Town of Brighton
Office of the Fire Marshal

Kitchen Ventilation Hood Installation Permit Application

Plan Submittals and Installation shall be in accordance with the requirements detailed and contained in the National Fire Protection Association (NFPA) Chapter 96 Standard-2017 Edition (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations) and current manufacturer specifications

Applicant & Property Information

Make Checks Payable – Town of Brighton				**Kitchen Ventilation Hood Installation Permit - $50.00**
Business Name				
Address	Suite	City	State	Zip Code
Telephone	Work Telephone	Email Address		
Property Owner or Mailing Address if different from above				
Name or DBA				
Address	Suite	City	State	Zip Code
Telephone	Work Telephone			

Installation Company / Agent to Owner

Name				
Contact Name				
Address		City	State	Zip Code
Telephone	Mobile Telephone	Work Telephone		
Rochester Fire Department Extinguisher License #				

Please refer to the Town of Brighton
Kitchen Ventilation Hood Plan Review and Permit Requirements

By signing below, I hereby apply for a Fire Protection System Installation permit and certify that I have read and understand the information package for the installation requirements pertinent to this permit and agree to abide by them. This application for a Fire Code Operational Permit will be in accordance with all ordinances of the Town of Brighton and the Fire and Building Code of New York State and that any plans or specifications submitted with this application are the plans or specifications relating to this permit.

I further understand this is not a permit but only an application for permit and construction work is not to start without a permit; that the work will be in accordance with the approved plans.

Applicant Signature			Print Name (Applicant)			Date
Permit Number	**Issue Date**	**Expiration Date**	**Fee Paid**	**Check #**	**Receipt Number**	**Plan Review Fee**

2300 Elmwood Avenue – Rochester, New York 14618
(585) 784-5220 Office / (585) 784-5207 Fax

"Protecting People ♦ Preserve Property"

Town of Brighton
Office of the Fire Marshal

Kitchen Ventilation Hood Installation Worksheet

This worksheet is required and needs to be completed in its entirety, to assist the plan reviewer in efficiently reviewing plans and issuing fire code operational permits in a timely fashion. This worksheet must accompany plans submitted to the Town of Brighton -Office of the Fire Marshal and will keep this document as a part of the permanent project file to verify code compliance.

The applicant (Owner/Occupant or System Designer) needs to sign and date the document and is responsible for assuring the accuracy and consistency of the information provided herein.

Plans for the Commercial Cooking Ventilation Hood Permit (and associated worksheet) must be submitted prior to obtaining the Commercial Kitchen Fire Suppression Permit.

Property Information

Project Information			Owner Information		
Project Name			Owner Name		
Project Address			Owner Address		
City	State	Zip Code	City	State	Zip Code
Phone #			Phone #		
Email			Email		

System Designer	*System Designed by New York State Licensed Design Professional*	YES		NO	
Company Name					
Contact Name (Designer)					
Company Address					
City	State	Zip Code			
Phone #	Email		*(Stamp Included)*		

Kitchen Exhaust Hood Installer Information

Company Name		
Contact Name		
Company Address		
City	State	Zip Code
Phone #	Email	

Type of Kitchen Exhaust Hood			("Type 1" or "Type II" Hood(s))
YES	NO	N/A	
			Type I Hood – Collecting and removing grease laden vapors and smoke (MCNYS 507.2.1)
			Type I Hood (Solid Fuel) – Collecting and removing grease laden vapors and smoke (Separate or "Independent" Hood Provided?) (MCNYS 506.3.5.4)
			Type II Hood – Collecting and removing steam, vapor, heat or odors (MCNYS 507.2.2)
NOTE	Not required for UL Listed countertop electrically heated appliances such as: toasters, steam tables, popcorn poppers, hotdog cookers, coffee makers, rice cookers, egg cookers, and holding/warming ovens. Additional heat and moisture loads shall be accounted for and included in the HVAC system design. (MCNYS 507.2.2)		

Manufacturer of Kitchen Exhaust Hood						
Listed Hood						
Provide manufacturer's installation instructions and listing documents for listed hoods and grease ducts.						
Make		Model		Listed CFM		
Unlisted Hood						
Quantity of air = Lineal ft. of hood front X CFM from Table below:						
=		ft. X		CFM / ft. =		CFM
Minimum net airflow for different types of unlisted hood. (See 507.13).						

Location of Exterior Ductwork and Mechanical Equipment		
YES	NO	
		Is ductwork or mechanical equipment located outside of building, other than rooftop?
		If yes, there must be a 10' property line.
Provide plan and elevation views showing ductwork, duct enclosure, hood, cooking surface, air supply, exhaust system, and equipment support, including structural detail.		

Type of Material and Gage							(MCNYS 506.3.1.1, 507.4, 507.5)
TYPE I HOOD				TYPE II HOOD			
	Type of Material	Minimal Gage	Gage Proposed		Type of Material	Minimal Gage	Gage Proposed
Duct & Plenum	Galvanized Steel	16 gage		Duct & Plenum	Refer to SMACNA		
	Stainless Steel	18 gage					
	Factory-built	Provide UL listing					
Hood	Galvanized Steel	18 gage		Hood	Galvanized Steel	22 gage	
	Stainless Steel	20 gage			Stainless Steel	24 gage	
					Cooper	Not less than 24 ounces per square foot	

Quantity of air exhausted through the hood					(MCNYS 507.4.1, 507.4.2)
Canopy hoods shall extend a minimum of 6" beyond cooking surface on all opensides					
Type of hood proposed		Canopy		Non-Canopy	
Distance between lip of hood and cooking surface	**4 ft. maximum allowed**		**3 ft. maximum allowed**		
Proposed		Canopy		Non-Canopy	

Identify the cooking appliances **and circle** the CFM applied. When any combination of cooking appliances is utilized under a single hood, the highest exhaust rate required by this table shall be used for the entire hood. For hoods that are listed and labeled under UL710 or UL710B, see MCNYS 507.1 Exception #1 and #2.

	Hood Exhaust CFM Table	*CFM / lineal ft. of hood front
1	Extra heavy-duty cooking appliances (non-canopy hood not allowed): all solid-fuel appliances	550-700
2	Heavy-duty cooking appliances: wok, broiler (gas or electric), gas burner range	400-600
3	Medium-duty cooking appliances: conveyor pizza ovens, deep fryer, range (gas or electric), skillet	300-500
4	Light-duty cooking appliances: gas and electric ovens, pasta cookers, steamers	200-400

Additional Information

507.1.2 Domestic cooking appliance used for commercial purposes. Domestic cooking appliances utilized for commercial purposes shall be provided with Type I, Type II or residential hoods as required for the type of appliances and processes in accordance with Table 507.1.2 and Sections 507.2 and 507.3. Domestic cooking appliances utilized for domestic purposes shall comply with Section 505.

507.2 Type I hoods. Type I hoods shall be installed where cooking appliances produce grease or smoke as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty and extra-heavy-duty cooking appliances.

Exception: A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m3 or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m3/s) in accordance with UL 710B.

Exhaust Duct System (506.3.4) **DESIGN MINIMUM 500 FEET PER MINUTE**

Applicant shall provide the specified air velocity in exhaust duct.

Duct Size		In. X		In., duct area =		In. X		In. =		Ft^2
						/ 144				

	Type of Hood		Air Velocity FPM		CFM	/	Duct Area ft^2		Proposed Air Velocity		
1	Type I Req.		500 to recom. 2500			/		=			FPM
	Type II Req.		min 500 CFM			/		=			FPM
2	Static Pressure Loss										
	Duct		In. + grease filters / extractor		In. + other		In. = Total				In. of H_20
3	Fan and motor shall be of sufficient capacity to provide the required air movement. Fan motor shall not be installed within ducts or under hood.										
	Fan make and model							HP			
	Static pressure				In. at						CFM.

Note: If using a listed duct wrap, provide manufacturer's installation instructions and listing documents.

Exhaust Outlet Location			(MCNYS 506.3.13, 506.4.2)
Exhaust Outlet Location		Minimum Required	Proposed
Exhaust outlet shall terminate above roof	Type I Type II	40 in. 30 in.	
Distance from same or adjacent building	Type I Type II	10 in. 30 in.	
Distance above adjoining grade	Type I Type II	10 ft.	
Distance from property line	Type I Type II	10 ft.	
Distance from windows and doors	Type I Type II	10 ft. 3 ft.	
Distance from mechanical air intake	Type I Type II	10 ft.	

Makeup Air			(MCNYS 508)
1	Applicant shall provide makeup air approximately equal to the exhaust.		CFM.
2	Makeup air system shall be electronically interlocked with the exhaust system, such that the makeup air system will operate when the exhaust system is in operation. Provide note on plan sheet no.		
3	Makeup air shall be provided by a mechanical or gravity means of sufficient capacity. Windows and door openings shall not be used for the purpose of providing makeup air.		

Fan						Motorized Damper					
Make and Model				H.P.		Recommended air velocity, 500 fpm					
Static Pressure		CFM	In. at			Duct Area Requirement = CFM/500 fpm		CFM	/ 500 =		ft^2
Duct Dimension		Area	ft^2			Duct Dimension Requirement =					
Air Velocity = CFM/Area		CFM /	area	FPM		Eff. Damper Opening =		X		=	ft^2

Duct Slope and Cleanout Access					(MCNYS 506.3.7, 506.3.8)
1	Horizontal duct up to 75' long	Minimum Slope ¼ in./ft.	Proposed		in./ft
	Horizontal duct more than 75' long:	Minimum Slope 1 in./ft.	Proposed		in./ft
2	Tight-fitting cleanout doors shall be provided at every change in ductwork direction.		Total Number Proposed:		

Duct Enclosure						(MCNYS 506.3.11, 506.3.11.1)
1	Ducts penetrating a ceiling, wall or floor shall be enclosed in a duct enclosure having fire rating per IBC 708.4 from the point of penetration to the outside air. A duct may only penetrate exterior walls at locations where unprotected openings are permitted by Table 705.8 of 2015 International Building Code.					
Type of Construction		Min. Fire-Resistive Const. of Enclosure	Proposed		Proposed Material & Construction	
I F.R., II F.R.		2 hour		hr		
II, III, IV, V		1 hour		hr		
2	Duct enclosures shall be separated from the duct by at least 6". (506.3.11)		Proposed			In.
3	Duct enclosures shall be sealed around the duct at the point of penetration and vented to the exterior through a weather-protected opening.					
4	Duct enclosures shall serve only one kitchen exhaust duct. (See multiple hood venting for exception.)					
5	Tight-fitting hinged access door shall be provided at each cleanout. Access enclosure doors shall have a fire-resistance rating equal to the enclosure. An approved sign shall be placed on the access door**. "ACCESS PANEL. DO NOT OBSTRUCT."**					

Multiple Hood Venting			(MCNYS 506.3.5)
1	Number of hoods vented by a single duct system:	Proposed	
A single-duct system may serve more than one hood located in the same story of the building, provided that the interconnecting ducts do not penetrate any fire resistance rated construction and are located in adjoining rooms; and the grease duct system does not serve a solid fuel-fired appliance.			
2	An unlisted hood outlet shall serve not more than a 12-foot section of hood.		

Additional Information – Type I Hood Only				
1	Grease filters shall be installed at a minimum 45 degrees angle and equipped with drip tray and gutter beneath lower edge of filters. (507.2.8.2)	Proposed		Degrees
2	Distance between lowest edge of grease filters and cooking surface of: Grill, fryer, exposed flame shall not be less than 2 ft. Exposed charcoal, charbroil shall be not less than 3 ½ ft. (507.2.8)	Proposed		ft.
3	Type I hood and duct shall have clearances from construction of: GWB on metal stud (minimum 3" clearance required) (506.3.6, 507.2.6) GWB on wood stud (minimum 18" clearance required)	Proposed		in.

UNPROTECTED (Combustible Construction)				**PROTECTED** (With 1-hour Fire-Rated Material and Stud Construction)			
Hood Min. Req. 18 in.	Proposed		in.	Min. Req. 3 in.	Proposed		in.
Duct Min. Req. 18 in.	Proposed		in.	Min. Req. 3 in.	Proposed		in.

4	Hoods less than 12 inches from ceilings or walls shall be flashed solidly.
5	All joints and seams shall be made with continuous liquid-tight weld or braze made on the external surface of the duct system. Vibration insulation connector may be used provided it consists of noncombustible packing in a metal sleeve joint. (506.3.2, 506.3.2.4) Joints shall be smooth and accessible for inspection. (506.3.2.)
6	Exhaust fans used for discharging grease exhaust shall be positioned so that the discharge will not impinge on the roof. The fan shall be provided with an adequate drain opening at the lowest point to permit drainage of grease to a suitable collection device. (506.5.2)
7	Performance test certificate of the hood system shall be provided to owner before final approval. Test shall verify property operation, the rate of exhaust, makeup air, capture and containment performance of the exhaust at normal operating conditions. (507.6.1)