Prince George's County
Department of Permitting, Inspections and Enforcement
BUILDING PLAN REVIEW DIVISION
Electrical Section
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ELECTRICAL PLAN REVIEW MINIMUM SUBMISSION (CASE TYPES: CI, CU, CGU, CE, CEU, CUW, CEW, CIW)

Pursuant to 2018 IBC 105.3 (7) and 2018 IMC 106.3, the following checklist is required to be submitted as a document upload to the ProjectDox Electrical Document Folder. The Designer or Architect/Engineer (AE) is required to check mark each item or use N/A box where not applicable. If any box is not checked, the review will be terminated.

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
				GENERAL
1.	❑	❑	❑	Address of project on plans matches application.
2.	❑	❑	❑	Drawings are legible. (*Note:* Handwritten text on drawings is not accepted.)
3.	❑	❑	❑	Building Code and all other associated codes for the project with the correct year are shown on the drawing set, use group, and number of stories.
4.	❑	❑	❑	Name, Address and Phone information is on the cover sheet or individual plan sheets of designer(s).
5.	❑	❑	❑	Drawings are sized to 24" x 36" (minimum). Minimum Plan Scale is 1/8 inch = 1 foot with a text height of 1/8". Details are 1/4 inch = 1 foot.
6.	❑	❑	❑	Graphic scale is provided on all plans. Column Grid IDs are included as appropriate.
7.	❑	❑	❑	Plans are ready For Construction. (*Note:* Plans marked For Bid Only, Permit Only, or 80% Progress, etc., will be rejected.)
8.	❑	❑	❑	All permit set drawings have a cover page and a drawing index. Index matches sheet number.
9.	❑	❑	❑	Key Plan is included on each applicable drawing to show the location(s) of work.
10.	❑	❑	❑	True North Arrow is included on all floor and site plans. Plan north arrow is optional.
11.	❑	❑	❑	Building and Trades plans are orientated with the same plan north.
12.	❑	❑	❑	All fire-rated walls and partitions are clearly delineated on all plans, including Architectural, MEP, Fire & IT plans. Appropriate legends and symbols are included.
13.	❑	❑	❑	Scope of work is provided. Work description is specific and matches documents submitted.
14.	❑	❑	❑	Symbols and abbreviations list is included.
15.	❑	❑	❑	New, existing and demo work is clearly distinguished.
16.	❑	❑	❑	Required original seal and signature by a Maryland Professional Engineer, including professional statement certification with Expiration date of license per state of Maryland, COMAR 09.23.03.10 is provided. Professional Engineer sign and seal is not required if there is no electrical work being performed per the submitted documents. However, the existing conditions electrical drawing for the work area is required and submitted. Visit DPIE's website at DPIE.mypgc.us to view the "Building and Trade Permits Plan Review Submission for Architectural and Professional Engineer (A/E) Seal Requirements" document.

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
PHASED CONSTRUCTION				
17.	❑	❑	❑	Construction Phasing Plan with detailed information on the scope of work for each phase, dates/ duration of construction for each phase, temporary walls, path of egress, emergency light, exit sign shown for each phase along with the appropriate number of permit applications for each phase where applicable.
18.	❑	❑	❑	Identifiable delineation of permit limits is provided. For example, Footing & Foundation vs. Core & Shell etc.
19.	❑	❑	❑	Submittals for each phased construction are complete and sufficient for that permit. Supporting information marked “for reference only” is provided where other permits and documents are referenced.
REVISIONS TO APPROVED PLANS				
20.	❑	❑	❑	Revised sheets are clearly marked (after initial permit approval) on drawing sheet Index.
21.	❑	❑	❑	A letter indicating all the changes made and the sheet numbers on which they are made.
22.	❑	❑	❑	A simple design narrative to explain the scope of work for design or permit revision.
23.	❑	❑	❑	Revision clouds provided with the appropriate delta symbol and revision number matching the revision block number with date.
REVISIONS FOR RESUBMISSION				
24.	❑	❑	❑	Revision clouds provided with the appropriate delta symbol and revision number matching the revision block number with date.
25.	❑	❑	❑	A narrative letter indicating a response to each comment and reference sheet where change was made.
GENERAL ELECTRICAL				
26.	❑	❑	❑	Symbols, abbreviations list, electrical scope of work, and all applicable codes are provided. Refer to DPIE’s website for applicable Building Codes and Bulletins.
27.	❑	❑	❑	Power riser diagram including wiring method type, feeder sizes, conduit size, cable size and the over-current protection device, size and rating is provided.
28.	❑	❑	❑	Electrical energy calculation certification per International Energy Conservation Code (IECC) is provided; the software may be downloaded at www.energycodes.gov.
29.	❑	❑	❑	Fire alarm control panel (FACP) location is shown.
30.	❑	❑	❑	A wall-mounted, battery pack operated emergency illumination is provided for all working spaces including service equipment, switchboards, panel boards, load centers and motor control centers installed indoors in all commercial occupancies per Prince George’s County Code, Subtitle 9, Section 9-104.01.
31.	❑	❑	❑	Lighting Fixture schedule is provided.
32.	❑	❑	❑	Reflective ceiling plans for each floor indicating fixture location, type and lighting level required (in foot-candles) including track lighting, window lighting and homeruns are provided.
33.	❑	❑	❑	Power Layout: Floor plans showing location of power receptacles, switches, audio/visual, and telephone/data outlets including homeruns are provided.
34.	❑	❑	❑	Panel schedules, panel locations: Layouts of electrical rooms at a scale not less than twice that of the floor plans are provided. All required clearances are shown. Required door swings, working space clearance(s), including verification of above ceiling mechanical units power devices/equipment clearances are in accordance with Article 110.26, National Electrical Code (NEC) and are provided. Control diagrams/details are included.

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
GENERAL ELECTRICAL (cont'd.)				
35.	❑	❑	❑	Demand load calculations, including new additions and new additions added to existing loads, are provided. For the existing electrical service(s) with load modifications, load calculations required per NEC article 220.87 are provided.
36.	❑	❑	❑	Fire pumps, if applicable: The means of emergency sources, service size, feeder size and full-load running current of the locked-rotor current, and the over-current protection device sized in accordance with National Fire Protection Association (NFPA) 20 and Article 695 of the NEC are provided. (Refer to Prince Georges County Code Subtitle 9 for the additional requirements for the power.)
37.	❑	❑	❑	The location of the emergency power source and distribution system for lighting and power are provided. Also, the location of transfer switch(es) are verified.
38.	❑	❑	❑	The system grounding details for the main incoming service switch including the size of grounding electrode conductor(s) and size of bonding jumper(s) are provided.
39.	❑	❑	❑	The emergency system and transfer equipment are separated by a wall or wall(s) with a minimum fire rating of two (2) hours per Prince George's County Code, Subtitle 9, Section 9-109.01.
40.	❑	❑	❑	Power distribution plans indicating incoming service, generators, docking station and panelboards, etc., and outlines of mechanical equipment (for coordination) are provided.
41.	❑	❑	❑	Exit signs and means of egress lighting, interior and exterior (building, ground and pole mounted) are provided.
42.	❑	❑	❑	The physical location of lighting controls such as sensors, switches, time clock, etc. are indicated.
43.	❑	❑	❑	The physical location of service equipment (C/T cabinet, meter, service disconnect) are indicated on the power plan.
44.	❑	❑	❑	Doors to electrical rooms are equipped with permanent signage reading "NO STORAGE" in letters not less than the room identification; OR the working space as defined by NEC is marked by a 2" wide yellow line and stenciled "NO STORAGE — ELECTRICAL WORKING SPACE" in 2"-high, yellow letters in mechanical rooms, electrical rooms, and service areas.
45.	❑	❑	❑	Overall electrical load calculations are provided in KVA.
46.	❑	❑	❑	Layouts of elevator machine rooms at a scale not less than twice that of the floor plans are provided. All equipment and required clearances for coordination are shown.
47.	❑	❑	❑	Interface points for communications, fire alarm, and Emergency Communication Systems are indicated.
48.	❑	❑	❑	Details to include duct bank, under/through footing penetration, housekeeping/equipment pads, lighting switching, grounding details for service entrance and individual transformers are provided.
49.	❑	❑	❑	Grounding riser diagram for generators, transfer switches, main-tie-main switchboards, and separately derived systems are provided.
50.	❑	❑	❑	All "lay-in" luminaires will require independent suspension to the building structure per Prince George's County Code Subtitle 9, Section 9-108.02. Details are provided.
WORK CLEARANCE AND DEDICATED SPACES				
51.	❑	❑	❑	No piping, ducts or equipment foreign to electrical equipment is permitted to be located within the dedicated space above the indoor/outdoor electrical equipment. Note is provided. (NEC Section 110.26(E)(1) and 110.26(E)(2)(b).)
52.	❑	❑	❑	Workspace, adequate illumination, access to workspace and head room about electrical equipment are provided. (NEC Section 110.26.)

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
WORK CLEARANCE AND DEDICATED SPACES (cont'd.)				
53.	❑	❑	❑	For electrical equipment rated 800 amperes or more and over 6 feet wide: One entrance not less than 24 inches (610 mm) wide and 6-1/2 feet high at each end. The door(s) within 25 ft. of the nearest edge of workspace shall open in the direction of egress and be provided with listed panic hardware. (NEC Section 110.26(C).)
54.	❑	❑	❑	Protection from physical damage for switchboards, panelboards, and other electrical equipment is provided per NEC Section 110.27(B).
BRANCH CIRCUITS				
55.	❑	❑	❑	Locations of ground fault circuit interrupter (GFCI) protection for personnel on receptacle(s) are provided per NEC Section 210.8 and 422.5.
56.	❑	❑	❑	All 125 volts 15 and 20 ampere receptacles as required in Section 406.12 and 406.4(D) are tamper resistant.
57.	❑	❑	❑	Arc-fault circuit interrupter (AFCI), combination type protection on branch circuits serving outlets in dwelling units are provided per NEC Section 210.12 and 406.4(D).
58.	❑	❑	❑	Number of branch circuits are provided per NEC Section 210.11.
59.	❑	❑	❑	Dwelling unit receptacle outlets are provided per NEC Section 210.52.
SERVICES				
60.	❑	❑	❑	Service disconnect(s) are installed at a readily accessible location either outside of a building or structure or located nearest the point of entrance of the service conductors per NEC Section 230.70(A).
61.	❑	❑	❑	There are not more than six sets of disconnects per service grouped in any one location and each disconnect is marked to indicate the load served, per NEC Section 230.72(A).
62.	❑	❑	❑	No more than one service disconnecting means is permitted for motor control centers per NEC Section 430.95.
63.	❑	❑	❑	The service equipment has a rating not less than the load served. This load is calculated per Article 220, NEC Section 230.79.
64.	❑	❑	❑	Except as permitted in Section 230.2(A), a building or other structure is supplied by only one service disconnect per NEC Section 230.2.
65.	❑	❑	❑	The service size and rating are provided per NEC Section 230.23.
FEEDER				
66.	❑	❑	❑	All buildings or structures are supplied by one feeder or branch circuit unless permitted in NEC Section 225.30(A) through (E).
67.	❑	❑	❑	Means is provided for disconnecting all ungrounded conductors that supply or pass through the building or structure per NEC Section 225.31.
68.	❑	❑	❑	Feeder and transformer tap conductors comply with the requirements specified in NEC Article 240.21, particularly items (B) and (C), to ensure proper overcurrent protection.
OVERCURRENT PROTECTION				
69.	❑	❑	❑	Conductors and equipment are protected by overcurrent devices per NEC Section 240.4.
70.	❑	❑	❑	Where the highest continuous current trip setting for which the actual overcurrent device installed in a circuit breaker is rated or can be adjusted to 1,200A or higher, 240.87(A) and (B) shall apply. Arc Energy Reduction is indicated per NEC Section 240.87.
71.	❑	❑	❑	Overcurrent coordination study is provided per NEC Sections 240.12, 620.62 and Table 685.3.

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
				GROUNDING
72.	❑	❑	❑	Grounding of a main electrical service and its grounding electrodes are provided and sized per NEC Sections 250.24, 250.53(A)(2), and 250.66.
73.	❑	❑	❑	Supply-side bonding jumper is provided and sized per NEC Section 250.102 and Table 250.102(C)(1).
74.	❑	❑	❑	Size of main service grounding electrode conductors and main bonding jumpers are provided and sized per NEC Tables 250.66 and 250.102(C)(1).
75.	❑	❑	❑	Size of equipment grounding conductors are provided and sized per NEC Table 250.122.
76.	❑	❑	❑	An equipment grounding conductor shall not be used as a grounding electrode conductor per NEC Section 250.121.
77.	❑	❑	❑	Equal potential bonding for all pool related equipment, including the perimeter surface that is within 3 feet horizontally from the inside wall of the pool, is provided per NEC Section 680.26.
78.	❑	❑	❑	Separately derived systems are grounded in accordance with 250.30(A) for grounded systems and 250.30(B) for ungrounded systems per NEC Sections 250.20 and 250.26.
				TRANSFORMERS
79.	❑	❑	❑	Transformer overcurrent device ratings are sized per NEC Section 450.3.
80.	❑	❑	❑	Transformer primary and secondary overcurrent protection device ratings are determined per NEC Tables 450.3 (A) and 450.3 (B).
81.	❑	❑	❑	Locations of Transformers are provided per NEC Section 450.21.
				MOTORS
82.	❑	❑	❑	Nameplate current ratings of the motors are provided and sized per NEC Sections 430.6, 430.22 and Table 430.250.
83.	❑	❑	❑	Overload protections for the motors are provided per NEC Sections 430.31 and 430.32.
84.	❑	❑	❑	Proper short-circuit, ground-fault protections and breaker/fuse type for motor(s) are provided as specified per NEC Sections 430.52 and 430.62.
				SPECIAL OCCUPANCIES
85.	❑	❑	❑	Class I, II, and III hazardous locations are provided per NEC Article 500.
86.	❑	❑	❑	Motor fuel dispensing facilities design is provided per the requirements outlined in NEC Article 514.
87.	❑	❑	❑	Health care facilities design is provided per the requirements outlined in NEC Article 517.
88.	❑	❑	❑	Commercial garages design is provided per the requirements outlined in NEC Article 511.
89.	❑	❑	❑	Places of assembly design is provided per the requirements outlined in NEC Article 518.
				FIRE PUMP
90.	❑	❑	❑	A fire pump shall be supplied by a separate service from the utility transformer. A fire pump shall be permitted to be supplied from a connection located ahead of the service disconnecting means when a back-up, on-site generator is used as an alternate power source to feed the fire pump per Prince George's County Code Subtitle 9, Sec. 9-109.04. Refer to Prince George's County Code Subtitle 9 for the additional requirements for the power.
91.	❑	❑	❑	Fire pump circuit conduits shall be encased in no less than 2 inches of concrete per NEC Section 695.6.
92.	❑	❑	❑	Overcurrent protection for fire pump services is provided for short-circuit protection and is set to carry the fire pump motor locked rotor current indefinitely per NEC Section 695.4(B)(2).

ITEM	DESIGNER OR A/E	N/A	COUNTY STAFF	Descriptions
FIRE PUMP (cont'd.)				
93.	❑	❑	❑	Fire pump controllers and power transfer switches are listed specifically for fire pump service in accordance with NEC Section 695.10.
SPECIAL EQUIPMENT				
94.	❑	❑	❑	Swimming pools, fountains, and similar installations are designed per the requirements outlined in NEC Article 680.
95.	❑	❑	❑	Elevator(s) design is per the requirements outlined in NEC Article 620.
96.	❑	❑	❑	Information technology equipment complies with NEC Article 645.
EMERGENCY SYSTEMS				
97.	❑	❑	❑	Properly sized emergency power source is provided for required emergency load(s) per NEC Section 700.4.
98.	❑	❑	❑	Where an outdoor housed generator set is equipped with a readily accessible disconnecting means in accordance with 445.18 and the disconnecting means is located within sight of the building or structure supplied, an additional disconnecting means is not required where ungrounded conductors serve or pass through the building or structure. Where the generator supply conductors terminate at a disconnecting means in or on a building or structure, the disconnecting means shall meet the requirements of NEC 225.36 per NEC Section 700.12(B)(6).
99.	❑	❑	❑	Emergency system circuits for lighting and power are provided in accordance with the requirements of NEC Article 700, Part IV.
100.	❑	❑	❑	Signs are provided at the service equipment to indicate the type and location of the on-site emergency power sources, as required NEC Section 700.7.
LEGALLY REQUIRED STANDBY SYSTEMS				
101.	❑	❑	❑	Properly sized Legally required standby systems is provided for the intended loads per NEC Section 701.4.
102.	❑	❑	❑	Standby power sources are provided per NEC Section 700.12.
SIGNAGE, ELECTRICAL VEHICLE CHARGING STATIONS AND PHOTOVOLTAIC SYSTEM				
103.	❑	❑	❑	For signage instructions needed for electrical work prior to installation, visit DPIE's website to view the "Building Plan Review Requirements for Signage" document.
104.	❑	❑	❑	For information and requirements on electric vehicle charging stations, visit DPIE's website to view the "Revised Guidelines for Permitting Electric Vehicle Charging Stations" document.
105.	❑	❑	❑	For information and requirements on rooftop photovoltaic solar array system installations, visit DPIE's website to view the "Guidelines for Permitting Rooftop Photovoltaic (PV) Solar Array Systems" document.