



July 17, 2024

To: Construction Codes Advisory Board

From: Scott Lau, Chief Electrical Inspector

RE: Adoption of the 2023 Seattle Electrical Code

Below you will find a summary of the major proposed changes SDCI staff members and an electrical stakeholder's group recommend for your consideration as you review the proposed code. I am happy to answer any questions you may have when we meet on Thursday, July 18<sup>th</sup>.

### **2023 Seattle Electrical Code (SEC) – Summary of Major Proposed Changes**

Note: [W] indicates a Washington State Electrical Code change that is incorporated either fully or partially into the 2023 Seattle Electrical Code. Most of these have already been enforced by the City.

#### **Section 80 – Administration.**

**The changes in Section 80, known as “Articles” in the National Electrical Code(NEC) and the SEC, if adopted would now require:**

- A certificate of approval to be obtained prior to making changes to the exterior of a Landmark Building. 80.4(F)(5)
- A plan to be submitted for new installations of Energy Storage Systems (ESS) for plan review by SDCI. 80.51(B)(1)(k)
- [W] A permit for furnace, HWT, and heater replacement to align with State of Washington requirements. 80.50(B)(4)
- A plan review for temporary services over 400 amps (currently 600 amps). 80.51(B)(1)(a)
- That the location of smoke control fans be shown on electrical one-line drawings. 80.51(B)(4)(9)
- A permit for commercial installations of voice/data cable of any length 80.50(C)(4)
- That PV installation documents, plans and catalog cuts submitted to the field inspector also now be required by code to be uploaded electronically to the SDCI portal. This codifies an SDCI policy. 80.51(B)(1)(h)
- Electrical permits to be posted. This is a reinstatement of an earlier code requirement. 80.52(B)
- An on-site inspection of Solar (PV) installation equipment prior to installation on the roof. This clarifies in code something SDCI has been requiring by policy. 80.54(F)(1)(d)
- A reinspection of corrections from an inspection to be scheduled within 14 days. 80.54(H)

**The changes in Sections 100-700 if adopted:**

#### **Section 100 – Definitions**

- Relocate the definitions for the Basement, Development Site, EV Ready, and Unit Lot Subdivision from other locations in the code into Article 100. Article 100
- Update the definition for Development Site and create a new definition for Unit Lot Subdivision to align with usage of these terms in the Land Use code. Article 100

#### **Section 110 – General Requirements**

- Add clarifying language prohibiting electrical conductors from crossing Development Sites. 110.1(B)
- Require Arc Flash labels to include four specific information points. 110.16(B)1-4)

- Add clarifying language requiring the illumination for exterior panels that contain branch breakers. 110.26(D)

#### **Section 210 – Branch Circuits**

- [W] Bring WAC language into the SEC regarding other required branch circuits. WAC 210.11(C)(5).
- [W] Bring WAC language into the SEC that eliminates the code requirement to provide “future provisions”, which could include adding a circuit or running extra conduit, to make it easy for an owner to add outlets to island counters in the future. 210.52(C)(2)

#### **Section 215 - Feeders**

- Eliminate the prohibition against running feeders through another unit to align with NEC 215.14

#### **Section 220 – Calculations**

- Require that Energy Management Systems not reduce the code required minimum capacity of the service or feeder. 220.70

#### **Section 225 – Outside Branch Circuit and Feeders**

- [W] Align Seattle language with WAC for generator disconnects on buildings. 225.31(C)

#### **Section 230 - Service**

- Clarify that customer owned overhead service conductors are still not allowed in Seattle. 230.20
- Clarify that NEC clearance requirements applies to utility owed service conductors on a Development Site. 230.24
- [W] Reinstate requirements for service entrance conductor sets from 2020 SEC into the 2023 SEC to better align with NEC and WAC language. 230.40
- Restrict service disconnect locations. 230.70(A)(2)
- [W] Align emergency disconnect requirements with the WAC. 230.85(C)

#### **Section 235 – Branch Circuit and Feeder over 1000 volt**

- [W] Align the SEC and the WAC. 230.402

#### **Section 240 – Overcurrent Protection**

- [W] Align the SEC and the WAC. 240.24

#### **Section 250 – Grounding and Bonding**

- [W] Align Seattle code language with the WAC for grounding electrode systems. Clarifies requirements for concrete encased electrodes in existing buildings. 250.50
- [W] Bring in language from the WAC that clarifies protection needed for grounding electrode conductors. 250.64(B)
- Align the SEC with Seattle City Light service guidelines. 250.92(B)

#### **Section 334 – Nonmetallic Sheathed Cable type NM and NMC**

- Clarify use and protection requirements for Romex cable. 334.15

#### **Section 358 – Electrical Metallic Tubing (EMT)**

- Align the SEC with the requirements in NEC 358.12

#### **Section 501 – Class 1 Locations**

- [W] Align the SEC and the WAC by bringing in language from the WAC concerning sewage disposal systems. 501.2

**Section 514 – Motor Fuel Dispensing Facilities**

- [W] Align the SEC and the WAC by adopting WAC language on motor fuel dispensing facilities. 514.11

**Section 555 – Marinas, Boatyards**

- [W] Align with WAC requirements for transformer termination above the dock. 555.7

**Section 590 – Temporary Power**

- Identify where temporary services are allowed. 590.2

**Section 620 – Elevators, Dumbwaiters, Escalators**

- Align the SEC Code with Chapter 30 of the Seattle Building Code, Elevators and Conveying Systems. (throughout section)

**Section 625 – Electric Vehicle Power Transfer System**

- Revise EV charging requirements to comply with State of Washington legislation and the Seattle Land Use Ordinance. These changes will increase the number of EV-ready charging locations and capacity. 625.27

**Section 700 – Emergency Systems**

- [W] Align SEC with WAC language that exempts older emergency systems from selective coordination requirements, specifically 2006 or earlier. 700.32

**Section 701 – Legally Required Standby Systems**

- [W] Align SEC with WAC language that exempts older legally required standby systems from selective coordination requirements, specifically 2006 or earlier. 701.32