



## LOGANVILLE FIRE DEPARTMENT

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### COMMERCIAL KITCHEN VENTILATION SYSTEMS

Any commercial establishment that produces grease-laden vapors or smoke requires a kitchen ventilation system. A permit shall be obtained from the City of Loganville Fire Marshal's Office before the installation of a system. This permit will be issued to an appropriate licensed contractor. Any drawings submitted with architectural or engineered building plans are for reference only and not for permitting. The system shall meet the requirements of the 2002 Edition of National Fire Protection Association (NFPA) 17A Code and 2001 Edition of (NFPA) 96 Code along with the 2003 State of Georgia modifications. **Listed below is general information only and does not contain all information, provided by the codes.**

The kitchen ventilation system generally consists of five parts: The hood, the ductwork, the fans, the fire extinguishing equipment and the cooking appliances.

**HOOD:** A Type I kitchen hood is required for the capture and removal of grease laden vapors and smoke. A Type I hood is constructed from a minimum of 18 gauge steel or 20 gauge stainless steel or other approved material. It shall be of liquid tight-welded construction. The hood shall be sized to capture and remove grease-laden vapors. The hood shall be installed no higher than 84 inches above the finished floor, 18 inches from any combustible material, 3 inches from limited combustible material and may touch non-combustible material under certain circumstances. Clearance to combustible materials may be reduced if protected per approved exceptions. A listed hood assembly shall be installed in accordance with the terms of their listing and the manufacturer's instructions. Listed grease filters, baffles or other approved grease removal devices shall be provided. Mesh filters shall not be used. Each hood shall have a drip tray beneath the lower edge of the filters. The tray shall be pitched to drain into an enclosed metal container having a capacity not exceeding 1 gallon.

**DUCTWORK:** An exhaust duct shall be constructed from a minimum of 16-gauge steel or 18-gauge stainless steel. It shall be liquid tight welded. An exhaust duct shall be connected to the hood and terminate either through a roof or wall. The outlet shall not be within 10 feet of any air intake, operable window, door, walkway, property line or adjacent building. Horizontal exhaust ducts shall slope back toward the hood. Listed access panel with signs shall be every 12 feet on horizontal and every change of direction on vertical ducts. Access panels shall be large enough to permit inspection and cleaning of the duct. The same clearance criteria for hoods pertains to duct work.

Supply air ducts, where required in the Kitchen Ventilation System, shall be constructed and installed per the 2000 Edition of the International Mechanical Code with 2004 State of Georgia modifications. However, there are some instances when NFPA 96 will supersede. If a supply air duct penetrates the hood, a fire damper is required. An access panel shall be provided to clean, test or repair the damper.

**FANS:** Exhaust fans shall be upblast, inline or utility type. All fans shall have an approved listing to be used for grease-laden vapors. Upblast fans shall be hinged type. The exhaust fan shall move the required cubic feet per minute (CFM) per the Mechanical Code. The supply fan shall provide the required CFM makeup air per Section 508 of the

Mechanical Code. The manufacturer of the hood may modify each CFM. There shall be an accessible work area provided to allow for inspection, maintenance and cleaning.

**FIRE EXTINGUISHING EQUIPMENT:** Equipment shall include both automatic fire extinguishing systems as primary protection and portable fire extinguishers as secondary backup.

The automatic system shall comply with standard UL 300 (Underwriters laboratories). The system shall be installed by a contractor licensed by the Georgia State Fire Marshal's Office and shall meet the requirements of NFPA 17A. upon activation of the system the fuels source must automatically shut off. A manual activation device must also be provided.

A portable Type K fire extinguisher with require signage shall be mounted within 30 feet of the hazard. The top of the fire extinguisher handle shall not be more the 48 inches above the floor.

**APPLIANCES:** Cooking equipment shall be approved based on either a listing by a testing laboratory or test data acceptable by the City of Loganville Fire Marshal or designee. Appliances sing solid fuel (wood, charcoal, etc.) shall meet the requirements of NFPA 96 Chapter 14, 2001 Edition.

*Note: The information provided above is general in scope and does not take the place of any of the listed codes.*