

Submittal Requirements Checklist

Electrical Plan Review For Complex Structures – Checklist

All electrical plan reviews are based on the 2020 National Electrical Code (NEC), 2021 Oregon Electrical Specialty Code (OESC) & 2018 Oregon Administrative Rules (OAR).

The checklist below was created to help fulfill the requirements of an Electrical Plan Review for Complex Structures as required by the State of Oregon. OAR 918-311-0040

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- 1) Submit two sets of plans.
- 2) Electronic print files (Email) will not be accepted. It shall be responsibility of the plans submitter, to submit paper prints.
- 3) Submitted plans shall be printed to a readable size.
- 4) Submitted plans shall be drawn to scale.
- 5) Submitted plans shall be dated.
- 6) Submitted plans shall have the address of the installation.
- 7) Submitted plans shall have the name and address of the property owner.
- 8) Submitted plans shall have the name of the company who prepared the plans.
- 9) Submitted plans shall have the name and the signature of the person who prepared the plans.
- 10) Submitted plans shall have the electrical supervisor license number on the plans if the person is an electrical supervisor.
- 11) Submitted plans shall have the professional registration number on the plans if the person is an architect or registered professional electrical engineer.
- 12) Submitted plans shall contain definitions for legends used, be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the applicable electrical code requirements, laws, ordinances, rules and regulations.
- 13) Revised plans shall have a revision number and a revision date printed on the revised plans.
Example: (Revision-1 10-21-2018)

- 14) Submitted plans shall contain available fault current on the line side of service disconnect. The utility power provider will provide available fault current information.
- 15) Submitted plans shall include a one-line diagram detailing the complete electrical system including the utility transformer, service equipment, transformers, electrical panels, emergency systems and all other electrical equipment that is powered by service and feeder conductors.
- 16) Submitted plans shall include the size of all conduits for the one-line diagram detailing the complete electrical system including the utility transformers, service equipment, transformers, electrical panels, emergency systems and all other electrical equipment that is powered by service and feeder conductors. (Example: 2", 3 ½")
- 17) Submitted plans shall include the type of all conduits for the one-line diagram detailing the complete electrical system including the utility transformer, service equipment, transformers, electrical panels, emergency systems and all other electrical equipment that is powered by service and feeder conductors. (Example: PVC, EMT)
- 18) Submitted plans shall include the number, the type and the material (AL or CU) of ungrounded conductors, grounded conductors and equipment grounding conductors in each conduit raceway for the one-line diagram detailing the complete electrical system including the utility transformers, service equipment, transformers, electrical panels, emergency systems and all electrical equipment that is powered by service and feeder conductors. (Example: 3-250 THHN-CU, 1-250 THHN-CU, 1-#4 THHN-CU GRD)
- 19) Submitted plans shall include the number, the type and the material (AL or CU) of ungrounded conductors, grounded conductors and equipment grounding conductors in each cable for the one-line diagram detailing the complete electrical systems including the utility transformer, service equipment, transformers, electrical panels, emergency systems and all other electrical equipment that is powered by service and feeder conductors. (Example: (3) 4/0 AWG and (1) 2/0 AWG Bare Ground, SER AL PVC Jacket, (2) 4 AWG and (1) 6 AWG Bare Ground, SEU CU PVC Jacket)
- 20) Submitted plans shall include the size of all conduits for branch circuits. (Example: 1/2", 1")
- 21) Submitted plans shall include the type of all conduits for branch circuits. (Example: PVC, EMT)
- 22) Submitted plans shall include the number, the type and the material (AL or CU) of ungrounded conductors, grounded conductors and equipment grounding conductors in each branch circuit conduit raceway. (Example: 3-#12 THHN-CU, 1-#12 THHN-CU, 1-#12 THHN-CU GRD)
- 23) Submitted plans shall include the number, the type and the material (AL or CU) of ungrounded conductors, grounded conductors and equipment grounding conductors in each branch circuit nonmetallic-sheathed cable, metal-clad cable or other types of cables. (Example: 12-2w/g NM cable CU, (3) 6 AWG with (1) Ground, MC cable AL)

- 24) Submitted plans shall include load calculations of the service, or provide applicable load records, for all new installations and for additions to existing installations.
- 25) Submitted plans shall include load calculations of each individual electrical panel.
- 26) Submitted plans shall include a panel schedule of each individual electrical panel.
- 27) Submitted plans shall include a one-line riser diagram showing all bonding conductors for service equipment, transformers, electrical panels, emergency systems and all other electrical equipment that is powered by service and feeder conductors. This would also include all bonding for building components and other systems.
(Example: 3/0 THHN CU to building steel)
- 28) Submitted plans shall include a one-line riser diagram showing the size and type (CU / AL) of the grounding electrode conductor, the type of grounding electrode (UFER /Ground Rods) and locations of both.
- 29) Submitted plans shall include a fixture schedule, showing type, location and layout of the fixtures.
- 30) Submitted plans shall include electrical panel name and branch circuit number for all outlets, devices, equipment and lighting fixtures. (Example: Panel-A Circuit-17 or simplified: A-17)
- 31) Submitted plans shall include the type, location (shown on plan) and electrical output of emergency systems. (Example: Diesel - 208V 3ø 125KVA)
- 32) Submitted plans shall include locations of all low voltage system(s) components and cable type. (Example: Cat-5, RG-6)
- 33) Fire Alarm System plan reviews do not fall under the jurisdiction of this OAR section. Contact the Building Official for further information.