



Papillion Building Department

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Minimum Standards for Site and Building Plans

Three sets of site plans, three sets of building plans, and specifications submitted to the Building Department should be of sufficient nature to clearly describe the project with appropriate emphasis on the following:

1. Site layout
2. Structural Integrity
3. Life Safety
4. Accessibility
5. Energy Efficiency
6. Building codes compliance
7. Definition of scope of work

A digital copy of the submittal is also required.

The type and number of drawings will depend greatly upon the size, nature and complexity of the project and the method of project delivery. The following is the recommended standard for most building projects. Additions and renovations, and some other project types may not require all of the following components for plan submittal and review for permit.

Cover Sheet:

1. Project Identification
2. Project address and location map
3. Listing of Design professionals to include name, address, telephone numbers, and fax numbers.
4. The design professional in responsible charge to include name, address, telephone and fax numbers. The design professional who is responsible for project coordination. All communications will be directed through this individual.
5. Scope of work.
6. Design Criteria List
 - a. Occupancy group(s)
 - b. Type(s) of construction
 - c. Square footage/Allowable area for each floor and occupancy (area modification calculations, if applicable)
 - d. Height and number of stories (height modification calculations, if applicable)
 - e. Occupant load for each floor in include mezzanines.
 - f. Capacity of means of egress
 - g. Fire sprinkler requirements (if applicable)
 - h. Plumbing fixture compliance calculations

Site Plan:

Show proposed new structure and any existing buildings or structures, property lines with dimensions, streets, easements and setbacks. Show distance to structures of adjacent properties. Show water, sanitary/storm sewer, and electrical points of connection. Identify location of proposed or existing fire hydrants, fire access roadway routes and existing utilities on the site. Show required parking (to include handicapped accessible parking), handicapped accessible route(s) of entry, placement of site lighting, proposed signage, drainage and grading information (with reference to finish floor and adjacent streets). Show drainage inflow and outflow locations. Provide site plans in 1:20 scale. Show elevation changes with contour lines and provide contour interval in the site plan legend. Indicate northern orientation.

Floor Plan:

Show all floor levels including basement, mezzanines, and useable attic space. Indicate rooms with their primary use, overall dimensions and locations of doors, windows, and structural elements. Provide door, door hardware and window schedules. Provide interior finish schedules (floor, base, wall, and ceiling). Indicate the fire resistance rating of shaft enclosures, walls, partitions, occupancy separations, opening protectives, and exterior walls should be shown with UL or GA design numbers or other design data from a nationally recognized testing laboratory. Show details and dimensions of handicapped accessibility features. Provide max travel distances for required means of egress.

Exterior Elevations:

Show all elevations to include roof plan. Indicate vertical dimensions and heights. Show dimensions of openings. Roof plan must show the location of exhaust terminations, sanitary sewer vent outlets, and intakes.

Foundation Plan:

Indicate size, locations, and thickness of foundations and footings. Provide required construction documentation specified in 2012 IBC Section 1901.3 with includes the compressive strength of concrete, specified strength and grade(s) for reinforcement, placement requirements for reinforcement, and detailing requirements for reinforcement (splices, anchorage, mechanical connections, etc). Show location of construction, control, and isolation joints. Show imbedded anchoring such as anchor bolts, hold-downs, seismic straps and column base plates. Provide geotechnical criteria and assumptions used for foundation design as required by 2012 IBC Sections 1803.2, 1803.3, 1803.4, 1803.5, 1803.5.12, and 1803.6.

NOTE: All foundations associated with pre-engineered buildings must be designed, signed, and sealed by a State of Nebraska registered professional structural engineer.

Structural Plans:

Provide live load and other load data used in the structural design as required by 2012 IBC Section 1603.1. Provide size and location of structural elements, method of attachment, and material specifications. Provide specified strength and grade(s) for vertical reinforcement, placement requirements for vertical reinforcement, and detailing requirements for vertical reinforcement (splices, anchorage, mechanical connections, etc). Provide framing plan for the roof structure. Provide method for support of openings.

Building Sections and Wall Sections:

Construction documentation for the exterior wall envelope must comply with IBC Section 107.2.4. Show dimensions of all heights. Identify construction materials, non-rated and fire rated assemblies and fire rated penetrations. Provide UL or GA design numbers or other design data from a nationally recognized testing laboratory for fire rated partitions, firewalls, floor/ceiling assemblies and ceiling/roof assemblies. Provide UL system numbers for penetrations in rated assemblies. Provide the UL fire resistant joint system numbers. Identify all exterior wall covering materials and means of fastening or attachment. Provide type(s) of wall covering, floor coverings, and ceiling finish materials. Provide specifications for the roofing materials to include fasteners, roof covering, underlayment, flashings, sheathing, and drip-edge materials.

HVAC System:

Indicate the heating, ventilation/exhaust and air conditioning systems to include commercial hood systems and passive and active smoke control systems. Provide equipment schedule that includes type units, cooling/heating capacity (Btu/Hr), fan capacity (cfm), and heating type. Provide duct material type, sizes, mounting details, means of attachment, and air device sizes. Show or describe means of support for ducts and equipment, condensation drainage systems, fan shutdown requirements and connection to gas piping. Show location of termination of exhaust systems and distance to fresh air intakes.

Plumbing System:

Show points of connection to septic tanks, public sanitary/storm sewer systems, water supply lines and other applicable utilities. Provide a water distribution diagram and sanitary sewer isometric. Provide a plumbing floor plan. Provide specifications for fixtures, piping, shutoff valves, slopes, materials and sizes. Provide specifications and location of water heater. Show water heater T/P relief valve and auxiliary pan drain lines, thermal expansion device, check valves and connection to gas piping (if applicable). Provide specifications and installation details for backflow device(s). Provide specifications and installation details for traps and interceptors.

Electrical System:

Show point of connection to utility. Provide an electrical riser diagram. Provide conductor type, wire insulation type and wire gauge. Provide conduit type(s), size(s), and conditions for use. Show branch and feeder circuiting. Show service means of disconnection, grounding electrode system details and specifications, equipment means of disconnection and grounding details and specifications. Provide electrical panel specifications, ratings, and schedules, single line diagrams, and electrical fixture schedules.

Gas Systems:

Show point of connection to utility. Provide a detailed piping plan. Show pipe size(s) and all outlets. Provide the type(s) of material to be used for piping. Provide method of support and bracing of gas piping. Show location(s) and provide specifications for gas shutoff valves. Provide gas equipment specifications to include input and output Btuh or Mbtu and required installation clearances. Provide confined/unconfined space calculations and combustion air requirements. Provide types, sizes, and clearances for draft hoods, vents, and vent connectors.

Specifications:

Either on the drawings or in booklet form, further define construction components, covering materials, finishes and all pertinent equipment.

Addenda and Changes:

It is the responsibility of the coordinating professional to provide notification of changes throughout the project. Any material substitutability or alternate methods of construction must be approved by the architect or engineer of record and indicated on plans, specification booklet, or sealed and signed letter issued on corporate letterhead. Significant changes may require additional permit and plan review fees.

Revisions:

For clarity, all revisions should be appropriately identified. Please accompany revisions to plans with a written explanation in the same order as our comments. This will allow us to quickly identify changes and expedite the plan review process.

Pre-Engineered Buildings and Structural Components:

Signed and sealed plans from the manufacturer/fabricator should be submitted with projects that use pre-engineered buildings and structural components. Design information provided should include data required in 2012 IBC Section 1603.1.

Applicable Codes:

The City of Papillion will enforce the 2012 International Building, Existing Building, Plumbing, Mechanical, Energy Conservation, Fire, and Fuel & Gas Codes as revised by the AHJ. The 2017 National Electrical Code is our standard for electrical plan review and inspection. The 2010 ADA ICC/ANSI A117.1-2003 determines accessibility standards. The city also enforces the 2000 NFPA Life Safety Code. Alternatives to the codes may be presented by a registered and licensed design professional responsible for their respective discipline.

- Plan review fee must be submitted prior to the review process.
- The initial plan review will normally be completed in a maximum of 10 working days. Re-submittal reviews will normally be completed in a maximum of 5 working days.
- Architects and professional engineers are required to design, sign, and seal drawings, specifications and accompanying data for the following buildings and structures as required by the State of Nebraska Engineers and Architects Regulation Act.
- The individual project coordinating professional's seal, signature, and statement must appear on each print of the cover/index sheet.
- The seal of the individual design professional and signature must appear on each print of drawings, specifications and accompanying data as prepared by that discipline and the seal shall indicate the that specific discipline (i.e., mechanical, electrical, plumbing, fire sprinkler, and structural).
- Site and development plans requiring a land surveyor must have a seal and signature on all drawings.
- A fire sprinkler specification sheet may be required to be submitted prior to the issuance of permits.
- A material safety data specification sheet may be required to be submitted prior to the issuance of permits.