

SUSTAINABILITY CODE AMENDMENTS

ELECTRICAL VEHICLE INFRASTRUCTURE AND
BICYCLE PARKING – DRAFT

Planning Commission – January 8, 2014

Electric Vehicle Parking

- Purpose: To ensure infrastructure readiness for electric vehicles that supports market growth and reduction of greenhouse gas emissions.
- Background: EV infrastructure currently allowed use in the City of Tacoma, consistent with State requirements. Model ordinance and development standards prepared by PSRC and RCC.

Bicycle Parking

- Purpose: To promote bicycling as an important and integral mode of transportation, which enables healthy lifestyles, is affordable, and reduces greenhouse gas emissions, and to provide the necessary start and end of trip infrastructure for a bicycle friendly community.
- Background: 2010 Mobility Master Plan Vision:
“Tacoma is a world-class walking and biking community in which pedestrians and bicyclists are top priorities in transportation planning.”

Commonalities

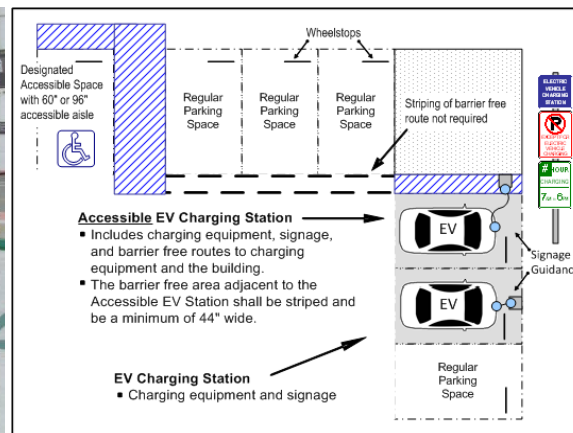
- 'Ready' infrastructure
- Origins/Destinations
 - ▣ Resident/Employee Concentrations

Likely Concerns

- Who is going to use it?
- How much is it going to cost?
- Let the market decide...

Electric Vehicle Infrastructure

- Market based approach to infrastructure readiness
- New single family construction or garage addition
 - ▣ Identify location, provide conduit
- Non-Single family construction
 - ▣ Level 2 charger



EVI Quantity Requirements

Table 1 Required infrastructure for future electric vehicle charging stations based on use*

Land Use Type	Use Size threshold	% EV
Single family	No size threshold.	All new s/f and garage addition
Multi-family residential	No size threshold.	10% of parking provided
Lodging	No size threshold.	3% of parking provided
Office	No size threshold.	3% of parking provided
Institutional	At least 12,000 sq. ft.	3% of parking provided, up to 6 spaces
Retail and Shopping Center	At least 15,000 sq. ft.	1% of parking provided, up to 8 spaces
Auditorium, stadium, and theater	At least 500 seats	1% of parking provided, up to 12 spaces

EV Applied Case Studies

Electric Vehicle Parking Requirement – Case Studies Non-Mixed-use Centers					
Land Use Type	Size	Auto Parking Rate	Auto Parking #	EV %	EV #
Multi-family Residential	150 units	1.25 per unit in R-4	188	10%	19
Lodging	350 guest rooms	.5 per guestroom	175	3%	5
Office - Professional	100,000 sq. ft.	3 per 1,000 sq. ft.	450	3%	14
Institutional – Art museum	36,000 sq. ft.	2.5 per 1,000 sq. ft.	90	3%	3
Shopping Center	150,000 sq. ft.	4 per 1,000 sq. ft.	600	1%	6
Auditorium, stadium and theater	10,000 seats	.25 per seat	2500	1%	12 (reaches cap)

EV Applied Case Studies

Electric Vehicle Parking Requirement – Case Studies Mixed-use Centers/Downtown					
Land Use Type	Size	Auto Parking Rate	Auto Parking #	EV %	EV #
Multi-family Residential	150 units	1 per unit	150	10%	15
Lodging	350 guest rooms	70% of non-center	123	3%	4
Office - Professional	100,000 sq. ft.	2.5 per 1,000 sq. ft.	250	3%	8
Institutional – Art museum	36,000 sq. ft.	70% of non-center	63	3%	2
Shopping Center	150,000 sq. ft.	2.5 per 1,000 sq. ft.	375	1%	4
Auditorium, stadium and theater	10,000 seats	70% of non-center	1750	1%	12 (reaches cap)

Questions before shifting modes?



Bicycle Parking – Current Code

- Tied to auto parking
 - ▣ 3% of required auto parking outside center
 - ▣ 5% of required auto parking in center
 - ▣ Does not apply to certain R districts, primary pedestrian streets, Downtown
 - ▣ Other parking reduction allowances
 - ▣ Complicated path to determine quantity requirements

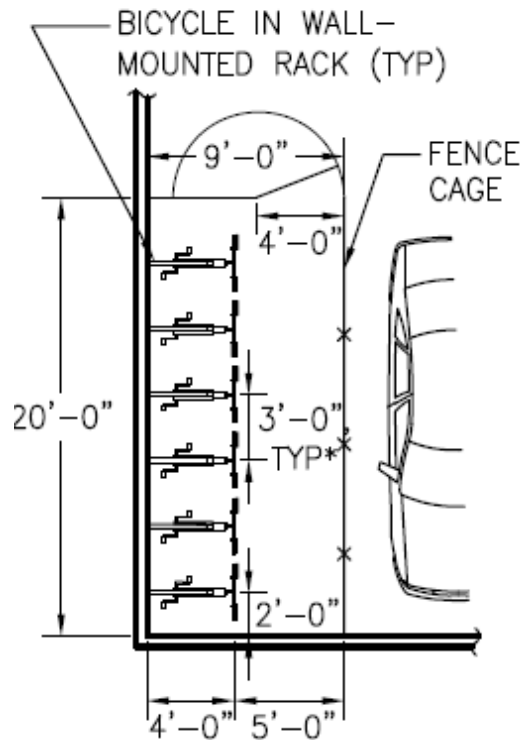
Proposed Changes

- Differentiate long and short term bicycle parking
- Recognize design and location differences
- Flexibility for shared or off-site facilities
- Decouple from auto parking
- Reset the quantity rate calculations
 - ▣ Focus quantity rates on origins/destinations
 - ▣ Differentiate between centers and non-centers for certain uses
 - ▣ Rate reduction after 50 spaces are provided

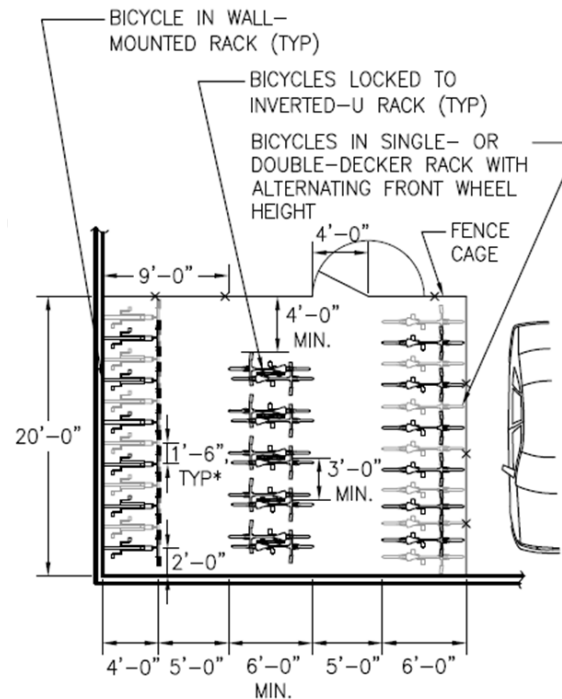


Parking Configuration Examples

- One parking stall
- 6 Bikes



- Three parking stalls
- 48 bikes



Shower and Changing Facilities

- When a use is required to provide at least 10 long-term bicycle parking spaces
- 1 per 20 long-term bicycle spaces
- Multi-family residential excepted