



## **COMMERCIAL PLAN SUBMITTAL GUIDE** **CONSTRUCTION PLANS SHALL CONSIST OF THE FOLLOWING**

- **SITE PLAN**
- **ARCHITECTURAL PLAN**
- **STRUCTURAL PLAN**
- **HVAC, ELECTRICAL AND PLUMBING PLANS**
- **ACCESSIBILITY PLAN**
- **SPRINKLER PLAN**
- **ENERGY PLAN**

Three (3) complete sets of construction drawings, signed, sealed and dated by a PA registered design professional, shall be submitted unless otherwise instructed.

Drawings must be at least 18" x 24" (but no more than 36" x 42") in size, drawn to scale of no less than 1/8"=1', with sufficient detail and clarity to fully indicate the nature and scope of the work to be performed.

PLEASE NOTE: Drawing submissions which do not meet plan size requirements or are not sufficient in clarity will be automatically rejected and returned to the applicant.

### **PLAN REQUIREMENTS & SPECIFICATIONS**

#### **SITE PLAN**

- Size and location of all new construction and all existing structures on the site.
- Distances from lot lines.
- Established street grades and proposed finish grades.

#### **ARCHITECTURAL PLANS**

- Description of uses and the proposed use group(s) for all portions of the building. The design approach for mixed uses (as applicable).
- Proposed type of construction of the building.
- Fully dimensioned drawings to determine areas and building height.
- Adequate details and dimensions to evaluate means of egress, including occupant loads for each floor, exit arrangement and sizes, corridors, doors, stairs, etc.
- Exit signs/means of egress lighting, including power supply.
- Accessibility provisions.
- Description and details of proposed special occupancies such as a covered mall, high-rise, mezzanine, atrium, public garage, etc.
- Adequate details to evaluate fire-resistive construction requirements, including data substantiating required ratings.
- Details of plastic, insulation, and safety glazing installation.
- Details of required fire protection systems.

#### **STRUCTURAL PLANS & ENGINEERING DETAILS**

- Soils report indicating the soil type and recommended allowable bearing pressure and foundation type.
- Signed and sealed structural design calculations which support the member sizes on the drawings.
- Local design load criteria, including frost depth.

- Earthquake seismic zone/effective peak acceleration coefficient.
- Details of foundations and superstructure.
- Provisions for required special inspections.
- Applicable construction standards and material specifications (ie: masonry, concrete, wood, steel, etc.)

### **HEATING EQUIPMENT**

- Equipment capacity (b.t.u.).
- Controls
- Appliance layouts showing location, access and clearances.
- Disconnect switches
- Indoor and outdoor design temperatures.

### **VENTILATION DATA, DUCTWORK AND EQUIPMENT**

- Ventilation schedule indicating the amount of outside air (in c.f.m.) supplied to each room or space.
- Layout showing outside air intakes.
- Construction of ducts, including support and sheet metal thickness.
- Duct lining and insulation materials with flame spread and smoke-developed ratings.
- Exhaust fan ductwork layout and termination to the outside.
- Size of louvers and grilles for attic ventilation.
- Boiler and water heater equipment and piping details including safety controls and distribution piping layout.
- Gas and fuel oil piping layout, material, sizes, and valves.
- Combustion air intake quantities and details.
- Commercial kitchen exhaust equipment details including hood and fan drawings, details of automatic fire suppression, and clearances.
- Chimney and chimney connector or vent and vent connector details and connector gages and clearances.
- Mechanical refrigeration equipment data and details.
- Solid fuel burning appliance details including incinerator and fireplace drawings and details.
- Energy conservation equipment data and details.

### **PLUMBING PLANS**

- The occupant load used to determine the number of required plumbing fixtures.
- Number and distribution based on the use group.
- Separate facilities for each sex.
- Accessible plumbing facilities and details.
- Anti-scald shower valves.
- Plumbing piping plan showing layout, pitch of drainage lines, cleanouts, size of traps, and riser diagram.
- Water supply and distribution plan showing piping sizes, valves, water heater details and temperature-pressure relief valve with discharge pipe.
- Sanitary drainage and vent system riser diagram showing drainage fixture units (dfu), sizes and vent termination details through the roof.
- Potable water system riser diagram showing piping sizes and provisions for protection of potable water supply. Piping support and installation schedule.
- Storm drainage details including rain gutter or roof drain sizes and downspout/leader sizes.
- Health care plumbing and fixture details.

## **ELECTRICAL PLANS**

- Labeling criteria of all electrical equipment.
- Lighting floor plan including electrical circuits indicating conduit and wiring sizes.
- Power floor plans including electrical circuits indicating conduit and wiring sizes, equipment and disconnect switches.
- Exit sign/means of egress lighting location and power supply.
- Panelboard schedule.
- Lighting fixture schedule.
- Symbol schedule and diagrams.
- Specifications to include requirements for:
  - Raceway and conduit with fittings.
  - Wire and cable.
  - Electrical boxes, fittings and installation.
  - Electrical connections.
  - Electrical wiring devices.
  - Circuit and motor disconnects.
  - Hangers and supporting devices.
  - Electrical identification.
  - Service entrance and details.
  - Overcurrent protection.
  - Switchboards
  - Grounding.
  - Transformers
  - Panelboards.
  - Motor control centers.
  - Lighting fixtures.
  - Fire Protective signaling systems.
  - Automatic fire detection systems.
  - Emergency/standby systems.

## **ACCESSIBILITY PLANS**

- Size and location of all new construction and all existing structures on the site.
- Location of any recreational facilities (ie: pool, tennis courts, etc.)
- Established street grades and proposed finished grade.
- Accessible parking, other locations of public access to the facility, accessible exterior routes and locations of accessible entrances.
- Description of uses and the proposed use group(s) for all portions of the building. The design approach for mixed-uses (as applicable).
- Fully dimensioned drawings to determine areas and building height.
- Adequate details and dimensions to evaluate accessible means of egress, including occupant loads for each floor, exit arrangement and sizes, corridors, doors, stairs, areas of refuge, etc.
- Adequate details and dimensions to evaluate the accessible route to areas required to be accessible, including corridors, doors, protruding objects, maneuvering clearances, clear floor space at fixtures and controls, etc.
- Accessibility provisions including but not limited to access to services, seating, listening systems, accessible fixtures, elevators, work surfaces, etc.
- Accessible plumbing facilities and details.
- Tactile signage provided.
- Details of required fire protection systems.

## **SPRINKLER PLAN REVIEW REQUIREMENTS**

- Description and locations of uses within the building.
- Design details in accordance with the appropriate reference standard (ie: NFPA 13, 13D, 13R) as referenced by the ICC International Building Code.
- Design calculations indicating the discharge requirements of the system with evaluation of the arrangement and source of the water supply.
- Results of a current flow test indicating the location and date of the test.
- Working drawings indicating all pipe sizes and the spacing between branch lines and sprinklers on the branch line.
- Material specifications and equipment specifications. All materials used should be verified that they are installed in accordance with their listing.

## **ENERGY PLAN REVIEW REQUIREMENTS**

- Three (3) sets of construction documents and other supporting data.
- Three (3) sets of exterior envelope component materials.
- U-factors of the envelope systems.
- U-factors of fenestration products.
- R-values of insulating materials.
- Size and type of apparatus and equipment.
- Equipment and systems controls.
- Other pertinent data as required to indicate compliance with the requirements of the Code.
- Com-Check information as provided from [www.energycodes.gov](http://www.energycodes.gov)

**PLEASE NOTE A COMMERCIAL PLAN REVIEW TYPICALLY TAKES BETWEEN 10 - 30 WORKING DAYS DEPENDING UPON COMPLEXITY OF PLANS AND CURRENT WORKLOAD.**