

City of Mansfield

Jodie Perry, Mayor

Bureau of Building Inspections, Licenses and Permits

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Commercial Building Plan and Construction Document Approval Requirements

The building plan approval process is a separate process required in addition to any Mansfield City Planning Commission approval requirements. The following document provides a background, commentary, and requirements for building plan approval.

Ohio Building Code Section (OBC) 105.1 states that any owner or authorized agent who intends to construct, enlarge, alter, repair, move, or change the occupancy of a building or structure, or portion thereof, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical, plumbing system, other building service equipment, or piping system the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required approval. OBC Section 106.1 requires that constriction documents (plans) are submitted with an application for plan approval to the Bureau prior to beginning any construction work for a building or structure. The following checklist is used to detail commercial building plan and construction document requirements for review as required by OBC Section 106.1.

A minimum of three (3) sets of plans and construction documents shall be submitted for plan approval. All documents that require a seal shall bear the seal and the signature of the design professional who prepared the plans and documents. Plans must be legible and contain adequate information to be properly reviewed. Referring to code sections in general does not allow the review of proposed methods of construction. Plans containing general code references will be returned for more specific information.

It is possible to submit plans and construction documents at different times or phases, using a phased approval process in accordance with OBC Section 105. The phased approval process is an alternative process to a full building permit submittal. Under the phased plan review process, projects for new construction may be segmented into one of more phases for plan review and inspections. This allows for construction to begin on a portion of the project while final design is occurring for the entire project. The phased approval process also requires some additional coordination by the Owner, Registered Design Professional, and Contractors working on the project. Projects that have specific phasing needs or are technically complex may be packaged into different phases that are appropriate to the project's needs. A schedule indicating all scopes of work for the project and anticipated submittal dates shall be submitted with construction documents for each phase.

There are certain projects for work of a minor nature that do not require plans and construction documents to be sealed by an Ohio Registered Design Professional. It is recommended to discuss these situations with the Bureau prior to submitting plans to see what plan approval requirements will apply to a specific project.

General Plan and Application Information: Statement of Special Inspections as required by OBC Section 1705. Completed application with original signature by 6. A note for items that are not pertinent (ex. heating systems in an unheated building) shall be applicant. clearly described on the drawings. Alternate Fees paid at the time of application and before methods of compliance shall be described. plan review process commences. For Phased Approvals, a schedule of anticipated Drawings sealed by Design Professional. submittals with dates shall be submitted with the first Items to be noted on the first sheet: a.____ Index of Drawings phase. This schedule shall be revised and b.____ Occupancy Classification(s) submitted with each additional phase. c.____ Type(s) of Construction d.____ Area in gross square feet for each level e. Maximum Design Occupant Load f.____ Structural Design Loads g.____ Seismic Design Category and Site Class

Site Plan: (minimum regs. per OBC 106.1.1, No.2.)

- 8.____ Shall be drawn to a recognized scale
- 9. Size and location of all existing and proposed structures
- All property and interior lot lines with distances from lot lines.
- 11.____ Setback and side yard dimensions.
- 12.____ Locations of nearest streets
- 13. Established street grades
- 14.____ Types and sizes of all utility lines
- 15. Elevations of all proposed finished grades
- Floodplain location with base flood elevations, if applicable.
- 17.____ Site accessibility features including parking, site arrival, routes, signage, loading areas, grades, etc.

Architectural and Floor Plans:

- 18.____ Indicate tenant unit/suite location(s) for interior tenant alterations and/or build-outs. Indicate proposed tenant locations and occupancy classification(s) for shell construction.
- Indicate OBC occupancy classification(s) and/or use group. Indicate whether there are separated or non-separated mixed uses as applicable. Indicate incidental use areas.
- 20. ____ Identify all spaces and rooms. Provide the number of occupants for each room or space. For multi-level buildings, additionally provide the number of occupants for each level.
- 21. Complete floor plans, including plans of full or partial basements and full or partial attics or penthouses. Floor plans must show all relevant information such as fire walls, fire barrier walls, fire partitions, door swings, stairs and ramps, windows, shafts, all portions of the means of egress, etc., and shall be sufficiently dimensioned to describe all relevant space sizes. Include details for all stairstreads, risers, handrails, and guardrails.
- 22.____ Provide a detailed cross section for all interior walls.
- 23.____ Complete window, door, and room finish schedule with applicable fire ratings, safety glazing, and hardware.
- 24. ____ Indicate accessibility provisions for the building interior, exterior building and site plan area, which clearly show compliance with OBC Chapter 11. Provide dimensions and details to show compliance.
- 25. ____ Indicate all fire-resistance ratings for structural elements and penetrations. Include UL Assembly or OBC prescriptive listings.
- 26.____ Information regarding operations, the types, quantities, and arrangement of flammable, combustible, or hazardous materials proposed to be produced, used, dispensed, or stored in the facility; material safety data sheets for hazardous materials produced, used, or stored in the facility, the commodity and arrangement of high-piled or rack storage, control areas, etc.

Building Structural Design Information:

- 27.____ Structural Design Data as required by OBC 1603.1.1 through 1603.1.8
- 28. Foundation plan indicate design bearing pressure, details, anchorage (bolt sizes, spacing, layout, etc.), reinforcing clearances in concrete, floor slab and insulation details, etc.
- Floor framing plans, Roof framing plans, connection details, column grid dimensions. Identify bracing system used for wind and seismic resistance.
- Soils Investigation (Geotechnical Report) where required by OBC 1802.2 or 1804.2
- 31. Pre-engineered building drawings- sealed erection drawings, standard details and letter of certification from bldg. manufacturer
- 32. Manufacturer's Truss Diagrams if used. Truss diagrams must be legible and sealed by an engineer registered within the State of Ohio.
- 33.____ Material specifications for concrete, lumber, masonry, structural steel,

Exterior Wall Envelope:

- 34. Provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves, parapets, means of drainage and water-resistive membranes.
- 35. ____ Submit complete detailing of exterior building elevations showing all openings, materials, electrical and mechanical equipment, exterior signage, and total building height.
- 36. Provide complete building/ cross sections, wall sections (footing to roof), details including typical connections as required to fully describe the building construction showing wall, ceiling, floor, and roof materials.
- 37.____ Energy Conservation Code calculations including method of compliance for exterior building envelope.

Electrical:

- 38. ____ Submit complete electrical power and lighting plans with drawing symbol designation information. Include locations receptacles, lights, switches, smoke detectors, etc
- 39.____ Electrical equipment and fixture schedules.
- 40.____ Provide details of ground-fault (GFCI) and arcfault (AFCI) protection where required.
- 41.____ Exit signage, emergency lighting and egress lighting information.
- 42.____ Indicate Disconnecting means and overcurrent protection devices.
- 43. Submit electrical panel locations and panel schedules with conduit, wire & grounding conductor sizes and types.
- 44.____ Provide calculated and/or connected load information.
- 45.____ Provide a complete one-line service riser diagram including all grounding electrodes (ground rods).
- 46.____ Site lighting details including foundation details, pole and fixture details, wiring and grounding methods.
- 47.____ Hazardous location designation and provisions.
- 48.____ Energy Conservation Code calculations including method of compliance for electrical power and lighting.

Mechanical:

- 49.____ Method of design for heating and cooling loads.
- 50.____ HVAC plan and equipment schedule, including locations of all equipment. Include plenum descriptions, supply and return air duct/diffuser layouts with cfm ratings, and fire/smoke damper details and locations.
- 51.____ Combustion, make-up, and outside air calculations and details.
- 52.____ Exhaust and smoke removal calculations and details.
- 53.____ Air balance schedule.
- 54. Kitchen and exhaust hood drawings and details.
- 55.____ Isometrics of gas supply piping, standard details, specifications, calculations and sizing information for gas piping.
- Energy Conservation Code calculations including method of compliance for mechanical systems.

<u>Life Safety Systems (alarms, sprinkler, and fire suppression):</u>

- From Provided on floor plan layout match all names on architectural floor plan.
- 58. Automatic sprinkler system and standpipe drawings submit information required by OBC 903 and NFPA 13, 13D, or 13R.
- 59.____ Fire alarm systems drawing information submit information as required by OBC 907 and NFPA 72.
- 60. Alternative Automatic Fire suppression system drawings – submit information required by OBC 904 and a copy of the manufacturer's design installation standard for equipment as installed.

Special Construction:

- 61.____ Industrialized Units- need OBBS drawings in addition to site and foundation drawings sealed by A/E
- 62.____ Swimming Pools- submit Ohio Department of Health Swimming Pool Approval.
- 63. Exterior Signage- please see commercial sign plan requirements. Approval is required for all signs installed on the exterior of a building or in/on the ground.
- 64.____ Exterior Awnings and Canopies- sealed structural plans.
- 65.____ Tents- See Tent Approval Reg's Guide.
- 66.____ Towers- see Tower and IU Req's Guide.