

## **WAC 296-46B-900 Electrical plan review.**

### **Definition of occupancies.**

(1) Occupancies are defined as follows:

(a) Educational facility refers to a building or portion of a building used primarily for educational purposes by six or more persons at one time for twelve hours per week or four hours in any one day. Educational occupancy includes: Schools (preschool through grade twelve), colleges, academies, universities, and trade schools.

(b) Institutional facility refers to a building or portion of a building used primarily for detention or correctional occupancies where some degree of restraint or security is required for a time period of twenty-four or more hours. Such occupancies include, but are not restricted to: Penal institutions, reformatories, jails, detention centers, correctional centers, and residential-restrained care.

(c) Health or personal care facility. Health or personal care facility refers to buildings or parts of buildings that contain, but are not limited to, facilities that are required to be licensed by the department of social and health services or the department of health (e.g., hospitals, nursing homes, private alcoholism hospitals, private psychiatric hospitals, boarding homes, alcoholism treatment facilities, maternity homes, birth centers or childbirth centers, residential treatment facilities for psychiatrically impaired children and youths, and renal hemodialysis clinics) and medical, dental, or chiropractic offices or clinics, outpatient or ambulatory surgical clinics, and such other health care occupancies where patients who may be unable to provide for their own needs and safety without the assistance of another person are treated.

(i) "Hospital" means any institution, place, building, or agency providing accommodations, facilities, and services over a continuous period of twenty-four hours or more, for observation, diagnosis, or care of two or more individuals not related to the operator who are suffering from illness, injury, deformity, abnormality, or from any other condition for which obstetrical, medical, or surgical services would be appropriate for care or diagnosis.

(ii) "Nursing home," "nursing home unit" or "long-term care unit" means a group of beds for the accommodation of patients who, because of chronic illness or physical infirmities, require skilled nursing care and related medical services but are not acutely ill and not in need of the highly technical or specialized services ordinarily a part of hospital care.

(iii) "Boarding home" means any home or other institution, however named, which is advertised, announced, or maintained for the express or implied purpose of providing board and domiciliary care to seven or more aged persons not related by blood or marriage to the operator. It must not include any home, institution, or section thereof which is otherwise licensed and regulated under the provisions of state law providing specifically for the licensing and regulation of such home, institution, or section thereof.

(iv) "Enhanced service facility (ESF)" means a facility, or a portion of a facility, that provides treatment and services to persons for whom acute inpatient treatment is not medically necessary and who have been determined by the department to be inappropriate for placement in other licensed facilities due to the complex needs that result in behavioral and security issues. For the purposes of this chapter, an enhanced services facility is not an evaluation and treatment facility certified under chapter 71.05 RCW.

(v) "Private alcoholism hospital" means an institution, facility, building, or equivalent designed, organized, maintained, or operated to provide diagnosis, treatment, and care of individuals demonstrating signs or symptoms of alcoholism, including the complications of associated substance use and other medical diseases that can be appropriately treated and cared for in the facility and providing accommodations, medical services, or other necessary services over a continuous period of twenty-four hours or more for two or more individuals unrelated to the operator, provided that this chapter will not apply to any facility, agency, or other entity which is owned and operated by a public or governmental body.

(vi) "Private psychiatric hospital" means a privately owned and operated establishment or institution which: Provides accommodations and services over a continuous period of twenty-four hours or more, and is expressly and exclusively for observing, diagnosing, or caring for two or more individuals with signs or symptoms of mental illness who are not related to the licensee.

(vii) "Maternity home" means any home, place, hospital, or institution in which facilities are maintained for the care of four or more women, not related by blood or marriage to the operator, during pregnancy or during or within ten days after delivery: Provided, however, that this definition will not apply to any hospital approved by the American College of Surgeons, American Osteopathic Association, or its successor.

(viii) "Birth center" or "childbirth center" means a type of maternity home which is a house, building, or equivalent organized to provide facilities and staff to support a birth service provided that the birth service is limited to low-risk maternal clients during the intrapartum period.

(ix) "Ambulatory surgical facility" means a facility, not a part of a hospital, providing surgical treatment to patients not requiring inpatient care in a hospital.

(x) "Hospice care center" means any building, facility, place, or equivalent, organized, maintained, or operated specifically to provide beds, accommodations, facilities, or services over a continuous period of twenty-four hours or more for palliative care of two or more individuals, not related to the operator, who are diagnosed as being in the latter stages of an advanced disease which is expected to lead to death.

(xi) "Renal hemodialysis clinic" means a facility in a building or part of a building which is approved to furnish the full spectrum of diagnostic, therapeutic, or rehabilitative services required for the care of renal dialysis patients (including inpatient dialysis furnished directly or under arrangement). (NEC: Ambulatory Health Care Occupancy.)

(xii) "Medical, dental, and chiropractic clinic" means any clinic or physicians' office where patients are not regularly kept as bed patients for twenty-four hours or more. Electrical plan review is not required.

(xiii) "Residential treatment facility" means a facility licensed and operated twenty-four hours per day to provide health care to persons receiving services for a mental disorder or substance abuse.

(xiv) "Group care facility" means a facility other than a foster-family home maintained or operated for the care of a group of children on a twenty-four-hour basis.

**Plan review for educational, institutional, or health care facilities/buildings.**

- (2) Plan review is a part of the electrical inspection process; its primary purpose is to determine:
- (a) That service/feeder conductors are calculated and sized according to the proper NEC or WAC article or section;
  - (b) The classification of hazardous locations; and
  - (c) The proper design of emergency and standby systems.
- (3) Electrical plan review.
- (a) Electrical plan review is not required for:
    - (i) Low voltage systems;
    - (ii) Lighting specific projects that do not result in an electrical load increase on any feeder involved in the project;
    - (iii) Heating and cooling specific retrofit projects that do not result in an electrical load increase on any existing feeder involved in the project, provided there is not a corresponding increase in the available fault current in any feeder.
    - (iv) Stand-alone utility fed services that do not exceed 250 volts, 400 amperes where the project's distribution system does not include:
      - (A) Emergency systems other than listed unit equipment per NEC 700.12(F);
      - (B) An essential electrical system defined in NEC 517.2; or
      - (C) A required fire pump system.
    - (v) Modifications to existing electrical installations where all of the following conditions are met:
      - (A) Service or distribution equipment involved is rated not more than 400 amperes and does not exceed 250 volts or for lighting circuits not exceeding 277 volts to ground;
      - (B) Does not involve emergency systems other than listed unit equipment per NEC 700.12(F);
      - (C) Does not involve branch circuits or feeders of an essential electrical system as defined in NEC 517.2; and
      - (D) Service or feeder loads are not increased by more than 5% of the rated capacity of the electrical equipment supplying the modified load(s).
    - (vi) Electric power production source(s) such as solar photovoltaic, fuel cell, or wind electric system(s) with a total rating of 9600 watts or less.
    - (vii) For installations in (a)(ii), (iii), and (v) of this subsection to be considered, the following must be available to the electrical inspector before the work is initiated:
      - (A) A clear and adequate description of the project's scope;
      - (B) A load calculation(s);
      - (C) What the load changes are, providing both before and after panel schedules as needed; and
      - (D) Provide information showing that the service and feeder(s) supplying the panel(s) where the work is taking place has adequate capacity for any increased load and has code compliant overcurrent protection for that supply.
  - (b) Electrical plan review is required for all other new or altered electrical projects in educational, institutional, or health care occupancies defined in this chapter.
  - (c) If a review is required, the electrical plan must be submitted for review and approval before the electrical work is begun.
  - (d) Electrical plans.
    - (i) The plan must be submitted for plan review prior to beginning any electrical inspection. If a plan is rejected during the plan re-

view process, no electrical inspection(s) may proceed until the plan is resubmitted and a conditional acceptance is granted.

(ii) The submitted plan will receive a preliminary review within seven business days after receipt by the department or city authorized to do electrical inspections.

(iii) If the submitted plan:

(A) Is rejected at the preliminary review, no inspection(s) will be made on the project.

(B) Receives conditional acceptance, the permit holder may request a preliminary inspection(s) in writing to the department or city authorized to do electrical inspections. The request must note that the preliminary inspection(s) is conditional and subject to any alterations required from the final plan review process.

(iv) Once the submitted plan has preliminary plan review approval, a copy of the submitted plan must be available on the job site for use by the electrical inspector.

(v) The final approved plan must be available on the job site, for use by the electrical inspector, after it is approved, but no later than prior to the final electrical inspection.

(vi) If the final approved plan requires changes from the conditionally accepted plan, alterations to the project may be required to make the project comply with the approved plan.

(vii) If the installer deviates from the service/feeder design shown on the final approved plan, a supplemental plan must be submitted for review before inspection can proceed. Load reductions or moving branch circuit locations within a panelboard do not require resubmission.

(e) All electrical plans for educational facilities, hospitals, and nursing homes must be prepared by, or under the direction of, a consulting engineer registered under chapter 18.43 RCW, and chapters 246-320, 180-29, and 388-97 WAC and stamped with the engineer's mark and signature.

(f) Refer plans for review to the Electrical Section, Department of Labor and Industries, P.O. Box 44460, Olympia, Washington 98504-4460 or the city authorized to do electrical inspections.

(g) Plans for projects within cities that perform electrical inspections must be submitted to that city for review.

(h) Plans to be reviewed must be legible, identify the name and classification of the facility, clearly indicate the scope and nature of the installation and the person or firm responsible for the electrical plans. The plans must clearly show the electrical installation or alteration in floor plan view, include all switchboard and panelboard schedules and when a service or feeder is to be installed or altered, must include a riser diagram, load calculation, fault current calculation, and interrupting rating of equipment. Where existing electrical systems are to supply additional loads, the plans must include documentation that proves adequate capacity and ratings. The plans must be submitted with a plan review submittal form available from the department or city authorized to do electrical inspections. Fees must be calculated based on the date the plans are received by the department or city authorized to do electrical inspections.

(i) The department may perform the plan review for new or altered electrical installations of other types of construction when the owner or electrical contractor makes a voluntary request for review. A city authorized to do electrical inspections may require a plan review of any electrical system.

(j) For existing structures where additions or alterations to feeders and services are proposed, NEC 220.87(1) may be used. If NEC 220.87(1) is used, the following is required:

(i) The date of the measurements.

(ii) A statement attesting to the validity of the demand data, signed by a professional electrical engineer or the electrical administrator of the electrical contractor performing the work.

(iii) A diagram of the electrical system identifying the point(s) of measurement.

(iv) Building demand measured continuously on the highest-loaded phase of the feeder or service over a thirty-day period, with the demand peak clearly identified. Demand peak is defined as the maximum average demand over a fifteen-minute interval.

**Notes to Tables 900-1 and 900-2.**

1. A city authorized to do electrical inspections may require plan review on facility types not reviewed by the department.

**Table 900-1  
Health or Personal Care Facilities**

<b>Health or Personal Care Facility Type</b>	<b>Plan Review Required</b>
Hospital	Yes
Nursing home unit or long-term care unit	Yes
Boarding home	Yes
Assisted living facility	Yes
Private alcoholism hospital	Yes
Private psychiatric hospital	Yes
Maternity home	Yes
Ambulatory surgery facility	Yes
Renal hemodialysis clinic	Yes
Residential treatment facility	Yes
Enhanced service facility	Yes
Adult residential rehabilitation center	Yes

**Table 900-2  
Educational and Institutional Facilities,  
Places of Assembly, or Other Facilities**

<b>Educational, Institutional, or Other Facility Types</b>	<b>Plan Review Required</b>
Educational	Yes
Institutional	Yes

[Statutory Authority: Chapter 19.28 RCW, RCW 19.28.031 and 19.28.251. WSR 19-15-117, § 296-46B-900, filed 7/23/19, effective 8/23/19. Statutory Authority: Chapter 19.28 RCW, RCW 19.28.010 and 19.28.031. WSR 17-12-021, § 296-46B-900, filed 5/30/17, effective 7/1/17. Statutory Authority: Chapter 19.28 RCW. WSR 14-11-075, § 296-46B-900, filed 5/20/14, effective 7/1/14; WSR 13-03-128, § 296-46B-900, filed 1/22/13, effective 3/1/13. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.281, 19.28.311, 19.28.321, 19.28.400, 19.28.420,

19.28.490, 19.28.551. WSR 08-24-048, § 296-46B-900, filed 11/25/08, effective 12/31/08; WSR 06-24-041, § 296-46B-900, filed 11/30/06, effective 12/31/06; WSR 05-22-025, § 296-46B-900, filed 10/25/05, effective 11/25/05; WSR 05-10-024, § 296-46B-900, filed 4/26/05, effective 6/30/05. Statutory Authority: Chapter 19.28 RCW. WSR 04-21-086, § 296-46B-900, filed 10/20/04, effective 11/22/04. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.271, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551, 2003 c 399, 2003 c 211, 2003 c 78, and 2003 c 242. WSR 04-12-049, § 296-46B-900, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.271, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551, 2002 c 249, chapters 34.05 and 19.28 RCW. WSR 03-09-111, § 296-46B-900, filed 4/22/03, effective 4/22/03.]