Electric Vehicle Ready Code

Proposed Draft for Public Review

August 2022

THE BUREAU OF
PLANNING &
SUSTAINABILITY

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How Can I Participate?

1. **Watch the public hearing** (live stream and recorded) at portland.gov/bps/psc
2. **Testify at the Planning and Sustainability Commission hearing.** The hearing on Tuesday, September 13, 2022, at 12:30 p.m. will be a hybrid format with options to participate either in-person or virtually using a computer, mobile device, or telephone. You must sign up to testify in advance. To testify before the Commission in person or virtually:
   - Use the QR code to the right to sign up on your mobile device; or
   - Visit the project website at portland.gov/bps/ev-ready.

   After registering, you will receive a confirmation email containing information about joining the hearing. **The deadline to sign up for the September 13 hearing is Monday, September 12 at 5:00 p.m.** Individuals have three minutes to testify, unless stated otherwise at the hearing.
3. **Submit written testimony.** We strongly encourage electronic written testimony. Written testimony must be received by the time of the hearing and must include your name and address.

Use the Map App:	Use U.S. Mail:
portlandmaps.com/bps/mapapp Click on "EV Ready Code Project" then click the "Testify" button. Testifying in the Map App is as easy as sending an email.	Portland Planning and Sustainability Commission EV Ready Code Project Testimony 1810 SW 5th Ave, Suite 710 Portland, OR 97201

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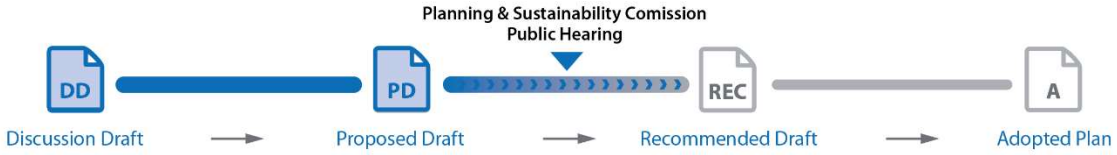

Acknowledgments

Portland City Council
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Jo Ann Hardesty, *Commissioner*
Mingus Mapps, *Commissioner*
Carmen Rubio, *Commissioner*
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Section I: Project Summary and Staff Proposal

Introduction

The Bureau of Planning and Sustainability (BPS) is proposing to amend Portland City Code, Title 33 (Planning and Zoning) to require all new multi-dwelling and mixed use development with five or more units – that include onsite parking – to provide electric vehicle (EV)-ready charging infrastructure.

Project Summary

In 2021 the Oregon legislature passed House Bill 2180, which required an update to the Oregon Structural Specialty Code, the building code that applies to commercial structures. These new rules require that 20% of parking spaces in newly constructed, privately owned commercial buildings – as well as multi-dwelling and mixed-use buildings with five or more residential units – provide electrical conduit and options for service capacity to support electric vehicle charging (known as EV-ready). The legislation also allows a municipality to go above and beyond the 20% requirement for these building types by a "process concerning land use." The State Building Code Division (BCD) approved these new rules into their code effective 7/1/22.Parallel to this process, the Department of Land Conservation and Development (DLCD) led the Climate-Friendly and Equitable Communities Rulemaking process, which augments HB2180 provisions into new rules addressing climate-friendly and equitable land use and transportation planning. This work was part of Executive Order 20-04 signed by Governor Brown. The DLCD rules increase the required percentage of EV-ready parking spaces for mixed-use development to 40%. The City's EV Ready Code Project brings our Zoning Code into alignment with these new state regulations, while further augmenting minimum requirements based on years of study and outreach begun by the City in 2017.

This report contains amendments to the Portland City Zoning Code (Title 33) to complement changes to State law and local discussions. These amendments will clarify land use requirements and standards for the installation of EV-ready infrastructure in new buildings. These development standards will also provide guidance for voluntary EV installations within existing parking areas. The changes make it easier for someone to install charging equipment/stations in the future or retrofit existing parking facilities. The proposed amendments, however, do not create any new requirements for minimum parking amounts; projects that are currently exempt from parking requirements will continue to be exempt and the amendments will not apply to those projects. The amendments only dictate the amount of EV-ready spaces in situations where new parking spaces are provided for the development types that were subject to the legislative bill.

Zoning Code changes proposed:

1. Require developments with five or more new dwelling units, when including parking spaces, to provide electric vehicle-ready infrastructure as follows:
   - 100% of parking spaces when six or fewer spaces are provided; or
   - 50% of parking space when more than six spaces are provided.
2. Add development standards (e.g., placement) for all EV-ready installations.
3. Clarify how EV-ready installations are categorized in land use code; they are generally an accessory use, and in infrequent situations, could be a primary use.

4. Target certain incentives to include EV charging for car sharing and carpool parking.
5. Exclude the cost of EV improvements from the value of the site's improvements, for the purpose of triggering nonconforming upgrades.

Related Building Code provision:

While the proposed Zoning Code language above regulates the number of parking spaces that must provide EV-ready infrastructure, the provisions in OAR 918-460-0200 (Building Codes Division) contain the requirements for what EV-ready infrastructure means, while the Oregon Structure Specialty Code is the mechanism under which plans will be reviewed. In general, EV-ready requirements would include conduit and designated space within the building (or a designated location on the property, for installing remote service) for current or future electrical service capacity to support at least a Level 2 EV charger.

Staff Proposal

Staff proposes that: the Planning and Sustainability Commission (PSC) recommend that City Council:

- Adopt this report.
- Amend Title 33, Planning and Zoning, as reflected in this report.

Section II: Background and Context

Authorization

In 2017, via the adoption of the City of Portland EV Strategy [Resolution No. 37255], Portland City Council directed BPS staff to explore EV parking and charging infrastructure requirements in new multifamily and commercial construction projects that include parking. In November 2019, City Council passed Ordinance #189769 directing BPS to scope updates to City code that address changing mobility needs, including mobility hubs and EV charging stations. While city staff were scoping the options for these local regulations, the legislature and state agencies began creating their own set of requirements, including options through State codes and rules. For some of the amendments, the City needed to wait for the State work in order to implement our local policies.

Purpose

The Electric Vehicle (EV) Ready Code Project amendments are part of the bureau's work to reduce carbon emissions in the city. These amendments are intended to implement key elements of the City of Portland's adopted Electric Vehicle Strategy, Portland 2035 Transportation System Plan and 2035 Comprehensive Plan's Policy 9.6. In addition, the amendments are responsive to recent State legislation, House Bill 2180 (2021), which directed the State Building Code Division (BCD) to amend state building code to require that new construction of certain buildings include electrical conduit and charging capacity options to supply 20 percent of parking spaces. This was implemented on 7/1/22 through OAR 918-460-0200. Lastly, the amendments work to augment the Department of Land Conservation and Development's Climate Friendly and Equitable Communities Rulemaking, which developed an administrative rule (OAR 660-12-0410) increasing the minimum requirement for new construction up to 40 percent in urban areas. This project advances both city policies and state provisions, while balancing the limitations of each.

Why is electrical charging infrastructure important?

The City of Portland has adopted policy direction to support the use of electric vehicles. While policy direction also prioritizes walking, bicycling, transit, and shared vehicles over private cars, it clearly prioritizes zero-emission vehicles over fossil-fueled private cars for their higher efficiency and reduced air quality impacts.

Research shows that access to convenient charging is a key factor in whether to buy an electric vehicle. Requiring developers to provide, at a minimum, the electrical conduit needed for future charging equipment/stations with new parking will save substantial costs on future charging station installation, which can increase charging convenience leading to increased usage of EVs. In Oregon, developers can choose different options to address current or future electrical capacity needs, which will allow growth potential as demand increases. The recently updated provisions in OAR 918-460-0200 (Building Codes Division) contain the requirements for what EV-ready infrastructure means, while the Oregon Structure Specialty Code is the mechanism under which plans will be reviewed. In general, EV-ready requirements would include conduit and designated space within the building (or a designated location on the property, for installing remote service) for current or future electrical service capacity to support at least a Level 2 EV charger.

Electric vehicles are typically charged at home, work, or publicly accessible charging stations. But installing the necessary infrastructure to support EV charging after a building has been constructed can be cost prohibitive. So, we need to ensure that buildings are designed to include infrastructure to support future installation of EV chargers. This concept is known as "EV readiness." The average lifespan of a building is 60 years, whereas many automakers anticipate moving toward all-electric vehicle manufacturing in the next 20 years. Ensuring that a building is EV-ready at the time of construction supports a climate-friendly future and minimizes future retrofit-related costs.

Adoption of electric vehicle use is slowed by lack of familiarity and concerns about the availability of charging infrastructure. Ensuring that infrastructure is provided in new development, particularly in multi-dwelling buildings, supports people to choose electric over fossil-fueled vehicles when they purchase or lease a new vehicle.

Equity

EVs were once rare and were only owned by a few, usually higher income, early adopters. According to Oregon State's Department of Transportation (ODOT) and Department of Energy (ODOE), a decade ago there were fewer than 1,000 electric vehicles registered in Oregon. As of the end of April 2022, there are more than 50,000 electric vehicles [1]on Oregon roads. These vehicles can now be purchased on either the new or used market. EVs are expected to become even more accessible and affordable over time. Due to policy changes and the market response to those changes, it is anticipated that it will become increasingly difficult to access a traditional internal combustion engine (ICE) vehicle. Most vehicle manufacturers are ramping up the sale of EVs and many States have committed to phase out the sale of passenger ICE vehicles by 2030 or 2035. States around the country are phasing out the sale of internal combustion/gas-fueled vehicles.

- California is phasing out all ICE vehicle sales by 2035.
- In March of 2022, Washington banned the sale of non-EV cars and light duty trucks by 2030.
- In Sept. 2021 New York ban non-zero emission cars and light duty trucks by 2035.

Oregon's Governor Kate Brown has indicated that she plans to follow suite. Rhode Island, North Carolina, New Mexico, New Jersey, Massachusetts, Maine, Hawaii, and Connecticut are also expected to follow suit. The European Union (EU) has also committed to this ban.

Available Federal and State incentives have resulted in price parity between EVs and ICE vehicles. Used EVs are currently available and will become even more prevalent over time as more new EV model options become available. Oregon offers some of the country's most generous EV rebates to income-qualified Oregonians in the country. Oregon offers the following EV rebates:

- Up to $7500 for income qualified applicants for a new EV
- Up to $5000 on a used EV for income qualified applicants

[1] Oregon Department of Energy, Oregon Department of Energy, Mar. 2022, www.oregon.gov/energy/Data-and-Reports/Pages/Oregon-Electric-Vehicle-Dashboard.aspx.

Federal Tax credits currently offer up to an additional $7500 when purchasing a new EV. Discussions are underway to expand federal incentives including making them eligible to used EVs. As of January 28, 2022, the lowest price used EV for sale in Oregon was a 2013 Nissan Leaf for under $6000[2]. Making use of the $5000 Oregon EV rebate would reduce the price of the vehicle to under $1000. The Portland Clean Energy Fund (PCEF) is supporting a Metropolitan Family Services program offering low-interest loans and grants for low-income Portlanders purchase of new or used EVs, or electric bikes. This loan or grant can be stacked with State rebates and federal incentives. At this point in time, purchasing a used EV is feasible for low-income Portlanders. Additionally, EVs are cheaper to own than ICE vehicles due to less expensive fuel and maintenance costs. Modeling shows that EV owners save an average of $6,000 over the vehicle's lifetime. [3]

Due to the amount of savings associated with owning an EV, low-income Portlanders can really benefit from owning an EV rather than an older gas vehicle. However, it is unrealistic for them to access an EV without convenient and affordable access to EV charging.

Access to charging that is reliable, convenient, and affordable is critical to enabling EV ownership. Some sources estimate that more than 80% of charging occurs at home.[4] However, rental housing tenants often lack the ability to access or install a charger where they park at home due to a lack of dedicated off-street parking, an inability to afford the expense of charger installation, or a property owner's unwillingness to install a charger.

Approximately 36% of households in the United States are renters, so access to EV-charging facilities in multifamily housing is key to ensuring equitable access. In Portland, the percentage of renters is higher than the national average, exceeding 47% of households. Renters also represent a greater portion of low- and moderate-income (LMI) and Black, Indigenous, and People of Color (BIPOC) households.[5] To date, these households have largely been unable to benefit from electric vehicles.

Currently, most EV owners are higher income single-family homeowners that can install a private, dedicated charger at home, while many LMI and BIPOC households face challenges in attaining the resources needed to benefit from the cost savings associated with EVs and participate in the clean energy transition as a result of structural and institutional racism. Without targeted interventions, these groups are at risk of remaining locked out of the EV transition, and the economic benefits that can be derived; additionally, ambitious climate targets and EV deployment goals will not be achieved/realized unless EVs are accessible to more households.

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[2] "Oregon Electric Vehicle Trends." Recurrent, Recurrent, 2022, www.recurrentauto.com/research/oregon-electric-vehicle-trends?utm_source=linkedin&utm_medium=social&utm_campaign=brand. Accessed 8 Aug. 2022.
[3] Orvis, Robbie. "Most Electric Vehicles are Cheaper to Own Off the Lot than Gas Cars." Energy Innovation Policy & Technology LLC, Energy Innovation Policy and Technology LLC, May 2022, energyinnovation.org/wp-content/uploads/2022/05/Most-Electric-Vehicles-Are-Cheaper-Off-the-Lot-Than-Gas-Cars-From-Day-One.pdf.
[4] Office of Energy Efficiency & Renewable Energy. (n.d.). Charging at Home. United States Department of Energy. Retrieved from: https://www.energy.gov/eere/electricvehicles/charging-home
[5] Joint Center for Housing Studies of Harvard University. (2017). Renter Households. Retrieved from: https://www.jchs.harvard.edu/sites/default/files/02_harvard_jchs_americas_rental_housing_2017.pdf

Additionally, renters who do own EVs may be limited in future housing choices based on proximity to EV charging. This is particularly problematic for renters because they tend to move more frequently than homeowners. Targeted action is also needed to ensure that structural and distributional inequities are corrected as communities transition to cleaner technologies. By focusing on the renter population, this project seeks to expand access to EV charging for these traditionally underserved communities.

Portland's proposed EV-Ready requirements will facilitate access to EV charging infrastructure for residents of multi-dwelling units to ensure that the EV-related infrastructure, which is expensive to add after construction, is distributed equitably among new construction residential projects. This code update will future-proof buildings that are anticipated to be around for the next 50-80 years. Recognizing that on-site parking can be a limited resource, our amendments require a higher percentage of EV-ready spaces for smaller residential parking areas which could allow for the potential to share the charging facility and unbundle the parking spaces from the unit.

Portland Bureau of Transportation (PBOT) EV Charging Related Projects

To prepare for upcoming demand and to facilitate the transition to zero emission vehicles there will need to be ample charging available on private land as well as the in the right-of-way (ROW). PBOT is working on the following complementary efforts which will permit EV charging in the ROW, as a means to expand access to EV charging to further facilitate the transition.

Residential:

- Level 1 charging electrical cords are allowed to cross the sidewalk when accompanied with an ADA accessible cord cover.

Neighborhood Centers:

- PBOT staff are working to design a permit program that allows utilities and charging companies to locate publicly accessible Level 2 chargers in the ROW near neighborhood commercial centers. The goal is to have at least one charger per neighborhood center in Portland.

More information on PBOT EV charging related projects can be found on PBOT's Electric Vehicles web page.

Economic impact considerations

During the summer 2021, BPS commissioned an *EV Ready Economic Analysis Report* by Johnson Economics as part of the code concepts analysis phase. The Johnson Economics' *EV Ready Economic Analysis (2021)* in the appendix outlines how the installation of EV conduit could affect housing affordability. The estimated impact on overall development cost associated with EV-ready infrastructure is expected to be modest relative to the overall cost of development.

The proposed mandate will move EV-ready space requirements from 20% to 50% of parking spaces for new mixed use and multi-dwelling development permits, with an average cost per space ranging from $800 to $4,700, depending upon the technical requirements and project-specific variables. This additional cost would need to be offset by increased revenue, which would be possible through user charges if the infrastructure was demanded in the market. But this would more likely be reflected in marginally higher rent levels and/or lower underlying land values. The impact of this mandate on rent

levels is expected to be below 1% for new construction. The memo concludes that these changes could be positive for housing affordability, when compared to current processes and regulations.

The analysis also highlights a significant difference in cost between installing dedicated circuits and load management (shared) EV-ready infrastructure, and that dedicated infrastructure is much more expensive than shared systems (Table 1).

	Estimated Costs		
	Low	High	Average
Cost per EV Space			
Dedicated	$3,667	$4,791	$4,229
Shared	$824	$1,902	$1,363
Incremental Cost/Unit			
Dedicated	$550	$1,582	$1,066
Shared	$185	$622	$404
Baseline Costs	$275,000	$375,000	$325,000
% Shift in Costs			
Dedicated	0.20%	0.42%	0.33%
Shared	0.07%	0.17%	0.12%

Utility Support to Offset EV-Ready Costs for Affordable Housing Projects Impacted by Code Change

Portland General Electric (PGE) and PacifiCorp are planning to offer funding support, upon Oregon Public Utility Commission (OPUC) and stakeholder approval, to a group of affordable housing builders to offset costs associated with EV-Ready requirements for new construction of multi-dwelling projects, prioritizing those that have already identified budgets and will be impacted in the early phase of EV-Ready building code implementation.

Additionally, both electric utilities offer rebates to support the purchase of residential Level 2 EV chargers:

- PGE offers up to $2,300 per port for income-eligible multifamily properties for Level 2 EV chargers.
- PacifiCorp offers rebates up to $3000/port for EV charging infrastructure in multifamily dwellings.

Both utilities are exploring how to better support installation of EV charging equipment in multi-dwelling residential buildings and will be proposing strategies in their upcoming Transportation Electrification plans for Oregon.

State agencies: Regulatory changes and coordination

At the legislative level, the passage of HB2180 creates opportunities for the State codes and rules to become more lenient for local alternatives. While the recent adopted legislation and subsequent DLCD rulemaking creates a statewide threshold, it allows local jurisdictions to exceed these thresholds for certain forms of development. This project follows through on this allowance, while also providing greater clarification for how EV chargers are to be regulated through city development standards.

Before these changes, Oregon OAR 918-020-0380 Electric Vehicle Ready Parking (2017) only required new construction of parking facilities with 50 or more open parking spaces to make five (5) percent of the parking spaces ready for future installation of EV charging stations.

The updated State regulation, authorized by HB 2180 and codified through ORS 455.417 and OAR 918-460-0200 (Building Codes Division)(effective July 1, 2022) requires the installation of conduit and electrical service capacity options to support the current or future installation of Level 2 EV charging stations at no less than 20% of the vehicle parking spaces at newly constructed commercial buildings under private ownership, multifamily residential buildings with five or more dwelling units and mixed-use buildings with privately owned commercial space and five or more dwelling units. The legislation allows local municipalities to require EV-readiness in more than 20% of parking spaces through a process concerning land use.

In response to Governor Brown's Executive Order 20-04 to reduce climate pollution, the Land Conservation and Development Commission (DLCD) launched its Climate-Friendly and Equitable Communities Rulemaking in September 2020 and adopted permanent rules at its July 2022 meeting.

The new DLCD rules require many communities including Portland (and Metro) to change their local transportation and land use plans to ensure Oregonians have more safe, comfortable ways to get around, and don't have to drive long distances just to meet their daily needs. The rules also aim to improve equity, and help community transportation, housing, and planning. Specific to electric vehicles, the rules propose new housing and mixed-use development to include electric conduit (pipes) for 40% of parking spots for the multi-dwelling and mixed-use buildings containing at least five units. The capacity options are based on the Building Codes, readying these sites to add wiring and charging stations to support EVs as the market expands. These rules expand on the building code requirements from HB2180 and apply to many jurisdictions statewide. City staff had ongoing discussions with DLCD staff to ensure that the changes adopted in the rule making were consistent with the intent of state legislation/building code and with our regulatory scoping work at the local level.

The changes at the State level were proposed and vetted at the same time that staff were developing the local EV-ready regulations. During this development, staff planned to increase the EV-ready requirement above the initial provisions dictated by the original legislation. The City's initial EV-ready proposals throughout the draft phase have been to require 50% of parking provided for new multi-dwelling and mixed-use buildings, with up to 100% EV-ready when limited on-site parking of less than 12 spaces are provided. This higher ratio acknowledges that a greater percentage of people in Multnomah County than elsewhere in the state have purchased electric vehicles. While Multnomah County represents approximately 20% of the state population, the County has nearly 30% of the registered EVs[6]. However, with the recent DLCD rules, the increase from the state land use minimum requirement to the local requirement is a modest 10%, from 40% to 50%.

American Disability Act (ADA)

The State building code – rather than a city or county zoning code – requires the minimum number of ADA parking spaces, as well as the dimensional and signage requirements for them. ADA parking requirements are codified in the State of Oregon's Oregon Revised Statute (ORS) 447.233 and the Oregon Structural Specialty Code, Chapter 11 – Accessibility. The City of Portland and all other Oregon cities and counties defer to these state regulations for ADA requirements. For accessible parking, City of

[6] Oregon Department of Energy, Oregon Department of Energy, Mar. 2022, www.oregon.gov/energy/Data-and-Reports/Pages/Oregon-Electric-Vehicle-Dashboard.aspx.

Portland BDS Plans Examiners specifically look at Oregon Structural Specialty Code, Chapter 11 – Accessibility, Table 1106.1 Accessible Parking Spaces for the minimum number of accessible spaces.

Coordination with City bureaus

Project staff have worked with several City bureaus (see the Acknowledgements page) throughout the project. Coordination has ranged from formal participation with the Enabling Tenants Access to EV Charging meetings and the Technical Advisory Planning Series public meetings to discussions with the City's building officials and electrical code experts to ensure that this proposal is consistent and parallel with the work being done by the State Building Codes Division. The building and code experts were especially helpful in ensuring that the direction laid out by House Bill 2180 and augmented by the DLCD was accurately turned into implementable regulations within the Oregon Administrative Rules (OAR). Project staff also included other members of the Bureau of Development Services (BDS) and Portland Bureau of Transportation (PBOT) to review the concept and these amendments and follow up discussions.

Topics not proposed for amendments

Some topics were brought up by stakeholders and discussed internally, but resulted in no amendments being proposed, after discussing with City bureaus. These topics included mobility hubs with (PBOT) and signage regulations as they pertain to EV charging units with BDS.

Addressing Mobility Hubs

During project scoping and initial outreach discussion, there were suggestions to clarify the use category of a site that dedicates space to active and alternative transportation options as well as facilitates EV charging. These areas are often called "mobility hubs" within subject literature.

With research and discussions with PBOT, it was found that examples of mobility hubs most often consist of multi-modal transportation stations and areas of transit and trip making transfers. When these are located in the right-of-way, they are subject to Title 17 and reviewed by PBOT, and not through the Zoning Code. If these are located on a site outside of the right-of-way, they generally fall under the existing use categories, "Basic Utilities" (which include mass transit stops and light rail stations) or "Community Services" (which include park-and-ride facilities). Elements of a mobility hub may also be incorporated as accessory development (EV and bike parking, etc.) to the primary uses on the site.

PBOT is working to incorporate the concepts of mobility hubs into their planning process and have engaged with the consultant Alta Planning to come up with a series of typologies for mobility hubs. This work may feed into amendments to PBOTs current regulations in Title 16 and 17, or their Administrative Rules.

However, within the Zoning Code, the mobility hub concept is already addressed through the existing use categories that include multi-modal transit facilities mentioned above. Development standards, with the amendments included in this document, address site planning and parking of EVs and their chargers. As a result, the term mobility hub is not being added to the Zoning Code.

EV charging technology may improve over time to the point where a charge can be made in a matter of minutes, similar to the filling up of a gas tank. If a quick EV-charging facility is set up for vehicles to line up to access an EV-charging station terminal within a queueing line, this facility would be classified as a Quick Vehicle Servicing use and subject to the same drive-through facility standards as a gas station. However, EV chargers that are incorporated into a parking space are considered part of the parking area and not considered a drive-through, even if the parking space has a time limitation. The Zoning Code is being updated to address EV-charging facilities, as they may occur in the future, that operate like a gas/filling station.

Sign Code Regulations

Generally, EV chargers include some form of text or advertising on them to attract attention, and because the signs are often visible outside the site, they may be subject to the regulations of signs under Title 32, Signs and Related Regulations. The idea of proposing sign exemptions or regulations specific to EV-charging signage was discussed with implementation staff from the Bureau of Development Services (BDS) who work on sign permits along with PBOT staff. While the need for a more holistic sign code update continues to be present, concerns about developing such specific regulations without a larger sign code discussion remain. Since a rewrite of the sign code is outside the scope of this project, no amendments related to Title 32 are suggested at this time. BDS staff will continue to review and monitor signage related to EV chargers as they currently apply. In addition, signs required by federal, state, or local law as well as directional signs are allowed within certain size limitations.

Section III: Relationship to the Comprehensive Plan

Comprehensive Plan Guiding Principles

The EV Ready Code Project helps implement the 2035 Comprehensive Plan in the following ways.

Economic Prosperity. *Support a low-carbon economy and foster employment growth, competitiveness, and equitably-distributed household prosperity.*

> This project advances this principle by supporting low-carbon transportation options for Portlanders that reside in multi-dwelling housing and mixed use development with five or more units in buildings built after the code updates go into effect. Transportation is the second highest-household cost. The average cost to operate an EV in the United States is $485 per year, while the average for a gasoline-powered vehicle is $1,117. The exact price difference depends on gas and electric rates where you live, plus the type of car you drive.[7] These standards support lower-cost and climate friendly transportation options, which can provide tangible economic benefits to individuals and households across Portland.

Human Health. *Avoid or minimize negative health impacts and improve opportunities for Portlanders to lead healthy, active lives.*

> This project advances this principle by supporting the use of electric vehicles as a form of transportation. Expanding the use of electric vehicles in large metropolitan areas could reduce health harms from tailpipe emissions, which contain nitrogen dioxide (NO2), fine particulate matter (PM2.5) and other harmful compounds.[8] BIPOC and low-income communities are disproportionately exposed to poor air quality due to lower income housing often being located near highways and busy roads. This project helps facilitate vehicle electrification by requiring EV-ready conduit and greater access to charging in new development; and, further vehicle electrification is an opportunity to achieve large public health benefits.

Environmental Health. *Weave nature into the city and foster a healthy environment that sustains people, neighborhoods, and fish and wildlife. Recognize the intrinsic value of nature and sustain the ecosystem services of Portland's air, water, and land.*

> This project advances this principle by increasing the supply of EV-ready parking, which supports EV use, a low-carbon transportation option. Climate change threatens not just Oregon's natural treasures, but also Portlanders' jobs and health. Forty-three percent of all local carbon

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[7] Energy Sage, "Costs and benefits of electric cars vs. conventional vehicles," https://www.energysage.com/electric-vehicles/costs-and-benefits-evs/evs-vs-fossil-fuel-vehicles/, (2021)
[8] ScienceDirect, "Assessing the health impacts of electric vehicles through air pollution in the United States," https://www.sciencedirect.com/science/article/pii/S016041202031970X?via%3Dihub, (2020)

emissions come from transportation sources. Utilizing vehicle electrification (fuel-shifting) is one of the key strategies to reduce carbon emissions from the transportation sector.

Equity. *Promote equity and environmental justice by reducing disparities, minimizing burdens, extending community benefits, increasing the amount of affordable housing, affirmatively furthering fair housing, proactively fighting displacement, and improving socio-economic opportunities for underserved and underrepresented populations. Intentionally engage underserved and underrepresented populations in decisions that affect them. Specifically recognize, address, and prevent repetition of the injustices suffered by communities of color throughout Portland's history.*

This project advances this principle by establishing standards for EV charging access that consider the needs of people with different tenure, income, abilities and by requiring, rather than relying on the market, EV-ready parking in new development. Additionally, the standards were developed based on considerable feedback and engagement with a wide variety of stakeholders, including residents of multi-dwelling buildings, affordable housing developers, community-based organizations, and the Portland Housing Bureau. The project worked to balance the City goals of providing more affordable housing and supporting affordable, environmentally friendly transportation options.

Currently, most EV owners are higher income single-family homeowners that can install a private, dedicated charger at home, while many LMI and BIPOC households face challenges in attaining the resources needed to benefit from the cost savings associated with EVs and participate in the clean energy transition as a result of structural and institutional racism. Without targeted interventions, these groups are at risk of remaining locked out of the EV transition, and the economic benefits that can be derived; additionally, ambitious climate targets and EV deployment goals will not be achieved/realized unless EVs are accessible to more households.

Additionally, renters who do own EVs may be limited in future housing choices based on proximity to EV charging. This is particularly problematic for renters because they tend to move more frequently than homeowners. Targeted action is also needed to ensure that structural and distributional inequities are corrected as communities transition to cleaner technologies. By focusing on the renter population, this project seeks to expand access to EV charging for these traditionally underserved communities.

Portland's proposed EV-Ready requirements will facilitate access to EV charging infrastructure for residents of multi-dwelling units to ensure that the EV-related infrastructure, which is expensive to add after construction, is distributed equitably among new construction residential projects. These code updates will future-proof buildings that are anticipated to be around for the next 50-80 years. Recognizing that on-site parking can be a limited resource, our amendments require a higher percentage of EV-ready spaces for smaller residential parking areas which could allow for the potential to share the charging facility and unbundle the parking spaces from the unit.

Resilience. *Reduce risk and improve the ability of individuals, communities, economic systems, and the natural and built environments to withstand, recover from, and adapt to changes from natural hazards, human-made disasters, climate change, and economic shifts.*

This project advances this principle in that the promotion of an increase in EV-ready access enables more EV adoption—the kind of accelerated adoption that encourages those in the car market to shift from fuel-powered to EV sales as well as the use of low-carbon transportation options. Fundamentally, the number of private vehicles must decrease, the distance travelled must shrink, and alternative forms of electric transport (including electric buses, electric-scooters and electric bikes) must substitute for car trips. Making the city more attractive for walking and cycling is also an important strategy to reduce carbon from the transportation sector and to develop a low-carbon, resilient infrastructure system for Portland. Yet, for those that choose or must drive, shifting to electric vehicles is a necessary part of the transition. To mitigate climate change, an increasing number of governors are mandating a phase-out of gas-powered vehicle sales. The vehicle market is also trending towards producing more efficient vehicles. EV charging infrastructure is currently needed to fuel existing vehicles and will become even more important in the next three to five years and beyond.

Comprehensive Plan Goals and Policies

The 2035 Comprehensive Plan includes goals and policy language designed to support and further the guiding principles. The EV Ready Code Project primarily supports Chapter 9: Transportation. However, the project also supports the closely linked goals and policies around development, urban form, and the environment, which span the following chapters of the Comprehensive Plan: Chapter 3, Urban Form; Chapter 4, Design and Development; Chapter 5, Housing; Chapter 6, Economic Development; Chapter 7, Environment and Watershed Health; and Chapter 10, Land Use Designations and Zoning.

Key Comprehensive Plan goals and policies supported by the EV Ready Code Project are listed below.

Community Engagement

Goal 2.B: Social justice and equity. The City of Portland seeks social justice by expanding choice and opportunity for all community members, recognizing a special responsibility to identify and engage, as genuine partners, under-served and under-represented communities in planning, investment, implementation, and enforcement processes, particularly those with potential to be adversely affected by the results of decisions. The City actively works to improve its planning and investment-related decisions to achieve equitable distribution of burdens and benefits and address past injustices.

> **Policy 2.3 Extend benefits.** Ensure plans and investments promote environmental justice by extending the community benefits associated with environmental assets, land use, and public investments to communities of color, low-income populations, and other under-served or under-represented groups impacted by the decision. Maximize economic, cultural, political, and environmental benefits through ongoing partnerships.
>
> **Policy 2.4 Eliminate burdens.** Ensure plans and investments eliminate associated disproportionate burdens (e.g., adverse environmental, economic, or community impacts) for to communities of color, low-income populations, and other under-served or under-represented groups impacted by the decision.
>
> **2.4.a.** Minimize or mitigate disproportionate burdens in cases where they cannot be eliminated.

2.4.b. Use plans and investments to address disproportionate burdens of previous decisions.

Urban Form

Goal 3.A: A city designed for people. Portland's built environment is designed to serve the needs and aspirations of all Portlanders, promoting prosperity, health, equity, and resiliency. New development, redevelopment, and public investments reduce disparities and encourage social interaction to create a healthy connected city.

Goal 3.B: A climate and hazard resilient urban form. Portland's compact urban form, sustainable building development practices, green infrastructure, and active transportation system reduce carbon emissions, reduce natural hazard risks and impacts, and improve resilience to the effects of climate change.

Policy 3.3 Equitable development. Guide development, growth, and public facility investment to reduce disparities; encourage equitable access to opportunities, mitigate the impacts of development on income disparity, displacement and housing affordability; and produce positive outcomes for all Portlanders.

3.3.a. Anticipate, avoid, reduce, and mitigate negative public facility and development impacts, especially where those impacts inequitably burden communities of color, under-served and under-represented communities, and other vulnerable populations.
3.3.b. Make needed investments in areas that are deficient in public facilities to reduce disparities and increase equity. Accompany these investments with proactive measures to avoid displacement and increase affordable housing.
3.3.c. Encourage use of plans, agreements, incentives, and other tools to promote equitable outcomes from development projects that benefit from public facility investments.
3.3.d. Incorporate requirements in the Zoning Code to provide public and community benefits as a condition of development projects to receive increased development allowances.
3.3.e. When private property value is increased by public plans and investments, require development to address or mitigate displacement impacts and impacts on affordability, in ways that are related and roughly proportional to these impacts.
3.3.f. Coordinate housing, economic development, and public facility plans and investments to create an integrated community development approach to restore communities impacted by past decisions. See Policy 5.18.
3.3.g. Encourage developers to engage directly with a broad range of impacted communities to identify potential impacts of private development projects, develop mitigation measures, and provide community benefits to address adverse impacts.

Policy 3.4 All ages and abilities. Strive for a built environment designed to provide a safe, healthful, and attractive environment for people of all ages and abilities.

Design and Development

Goal 4.C: Human and environmental health. Neighborhoods and development are efficiently designed and built to enhance human and environmental health: they protect safety and livability; support local access to healthy food; limit negative impacts on water, hydrology, and air quality; reduce carbon emissions; encourage active and sustainable design; protect wildlife; address urban heat islands; and integrate nature and the built environment.

Policy 4.19 Resource efficient and healthy residential design and development. Support resource efficient and healthy residential design and development.

Policy 4.24 Drive-through facilities. Prohibit drive through facilities in the Central City, and limit new development of new ones in the Inner Ring Districts and centers in order to support a pedestrian-oriented environment.

Policy 4.34 Auto-oriented facilities, uses, and exterior displays. Minimize the adverse impacts of highways, auto-oriented uses, vehicle areas, drive-through areas, signage, and exterior display and storage areas on adjacent residential uses.

Policy 4.69 Reduce carbon emissions. Encourage a development pattern that minimizes carbon emissions from building and transportation energy use.

Housing

Goal 5.C: Healthy connected city. Portlanders live in safe, healthy housing that provides convenient access to jobs and to goods and services that meet daily needs. This housing is connected to the rest of the city and region by safe, convenient, and affordable multimodal transportation.

Policy 5.9 Accessible design for all. Encourage new construction and retrofitting to create physically-accessible housing to meet the needs of older adults and people with disabilities, especially in centers, station areas, and other places that are proximate to services and transit.

Policy 5.12 Impact analysis. Evaluate plans and investments, significant new infrastructure, and, significant new development to identify potential disparate impacts on housing choice, access, and affordability for protected classes and low-income households. Identify and implement strategies to mitigate the anticipated impacts.

Policy 5.15 Gentrification/displacement risk. Evaluate plans and investments, significant new infrastructure, and significant new development for the potential to increase housing costs for, or cause displacement of communities of color, low- and moderate-income households, and renters. Identify and implement strategies to mitigate the anticipated impacts.

Policy 5.19 Aging in Place. Encourage a range of housing options and supportive environments to enable older adults to remain in their communities as their needs change (emphasis on supportive environments)

Policy 5.36 Impact of regulations on affordability. Evaluate how existing and new regulations affect private development of affordable housing, and minimize negative impacts where possible. Avoid regulations that facilitate economically-exclusive neighborhoods.

Environment and Watershed Health

Goal 7.A: Climate. Carbon emissions are reduced to 50 percent below 1990 levels by 2035.

Public Facilities and Services

Goal 8.M: Energy infrastructure and services. Residents, businesses, and institutions are served by reliable energy infrastructure that provides efficient, low-carbon, affordable energy through decision-making based on integrated resource planning.

> **Policy 8.34 Resource efficiency.** Reduce the energy and resource use, waste, and carbon emissions from facilities necessary to serve designated land uses to meet adopted City goals and targets.
>
> **Policy 8.125 Energy efficiency.** Promote efficient and sustainable production and use of energy resources by residents and businesses, including low-carbon renewable energy sources, district energy systems, and distributed generation, through land use plans, zoning, and other legislative land use decisions.

Transportation

GOAL 9.D: Environmentally sustainable. The transportation system increasingly uses active transportation, renewable energy, or electricity from renewable sources, achieves adopted carbon reduction targets, and reduces air pollution, water pollution, noise, and Portlanders' reliance on private vehicles.

> **Policy 9.9 Accessible and age-friendly transportation system.** Ensure that transportation facilities are accessible to people of all ages and abilities, and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the Americans with Disabilities Act of 1990. Improve and adapt the transportation system to better meet the needs of the most vulnerable users, including the young, older adults, and people with different abilities.
>
> **Policy 9.39 Automobile efficiency.** Coordinate land use and transportation plans and programs with other public and private stakeholders to encourage vehicle technology innovation, shifts toward electric and other cleaner, more energy-efficient vehicles and fuels, integration of smart vehicle technology with intelligent transportation systems, and greater use of options such as car-share, carpool, and taxi.
>
> **Policy 9.68 New mobility priorities and outcomes.** Facilitate new mobility vehicles and services with the lowest climate and congestion impacts and greatest equity benefits; with priority to vehicles that are fleet/shared ownership, fully automated, electric and, for passenger vehicles, shared by multiple passengers.
>
> **Policy 9.69 New mobility tools.** Use a full range of tools to ensure that new mobility vehicles and services and private data communications devices installed in the City right-of-way contribute to achieving Comprehensive Plan and Transportation System Plan goals and policies.

Section IV: Public Involvement

Development of the EV Ready Code Project concepts and the resulting Zoning Code amendments were informed by a range of public involvement activities.

Enabling Tenant Access to EV Charging Community Stakeholders

In 2020, the Bureau of Planning and Sustainability received a grant from the Urban Sustainability Directors Network (USDN) Innovation Fund for the "Enabling Tenant Access to EV Charging" project. This work informed the initial scoping of the EV Ready Code Project. The intent of the Enabling Tenant Access to EV Charging project was to provide cities with stakeholder-tested and context-grounded strategies that local governments can use to overcome barriers and enable access to EV charging for renters, in their cities, particularly those in Low-and-Moderate Income (LMI) households and Black, Indigenous, and People of Color (BIPOC) communities.

Four core USDN cities from the U.S. were involved throughout the Enabling Tenant Access to EV Charging project, as well as seven U.S. and Canadian observer cities who participated in calls and project progress conversations. Portland, OR joined Burlington, VT, Somerville, MA, Cambridge, MA as the core USDN cities.

The Enabling Tenant Access to EV Charging Project and supported a facilitated early discussion with a Portland stakeholder group in January through April 2020 to do the following:

- Develop a shared understanding of an equity lens and framework for the project.
- Identify key project issues and identify the communities that are impacted.

Enabling Tenant Access to EV Charging Key Equity Goals

One of the reasons why low-income people and communities of color are impacted more than the general population by COVID-19 is due to underlining health conditions such as asthma, lung infections, and other respiratory diseases that are exacerbated, and often caused, by exposure to poor air quality.

This work to advance EV-ready buildings was done in partnership with BIPOC representatives and staff from community organizations representing underserved Portlanders to ensure lived experience, needs and ideas were considered as we developed the proposals.

The following key equity goals were developed by project staff and reviewed by the Enabling Tenant Access to EV Charging stakeholders to provide the overarching framework direction for any City-initiated regulatory and programmatic recommendations.

- **Expand EV access.** Everyone, especially renters, low-income people, and communities of color, are able to use electric vehicles to access future jobs, education, and services.
- **Inclusion in technology advances.** As governments develop more aggressive clean fuel requirements and vehicle manufacturing companies' phase-out internal combustion engines,

low-income people and communities of color are not left out of the future transportation system.

- **Public health and air quality.** Low-income people and communities of color are disproportionately exposed to transportation-related air pollution due to both residential segregation and the siting of multi-dwelling housing near freeway air pollution sheds.
- **Reduced household costs.** Low-income people and communities of color benefit the most from EVs. The fuel and maintenance cost savings associated with EVs are more significant for low-income households compared to medium and higher income households. See the Equity Section of this document on page 4 for more information on savings associated with using and owning an EV.

Technical Advisory Planning Series

To facilitate a conversation among various interested parties, BPS re-convened participants in the Enabling Tenant Access to EV Charging stakeholder group and held a series of public meetings from January through June 2021.

The technical advisory planning series participants consisted of engaged external stakeholders including representatives from: EV-related businesses, utilities, and community organizations, to inform the scoping and direction of the project and to discuss how to increase EV charging access to renters. Community organization involvement included representatives from Verde, Hacienda CDC, Portland Tenants United and Imagine Black. BPS provided $300 per meeting to these four organizations to support their participation.

The purpose of convening this planning series was for the participants to provide early input to BPS in developing the general concepts of the code amendments. Then BPS staff worked closely with the Portland Bureau of Transportation (PBOT) and the Bureau of Development Services (BDS) staff to develop the actual code amendments in this document. At the June 2021 meeting, the following Code Concepts were reviewed and largely incorporated except as noted by the italicized text after each concept below:

- **Code Concept #1:** Clarify how EV-ready installations are categorized in land use code (e.g., primary versus accessory use)
- **Code Concept #2:** Add development standards (e.g., placement, signage)
- **Code Concept #3**: Define what use category a mobility hub is in accordance with the Transportation System Plan's (TSP) New Mobility policies – *Project staff is not making any changes to the code regarding this concept. Please see Section II for further information.*
- **Code Concept #4:** Multi-dwelling and mixed-use with five units or more
    - 100% parking spaces are EV-ready for up to 6 spaces
    - 50% of parking spaces for parking lots with 7 or more spaces
- **Code Concept #5:** Commercial – *Project staff notes that this is already addressed in the adopted HB 2180.*
    - 20% of parking spaces are EV-ready
- **Code Concept #6:** Adding EV charging installation to qualify for structure parking Floor Area Ratio (FAR) discount
- **Code Concept #7:** Non-conforming: EV infrastructure costs are not counted towards non-conforming upgrades thresholds

- **Code Concept #8:** For recreational fields for organized sports, schools and school sites, and other conditional uses, when adding EV infrastructure costs to the list of exterior improvements that are exempt for work allowed without a conditional use review
- **Code Concept #9:** Areas with parking minimums are an opportunity to expand car-share requirement to include electric vehicles and related EV-ready infrastructure
- **Code Concept #10:** Areas in Central City that require short-term/carpool parking are an opportunity to require EV infrastructure
- **Code Concept #11:** Ensure commercial parking provide EV-ready infrastructure
- **Code Concept #12:** Sign Code – *Project staff is not making any amendments to the sign code. See Section #1 for further information.*

EV Experience Interviews

In February through June 2021, several Portland BIPOC residents of multi-dwelling housing with current or prior ownership of personal electric vehicles were interviewed. The questions were focused on the following groupings of questions to learn:

Ownership and usability information – Purpose of these questions is to understand the type of vehicle and EV infrastructure needed to support the vehicle to inform future requirements of charging infrastructure for EV code projects.

Charging information – Purpose of these questions is to understand charging needs and patterns of the EV users and the availability of charging infrastructure in their neighborhood.

Design information – Questions to inform the ideal design and placement of charging infrastructure.

Safety information – Questions understand safety and accessibility issues around charging stations.

Key takeaways:

- Finding functional and less expensive EV chargers around the city is a huge concern for EV owners.
- Most multi-dwelling buildings around Portland do not have EV charging infrastructure as evident from the EV owner's experience.
- Offsite charging located a few blocks away is a concern for the EV owners, concerns include people stealing batteries, meddling with the charging process or removing the car from the charger.
- Lack of reliable charging infrastructure in rental apartments or duplexes forces EV owners to give up the EVs.
- EV owners who have tried to work with their rental housing management to get charging infrastructure on site were unable to get the requested amenity for use.
- Some of the interviewees shared having/asking for an EV charging station is an extra perk that the building management may or may not provide.

- Ownership of the EV affects the decision for where to live or rent an apartment around Portland; however, owners are not able to find many suitable options for rental housing with an EV charging station within the building or complex.
- Newer apartments that include charging infrastructure advertise them to attract EV owners to rent in those apartments.
- Most EV owners suggest having a mix of DC fast chargers (that takes about 30 min to charge) and the typical Level 2 charger (takes about 3-4 hrs. to charge a car) in multi-unit apartment building would be ideal. This would allow enough time for folks to keep the car parked at the charging station, although DC fast chargers could have the requirement to move the car frequently to allow the use of the charging infrastructure more efficiently.
- In terms of design and accessibility, interviewees believe having charging stations that do not time out quickly when activated would give enough time to a person who has accessibility issues (for e.g., on a wheelchair) to pull the cord and plug in to the vehicle to begin charging.
- Interviewees experienced anxiety when using charging stations that are not explicitly visible or are hidden behind the trees. When chargers are not readily visible, it is difficult for the EV owners to find and use them, in addition to the anxiety for parking the car in a hidden spot.
- Lighting was a primary accessibility concern and most EV owners agreed/suggested having adequate lighting at the charging station would be most beneficial safety feature.
- Maintaining the installed EV chargers to make sure they are functional, and running is very important for the interviewees. Some sort of accountability that would make sure the chargers are running and not broken would give people less range anxiety and more confidence with EV charging infrastructure.
- Standardized charging stations that are not super expensive to use and does not require variety of different apps to operate but rather could be activated via a standard app would be ideal for the EV users.

"Just like you don't expect gas stations to be located in a hidden spot behind the bushes or trees, and they are visible and well lit, the charging stations should also be located in a similar fashion. Specially for people who might be more vulnerable such as people with mobility issues, elderly and women (I have heard other women say that quite often)."

-- One EV owner was quoted.

EV Ready Economic Analysis Interviews

Johnson Economics was retained to prepare an economic analysis of the Bureau of Planning and Sustainability's EV Ready Code Project. The economic analysis includes an assessment of the anticipated marginal impact of a range of EV-ready infrastructure requirements on residential and commercial construction. Johnson Economics used simplified financial analysis tools to assess the expected impact on new mandated infrastructure on variables such as product pricing, investment returns, and overall production levels.

A secondary analysis includes an estimation of the demographic characteristics of impacted populations, including breakdowns by income level. Available demographic data is supplemented by interviews with affordable housing providers and local developers. The research also looks at available income-qualified rebates and available infrastructure grants.

In August through October 2021, a series of interviews was conducted by Johnson Economics to provide additional context. Interviewees included public agency staff in other jurisdictions, electrical engineers, utilities, and developers.

Everyone that was interviewed expressed an expectation that electric vehicle adoption is likely to increase significantly over the next decade, and that there would likely be an increased need for property owners to accommodate these demands. There was less consensus regarding the scale of adoption as well as longer term sustained charging patterns. This is an evolving technology (particularly for batteries) and there is a high level of uncertainty regarding how vehicle charging needs will be accommodated. Some felt that the eventual pattern would favor fewer higher-rate charging stations, with faster charging times supporting centralized fueling stations similar to current gas stations. On the other end of the spectrum some saw slow overnight charging as a future solution, requiring only three prong outlets and limited additional infrastructure. Recognizing the high level of uncertainty and the risk of stranding investments in the incorrect infrastructure, many respondents stressed a need for flexibility in requirements.

Discussion Draft Public Input

The Discussion Draft, published on April 29, 2022, served as the first opportunity for the public to review and comment on the draft Zoning Code regulations. Prior to that date, the public had opportunities to review and respond to the concepts that guided the Zoning Code regulations.

The public review period of the Discussion Draft was from April 29 through June 17, 2022. During this period, staff used a variety of approaches for community members to learn about the Discussion Draft proposals and provide comments, including:

- A news blog post emailed to project list and hosted on project website.
- Posts on social media, including Facebook, Nextdoor, and Twitter.
- Articles and editorials in local newspapers, online newspapers, and local blog platforms.
- Presentations and discussions at five meetings of community organizations.
- Several additional in-person or phone meetings with developers, architects, State and local agencies, and interested parties.

Several recurring themes emerged in the comments received, including:

- Housing affordability and EV parking in affordable housing
- Concerns around percentage of required EV-ready parking, while others expressed that EV-ready parking should be required at 100% of any on-site parking
- Feedback on specific development standards, such as, landscaping and screening, lighting, etc.
- Further suggestions on incentives
- Flexibility in implementation
- Letting the market forces drive the provision of EV parking

Section V: Zoning Code Amendments

This section presents staff proposed zoning code amendments. The section is formatted to facilitate readability by showing draft code amendments on the right-hand pages and related commentary describing the amendments on the facing left-hand pages.

Language to be added to City codes is indicated by <u>underlined</u> text and language to be removed is indicated by ~~strikethrough~~ text. Language to remain the same is indicated by plain text.

Commentary

33.110.245.D This amendment clarifies that a detached structure that holds the electrical conduit and charger is an uncovered vertical structure (see example photo) generally as it applies to single-dwelling development. If the equipment is located within a parking area, it would instead be subject to the standards in 33.266.130. This provision is intended to cover plugs and cables located adjacent to driveways or other vehicle areas on a residential property.

These structures would likely meet the size allowance that would allow them to be in required setbacks (Item D.2.a is shown for this provision). However, as these structures are intended to provide charging opportunities to a vehicle parked on site, a new regulation is added requiring that the chargers be within 5-feet of driveways or other vehicle areas. This only applies to Level 2 or higher chargers which generally draw greater power and need a 220/240-volt connection. A Level 1 charger uses standard outlets and power cords resulting in less risk, and it is not required to be proximate to the vehicle area/driveway.

33.110 Single-Dwelling Zones

110

33.110.245 Detached and Connected Accessory Structures

A. Purpose. This section regulates detached and connected structures that are incidental to primary buildings to prevent them from becoming the predominant element of the site. The standards limit the height and bulk of these structures, promote compatibility of design for larger structures, provide for necessary access around larger structures, help maintain privacy between abutting lots, and maintain open front setbacks.

B-C. [No change]

D. Detached uncovered vertical structures. Detached uncovered vertical structures are items such as flag poles, trellises, arbors and other garden structures, play structures, antennas, satellite receiving dishes, detached structures that hold electric vehicle chargers, and lamp posts. The following standards apply to detached uncovered vertical structures. Fences are addressed in 33.110.275:

1. Height. Except as follows, the maximum height allowed for all detached uncovered vertical structures is 20 feet:
   a. Antennas**,** utility power poles, and public safety facilities are exempt from the height limit.
   b. Flagpoles are subject to the height limit of the base zone for primary structures.
   c. Detached small wind turbines are subject to the standards of 33.299, Wind Turbines.
2. Setbacks. Except as follows, detached uncovered vertical structures are subject to required building setbacks:
   a. Detached uncovered vertical structures that are no larger than 3 feet in width, depth, or diameter and no taller than 8 feet are allowed in required building setbacks.
   b-d. [No change]
3. Additional standard for detached uncovered vertical structures that hold electric vehicle chargers. In addition to Paragraphs 1. and 2. above, a detached uncovered vertical structure that holds at least a Level 2 electric vehicle charger must be located so that the electric vehicle charger is within 5 feet of a vehicle area.

Commentary

33.120.210.B The floor area ratio standard currently allows up to 0.5 to 1 of floor area to be discounted from the total allowed as an incentive for providing structured parking over surface parking. This amendment adds the requirement that at least 50% of the parking spaces, or a minimum of 6 spaces, within the structured parking provide electric vehicle charging capacity with at least a Level 2 charger in order to take advantage of the discount. The amendment is intended to encourage the addition of electric vehicle chargers in the structured parking spaces. The provision would most likely be used during the construction of a new building, or through an addition.

33.120 Multi-Dwelling Zones

120

33.120.210 Floor Area Ratio

A. Purpose. Floor area ratios (FARs) regulate the amount of use (the intensity) allowed on a site. FARs provide a means to match the potential amount of uses with the desired character of the area and the provision of public services. FARs also work with the height, setback, and building coverage standards to control the overall bulk of development.

B. FAR standard. The maximum floor area ratios are stated in Table 120-3 and apply to all uses and development. In the RM4 zone the maximum FAR is 4 to 1, except in Historic Districts and Conservation Districts, where the maximum FAR is 3 to 1. Floor area ratio is not applicable in the RMP zone. There is no maximum limit on the number of dwelling units within the allowable floor area, but the units must comply with all building and housing code requirements. Additional floor area may be allowed through bonus options described in Section 33.120.211, or transferred as described in Subsection D. Maximum FAR does not apply to one alteration or addition of up to 250 square feet when the alteration or addition is to a primary structure that received final inspection at least 5 years ago. This exception is allowed once every 5 years. Adjustments to the maximum floor area ratios are prohibited. Floor area does not include the following:

1. Floor area for structured parking <u>when at least 50 percent, or 6, of the parking spaces in the structure, whichever is greater, have at least a Level 2 charger adjacent to the space</u> ~~and required long-term bicycle parking not located in a dwelling unit~~, up to a maximum ~~FAR~~ of 0.5 to 1; ~~and~~

<u>2. Floor area for required long term bicycle parking that is not located in a dwelling unit, up to a maximum of 0.5 to 1; and</u>

~~2~~<u>3</u>. Floor area for indoor common area used to meet the requirements of Section 33.120.240.

C-D. [No change]

Commentary

33.120.280.D This amendment clarifies that a detached structure that holds the electrical conduit and charger is an uncovered vertical structure (see example photo in 33.110). If the equipment is located within a parking area, it would instead be subject to the standards in 33.266.130. This provision is intended to cover plugs and cables located adjacent to driveways or other vehicle areas on a residential property.

These structures would likely meet the size allowance that would allow them to be in required setbacks (Item D.2.a is shown for this provision). However, as these structures are intended to provide charging opportunities to a vehicle parked on site, a new regulation is added requiring that the chargers be within 5-feet of driveways or other vehicle areas. However, this only applies to Level 2 or higher chargers which generally draw greater power and need a 220/240-volt connection. A Level 1 charger uses standard outlets and power cords resulting in less risk, and it is not required to be proximate to the vehicle area/driveway.

33.120.280 Detached Accessory Structures

A. Purpose. This section regulates detached structures that are incidental to primary buildings to prevent them from becoming the predominant element of the site. The standards limit the height and bulk of the structures and promote compatibility of design for larger accessory structures when they are in conjunction with single-dwelling development. The standards provide for necessary access around structures, help maintain privacy to abutting lots, provide flexibility for the location of accessory structures, and maintain open front yard areas.

B-C. [No change]

D. Detached uncovered vertical structures. Vertical structures are items such as flag poles, trellises, arbors, and other garden structures, play structures, antennas, satellite receiving dishes, detached structures that hold electric vehicle chargers, and lamp posts. The following standards apply to uncovered vertical structures. Fences are addressed in Section 33.120.285 below:

1. Height. Except as follows, the maximum height allowed for all detached uncovered vertical structures is the maximum height of the base zone. The maximum height allowed for detached uncovered vertical structures that are accessory to a house, attached house, duplex, attached duplex or manufactured home on an individual lot is 20 feet:
   a. Antennas, utility power poles, and public safety facilities are exempt from height limits.
   b. Flagpoles are subject to the height limit of the base zone for primary structures.
   c. Detached small wind turbines are subject to the standards of 33.299.
2. Setbacks. Except as follows, detached uncovered vertical structures are subject to the required building setbacks:
   a. Detached uncovered vertical structures that are no larger than 3 feet in width, depth, or diameter and no taller than 8 feet are allowed in required building setback.
   b-d. [No change]
3. Additional standard for detached uncovered vertical structures that hold electric vehicle chargers. In addition to Paragraphs 1. and 2. above, a detached uncovered vertical structure that holds at least a Level 2 electric vehicle charger must be located so that the electric vehicle charger is within 5 feet of a vehicle area.

Commentary

33.130.205.B The floor area ratio standard currently allows up to 0.5 to 1 of floor area to be discounted from the total allowed as an incentive for providing structured parking over surface parking. This amendment adds the requirement that at least 50% of the parking spaces, or a minimum of 6 spaces, within the structured parking provide electric vehicle charging capacity with at least a Level 2 charger in order to take advantage of the discount. The amendment is intended to encourage the addition of electric vehicle chargers in the structured parking spaces. The provision would most likely be used during the construction of a new building, or through an addition.

33.130 Commercial/Mixed Use Zones

130

33.130.205 Floor Area Ratio

A. Purpose. Floor area ratios (FARs) regulate the amount of use (the intensity) allowed on a site. FARs provide a means to match the potential amount of uses with the desired character of the area and the provision of public services. FARs also work with the height, setback, and building coverage standards to control the overall bulk of development. The bonus FAR options allow additional floor area as an incentive for providing affordable housing.

B. FAR standard. The maximum floor area ratios are stated in Table 130-2 and apply to all uses and development. Additional floor area may be allowed through bonus options, as described in Section 33.130.212, or transferred from historic resources per Subsection C. Adjustments to the maximum floor area ratios are prohibited. Except in the CR zone, floor area does not include the following:

1. Floor area for structured parking when at least 50 percent, or 6, of the parking spaces in the structure, whichever is greater, have at least a Level 2 charger adjacent to the space ~~and required long-term bicycle parking not located in a dwelling unit~~, up to a maximum ~~FAR~~ of 0.5 to 1; ~~and~~
2. Floor area for required long term bicycle parking that is not located in a dwelling unit, up to a maximum of 0.5 to 1; and
3. ~~2~~3. Floor area for indoor common area used to meet the requirements of Section 33.130.228.

C. [No change]

33.224.050 Stacking Lane Standards

A. Gasoline pumps and electric vehicle charging stations.
Current drive-through standards are focused on fuel stations and the needs for vehicle stacking lines at pumps. As electric vehicles become more ubiquitous, electric charging stations will become more common to satisfy the demand for quick charging. These charging stations may become more efficient so that cars will not need to be parked for an extended time to receive a charge. As charging times get reduced from current levels down to 5 to 10 minutes in the future, the nature of some charging areas will change from being accessory to parking spaces to those that incorporate drive-through operations similar to gas fueling stations. This amendment ensures that electric vehicle charging stations that include charging islands and vehicle queuing spots behind the islands, that are not integrated into parking spaces, are subject to the same development standards as gasoline fueling stations. These determinations are clarified within the definitions for drive-through facilities in 33.910 and for Quick Vehicle Service uses in 33.920. See the commentary and code for those sections.

33.224 Drive-Through Facilities

224

33.224.050 Stacking Lane Standards

These regulations ensure that there is adequate on-site maneuvering and circulation areas, ensure that stacking vehicles do not impede traffic on abutting streets, and that stacking lanes will not have nuisance impacts on abutting residential lands.

A. Gasoline pumps and electric vehicle chargers. A minimum of 30 feet of stacking lane is required between the stacking lane entrance and the nearest gasoline pump or electric vehicle charger.

B. Other drive-through facilities.

1. Primary facilities. A minimum of 150 feet for a single stacking lane or 80 feet per lane when there is more than one stacking lane, is required for all other drive-through facilities. A stacking lane is measured between the stacking lane entrance and the service area.
2. Accessory facilities. A stacking lane is not required for accessory facilities where vehicles do not routinely stack up while waiting for the service. Examples are window washing, air compressor, and vacuum cleaning stations.

C. Stacking lane design and layout. Stacking lanes must be designed so that they do not interfere with parking and vehicle circulation. No part of a required stacking lane may encroach into the right-of-way. Stacking lanes may be curvilinear. See Subsection 33.930.030.C. for measurement information.

D. Stacking lanes identified. All stacking lanes must be clearly identified, through the use of means such as striping, landscaping, and signs.

33.258.070 Nonconforming Development

D.2.a. The nonconforming development on a site is required to be brought into conformance when a certain threshold of improvement is made to a property. The threshold for compliance is based on the value of the improvement. The threshold exempts some improvements that are either required through other codes or that provide a direct benefit to the city, such as ADA requirements, stormwater management facilities and energy efficiency improvements. This amendment adds installation of electric vehicle chargers and equipment to the list of items that do not count toward the threshold that triggers compliance with the nonconforming development section. This encourages the voluntary installation of EV chargers on an existing site.

33.258 Nonconforming Situations

33.258.070 Nonconforming Development

A-C. [No change]

D. Development that must be brought into conformance. The regulations of this subsection are divided into two types of situations, depending upon whether the use is also nonconforming or not. These regulations apply except where superseded by more specific regulations in the code.

1. [No change]

2. Nonconforming development with an existing nonconforming use, allowed use, limited use, or conditional use. Nonconforming development associated with an existing nonconforming use, an allowed use, a limited use, or a conditional use, must meet the requirements stated below. When alterations are made that are over the threshold of Subparagraph D.2.a., the site must be brought into conformance with the development standards listed in Subparagraph D.2.b. The value of the alterations is based on the entire project, not individual building permits.

   a. Thresholds triggering compliance. The standards of Subparagraph D.2.b., below, must be met when the value of the proposed alterations on the site, as determined by BDS, is more than $330,800. The following alterations and improvements do not count toward the threshold:

      (1-7) [No change];

      (8) Landscaping required by 33.475.220; ~~and~~

      (9) Removal or remediation of hazardous substances conducted under ORS 465.200-545 & 900' and~~.~~

      (10) The installation of electric vehicle chargers and accessory equipment.

   b-d. [No change]

E-G. [No change]

Commentary

33.266.110 Minimum Required Parking Spaces

33.266.110.A. The purpose statement is amended to add information on the new minimum requirement for providing electrical infrastructure for the installation of electric vehicle chargers. While the chargers themselves aren't required as per state law, requiring the infrastructure ensures adequate charging in the future, especially when many automakers are contemplating moving to all EVs in the next 20 years.

33.266.110.D. Required electric vehicle charging spaces. This a new standard to establish parameters for a minimum number of spaces that will include electric conduit access for EV charging facilities. House Bill 2180 passed in 2021 established a statewide minimum for new parking spaces associated with private commercial buildings, and for mixed-use/residential development that includes over 5 dwelling units. 20 percent of all new parking spaces will need to have electrical conduit and electrical capacity options set up to be able to provide electric vehicle charging facilities now or in the future. A rule making process is occurring during 2022 to establish these requirements within building/electrical codes. In addition, the DLCD establish rules that augment these requirements for multi-dwelling and mixed use development so that 40% of parking spaces are EV-ready. The bill also allows local jurisdictions to establish minimum EV "ready" requirements in excess of state rules for these development types through a jurisdiction's land use codes. Portland is creating a minimum requirement of 6 spaces or 50% of the total number of parking spaces, whichever is greater when multi-dwelling or mixed-use development with more than 5 dwelling units is proposed, and parking is provided for the dwelling units. In addition, a standard is added to clarify that any new Commercial Parking use (which is parking not associated with a specific use) provide a minimum of 20% of the total spaces for EV capability. The actual EV chargers and electrical capacity are not part of the requirement as the state law provided the flexibility for these chargers and required capacity to be addressed in the future, but the conduit requirements ensure that retrofitting the conduit isn't needed for the installations.

33.266 Parking, Loading, And Transportation And Parking Demand Management

266

33.266.110 Minimum Required Parking Spaces

A. Purpose. The purpose of required parking spaces is to provide enough on-site parking to accommodate the majority of traffic generated by the range of uses which might locate at the site over time. Sites that are located in close proximity to transit, have good street connectivity, and good pedestrian facilities may need little or no off-street parking. Parking requirements should be balanced with an active pedestrian network to minimize pedestrian, bicycle and vehicle conflicts as much as possible. Transit-supportive plazas and bicycle parking may be substituted for some required parking on a site to encourage transit use and bicycling by employees and visitors to the site. The required parking numbers correspond to broad use categories, not specific uses, in response to this long term emphasis. Provision of carpool parking, and locating it close to the building entrance, will encourage carpool use. Providing opportunities to install electric vehicle chargers within parking areas encourage electric vehicles as an alternative to vehicles that burn fossil fuels.

B-C. [No change]

D. Required electric vehicle charging spaces. For Commercial Parking uses and for sites with 5 or more dwelling units, the following standards must be met:

1. Commercial Parking. For Commercial Parking uses, at least 20 percent of the total number of parking spaces must include electrical conduit adjacent to the spaces that will allow for the installation of at least a Level 2 electric vehicle charger.

2. In buildings with five or more dwelling units, if parking spaces are provided for any of the dwelling units, the following standards apply:

   a. If between one and six spaces are provided for dwelling units, 100 percent of the spaces must include electrical conduit adjacent to the spaces that will allow for installation of at least a Level 2 electric vehicle charger.

   b. If seven or more spaces are provided for dwelling units, 50 percent, or six, whichever is greater of the parking spaces provided must include electrical conduit adjacent to the spaces that will allow for installation of at least a Level 2 electric vehicle charger.

Commentary

33.266.110.E. Exceptions to the minimum number of parking spaces. In areas of the city where parking minimums may apply, there are several exceptions that allow the minimum to be reduced in exchange for development that is encouraged. One of the exceptions is for providing parking for cars in a car-share program. Each car-share space reduces the number of required parking spaces by two, up to a maximum of 25 percent of the total parking spaces.

This amendment requires that qualifying car-share spaces provide electric vehicle charging equipment. This will promote the use of EV for car-sharing programs, which is especially beneficial since car-sharing vehicles are often used for shorter trips, within Portland. Use of EV would reduce emissions in the city while remaining within vehicle driving range and allowing for charging between these trips.

Please note, additional rulemaking by DLCD for Climate Friendly and Equitable Communities may result in the removal of parking minimums in most or all areas of the City. This would result in this language being removed in a future project if there are no parking minimums required.

E~~D~~. Exceptions to the minimum number of parking spaces. The minimum number of required parking spaces may be reduced as follows:

1. [No change]

2. Other exceptions. The minimum number of required parking spaces may not be reduced by more than 50 percent through the exceptions of this Paragraph. The 50 percent limit applies cumulatively to all exceptions in this Paragraph:

   a-e. [No change]

   f. Car-sharing parking spaces may substitute for required parking if all of the following are met:

      (1) For every car-sharing parking space that is provided, the motor vehicle parking requirement is reduced by 2 spaces, up to a maximum of 25 percent of the required parking spaces;

      (2) The car-sharing parking spaces must be shown on the building plans;

      (3) The car-sharing parking space must provide at least a Level 2 electric vehicle charger; and

      (4~~3~~) A copy of the car-sharing agreement between the property owner and the car-sharing company must be submitted with the building permit.

   g. [No change]

Commentary

33.266.130 Development Standards for All Other Development

A. Purpose.

This amendment expands the purpose statement for parking development standards to address EV charging facilities. The new bullet provides the purpose for the screening and location standards for locating EV chargers and equipment.

33.266.130 Development Standards for All Other Development

A. Purpose. The development standards promote vehicle areas that are safe and attractive for motorists and pedestrians. Vehicle area locations are restricted in some zones to promote the desired character of those zones.

Together with the transit street building setback standards in the base zone chapters, the vehicle area location regulations:

- Provide pedestrian access that is protected from auto traffic;
- Create an environment that is inviting to pedestrians and transit users, especially on transit streets and in Pedestrian Districts;
- Limit the prominence of vehicle areas along street frontages and create a strong relationship between buildings and the sidewalk;
- Create a sense of enclosure on transit and pedestrian street frontages; and
- Limit the size of paved parking area and the type of paving material allowed in order to limit increases in temperature associated with asphalt and reduce impacts from urban heat islands.

The parking area layout standards are intended to promote safe circulation within the parking area, provide for the effective management of stormwater runoff from vehicle areas, and provide for convenient entry and exit of vehicles. The setback and landscaping standards:

- Improve and soften the appearance of parking areas;
- Reduce the visual impact of parking areas from sidewalks, streets, and especially from adjacent residential zones;
- Provide flexibility to reduce the visual impacts of small residential parking lots;
- Direct traffic in parking areas;
- Shade and cool parking areas;
- Reduce the amount and rate of stormwater runoff from vehicle areas;
- Reduce pollution and temperature of stormwater runoff from vehicle areas; ~~and~~
- Decrease airborne and waterborne pollution~~.~~; and
- Limit the impacts of electric vehicle chargers and equipment on adjacent streets and lots

B. Where these standards apply. The standards of this section apply to all vehicle areas whether required or excess parking, except for residential vehicle areas subject to the standards of 33.266.120.

Commentary

33.266.130.H. Electric vehicle chargers and equipment in parking areas. These are new development standards for the installation of EV charging facilities, for both required facilities and those voluntarily installed. These standards provide guidance on where the EV charging facility can go within the parking lot and whether they can intrude on individual parking spaces.

Many EV charging terminals, including those that offer high-speed commercial charging, are often accompanied by accessory electrical equipment and cabinets. These cabinets are similar to other mechanical equipment. The amendments clarify that this equipment is subject to similar screening and setback requirements.

C-G. No change

H. Electric vehicle chargers and equipment in parking areas. Electric vehicle chargers and accessory equipment may be located within surface and structured parking areas, subject to the following:

1. The chargers and equipment can be placed in areas adjacent to parking spaces, but are not allowed within required perimeter landscaping areas.
2. The chargers may project into a portion of a parking space. However, the chargers cannot project more than a 2-foot square into the minimum required parking dimension.
3. Electrical equipment, generators or transformers associated with EV chargers must be screened from the street and adjacent residential zones by walls, fences, or vegetation. Screening must comply with at least the L2 or F2 standards of Chapter 33.248, Landscaping and Screening, and be tall enough to screen the equipment.

Commentary

33.279.030 Alterations Allowed Without Conditional Use Review

D. This amendment clarifies that the installation of EV chargers and equipment on the site of a recreation field should be treated similar to other minor improvements or features of a site, and its installation does not trigger a conditional use review.

33.281.050 Review Thresholds for Development

A. Allowed. Similar to above, this clarifies that the installation of EV chargers and equipment does not trigger conditional use review on a school site.

33.279 Recreational Fields for Organized Sports

279

33.279.030 Alterations Allowed Without Conditional Use Review

Alterations related to a recreational field for organized sports to the site that meet all of the following are allowed without a conditional use review provided the proposal meets all of the following thresholds.

A-C. [No change]

D. Does not increase the exterior improvement area by more than 1,500 square feet. Fences, handicap access ramps, on-site pedestrian circulation systems, Community Gardens, Market Gardens, electric vehicle chargers and equipment, and increases allowed by Subsections F. through H. below are exempt from this limitation;

E-I. [No change]

33.281 Schools and School Sites

281

33.281.050 Review Thresholds for Development

This section states when development related to schools and on school sites in the OS, R, and IR zones is allowed, when a conditional use review is required, and the type of procedure used. Recreational fields used for organized sports are subject to Chapter 33.279, Recreational Fields for Organized Sports.

A. Allowed. Alterations to the site that meet all of the following are allowed without a conditional use review.

1-3. [No change]

4. Increases of exterior improvement areas up to 2,000 square feet. Fences, handicap access ramps, on-site pedestrian circulation systems, Community Gardens, Market Gardens, electric vehicle chargers and equipment, bicycle parking and increases allowed by Paragraphs A.6 and A.9 are exempt from this limitation;

5-9. [No change]

Commentary

33.420.045 Items Exempt From This Chapter

B. Exterior Alterations

This amendment adds an exemption allowing EV chargers and equipment to be installed as an exterior alteration in areas within the Design overlay zone without triggering the requirements of the chapter. This is intended to encourage the installation of these systems, in conjunction with existing parking areas.

33.420 Design overlay zone

420

33.420.045 Items Exempt From This Chapter

The following items are exempt from the regulations of this chapter:

A. General exemptions: [No change]

B. Exterior alterations:

1. Repair, maintenance, and replacement with comparable materials;
2. Exterior alterations to a structure required to meet the Americans With Disabilities Act's requirements, or as specified in Section 1113 of the Oregon Structural Specialty Code;
3. Exterior work activities associated with an Agriculture use;
4. Detached accessory structures when the structure has a building coverage no more than 300 square feet in area and is located at least 20 feet from all street lot lines, or located within an existing vehicle area;
5. Exterior alterations for parking lot landscaping, short-term bicycle parking, and pedestrian circulation systems when all relevant development standards of this Title are met;
6. Electric vehicle chargers and equipment.

Renumber 6.-10. to 7.-11.;

C. [No change]

33.510.261 Parking Built After July 9, 2018

I.2 Carpool parking. Current regulations within the Central City require new parking for non-residential/hotel uses to include a proportion of their spaces allocated toward carpools. A minimum of 5 spaces or 5 percent of total spaces must be set aside for carpools. This amendment requires that at least 20 percent of the carpool spaces include access for EV charging facilities, to ensure that the EV capability is distributed proportionally between carpool and non-carpool spaces.

33.510.261 Parking Built After July 9, 2018

A-H. [No change]

I. All parking built after July 9, 2018. The regulations of this subsection apply to all new parking regardless of type.

1. The applicant is required to report the number of constructed parking spaces to the Director of the Bureau of Transportation within 30 days of parking operations beginning.
2. Carpool parking. The carpool regulations of this Paragraph do not apply to Residential uses or hotels.
    a. Five spaces or five percent of the total number of parking spaces on the site, whichever is less, must be reserved for carpool use before 9:00 AM on weekdays. More spaces may be reserved, but they are not required;
    b. The carpool spaces must be those closest to the building entrance or elevator, but not closer than the spaces for disabled parking; ~~and~~
    c. At least twenty percent of the carpool spaces must include electrical conduit adjacent to the spaces that will allow for installation of at least a Level 2 electric vehicle charger; and
    ~~c~~d. Signs must be posted indicating that the spaces are reserved for carpool use before 9:00 AM on weekdays.

3-4. [No change]

I.5. Operation reports. All parking facilities in the Central City built after July 9, 2018 are required to provide operation reports to the Bureau of Transportation (PBOT). These reports include metrics on overall usage, permits and fees for regular and carpool parking. This amendment adds a monitoring requirement to include spaces that have current or future EV charging capabilities and what rates are being charged at spaces that provide EV charging facilities. Incorporating this data into future operation reports can help PBOT and the City determine the use of these spaces and the rates charged, in comparison with other parking spaces. The existing code is also amended so that reports for these facilities are generated by the same due date for PBOT to monitor. PBOT is responsible for providing the procedures for submitting the reports.

5. Operation reports. The applicant must provide operation reports to the Director of the Bureau of Transportation no later than December 31 each year~~upon request~~. The operation reports must be based on a sample of four days during every 12-month period, and must include the following information:

   a. The number of parking spaces and the amount of net building area on the site.

   b. A description of how the parking spaces were used in the following categories. Percentage of parking used for:

      (1) Short-term (less than 4 hours);

      (2) Long-term daily (four or more hours);

      (3) Average number of monthly permits issued (other than carpool)~~; and~~

      (4) Number of signed monthly Carpool stalls in the facility~~.~~; and

      (5) Number of spaces that either include electrical conduit adjacent to the spaces that will allow for the installation of at least a Level 2 electric vehicle charger, or currently provide at least a Level 2 electric vehicle charger.

   c. Rate schedule for:

      (1) Hourly parking;

      (2) Daily Maximum Rate;

      (3) Evening Parking;

      (4) Weekend Parking;

      (5) Monthly parking; ~~and~~

      (6) Carpool parking; and

      (7) Electric vehicle parking if different from above rates

   d. The hours of operation on weekdays, Saturday, Sunday, and whether the facility is open during special events in the area.

6. [No change]

33.815.040.B. Proposals that alter the development of an existing conditional use.

1.f Similar to the amendments for recreational fields and schools, this amendment clarifies that the installation of EV chargers and equipment does not trigger conditional use review on a site with an existing conditional use.

33.815 Conditional Uses

815

33.815.040 Review Procedures

The procedure for reviewing conditional uses depends on how the proposal affects the use of, or the development on, the site. Subsection A, below, outlines the procedures for proposals that affect the use of the site while Subsection B outlines the procedures for proposals that affect the development or reduce the conditional use site boundary. Proposals may be subject to Subsection A or B or both. The review procedures of this section apply unless specifically stated otherwise in this Title. Proposals may also be subject to the provisions of 33.700.040, Reconsideration of Land Use Approvals.

A. [No change]

B. Proposals that alter the development of an existing conditional use. Alterations to the development on a site with an existing conditional use and reducing the boundary of a conditional use site may be allowed, require an adjustment, modification, or require a conditional use review, as follows:

1. Conditional use review not required. A conditional use review is not required for alterations to the site and reductions to the conditional use site boundary that comply with Subparagraphs a through h. All other alterations and boundary changes are subject to Paragraph 2, below. Alterations to development and reductions to the site boundary are allowed by right provided the proposal:

   a-e. [No change]

   f. Does not increase the exterior improvement area by more than 2,000 square feet. Fences, handicap access ramps, and on-site pedestrian circulation systems, ground mounted solar panels, Community Gardens, Market Gardens, bicycle parking, <u>electric vehicle chargers and equipment,</u> and parking space increases allowed by 33.815.040.B.1.h, below, are exempt from this limitation;

   g-h. [No change]

2. [No change]

Commentary

33.910.030 Definitions

Drive-Through Facility.
This amendment clarifies that an EV charging facility that is designed for quick vehicle charging and queuing similar to a gas station is defined as a drive-through facility. It includes stacking lanes behind each individual charging station similar to a gas pump. It also clarifies that situations where a vehicle may be getting charged while parked in a parking space is not classified as a drive-through facility. These amendments are intended to complement the changes to 33.920 to help classify the range of EV charging situations that city will encounter. EV charging facilities currently take 30 minutes to several hours to charge, which means that most chargers will be located in a parking space. However, future improvements in efficiency are likely to result in EV charging stations operating more closely to a standard gas station in terms of time spent at the charging island and vehicles lining up behind. This could allow for future drive-through style facilities.

33.910 Definitions

910

33.910.030 Definitions

The definition of words with specific meaning in the zoning code are as follows:

Drive-Through Facility. A facility or structure that is designed to allow drivers to remain in their vehicles before and during an activity on the site. Drive-through facilities are a type of site development that is usually found in conjunction with a Quick Vehicle Servicing use or a Retail Sales And Service use. Drive-through facilities also include facilities designed for the rapid servicing of vehicles, where the drivers may or may not remain in their vehicles, but where the drivers usually either perform the service for themselves, or wait on the site for the service to be rendered. Drive-through facilities may serve the primary use of the site or may serve accessory uses. Examples are drive-up windows; menu boards; order boards or boxes; gas pump and electric vehicle charging islands; car wash facilities; auto service facilities, such as air compressor, water, and windshield washing stations; quick-lube or quick-oil change facilities; and drive-in theaters. Parking spaces used for customer pick-up or loading of goods or products purchased on-site, on the phone, or on-line from the establishment are not a drive-through facility. Parking spaces that include electric vehicle chargers and equipment are not a drive-through facility. Facilities designed for electric vehicle charging or the picking-up or loading of goods or products purchased from the establishment that include a stacking lane and a service area are a drive-through facility.

Commentary

33.920.220 Quick Vehicle Servicing

The amendments to the Quick Vehicle Servicing use category add electric vehicle charging facilities as an example of a Quick Vehicle Servicing use, which occurs when the chargers are located with vehicle queuing. The amendment also clarifies when an EV charger is part of accessory parking. In many cases, EV charging facilities are incorporated into parking lots, partially because the vehicles must remain in the space for longer than a few minutes to get charged. However, if a charging facility functions as a drive-through, it will be a Quick Vehicle Service use.

33.920.220 Quick Vehicle Servicing

A. Characteristics. Quick Vehicle Servicing uses provide direct services for motor vehicles where the driver generally waits in the car before and while the service is performed. The development will include a drive-through facility, the area where the service is performed (see 33.910, Definitions.) Full-serve and mini-serve gas stations are always classified as a primary use (Quick Vehicle Servicing), rather than an accessory use, even when they are in conjunction with other uses.

B. Accessory Uses. Accessory uses may include auto repair, food membership distribution, and tire sales.

C. Examples. Examples include full-serve and mini-serve gas stations, unattended card key stations, electric vehicle charging stations, car washes, quick lubrication services, and Department of Environmental Quality vehicle emission test sites.

D. Exceptions.

1. Truck stops are classified as Industrial Service.
2. Refueling facilities for the vehicles that belong to a specific use (fleet vehicles) which are on the site where the vehicles are kept, are accessory to the use.
3. Electric vehicle chargers that are intended to be used while the car is parked in a parking space are not a Quick Vehicle Servicing use.

Commentary

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