Planning Commission
Staff Report

Subject: Electric Vehicle Charging Stations
Application: PL-20-04623
Author: Rebecca Ward
Date: October 14, 2020
Type of Item: Legislative – Land Management Code Amendments

Summary Recommendation
Staff recommends the Planning Commission review Land Management Code amendments that require Electric Vehicle Charging Station Infrastructure and installations for Multi-Unit Dwellings and non-Residential Developments, hold a public hearing, and consider forwarding a positive recommendation for City Council's consideration on November 19, 2020.

Description
Applicant: Planning Department
LMC Amendment: Amending § 15-3-1, Purpose; § 15-3-2, Requirement; § 15-15-1, Definitions; and § 15-15-2, List of Defined Terms
Enacting § 15-3-11, Electric Vehicle Charging Stations
Reason for Review: LMC amendments require Planning Commission review and recommendation to the City Council for Final Action

Acronyms
EV Electric Vehicle
EVCS Electric Vehicle Charging Station
LMC Land Management Code

Terms that are capitalized as proper nouns throughout this staff report are defined in LMC § 15-15-1.

Executive Summary
The proposed LMC amendments:
1. Define Electric Vehicle; Electric Vehicle Charging Station; Electric Vehicle Charging Station Infrastructure; and Electric Vehicle – Ready;
3. Require that an Applicant provide EVCS Infrastructure for fifteen percent of Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Development for the first 100 parking spaces, and for five percent thereafter;
4. Require that an Applicant install EVCS for five percent of Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Developments for the first 200 parking spaces;
5. Establish uniform standards for EVCS;
6. Amend § 15-3-1, Purpose, and § 15-3-2, Requirement, to include EVCS;
7. Allow EVCS as an Accessory Use in all Zoning Districts; and
Parking Areas.

The Building Department determined that all EVCS and EV installations comply with the currently adopted building, electrical, and energy efficiency codes. Building staff will ensure case by case compliance during the permitting and plan review process.

Permit fees for EVCS installations will be waived pursuant to Park City Fee Schedule 1.2.2.

**Background**

Park City set ambitious sustainability goals to be net-zero carbon, running on 100% renewable electricity by 2022 for City operations and 2030 communitywide (Resolution No. 32-2018). The City implemented a four-pillar strategy to meet these goals: (1) Energy Efficiency, (2) Electrification, (3) Renewables, and (4) Regeneration. The initial Park City Vision 2020 public input indicates that the community continues to prioritize and support the City’s net-zero carbon goal.¹

Part of the work toward carbon neutrality is to convert combustion-based transportation to electric transportation powered by renewables. To promote electric transportation, the City waives building permit fees for installation of EVCS and Solar Energy Systems.

In 2019, the City announced a plan to install 100 EVCS throughout town. To date, the City has installed 46 (16 of these stations are dual port, for a total of 62 EVCS.)² Rocky Mountain Power committed to cover fifty percent of the EVCS installation costs. Additionally, the City operates 13 electric buses.

On a regional, state, and county level, EVCS networks are growing (Exhibit B). Some of this growth is planned to support the state’s tourism industry with EVCS installations at locations along scenic byways, interconnecting national parks and other tourist destinations.

The Commission conducted two work sessions to discuss Land Management Code amendments to support future installations of EVCS:

- June 10, 2020 Commission work session (Staff Report; Minutes, p. 2 - 10)
- July 8, 2020 Commission work session (Staff Report; Minutes, p. 9 - 15)

The proposed Land Management Code amendments are a result of the Commission work sessions, staff outreach to local developers and community members, collaboration with the Building and Sustainability Department, Development Review Committee input, and Park City Fire District recommendations.

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¹ City Council September 22, 2020 Staff Report; Exhibit A, Draft Strategic Pillars
² City Council May 21, 2020 Staff Report.
Analysis
The General Plan Community Planning Strategy 5.7 (p. 10) recommends requiring dedicated parking and EVCS to support Electric Vehicles within new development and redevelopment. The LMC implements the goals and policies of the General Plan. The Commission has the primary responsibility of reviewing LMC amendments and forwarding a recommendation for City Council's consideration. The City Council holds a public hearing and takes Final Action on LMC amendments.

There are three Electric Vehicle Charging Station levels:

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Plugs into a basic household outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requires many hours to fully charge a battery</td>
</tr>
<tr>
<td></td>
<td>Cost ranges from $300 - $1,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2</th>
<th>Plugs into a 208/240 volt outlet similar to a household dryer outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requires a few hours to fully charge a battery</td>
</tr>
<tr>
<td></td>
<td>Cost ranges from $400 - $6,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 3</th>
<th>Direct Current Fast Charger (DCFC) that requires a 480 volt outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully charges a battery in less than an hour</td>
</tr>
<tr>
<td></td>
<td>Generally located along major highways</td>
</tr>
<tr>
<td></td>
<td>Cost ranges from $10,000 - $40,000</td>
</tr>
</tbody>
</table>

The following Land Management Code amendments are specific to Level 2 Charging Stations as follows:

1. Define Electric Vehicle; Electric Vehicle Charging Station; Electric Vehicle Charging Station Infrastructure; and Electric Vehicle – Ready.

LMC § 15-15-1 is proposed to be amended as follows:

15-15-1 Definitions
For the purpose of the LMC, certain numbers, abbreviations, terms, and words shall be

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3 LMC § 15-1-2.
4 LMC § 15-12-15(B)(3).
5 LMC § 15-1-7(D).
used, interpreted, and defined as set forth herein. Defined terms will appear as proper nouns throughout this Title. Words not defined herein shall have a meaning consistent with Webster’s New Collegiate Dictionary, latest edition.

...  

**Electric Vehicle (EV).** Any motor vehicle registered to operate on public roadways that operates either partially or exclusively on electric energy.

**Electric Vehicle Charging Station.** A public or private parking space with Level 2 Electric Vehicle supply equipment that consists of the conductors, including the ungrounded, grounded, and equipment grounding conductors, and the Electric Vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus, installed specifically for the purpose of transferring energy between the premises wiring to a battery or other energy storage device in an Electric Vehicle.

**Electric Vehicle Charging Station Infrastructure.** Development designed and constructed to include a fully-wired circuit for Electric Vehicle Charging Station power, including conduit and wiring with the electrical service capacity necessary to serve the power outlets to allow for the future installation of Level 2 Electric Vehicle Charging Stations.

**Electric Vehicle – Ready.** A Private Garage that includes a dedicated circuit to accommodate the potential installation of a Level 2 Electric Vehicle Charging Station.
LMC § 15-15-2 is proposed to be amended as follows:

- Economic Hardship, Substantial Elder Care
- Electric Vehicle (EV)
- Electric Vehicle Charging Station
- Electric Vehicle Charging Station Infrastructure
- Electric Vehicle – Ready
- Elevator Penthouse
- Emergency Repair Work
- Equipment Shelter (see Telecommunications Facility, Equipment Shelter
- Escrow
- Essential Historic Form
- Exterior Architectural Appearance


In the July 8, 2020 work session, staff recommended requiring that Single-Family Dwellings, Duplexes, and Triplexes be Electric Vehicle – Ready, meaning the Garage is built to support a future Level 2 EVCS installation. However, upon further review and input from the Park City Fire District and Building Department regarding ventilation systems that may be required, staff suggests that the City encourage EV – Ready Private Garages for Single-Family Dwellings, Duplexes, and Triplexes, which means that the Private Garage includes a dedicated circuit to accommodate the potential installation of a Level 2 EVCS.

It should be noted that (1) most Private Garages already accommodate Level 1 EVCS capacity for overnight charging; and (2) constructing Single-Family Dwellings, Duplexes, and Triplexes to be Electric Vehicle – Ready adds value to property and is an increasing trend.⁷

⁷ Electric Vehicle Charging Station Strategy for Real Estate Implementation in the United States, RCLCO Real Estate
LMC § 15-3-11(C) is proposed to be enacted as follows:

**ELECTRIC VEHICLE - READY.** Applicants are encouraged to construct Private Garages for Single-Family Dwellings, Duplexes, and Triplexes that are Electric Vehicle - Ready.

3. Require that an Applicant provide Electric Vehicle Charging Station Infrastructure for fifteen percent of Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Development up to the first 100 parking spaces, and for five percent thereafter.

The electrical load of a Building is established when the Building is designed. Retrofitting existing Parking Areas and Parking Structures to accommodate EVCS can require trenching or boring to connect to conduit, an expensive and disruptive process.

To support EV charging locally, staff recommends that developers install EVCS Infrastructure, meaning the conduit to support the future installation of Level 2 Charging Stations is put into place at the time of construction. Once the baseline infrastructure is put into place for fifteen percent of parking spaces, it is possible to expand this infrastructure without expensive retrofits. This requirement is recommended for the first 100 parking spaces, and for five percent thereafter.

LMC § 15-3-11(B) is proposed to be enacted as follows:

**INFRASTRUCTURE.** An Applicant shall provide Electric Vehicle Charging Station Infrastructure for fifteen percent (15%) of the first one hundred (100) required Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Development and for five percent (5%) of required Off-Street parking spaces above one hundred (100).

1. The Electric Vehicle Charging Station Infrastructure shall be identified on all construction documents submitted for review.

2. To put future Property Owners on notice of the Electric Vehicle Charging Station Infrastructure, an Applicant shall provide information in Covenants.
Conditions, and Restrictions or other documents governing a homeowner or master owners association for the Development and/or on the breaker panel.

<table>
<thead>
<tr>
<th>Parking Spaces</th>
<th>15% EVCS Infrastructure</th>
<th>+5% EVCS Infrastructure</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>15</td>
<td>+1</td>
<td>16</td>
</tr>
<tr>
<td>125</td>
<td>15</td>
<td>+3</td>
<td>18</td>
</tr>
<tr>
<td>175</td>
<td>15</td>
<td>+4</td>
<td>19</td>
</tr>
<tr>
<td>200</td>
<td>15</td>
<td>+5</td>
<td>20</td>
</tr>
<tr>
<td>225</td>
<td>15</td>
<td>+6</td>
<td>21</td>
</tr>
<tr>
<td>250</td>
<td>15</td>
<td>+8</td>
<td>23</td>
</tr>
<tr>
<td>275</td>
<td>15</td>
<td>+9</td>
<td>24</td>
</tr>
<tr>
<td>300</td>
<td>15</td>
<td>+10</td>
<td>25</td>
</tr>
</tbody>
</table>

4. Require that an Applicant install Electric Vehicle Charging Stations for five percent of Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Development for the first 200 parking spaces.

To ensure EVCS are made available as a part of new Development and redevelopment and that the first of these stations accommodates ADA accessibility, LMC § 15-3-11(D) is proposed to be enacted as follows:

**INSTALLATION.** An Applicant shall install Electric Vehicle Charging Stations for five percent (5%) of required Off-Street parking spaces for Multi-Unit Dwellings and non-Residential Development for the first 200 parking spaces.

1. The first Electric Vehicle Charging Station installed shall be ADA accessible, but shall not be restricted to ADA-only use.

EVCS installations use required parking spaces calculated according to the land use, outlined in LMC § 15-3-6, *Parking Ratio Requirements for Specific Land Use*

*Categories.* While this number is conservative initially, as the demand for EVCS
increases over time, the infrastructure will be in place to increase the number of EVCS Installations.

<table>
<thead>
<tr>
<th>Parking Spaces</th>
<th>EVCS Installations</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>75</td>
<td>4</td>
</tr>
<tr>
<td>100</td>
<td>5</td>
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<tr>
<td>125</td>
<td>6</td>
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<tr>
<td>150</td>
<td>8</td>
</tr>
<tr>
<td>175</td>
<td>9</td>
</tr>
<tr>
<td>200</td>
<td>10</td>
</tr>
</tbody>
</table>


LMC § 15-3-11(E) is proposed to be enacted as follows:

**STANDARDS.**

1. **Location.** Electric Vehicle Charging Stations shall not obstruct:
   
   a. Building access;
   
   b. Rights-of-Way;
   
   c. sidewalks or pathways;
   
   d. parking space dimensions; or
   
   e. the Sight Distance Triangle.

2. **Signs.** An Applicant shall install Electric Vehicle Charging Station signage that complies with the *Federal Highway Administration Manual on Uniform Traffic Control Devices*, as amended for use in Utah. An Applicant shall install signage as follows:
a. At the point of entrance to direct drivers to the location of Electric Vehicle Charging Stations for Parking Structures with fifty (50) or more parking spaces.

b. At the point of entrance to direct drivers to the location of Electric Vehicle Charging Stations for Parking Areas with seventy-five (75) or more parking spaces.

c. For each Electric Vehicle Charging Station to indicate that such Station is for Electric Vehicle charging only.

3. User Information. An Applicant shall label each Electric Vehicle Charging Station with information regarding safety, voltage and amperage levels, usage fees if any, hours of operation, charging time limits, the contact information to report malfunctioning equipment or other issues, and cord management requirements.

4. Cord Management. An Applicant shall install Electric Vehicle Charging Stations that contain a retraction device or place to hang and store cords, cables, and connectors. Cords, cables, and connectors shall not obstruct Building access, sidewalks or pathways, parking spaces, or the Rights-of-Way.

5. Protection. An Applicant shall install wheel stops, concrete-filled bollards, or other device approved by the Planning Director to protect Electric Vehicle Charging Stations from damage by vehicles.

6. Snow Removal. An Applicant shall install Electric Vehicle Charging Stations that are safe for use in inclement weather. Cords, cables, and
connectors shall be stored at least 24 inches above the ground. Property owners shall manage cords so that they do not impede snow removal and shall remove snow from Electric Vehicle Charging Stations in a timely manner.

7. **Maintenance.** Property owners shall maintain Electric Vehicle Charging Stations in good condition, appearance, and repair. If an Electric Vehicle Charging Station is inoperable, the Property Owner shall replace the Charging Station within three (3) months.

6. **Amend § 15-3-1, Purpose, and § 15-3-2, Requirement, to include EVCS.**

LMC § 15-3-1, *Purpose,* is proposed to be amended as follows:

The purpose of this Chapter is to:

A. specify Parking Area, Parking Structure, and Access drive standards for all Development within the City;

B. specify Parking Ratio requirements for specific land Use categories to ensure adequate and not excessive parking is provided for the Use[.];

C. provide solutions to mitigate impacts of parking and vehicular oriented Development;

D. provide for safe and efficient parking for people with disabilities; [and]

E. provide for convenient and safe motorcycle and bicycle parking to encourage and facilitate alternative modes of transportation[.]; and

F. **establish requirements and standards for Electric Vehicle Charging Stations.**

LMC § 15-3-2, *Requirement,* is proposed to be amended as follows:
A. An Applicant [must] shall provide required Off-Street parking with adequate provisions for independent ingress and egress by automobiles and other motorized vehicles, and required Electric Vehicle Charging Station Infrastructure, and Electric Vehicle Charging Station installation at the time a Building is erected or enlarged.

B. If any land, Structure, or Use is changed to create more Off-Street parking demand, the Owner must provide such additional Off-Street parking[,] and required Electric Vehicle Charging Station Infrastructure and installation for the new Use [as is required by this Chapter].

C. Required parking must be on-Site unless the Planning Commission allows such parking on adjacent or nearby deed restricted Lots.

7. Allow Electric Vehicle Charging Stations as an Accessory Use in all Zoning Districts.

The proposed amendments enact LMC § 15-3-11(A):

**ELECTRIC VEHICLE CHARGING STATIONS.** Electric Vehicle Charging Stations are an Allowed Accessory Use in all Zoning Districts.


A Solar Energy System is defined as “[a]n energy system which converts solar energy to usable thermal, mechanical, chemical, or electrical energy to meet a structure’s energy requirement.” Structure is defined as “[a]nything constructed, the Use of which requires a fixed location on or in the ground, or attached to something having a fixed location on the ground and which imposes an impervious material on or above the ground; definition includes Building.” LMC § 15-15-1.

There are temporary solar-powered EVCS installations that would not be appropriate for Park City. However, permanent Solar Energy Systems may be constructed in non-Historic District Parking Areas if the Solar Energy Systems meet the criteria in the Architectural Design Guidelines. LMC § 15-5-5(G).
The proposed amendments enact LMC § 15-3-11(F):

**SOLAR ENERGY SYSTEMS.** Solar Energy Systems may be installed on permanent Parking Area Structures for Electric Vehicle Charging Stations in non-Historic Zoning Districts. Solar Energy Systems shall be incorporated in the roof of the permanent Structure and shall be mounted flush to the roof plane. Solar panels, solar devices, and Solar Energy Systems and mounting equipment shall use non-reflective finishes such as an anodized finish.

**Department Review**
The Development Review Committee and Planning, Building, Engineering, Sustainability, Economic Development, and Legal Departments reviewed the proposed code.

**Notice**
Staff published notice on the City’s website and the Utah Public Notice website on September 25, 2020. The *Park Record* published notice on September 25, 2020.¹⁸

**Public Outreach**
Staff published notice of the proposed amendments in the Community Development Newsletter, asked the City’s Advisory Committee on sustainability for input, and reached out to the Park City Homebuilders Association and local developers for feedback. Public input received to date is attached as Exhibit C.

**Public Input**
Please see Exhibit C.

**Exhibits**
Exhibit A: Draft Ordinance and LMC Redlines
Exhibit B: Regional, State, County, and City EV Charging Station Network Plans
Exhibit C: Public Input

**Resources**
To develop this code, staff referred to the following:

*AchiEVe: Model Policies to Accelerate Electric Vehicle Adoption* (the Sierra Club and Plug In America, 2019)

*Cleaner Cars from Cradle to Grave: How Electric Cars Beat Gasoline Cars on Lifetime Global Warming Emissions* (Union of Concerned Scientists, 2015)

¹⁸ LMC § 15-1-21.

Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools
(Georgetown Climate Center, Clean Cities, and Transportation & Climate Initiative of the Northeast and Mid-Atlantic States, 2012)

Electric Vehicles: A Primer on Technology and Selected Policy Issues (Congressional Research Service, 2020)

(Washington Department of Commerce and Puget Sound Regional Council, 2010)

Electrified Transportation Roadmap: Best Practices and Clean Air Solutions Guide for Local Governments in Utah (Utah Clean Energy and Salt Lake City, 2018)


EV Charging for Persons with Disabilities (Clean Fuels Ohio and Virginia Clean Cities, 2012)


Staff referred to the following EV codes:

Lancaster, California; Long Beach, California; Los Angeles County, California; Pacifica, California; Marin County, California; Richmond, California; San Francisco, California; Summit County, Colorado; Boca Raton, Florida; Coral Gables, Florida; Miami Beach, Florida; Miami-Dade, Florida; Surfside, Florida; Atlanta, Georgia; Clayton County, Georgia; Ferndale, Michigan; New York, New York; League City, Texas; Salt Lake City, Utah; Powhatan County, Virginia; Arlington, Washington; Coupeville, Washington; Seattle, Washington