10 ft.	3 ft.	3 ft. 4 in.	5 ft.	3 ft.

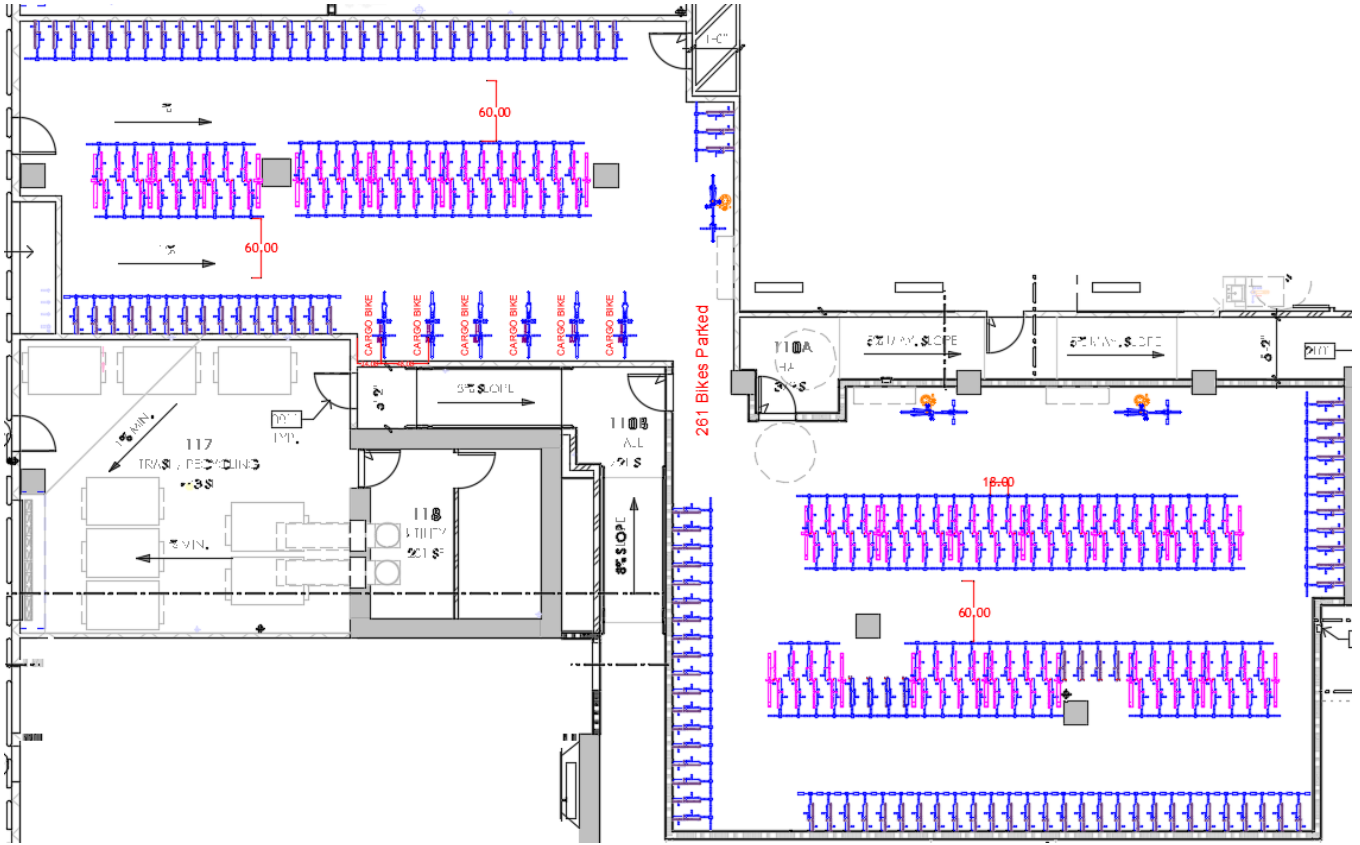
What did the code update Fix in bike code? NOTHING*!

Ratio reduction only impacts access to bikes for Portlanders.

Without adjusting in-unit space, rack and aisle spacing, cost per bike parked per square foot of building space is the same as before RRP. Cost per bike parked per unit is less only because there are fewer bikes. It costs the same to park each bike. Lower the cost per bike parked, reduce impact on unit production, repair the ratio to secure equitable access to safe, clean transportation for all Portlanders.

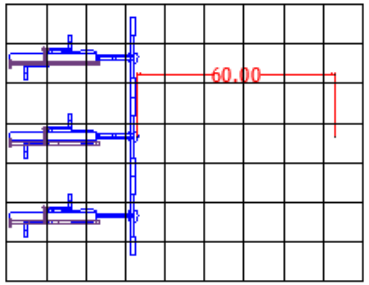
*Except in-unit alcove requirement

How much space do bikes take up after the code update?

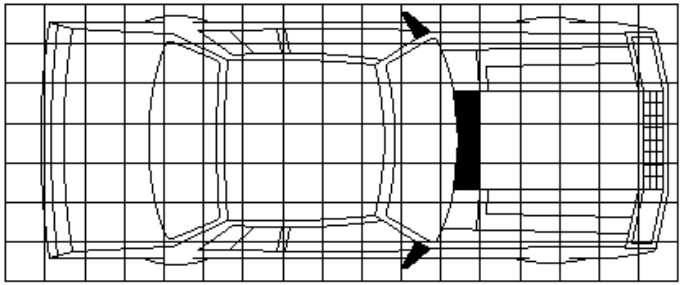


With all physical scales, exponentially more space required

Pre-2019 Code

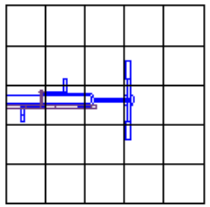


3 Bikes
24" Spacing
63 ft^2

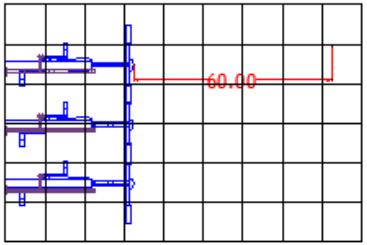


1 Car
119 ft^2

2019 Code

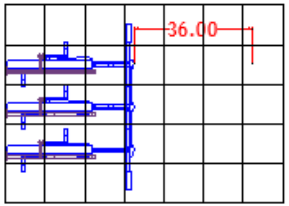


1 Bike
In-Unit
25 ft^2



3 Bikes
18" Spacing
54 ft^2

Industry Minimums



3 Bikes
13" Spacing
36" Aisle
35 ft^2

Surgical code fix

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	Vertical Spaces [2]	3ft. 4 in.	1 ft. 5 in.	6 ft.	6 ft.	--
	Stacked Spaces [3]	--	1 ft. 5 in.	--	8 ft.	--
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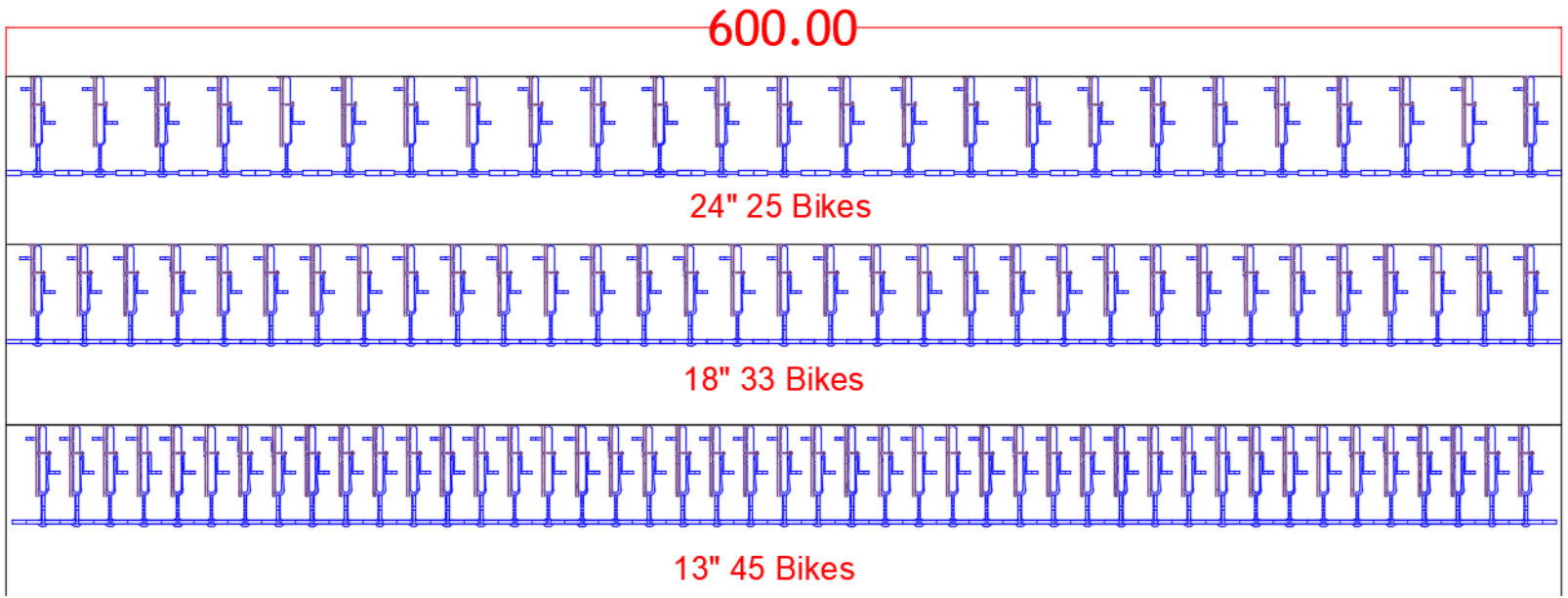
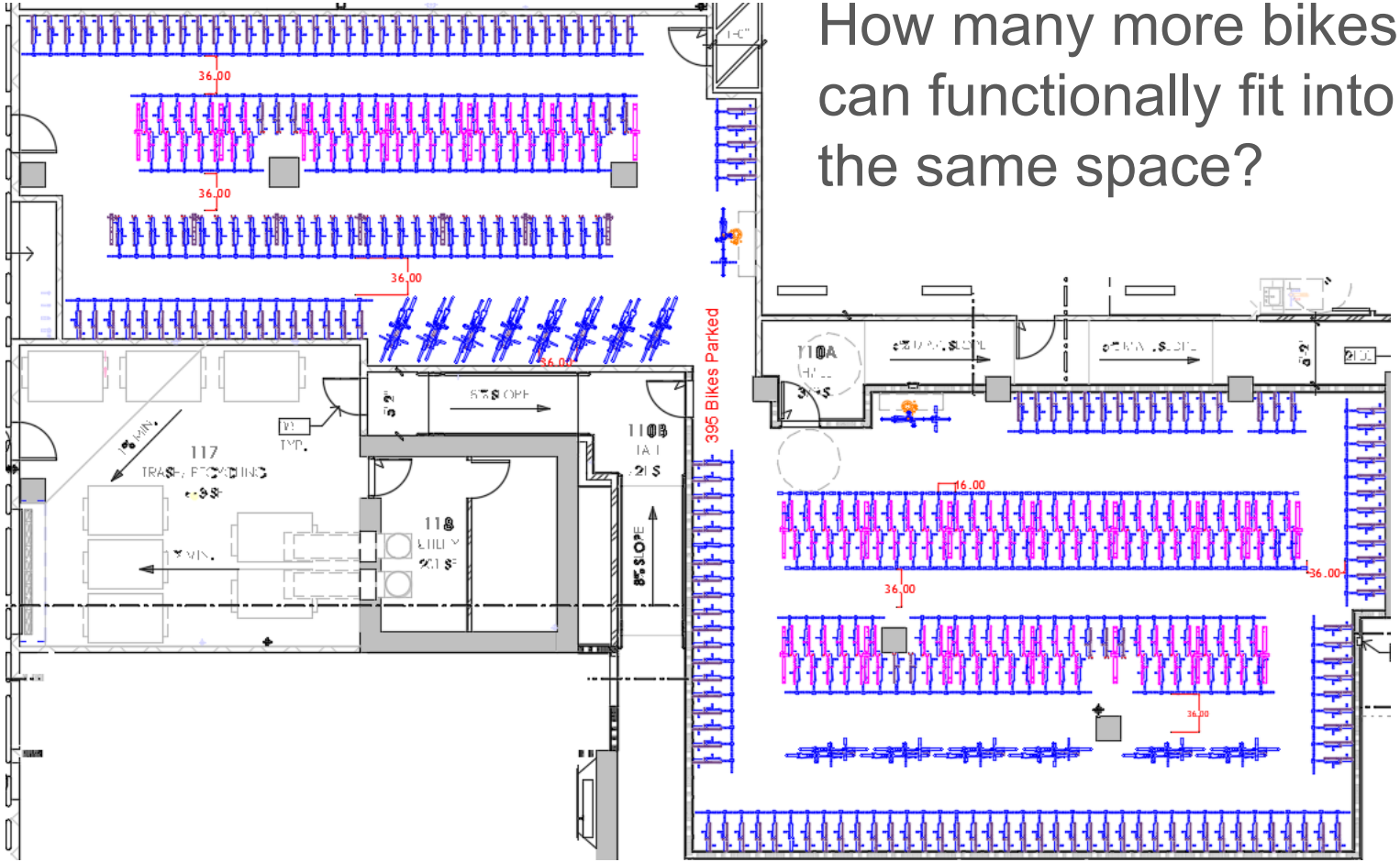
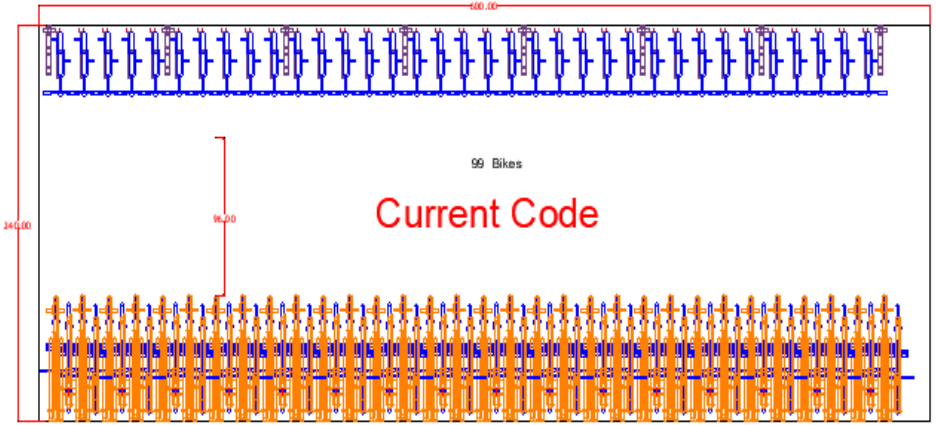
30’ of scales

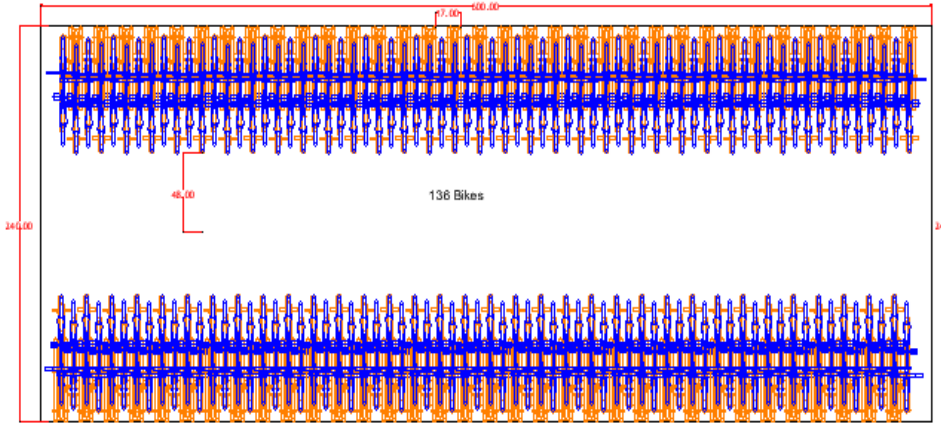


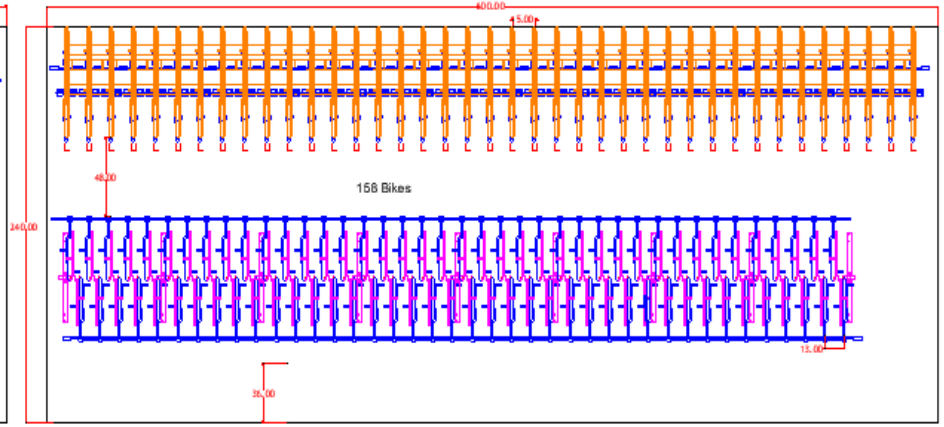

How many more bikes can functionally fit into the same space?
395 Bikes Parked
36.00
117
118
110A
110B

More Options = More Bikes



Next Code





Why is access to Bikes important for Portlanders?

Climate! Now and future

Maybe 1.5 Bikes per unit is inadequate? 3 People in one unit sharing one bike (x 10000 unit) in mass evacuation is a recipe for panic, deepening disaster and unnecessary mortality.

Mode Share! Every mode for every body!

Every Portlander is car free always. Pedestrians, Transit users, people on bike, most drivers are non-drivers for most of the day.

Every Portlander has a RIGHT to access safe secure bike facilities where they live and where they ride. Bike Parking is an extension of street infrastructure

What is mode share and who should care about it?

Mode share is number of trips taken using a specific mode by every portlander divided by the total number of trips taken by every Portlander.

$$\frac{\text{(9.99 in 10 trips Paul) + (1 in 1000 trips Paradise) + (1 in 5000 trips Al) + (1 in 10 trips Steve)}}{\text{Every Trip Made}}$$

2% mode share is NOT 2% of Portlanders riding bike 100% of the time. 2% mode share is 100% of Portlander riding bikes for 1 in 50 trips*

*in other words, every Portlander has a bike and rides it sometimes. Some people only ride, some people only ride once a year or decade. Every one of them needs safe space to move on the street and a secure place to park.

Climate. Disaster. Resilient. FOREVER!!