



VILLAGE OF ALGONQUIN

COMMUNITY DEVELOPMENT

2200 Harnish Drive

Algonquin, IL 60102

Phone (847) 658-2700 (option 3) Fax (847)658-2631

COMMERCIAL BUILDING PLAN REVIEW SUBMITTAL REQUIREMENTS

The following codes are adopted in the Village of Algonquin for commercial construction:

[2018 \(IBC\) International Building Code](#)

[2018 \(IFC\) International Fire Code](#)

[2018 \(IMC\) International Mechanical Code](#)

[2018 \(IFGC\) International Fuel Gas Code](#)

[2017 \(NEC\) National Electrical Code](#)

[International Energy Conservation Code \(IECC\), current Edition](#)

[2018 \(IEBC\) International Existing Building Code](#)

[2018 \(IPMC\) International Property Maintenance Code](#)

[2018 \(IAC\) Illinois Accessibility Code](#)

[Illinois State Plumbing Code, current Edition](#)

[Sign Code](#)

[Village of Algonquin Building Code Amendments Chapter 23](#)



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PLAN COVER SHEET

Plan cover sheets shall contain the following information:

- Project shall be identified.
- Project address and a location map shall be shown.
- The Professional Design Firm(s) shall be identified.
- The principal design professional(s) for each Professional Design Firm shall be identified.
- All applicable codes utilized on the project shall be listed.
- Design criteria list shall include, but not be limited to:
 - Occupancy group
 - Type of construction
 - Location of property
 - Seismic zone
 - Square footage and allowable area
 - Fire sprinklers
 - Height and number of stories
 - Occupant load
 - Land use zone
 - Parking-loading requirements
- Index of all drawings shall be included.
- Seal(s) and signatures(s) of responsible design professional(s) and indication as to which of the indexed drawings the seal applies, the expiration date of the license, and registration number of the Professional Design Firm shall be affixed.
- Name of the space or business name.
- For multi-tenant buildings, a key plan showing the location of the space(s).



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COMMERCIAL BUILDING PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough building plan review, four copies of the following specifications, drawings and details shall be submitted along with a completed permit application and contractor's list:

- Complete sets of signed and wet-sealed architectural plans, structural plans and material specifications of all work designed in accordance with the 2018 International Building Code with Village of Algonquin amendments (see Municipal Code Chapter 23.05). Design professionals shall be currently licensed in the State of Illinois.
- Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.

A site plan (civils) including the following information:

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

Architectural plans and specifications to include:

- 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.
- Allowable/proposed height and area calculations.
- 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.
- Signed 2018 Illinois Energy Conservation Code COMcheck Envelope Compliance Certificate with inspection sheets.
- Details of required fire protection systems.

Structural plans, specifications, and engineering details to include:

- Soil boring report indicating the soil type and soil engineer's recommended allowable bearing pressure and foundation type.
- Signed and wet-sealed structural design calculations that 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 (i.e., masonry, concrete, wood, steel, etc.).
- Signed and wet-sealed truss and/or I-joist drawings and layout.
- Signed and wet-sealed fire sprinkler design documents and specifications.



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ELECTRICAL PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough electrical plan review, four copies of the following specifications, drawings and details shall be submitted:

- ❑ Complete signed and wet-sealed plans and specifications of all electrical work designed in accordance with the 2017 National Electrical Code with Village of Algonquin amendments (see Municipal Code Chapter 23.13). Design professionals shall be currently licensed in the State of Illinois.
- ❑ Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.
- ❑ Labeling criteria of all electrical equipment.
- ❑ Lighting floor plan including electrical circuits indicating conduit and wiring sizes.
- ❑ Power floor plans including electrical circuits indicating location of convenience and rooftop outlets, conduit and wiring sizes, equipment, disconnect switches and GFCI protection.
- ❑ Exit sign/means of egress lighting location and power supply.
- ❑ Panelboard schedule with load calculation charts.
- ❑ Lighting fixture schedule.
- ❑ Symbol schedule and diagrams.
- ❑ Signed 2018 Illinois Energy Conservation Code COMcheck Lighting Compliance Certificate and Lighting Application Worksheet.
- ❑ 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. (separate submittal & permit)
 - Automatic fire detection systems. (separate submittal & permit)
 - Emergency/standby systems.



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PLUMBING PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough plumbing plan review, two copies of the following specifications, drawings and details shall be submitted:

- ❑ Complete signed and wet-sealed plans and specifications of all plumbing work designed in accordance with the 2014 Illinois Plumbing Code. Design professionals shall be currently licensed in the State of Illinois. Current Illinois-licensed plumbers may also design plumbing systems; submit a copy of plumbing license and sign plans.
- ❑ Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.
- ❑ Estimated water usage for the entire building or tenant space in gallons-per-day.
- ❑ Plumbing fixture and piping material specifications including identification of the applicable referenced standard.
- ❑ Plumbing fixture information to include:
 - The occupant load(s) used to determine the number of required plumbing fixtures.
 - Number and distribution based on the use.
 - Separate facilities for each sex.
 - Accessible plumbing facilities and details.
 - Indicate drinking fountains or bottled water dispensers.
 - 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. Include a water supply fixture unit calculation.
- ❑ 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 including all backflow prevention devices.
- ❑ Piping support and installation schedule.
- ❑ Storm drainage details and calculations including rain gutter or roof drain sizes and downspout/leader sizes.
- ❑ Secondary roof drainage system details and calculations.
- ❑ Health care plumbing and fixture details.
- ❑ Indicate whether a landscape irrigation system will be provided (separate permit required).
- ❑ Water meter size and arrangement shall be approved by the water division in writing. Multi-tenant buildings require separate services and meters for each tenant. Contact Public Works Department at 847-658-2700 extension 4000 for details.



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MECHANICAL/FUEL GAS PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough mechanical/fuel gas plan review, four copies of the following specifications, drawings and details shall be submitted:

- Complete signed and wet-sealed plans and specifications of all heating, ventilating, air conditioning and refrigeration work designed in accordance with the 2006 International Mechanical Code with Village of Algonquin amendments (see Municipal Code Chapter 23.09) and the 2018 International Fuel Gas Code with Village of Algonquin amendments (see Municipal Code Chapter 23.11). Design professionals shall be currently licensed in the State of Illinois.
- Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.
- Labeling criteria of all mechanical equipment.
- Heating and cooling equipment data including the following information:
 - Equipment capacity (btu/h input; tonnage).
 - Controls.
 - Appliance layouts showing location, access and clearances.
 - Disconnect switches.
 - Indoor and outdoor design temperatures.
- Ventilation data, ductwork and equipment including the following:
 - Ventilation schedule indicating the outdoor air rates, estimated occupant load/1000 square feet, floor area of room or space and the amount of outside air (in c.f.m.) supplied to each room or space.
 - Layout showing outside air intakes in relation to contaminant sources.
 - 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.
 - Duct smoke detector location and details.
- Duct penetration through fire resistance rated assembly locations and details including shafts and dampers.
- Boiler and water heater equipment and piping details including safety controls and distribution piping layout.
- Gas and fuel oil piping layout, material, sizes, valves and calculations.
- Combustion air intake quantities, details and supporting calculations.
- Complete Type I and Type II exhaust hood and duct equipment details including hood and fan drawings, duct construction details, sections, velocity calculations and clearances to combustibles. If not submitted with the building plans, a separate submittal and permit will be required. Fire suppression systems require separate submittal and permit.
- Chimney and chimney connector or vent and vent connector details and connector gages and clearances.
- Mechanical refrigeration equipment data, details and refrigerant types and quantities.
- Solid fuel burning appliance details including incinerator and fireplace drawings and details.
- Energy conservation equipment data and details.
- Signed 2018 Illinois Energy Conservation Code COMcheck Mechanical Compliance Certificate and Mechanical Requirements Description reports including inspection sheets.



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ACCESSIBILITY PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough Accessibility Plan Review, four copies of the following specifications, drawings and details shall be submitted:

- Project shall be designed in accordance with the 2018 International Building Code/2018 ICC/ANSI A117.1 with Village of Algonquin amendments (see Municipal Code Chapter 23.05) and the 2018 Illinois Accessibility Code with Village of Algonquin amendments (see Municipal Code Chapter 23.22).
- Complete signed and sealed architectural plans and material specifications of all work.
- Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed.

A site plan including the following information:

- Size and location of all new construction and all existing structures on the site.
- Location of any recreational facilities (i.e. 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.

Architectural plans and specifications to include:

- 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.



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ENERGY CONSERVATION PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough Energy Conservation Plan Review, four copies of the following specifications, drawings and details shall be submitted:

- Project shall be designed in accordance with the 2018 Illinois Energy Conservation Code with Village of Algonquin amendments (see Municipal Code Chapter 23.17), Climate Zone 5A, Winter Design Temperature -4° F.
- Complete signed and sealed architectural plans and material specifications of all work.
- Details and plans drawn to scale with sufficient clarity, details and dimensions to show building features, systems and equipment.
- Provide specific substantiating product technical data sheets.

Plans, details and specifications including but not limited to:

- Insulation materials and their R-values.
- Fenestration U-factors and any area-weighted calculations.
- Mechanical system design criteria.
- Mechanical and service water heating system and equipment types, sizes and efficiencies.
- Economizer description.
- Equipment and systems controls.
- Fan motor horsepower and controls.
- Duct sealing, duct and pipe insulation and location.
- Lighting fixture schedule with wattage and control narrative.
- Air sealing details.
- All products shall be specifically identified by manufacturer and product name on the plans.



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FIRE SPRINKLER PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough fire sprinkler system plan review, a minimum of two copies of the following specifications, drawings and details shall be submitted to the Village along with a completed Village permit application:

- Complete signed and wet-sealed plans, hydraulic calculations, catalog cut sheets and specifications for the fire sprinkler system and related equipment. Plans shall show job name and address plus complete contractor information including contact/designer name and sprinkler contractors' state license number.
- Details and plans shall be drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed including a detailed scope of work.
- Each building in a multi-building development shall be a completely separate submittal and permit.
- Multi-tenant shell building systems shall be clearly noted on the plans.
- Each tenant space revision shall be a completely separate submittal and permit.
- Description and locations of all rooms and uses within the building.
- Occupancy and commodity descriptions and storage arrangements including special applications. Detailed information including code sections shall be provided when deviating from code requirements.
- Design shall be in accordance with the 2018 NFPA 13 as referenced by the 2018 International Building Code with Village amendments (see Municipal Code Chapter 23.05) and the 2018 International Fire Code with Village amendments (see Municipal Code Chapter 23.07).
- Design calculations, sprinkler summary sheet and water supply graphs indicating the discharge requirements of each system, and evaluation of the arrangement and source of the water supply.
- Complete results of a current flow test (dated within 12 months) indicating the location and date of the test and the names of the personnel involved in conducting the test. Test shall be witnessed by the appropriate fire district and Algonquin Public Works. Results shall be submitted on a form approved by the Village.
- Site plan drawn to scale showing underground main and feeder details, location of tap into main, and location of flow test hydrants. Static and flow hydrants shall be properly labeled.
- Complete hydraulic calculations including water supply curve. The backflow preventer friction loss shall be included in the calculations.
- Available water supply shall exceed the system demand by 10 p.s.i. minimum.
- Working shop drawings indicating all pipe sizes and the spacing between branch lines and sprinklers on the branch line. All hydraulic calculation reference points or nodes shall be shown and labeled.
- Material and equipment specifications and catalog cut sheets, with the appropriate item(s) highlighted. All materials used shall be verified that they are installed in accordance with their listing.
- Ceiling information including heights, construction, slope, soffits, clouds, etc. shall be shown including sections.
- A RPZ backflow preventer with detector assembly is required in accordance with Illinois Plumbing Code. The bypass line shall be equipped with a RPZ. The bypass water meter shall read in gallons.
- The Village of Algonquin is protected by several different fire protection districts depending on project location. It is recommended that the applicant contact the appropriate fire district to determine special requirements of that district before design and submittal. Call the Village to verify.
- Algonquin-LITH FPD: 847-658-6170 ■ Carpentersville FD: 847-426-2914 ■ Huntley FPD: 847-669-8284
- DO NOT SUBMIT PLANS DIRECTLY TO THE FIRE DISTRICT UNLESS INSTRUCTED TO DO SO BY THE VILLAGE.



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FIRE ALARM PLAN REVIEW SUBMITTAL REQUIREMENTS

In order to perform a thorough fire alarm system plan review, a minimum of two copies of the following specifications, drawings and details shall be submitted to the Village of Algonquin along with a completed Village permit application:

- Complete plans and specifications of all fire alarm work. Plans shall show job name and address plus complete contractor information including contact/designer name and contractors' state alarm license number.
- Each building in a multi-building development shall be a completely separate submittal and permit.
- Multi-tenant shell building systems shall be clearly noted on the plans.
- Each tenant space revision shall be a completely separate submittal and permit.
- Details and plans drawn to scale with sufficient clarity, details and dimensions to show the nature and extent of the work proposed including a detailed scope of work.
- Design shall be in accordance with the 2018 NFPA 72 as referenced by the 2018 International Building Code with Village amendments (see Municipal Code Chapter 23.05) and the 2018 International Fire Code with Village amendments (see Municipal Code Chapter 23.07).
- Type of system and method of supervision.
- Square footage of the building or area shall be clearly shown.
- Description and locations of all rooms and uses within the building.
- Occupancy and commodity descriptions and storage arrangements. Detailed information including code sections shall be provided when deviating from code requirements.
- Initiating device floor plan indicating location, number of devices, conduit/wiring sizes and mounting details.
- Notification device floor plan indicating location, number of devices, conduit/wiring sizes and mounting details.
- Fire alarm control panel details and location.
- Remote annunciator details and location.
- Primary and secondary power details.
- Proposed zone chart or address list of devices.
- List of auxiliary or local control functions.
- Symbol schedule and diagrams.
- Voltage drop calculations for notification devices.
- Standby battery details including sizes provided and calculations. A minimum of 60 hours of standby time is required.
- Material and equipment specifications and catalog cut sheets, with the appropriate item(s) highlighted. All materials used shall be verified that they are installed in accordance with their listing.
- Duct smoke detector location and details.
- A complete sequence of operation for the system.
- Specific offsite monitoring details including name and location of receiving station and type of transmission (verify with appropriate fire code official).
- Deviations from code requirements along with an explanation.
- The Village of Algonquin is protected by several different fire protection districts depending on project location. It is recommended that the applicant contact the appropriate fire district to determine special requirements of that district before design and submittal. Call the Village to verify.
- Algonquin-LITH FPD: 847-658-6170 ■ Carpentersville FD: 847-426-2914 ■ Huntley FPD: 847-669-8284
- DO NOT SUBMIT PLANS DIRECTLY TO THE FIRE DISTRICT UNLESS INSTRUCTED TO DO SO BY THE VILLAGE.



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PLAN SUBMITTAL CHECKLIST COMMERCIAL CONSTRUCTION NEW BUILDING/TENANT ALTERATION

SETS/ COPIES	TYPE OF PLANS/DOCUMENTS	REC'D
1	VILLAGE-APPROVED CIVIL AND SITE PLANS	
2	BUILDING/ARCHITECTURAL/STRUCTURAL/ACCESSIBILITY*	
2	MECHANICAL/FUEL GAS*	
2	ELECTRICAL*	
2	PLUMBING*	
1	SOIL BORING REPORT	
2	STRUCTURAL CALCULATIONS	
2	ENERGY CALCULATIONS (ENVELOPE/MECHANICAL/LIGHTING)*	
1	PROJECT SPECIFICATIONS*	
2	FIRERESISTANCE RATED ASSEMBLY SPECIFICATIONS*	
1	CONTRACTOR/SUBCONTRACTOR LIST*	
1	VILLAGE OF ALGONQUIN BUILDING PERMIT APPLICATION*	
1	ESTIMATED WATER USAGE IN GALLONS-PER-DAY*	
	McHENRY COUNTY or KANE COUNTY HEALTH DEPARTMENT APPROVAL* (HEALTH DEPT. PLAN REVIEW APPROVAL <u>BEFORE</u> BUILDING DEPT. PLAN REVIEW)	
*NOTE: INDIVIDUAL TENANT ALTERATIONS IN A MULTI-TENANT BUILDING REQUIRE SEPARATE PERMITS		



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REQUIRED PERMITS CHECKLIST COMMERCIAL CONSTRUCTION

REQ'D	TYPE	ISSUED
	SPECIAL USE (IF REQUIRED, ISSUED BY VILLAGE BOARD)*	
	SITE DEVELOPMENT (NEW BUILDINGS, ISSUED BY PUBLIC WORKS)	
	BUILDING (ELECTRICAL/PLUMBING/MECHANICAL/ACCESSIBILITY)*	
	FIRE SPRINKLER SYSTEM (INCLUDES STANDPIPES, FIRE PUMPS, ETC.)*	
	FIRE ALARM SYSTEM*	
	FIRE SUPPRESSION SYSTEM (WET or DRY CHEM.; CO ₂ ; CLEAN AGENT)*	
	COMMERCIAL KITCHEN HOOD/DUCT EXHAUST SYSTEM*	
	ELEVATOR/ESCALATOR/LIFT*	
	EXTERIOR FENCING	
	EXTERIOR SIGNS (INCLUDES AWNINGS, CANOPIES, ETC.)*	
	CONSTRUCTION GENERATOR (TEMPORARY) (> 10kw)*	
	EMERGENCY or STANDBY GENERATOR (PERMANENT)*	
	OFFICE/SALES/STORAGE TRAILER (TEMPORARY)*	
	ACCESSORY STRUCTURE	
	LANDSCAPE IRRIGATION SYSTEM	
	ABOVEGROUND/UNDERGROUND FUEL STORAGE TANK(S) (STATE FIRE MARSHAL PERMIT REQUIRED BEFORE VILLAGE PERMIT SUBMITTAL)	
	DEMOLITION*	
	TREE REMOVAL	
	SECURITY SYSTEM (BURGLAR)*	
	McHENRY or KANE COUNTY HEALTH DEPARTMENT* (HEALTH DEPT. REVIEW BEFORE BUILDING PERMIT REVIEW PREFERRED)	
*NOTE: INDIVIDUAL TENANT ALTERATIONS IN A MULTI-TENANT BUILDING REQUIRE SEPARATE PERMITS		