

**PSC Questions and Staff Responses - Bicycle Parking Code Update Project
February 6, 2019**

	Topic	PSC Question	Staff Response
41	In-unit	If we continue to allow in-unit, we'll need some standards to ensure the usefulness of the parking. I'm interested in thoughts from folks better acquainted with code on how to do this. (Smith)	<p>Staff have heard from BDS staff that adding more detail adds complexity to the permit review process, which could delay projects.</p> <p>In earlier drafts, staff proposed additional design standards for in-unit bicycle parking, including that the bicycle parking must be located within 15 feet of the front door of the dwelling unit.</p> <p>Staff are working possible amendments at the request of several Commissioners. The following are some of the ideas from staff that could put into code language:</p> <ul style="list-style-type: none"> • Must be located within 15 feet of the front door. • Bicycle parking must be in a dedicated storage space or room (with specific dimensions that would include the bicycle parking space, maneuvering area, and wall clearance). • Bicycle parking cannot be in bedrooms, kitchens, bathrooms.
42	In-unit	Should we create a right in zoning to store bikes in housing units (and on balconies). Many buildings (including, I'm told, some managed by Home Forward) prohibit bikes in hallways, elevators and balconies? (Smith)	<p>This is a building management issue and really not the role of Zoning Code.</p> <p>New York City and San Francisco have passed Bicycle Access legislation, which require buildings to allow cyclists to bring bicycles into their office by elevator, upon request. This program is outside of Zoning Code/ Building Permit and only applies to existing commercial office buildings that have a freight elevator.</p>

			<p>For more info: NYC's Bikes in Buildings and SF's Tenant Bicycle Parking in Existing Commercial Buildings Ordinance.</p> <p>Commissioner Smith has requested an amendment that would propose language in Zoning Code that would prevent building managers from prohibiting people from bringing bikes into their units if they choose.</p>
43	In-unit	<p>Parallel idea, for folks who have assigned auto parking spaces and aren't using them for a car, should we create a right in zoning to store bikes in auto parking spaces controlled by an individual, including installation of security features like lockers? (Smith)</p>	<p>This is a building management issue. Staff have proposed that existing car parking can be converted for required bicycle parking. This is a little different because it is designating auto or bike parking as a different use, storage.</p> <p>Commissioner Smith has requested an amendment that would allow bicycle parking in parking areas.</p>
44	Bike rooms	<p>Can we get data from PPB on theft from bike rooms versus other theft scenarios? (Smith)</p>	<p>PPB's Officer Sanders, who runs the PPB Bike unit / Bike Theft Task Force, says, anecdotally, he feels that bike theft from bike rooms has been on the rise, nearly doubling in last two years. <u>However, he also said that there are a number of reasons, both related to design and tenant behavior, that are contributing to this trend.</u></p> <p>According to Officer Sanders, he has noted that the bike rooms are often designed without windows and far from main entrances, where higher chance of potential passive surveillance can occur. These thefts are occurring in the middle of the night, 2:00 to 4:00 am. Further, tenants will often not lock bikes or use minimal cable locks, thus increasing the ease of theft for thieves.</p> <p>Officer Sanders believes the security of restricted access bike rooms can be vastly improved by better location decisions, windows, video surveillance, and additional programming to</p>

			<p>encourage bike registration and education about locking practices, such as consistent u-lock use.</p> <p>PPB has been devoting staff time on these efforts, specifically reaching out to property managers and hopes to increase this education work next year.</p>
45	Bike rooms	Should we encourage multiple smaller bike rooms in buildings so we reduce security issues linked to large bike rooms with access by many people, or similarly break larger bike rooms into smaller segments? (Smith)	<p>Vancouver B.C. limits the size of bike rooms, where a bicycle room can only hold a maximum of 40 bikes. Here is language from their code:</p> <p>Bicycle Room Size - The bicycle room shall be designed to accommodate a maximum of 40 bicycles, except that:</p> <ul style="list-style-type: none"> a. <i>This number can be increased to 120 if the room is compartmentalized using expanded metal mesh with lockable industrial-grade doors into enclosures containing a maximum of 40 bicycles; and</i> b. <i>This number does not include bicycle lockers.</i> <p>Commissioner Smith has requested an amendment that would cap the number of bicycle parking spaces that can be in a room or enclosure.</p>
46	Bike rooms	Do we need additional standards on access, e.g., limit # of doors elevators to get access from outside to some reasonable number? (Smith)	<p>A couple of other cities include some additional access standards, including:</p> <ul style="list-style-type: none"> o <i>San Francisco - a minimum five-foot-wide hallway or lobby space that leads to the bicycle parking major entrance, where direct access to bicycle parking space from the street does not exist. Such access route may include up to two limited constriction points, such as doorways, provided that these constrictions are no narrower than three feet wide and extend for no more than one foot of distance.</i>

			<ul style="list-style-type: none"> ○ <i>Cambridge, MA - The primary access route must be at least five (5) feet in width.</i> ○ <i>Vancouver, BC - All access shall have a minimum vertical clearance of 1.9 meters. All doors on the route from Class A bicycle parking spaces to the outside shall be fitted with automatic door openers.</i> <p>ADA accessibility requirements apply to common, shared rooms, therefore common bike rooms must have an accessible route. Staff have heard from BDS that additional accessibility requirements will add additional time in plan review, and access requirements are not something that is typically checked by Planning and Zoning.</p> <p>Finally, anecdotally, where staff are seeing the largest access issues are in older buildings or those where bicycle parking has been retrofitted.</p>
47	Bike rooms	<p>I'd like to restore the electrical outlet provision from the discussion draft. However, I'm not sure if 5% is the right number, and am not sure if we're counting outlet blocks, or individual sockets. I'd like to aim for sockets for 20% of bikes. (to cover charging lights as well as batteries). BTW, Katie and I had an e-mail correspondence with an e-bike dealers and while most commuter e-bikes have removable batteries, eMountain Bikes (10% of e-bike market?) typically have non-removable batteries. (Smith)</p>	<p>As mentioned in an earlier response, the proposal to require a small percentage of electrical outlets in bike parking areas for charging e-bikes was removed at the behest of BDS. BDS raised a number of questions and concerns, including that the review of outlets in plan documents, is a Building Code issue, not a Zoning Code issue.</p> <p>The original proposal did not distinguish the counting of an outlet block or individual sockets. Although, the intent was to require a number of sockets.</p> <p>Finally, calls into several e-bike stores, including a cargo bike store, have shown a consensus that the majority of their bike stock have removable batteries. Also that some brands, that appear to have integrated batteries, still allow the user to remove the battery</p>

			<p>for charging and servicing. (Spoke to Pedego Electric Bikes, The E-Bike Store, Splendid Cycles)</p> <p>All stores reported huge growth in the e-bike sector, citing on average 30% growth last year. According to Pedego Electric Bikes, they have seen huge growth and popularity in Baby-Boomer population and young commuters. All stores cited the need for secure bike rooms.</p> <p>Commissioner Smith has requested an amendment to require that at least 20 percent of required bicycle parking spaces must have a power outlet socket accessible to horizontal bicycle parking spaces.</p>
48	Bike rooms	Requirement for 2 foot overhang on covered bike storage should only apply to exposed edges. (Smith)	<p>If a structure has a roof and is enclosed on at least 50 percent of the area of its side, then it is a building. Therefore, this cover projection applies when not in a building.</p> <p>Commissioner Smith has requested an amendment to add language to address that the 2 foot overhang for the cover for long-term bicycle parking does not need to apply to an edge that is attached to a building.</p>
49	Use/Ratio table	Table currently requires no parking for any use not listed. I'd like to a minimum for all uses, even if a very small one. I have personal experience that the "Cash & Carry" outlet where I sometimes shop has no bicycle parking because it was not required for the "warehouse sales" use :-) (Smith)	<p>The Use Categories that are not currently listed in Table 266-6 are: Quick Vehicle Servicing, Vehicle Repair, Bulk Fossil Fuel Terminal, Industrial Service, Railroad Yards, Waste-Related, Wholesale Sales, Agriculture, Mining, Radio Frequency Transmission Facilities, and Rail Lines and Utility Corridors (full descriptions can be found in Title 33.920).</p> <p>Staff feel that from this list, Wholesale Sales is the one Use Category that would make the most sense to require a minimum number of visitor parking spaces.</p>

			Commissioner Smith has requested an amendment to address a short-term requirement for Wholesale Sales.
50	Use/Ratio table	Grocery stores (see Dr. Zelada's testimony). Should we require that a percentage of required short-term spaces at grocery stores (20%?) use the larger 3x10 footprint for cargo bikes and trailers? Is there a way we can encourage this parking to be on the front face of the store as suggested by Dr. Zelada? (Smith)	<p>In the Proposed Draft, Grocery Stores are not called out as a Specific Use, they are incorporated under Retail Sales and Services.</p> <p>As for bicycle parking being on the front face of the store, short-term bicycle parking must be located within 50 feet of the main entrance. The scenario described by Dr. Zelada are probably spaces above and beyond code, which are not subject to code requirements.</p> <p>One example:</p> <ul style="list-style-type: none"> • New Seasons (3445 N Williams) - 29,760 sq. ft. <ul style="list-style-type: none"> ○ Proposed code will require 12 short-term spaces (6 racks) ○ 20% for larger space would be 3 spaces. <p>Commissioner Smith has requested an amendment to require a percentage of short-term bicycle parking at Retail Sales and Services to be a larger space (3' X 10').</p>
51	Use/Ratio table	Parks and open spaces. How does proposed standard compare to recent practice by PP&R (flagged by Eli)? (Smith)	<p>No long-term bicycle parking is required for Parks & Open Area.</p> <p>Current proposed short-term requirement: Standard A = 2, or 1 per 2 acres Standard B = 2, or 1 per 3 acres</p> <p>Staff are working with Commissioner Spevak to ensure there is enough short-term bicycle parking at smaller, neighborhood parks.</p>
52	Use/Ratio table	See testimony from Evelyn Ferreira, are ratios for schools sufficient? Should we	For Schools (K-12), the long-term bicycle parking is intended to serve students and staff, while the short-term bicycle parking will

	<p>have more distinction between grade schools, high schools and colleges? (Smith)</p>	<p>serve parents dropping off kids or other visitors to the school. For the calculation staff worked with the PBOT Safe Routes to School Team. The formula was based on:</p> <ul style="list-style-type: none"> • Average class size for elementary (K-5); middle (6-8); and high (9-12) • Using current bike mode splits for the school types and the goal to increase student ridership, below are the mode split goals: <ul style="list-style-type: none"> ○ Standard A - 15% ○ Standard B - 10% <p>The following is what is being proposed:</p> <p><u>Long-Term Bicycle Parking:</u></p> <ul style="list-style-type: none"> • Grades K - 5 <ul style="list-style-type: none"> ○ Standard A = 4 per classroom ○ Standard B = 2 per classroom • Grades 6 - 8 <ul style="list-style-type: none"> ○ Standard A = 5 per classroom ○ Standard B = 3 per classroom • Grades 9 - 12 <ul style="list-style-type: none"> ○ Standard A = 5 per classroom ○ Standard B = 5 per classroom <p><u>Short-Term Bicycle Parking:</u></p> <ul style="list-style-type: none"> • Grades K - 5; Grades 6 - 8; and Grades 9 - 12: <ul style="list-style-type: none"> ○ Standard A = 2, or 1 per 25,000 sq. ft. ○ Standard B = 2, 1 per 100,000 sq. ft. <p>Colleges and Dormitories are two entirely different Use Categories. Dormitories are based on the number of bedrooms and mode split and Colleges are based on employee density and mode split.</p>
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			Commissioner Smith has requested an amendment to increase the amount of long-term bicycle parking for Schools (K-12).
53	Use/Ratio table	Testimony from Marsha Hanchrow questioning whether ratio is high enough for medical uses? (Smith)	<p>Medical Centers (per 33.920) include hospitals and medical complexes that include hospitals, but medical clinics that provide care where patients are generally not kept overnight are classified as Office Uses.</p> <p>Staff used the below to calculate the ratios for Medical Centers.</p> <p><u>Long-Term Bicycle Parking:</u> [sq. ft. per employee] x [target mode split, commute trip]</p> <ul style="list-style-type: none"> • Employee Density = 546 sq. ft. per employee (from USDOE) • Target Mode Split - 15% average bicycle mode split for commute trips <ul style="list-style-type: none"> ○ Standard A = 20% ○ Standard B = 10% • Resulting Long-Term Requirements: <ul style="list-style-type: none"> ○ Standard A = 1 per 2,700 sq. ft. of net building area ○ Standard B = 1 per 5,500 sq. ft. of net building area <p><u>Short-Term Bicycle Parking:</u> [per person trip rate] x [%visitors] x [target mode split, all trips]</p> <ul style="list-style-type: none"> • Person Trip Rate (TSDC) = .6 per 1,000 sq. ft. per PM peak • Visitor rate = 15% • Target Mode Split - 25% average bicycle mode split for all trips\ <ul style="list-style-type: none"> ○ Standard A = 25% ○ Standard B = 15% • Resulting Short-Term Requirements: <ul style="list-style-type: none"> ○ Standard A = 1 per 50,000 sq. ft. of net building area ○ Standard B = 1 per 100,000 sq. ft. of net building area

54	Use/Ratio table	Office ratios: we have testimony suggesting both that our ratios are too high (BOMA) and too low (Hanchrow). Where is "just right"? (Smith)	<p>Staff used the following to calculate the ratios for Office Use:</p> <p><u>Long-Term Bicycle Parking:</u></p> <ul style="list-style-type: none"> • Employee Density = 350 sq. ft. per employee (from City of Portland Economic Opportunities Analysis, 2016 - note this was the most conservative in the range of data points found) • Target Mode Split - 15% average bicycle mode split for commute trips: <ul style="list-style-type: none"> ○ Standard A = 20% ○ Standard B = 10% • Resulting Long-Term Requirements: <ul style="list-style-type: none"> ○ Standard A = 1 per 1,800 sq. ft. of net building area ○ Standard B = 1 per 3,500 sq. ft. of net building area
55	Small project development	Will defer detailed comment on this until the subcommittee meets, but my initial thinking it that is probably makes sense to waive short-term parking requirements for some threshold (<10 units?). Also, I'd like to explore extending the code down to single family development, coupled with sufficient flexibility to make it easy to meet the requirement (not unlike provision for wall racks in townhouse development). (Smith)	These issues were discussed in the PSC Commissioner working group and will be articulated by a member at the worksession. The working group's draft amendments will be included in the Draft PSC Amendment document.
56	Bike Rack Standards	Is there a simple and clear way in code to include a specification that makes sure racks can accommodate fenders? (Smith)	In reviewing codes from other cities, staff have not found a precedent of rack standards that specifically call out accommodating fenders. Many of the vertical wall racks to accommodate fenders, however writing language in code is extremely difficult. There is also a concern to how BDS can feasibly review manufacturer's information to ensure compliance.

			<p>However, this type of detail seems like a perfect fit to be included in the Bicycle Parking Handbook that can highlight best practices and rack details for bicycle parking that are outside code.</p>
57	Bike Rack Standards	<p>See testimony from Eric Rayl, does the "two points including the frame" exclude some useful types of vertical wall racks? (Smith)</p>	<p>Staff recognize that, per Eric Rayl's testimony, that some adequate bicycle rack designs could be excluded under the current proposed language. Staff's original rationale for including the two points of contact for vertical and double decker racks, is for security, in that we want to ensure that the bicycle rack can accommodate a high security, u-shaped lock, where one wheel and the frame can be locked. Staff support amendments to this section.</p> <p>Commissioner Smith has requested an amendment to distinguish between vertical racks and horizontal racks when it comes to "two points of contact, including the frame".</p>
58	Geographic Tiers	<p>I support investigation of the Centers and Corridors approach suggested by the chair (I suggested this during the stakeholder process myself). (Smith)</p>	<p>This question is the same as the one asked by Commissioner Schultz (# 13 in the January 31th PSC Response Worksheet). Here is what was included in that response:</p> <p>During the SAC process staff and SAC members debated whether the Centers and Corridors approach would be a better alignment to distinguish higher and lower bike parking rates.</p> <p>The SAC decided to pursue geographic tiers using the Inner and Outer Pattern Areas for the following reasons:</p> <ul style="list-style-type: none"> • Portland has seen from its own experience that biking rates are higher in inner neighborhoods that are closer to Central City. • Higher biking rates closer to the central city are also found in other major biking cities. • A typical "bikeshed" (distance easily bikeable) is approximately 3 miles, or significantly less with elevation or road connectivity barriers. While centers and corridors

			<p>refer generally to places where development is concentrated, they are too small to accommodate the areas of Portland that can easily be reached by bike.</p> <p>For the Commissioners consideration see Attachment E, two maps of Portland’s Centers and Corridors designations.</p>
59	Geographic Tiers	If we stay with the mapped approach, I would like to consider moving Swan Island to tier A based on its proximity to inner neighborhoods and testimony from Daimler. (Smith)	Commissioner Smith has requested an amendment to include Swan Island into Standard A for the geographic tiers of required bicycle parking.
60	OHSU	I believe the valet should be able to count toward long-term parking, but want the code exception for covered parking to be very narrowly tailored. In my mind the proximity to the Tram is the justification for removing the requirement. Could this be via some kind of adjustment process that validates that waiving the roof requirement results in more usable parking? (Smith)	Staff are working on an amendment at the request of Commissioner Smith. That would add language in both the Marquam Hill Plan District chapter (33.555.295) and the South Waterfront Subdistrict section (33.510.251) to allow existing, uncovered OHSU bike valet to count towards future code requirements.
61	OHSU	With respect to the 110% requirement, I'd like to understand the history of this since other districts in the Central City have higher non-SOV modal targets. (Smith)	<p>The 110% was added as part of the South Waterfront Plan Zoning Code Update (in 2003), and was included with the locker room requirement.</p> <p>The commentary did not mention anything specific about the 110%, it only states: <i>Locker rooms and additional bicycle parking. These amendments will add a requirement for locker rooms and bike parking in larger commercial projects. This requirement replaces an existing floor area bonus in the district and will encourage the use of alternative modes of transportation into the district, supporting the transportation policies of the district.</i></p>

			Commissioner Smith has requested an amendment to remove the 110% bicycle parking requirement for South Waterfront.
62	Bike Parking Solutions Outside the Zoning Code	<p>What might we include in our recommendation to Council that is not able to be implemented via the zoning code? District parking facilities?</p> <p>Long-term parking in the right-of-way as suggested by Doug Klotz?</p> <p>Incentives for adding bike parking to existing buildings?</p> <p>A more aggressive bike corral program?</p> <p>Testimony included requests for bike room design and management best practices that would be suitable topics for the bike parking manual. (Smith)</p>	Staff are working on a Bicycle Parking Handbook that can highlight best practices for bicycle parking that are outside code. If Commissioners have ideas on best practices or case studies that could be included, please share with staff.