

EMPORIA CODE SERVICES

COMMERCIAL PLAN REVIEW CHECKLIST



General Requirements:

In an effort to expedite the plan review process, the City of Emporia has issued a Commercial Building Project Review submittal policy. It is necessary to require a complete submittal for all commercial projects; partial or incomplete submissions will not be accepted or reviewed. All drawings, shall be sealed, signed, and dated, by a design professional that is licensed with the State of Kansas as an architect or engineer. The only exception is when all of the following apply:

- a) The proposed work only involves remodeling or alterations of an existing building or structure.
- b) The proposed work does not change the building’s structure or means of egress.
- c) The person preparing the plans is not compensated for the preparation of the drawings.

Understanding that many of the items on this checklist may not be included in some alterations, renovation or new building projects, the Emporia Code Services Department requests that all applicants work through the entire checklist to ensure that any necessary items are included. If there are any questions please contact the Emporia Code Services Department so that we may discuss the question(s) before the final set of plans are sent.

All information must be filled in, checked, or marked “NA” and turned into the City of Emporia’s Code Service Department with the final set of plans before any permits will be issued.	
Project Name:	
Project Address:	
Owner/Agent:	Telephone:
Design professional or other person we can contact about info on this form and other project details (if same as Owner/Agent, just provide fax # and e-mail address):	Telephone:
	Fax:
	E-mail:

SITE PLANS:

- YES N/A 1. Site plans shall be prepared to scale (not less than 1”= 20’), with legend, north arrow and separate vicinity (site location) map.
- YES N/A 2. Show the correct street address and required municipal zoning on the site plans.
- YES N/A 3. Show and identify all property lines and rights-of-way, with distance from property lines and adjacent buildings on site plans.
- YES N/A 4. Show all accessible parking spaces per current ADA requirements.
- YES N/A 5. Show all required parking and loading spaces and calculations per Emporia’s Planning and Zoning Ordinance.
- YES N/A 6. Show accessible curb cuts, ramps and access ways to the building.
- YES N/A 7. Show all existing and proposed driveway entrances.
- YES N/A 8. Identify adjacent land uses and zoning.

- YES N/A 9. Show all easements, floodways, and required buffers.
- YES N/A 10. Show existing and proposed utilities to serve the site.
- YES N/A 11. Show existing and proposed finish grades.
- YES N/A 12. Show details, sections, and elevations needed for construction.
- YES N/A 13. Show all buffer and screening landscaping.

ARCHITECTURAL PLANS:

- YES N/A 1. Show architectural floor plans of each floor, drawn to a scale of not less than 1/8" = 1'. Indicate the approved, tested hourly rating, number and location of all rated members and assemblies (walls, columns, beams, floor and ceiling, and ceiling and roof fire-rated design assemblies). Show all fire-rated walls (both existing and new) with their ratings, if not shown elsewhere. Drawings submitted without required fire-rated walls shown will be rejected.
- YES N/A 2. Show the square footage of each floor on the corresponding floor plans.
- YES N/A 3. Identify the names and uses of each room.
- YES N/A 4. Furnish door schedules(s), including size, type, rating (if any) and hardware.
- YES N/A 5. Provide all glazing schedules.
- YES N/A 6. Show elevations with dimensions defining overall building height, floor-to-floor heights, or heights to ridge and eave as applicable to the type of building construction listed on the City of Emporia's application.
- YES N/A 7. Provide basement percentage-below-grade calculations.
- YES N/A 8. Indicate roof slopes, drainage system and sized through wall scuppers, if applicable to the project.
- YES N/A 9. Show fixed seating for assembly occupancy to allow determination of occupancy posting required by adopted IBC and IFC codes.
- YES N/A 10. Show wall sections with proposed material sizes, construction and fire-rated assemblies.
- YES N/A 11. Show proposed plumbing fixtures and privacy screens on the plans.
- YES N/A 12. If masonry construction is proposed, include the following information:
 - Type of brick ties and spacing of weep holes
 - Control Joints
 - Placement of wall flashing and reinforcement.
- YES N/A 13. If appropriate for the proposed occupancy, plans should identify all hazardous material control areas, fire barriers and the required fire-resistance ratings for these barriers. All identified control areas shall list the name, class, quantity and method of storage of all hazardous materials processed, manufactured or used in a manufacturing process and contained within its fire barriers. See sections 414 and 415 of the International Building Code (2006 Edition).
- YES N/A 14. Show the floor slab vapor barrier.
- YES N/A 15. Show foundation water-proofing, if applicable.
- YES N/A 16. All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed the rating of construction being penetrated. The penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.
- YES N/A 17. Provide on the drawings the calculations for the means of egress widths for the entire floor occupancy load and the existing capacity of all exits including all stairs, doors, corridors and ramped exits.
- YES N/A 18. Show required ventilation louvers and vent sizes.

STRUCTURAL PLANS:

- YES N/A 1. Show foundation plans indicating the proposed slab elevations and type of foundation.
- YES N/A 2. Provide preliminary soil analysis data done by a licensed engineer, if required.
- YES N/A 3. Indicate dimensions of foundations.

- YES N/A 4. Show type, size and location of piling and pile caps for pile foundation.
 YES N/A 5. Indicate grade beam sizes.
 YES N/A 6. Indicate a footing schedule defining footing sizes and the required reinforcing.
 YES N/A 7. Show the established footing depth below grade and method of frost protection allowed in section 1805.2.1 of the International Building Code.
 YES N/A 8. Indicate the thickness of the floor slab, size of reinforcing, slab elevations, and type and details of foundations.
 YES N/A 9. Indicate location, size and amount of reinforcing steel.
 YES N/A 10. Show foundation corner reinforcing bars and minimum overlapping (as applicable to project structure).
 YES N/A 11. Provide strength of concrete according to designed soil reports.
 YES N/A 12. Show beams, joists, girders, rafters, and/or truss layouts and details of connections, structural steel stud gage, gage size, and connections.
 YES N/A 13. Indicate the sizes and species of all wood members and their respective design strength.
 YES N/A 14. Show all columns, girders, joists, purlins, beams and base plates: for wood construction show all headers.
 YES N/A 15. Provide a complete lintel schedule.
 YES N/A 16. Indicate the type of anchoring for steel bearing directly on masonry.
 YES N/A 17. Indicate design dead and live, wind, snow, and seismic loads for floor areas, roofs, balconies, porches, breezeways, corridors, stairs, mezzanines and platforms. Show concentrated loads, i.e. file rooms, machinery and forklift areas, if greater than those shown on the Code Summary Sheet. Identify shear walls, bracing, strapping fastening, reinforcement and any special anchoring required.
 YES N/A 18. Where applicable, indicate on roof framing plan where concentrated loads (mechanical equipment, cranes, etc.) will be placed.
 YES N/A 19. Indicate on foundation and framing plans the location and lateral load resisting system. (Show walls, braced frames, moment connections, etc.)

FIRE PROTECTION PLANS: Not needed due to occupancy use or sq. ft. of structure.

- YES N/A 1. Complete a sprinkler design data sheet and include it on the first plan of the sprinkler drawings.
 YES N/A 2. Show floor plans for each floor with sprinkler piping layout, pipe sizes, pipe hanger details, piping materials, doors, walls and room identities.

Often, these shop drawings are not available at the time of initial plan submission. If this is the case, write in "N/A", but note the following:

- These shop drawings must be submitted for Department review and approval at least three (3) weeks before the projected installation date.
- Failure to obtain approval of these drawings before installation could result not only in delay of the final inspection and issuance of an occupancy permit, but also in removal and reconstruction of installations which fail to meet Liberals adopted codes.

- YES N/A 3. Show ceiling plans with sprinkler head(s) layout, walls, soffits, openings, doors, dimensions and room identities.
 YES N/A 4. Verify system design by providing hydraulic calculations along with the following:
- Recent water flow test
 - Percent safety margin
 - Type of backflow-preventer
 - Fire pump summary if applicable

- YES N/A 5. Note the type of sprinkler system used per NFPA (13, 13D, 13R).
- YES N/A 6. For residential occupancies such as apartments and condominiums, show sprinkler head locations at breezeways, if applicable.
- YES N/A 7. Indicate the certified testing laboratory agency (e.g., UL listed), their test number and hourly ratings of all new and/or affected rated members and assemblies (i.e. columns, beams, floor/ceiling and ceiling/roof fire-rated design assemblies). Show all new and/or affected fire-rated walls with their ratings, if not shown elsewhere.
- YES N/A 8. All penetrations of fire-rated construction must be per manufacturer's details. Details shall meet or exceed ratings of construction being penetrated. Penetration details shall be exactly as tested by a certified testing laboratory or agency and shall include their system numbers. All new penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.
- YES N/A 9. Provide a fire alarm riser showing connection to a UL-approved central station. Show tamper switches on both OS & Y valves of backflow prevention device, unless shown elsewhere.
- YES N/A 10. Indicate commodity class (per section 2303 of the International Fire Code) and height of any storage.
- YES N/A 11. Where special temperature-rated or high-temperature sprinklers are required, show sprinkler type(s) per area, office size, cut sheets with K-factor, water requirements, spray pattern, coverage and other pertinent data.

SYSTEM CALCULATIONS (FIRE PROTECTION):

Hydraulically calculated and pipe schedule fire systems should be designed with a 10% safety margin for all new buildings and additions to existing buildings. Calculations for hydraulic systems should include:

- YES N/A 1. Flow and pressure at each flowing sprinkler head.
- YES N/A 2. Flow diagram for a grid system.

PLUMBING PLANS:

- YES N/A 1. Show a site utilities plan, if not provided with the civil drawings.
 Show the domestic water, fire, and irrigation services.
 Show the location of water meters, backflow protection type and location.
 Show the sanitary sewer service from building to public sewer or approved private sewage disposal system.
- YES N/A 2. Show interceptors as applicable to project and size by flow rate. (i.e., grease, oil, lint, acid, sand).
- YES N/A 3. Provide plumbing plan layouts for each floor. These should show the water distribution and drain-waste-vent piping, and all details, notes, legends, and schedules necessary to define the system being installed.
- YES N/A 4. Show the location of all major components required for a complete system.
- YES N/A 5. Provide fixture and equipment schedule showing fixture number, detailed description, hot water, cold water, waste and vent connection sizes and other pertinent data.
- YES N/A 6. Identify all fixtures on floor plans and in riser diagrams with the plumbing fixture schedule number.
- YES N/A 7. Supply and Waste/Vent piping shall be shown on the floor plans. All pipe sizes shall be clearly shown. In congested areas (e.g., restaurants, grocery stores, etc.), isometrics are required.
- YES N/A 8. On buildings two stories and above, provide isometric diagrams and/or schematic riser diagrams for Supply and Waste/Vent piping and identify the risers by number (e.g., R1, R2, etc.). Show where all riser base terminations connect to the building drain, along with all interconnected piping on each floor plan. All pipe sizes shall be clearly defined.

- ___ YES ___ N/A 9. Show the water, sanitary drain-waste-vent piping and storm leaders/drains. Indicate sizes and materials for above/below grade.
- ___ YES ___ N/A 10. Show slope of horizontal sanitary and storm drains that equal or exceed 3" diameter, if less than 1/8" per foot.
- ___ YES ___ N/A 11. Indicate roof drains and emergency roof drains/scuppers with the areas they impact. Note that "emergency" = "secondary" = "overflow," see following roof drainage examples:
 Roof Drain – 6" RD (16880 SF)
 Emergency Roof Drain – 6" ERD (8180 SF)
 Parapet Wall Scupper – 8" X 5" WS (4000 SF)
 Emergency Scupper – 8" X 7" ES (4200 SF)
- ___ YES ___ N/A 12. Show toilet room layouts with minimum of ¼" = 1 foot scale.
- ___ YES ___ N/A 13. Show drinking fountain locations.
- ___ YES ___ N/A 14. All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed rating of construction being penetrated. The penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include their system numbers.
- ___ YES ___ N/A 15. Room names and numbers for each floor should be on a floor plan for each level.
- ___ YES ___ N/A 16. Provide minimum facilities calculations.
- ___ YES ___ N/A 17. Column line notations, if provided on the architectural/structural plans, shall be indicated on the plumbing plans.

MECHANICAL PLANS:

- ___ YES ___ N/A 1. Show all required wall louvers penetrations and fans.
- ___ YES ___ N/A 2. Indicate roof-mounted equipment locations.
- ___ YES ___ N/A 3. Show all mechanical equipment, piping, ductwork (above/below slab) on the mechanical floor and/or roof plan.
- ___ YES ___ N/A 4. Provide mechanical plans for each floor and the roof. These shall show the ductwork layouts, schedules, notes, legends, piping schematics, and details necessary to define the system being installed.
- ___ YES ___ N/A 5. Indicate air distribution devices and show cfm for all supply, return and exhaust devices.
- ___ YES ___ N/A 6. Indicate the location of all equipment components required for a complete system.
- ___ YES ___ N/A 7. Show the smoke ventilation of atriums and pressurization of high-rise stairwells.
- ___ YES ___ N/A 8. Show condensation drains, primary and secondary, from the unit to the point of discharge.
- ___ YES ___ N/A 9. Indicate toilet exhaust requirements.
- ___ YES ___ N/A 10. Show mechanical room layouts at sufficient scale for dimensions and details to be ascertained.
- ___ YES ___ N/A 11. Show the size of duct runs.
- ___ YES ___ N/A 12. Indicate controls for fan shutdown: emergency manual and automatic smoke detection.
- ___ YES ___ N/A 13. Show the location of all UL 555-certified fire dampers, ceiling radiation dampers, smoke dampers, and fire doors.
- ___ YES ___ N/A 14. Show all fire-rated walls (both existing and new) with their ratings on the mechanical plans.
- ___ YES ___ N/A 15. All penetrations of fire-rated construction must be per manufacturer's details.
- ___ YES ___ N/A 16. Room names and numbers for each floor should be on a floor plan for each level.
- ___ YES ___ N/A 17. Provide outside air ventilation rate per the Uniform Mechanical Code.
- ___ YES ___ N/A 18. Column line notations, if provided on the architectural/structural plans, shall be identified on the mechanical plans.
- ___ YES ___ N/A 19. Provide gas piping layout on the floor plan for each floor, if it is a multi-story building, all gas piping shall be shown per floor. Include pipe sizes, water column, and type of material. Provide a schedule of connected equipment, total BTUH demand, total equivalent length, and most remote gas appliance.

ELECTRICAL PLANS:

- ___ YES ___ N/A 1. Provide panel schedules with circuit and feeder loading, overcurrent protection, and NEC load summaries for all new and/or affected panels and services (loading has to be evaluated by

highest phase); include fault current data, short circuit ratings and fault current protection coordination.

- YES N/A 2. Provide a single line riser diagram showing all new and/or affected services, feeders, wire sized and insulation types, and conduit sized and types.
- YES N/A 3. Indicate number of services and their physical locations; clearly indicate mains and characteristics.
- YES N/A 4. Indicate the grounding electrode conductor size with new and/or affected services and transformers; where necessary provided details or notes on methods.
- YES N/A 5. Show physical locations of all new and/or affected panels and switchgear (indicate front).
- YES N/A 6. Indicate receptacle plans with circuitry.
- YES N/A 7. Indicate lighting plans with circuitry.
- YES N/A 8. Show electrical plans for each affected floor, including the roof.
- YES N/A 9. Show wiring method(s), conduit sizes and types, termination temperature (60, 75, 90) requirements, conductor sizes and insulation types.
- YES N/A 10. Indicate the design and/or operation for any of the following applicable life safety systems: emergency generators, smoke evacuation, shaft pressurization and relief, smoke detection, egress and emergency lighting, and fire alarms.
- YES N/A 11. Indicate how special needs such as classified (hazardous), corrosive and patient care are treated. Provide detailed plan of classified areas, the classifications and how complied with (i.e. hangers, waste treatment and collection, flammable dusts, gases or liquids, spray booths, vehicle servicing and parking, etc.).
- YES N/A 12. Provide all HVAC nameplate data, including MCA and MOCP. List all other appliance and/or equipment (other than those which will be connected to a general use receptacle) with nameplate data (i.e., voltage, phasing, HP, KVA, FLA, RLA, etc.).
- YES N/A 13. Indicate all motor horse power ratings, if not supplied elsewhere.
- YES N/A 14. Indicate the certified testing laboratory or agency (e.g., UL), their test # and hourly ratings of all new and/or affected rated members and assemblies (i.e. columns, beams, floor/ceiling, and ceiling/roof fire-rated design assemblies). Show all new and/or affected fire-rated walls with their ratings, if not shown elsewhere.
- YES N/A 15. All penetrations of fire-rated construction must be per manufacturer's details. The details shall meet or exceed ratings of construction being penetrated. Penetration details shall be exactly as tested by an approved testing laboratory or agency and shall include their system numbers. New penetrations of existing fire-rated walls and assemblies shall be shown with appropriate designs.
- YES N/A 16. Provide all applicable International Energy Conservation Code compliance data on the Building Code Summary sheet or on the electrical plans.
- YES N/A 17. All submittals should include a listing and labeling statement. (All electrical materials, devices, appliances and equipment shall be labeled and listed by a certified testing laboratory or agency.)