



COMMERCIAL KITCHEN HOOD WORKSHEET

Project Address _____

Project Number: _____

Established Use and history of building

Is it an existing Restaurant, food processing area or food service area:

Yes No

Location of exterior ductwork and mechanical equipment

1. Is ductwork or mechanical equipment located outside of building other than roof top?

Yes No

2. Applicant shall provide plan and elevation views showing ductwork, duct enclosure, hood, cooking surface air supply, exhaust system, and equipment support including structural detail (See attached examples 1,2 and 3).

Type of Hood

1. For grease and smoke removal: Type I _____ Quantity _____
(Example: deep fryer, charbroilers, grill, roasting ovens larger than 6 KW and all solid-fuel appliances)

2. For steam, vapor, heat or odor removal: Type II _____ Quantity _____
(Example: steamer, pastry and pizza oven)
Hood shall have a permanent, visible label identifying it as a Type II hood.

3. Is hood for solid-fuel cooking equipment?
 Yes No
If yes, a separate exhaust system is required.

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i) Listed hood. Make and model No. _____ Listed CFM _____

ii) Unlisted hood: Quality 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:

Identify the cooking appliances and check the CFM applied. Where any combinations of cooking appliances are utilized under a single hood, the highest exhaust rate required by this table shall be used for the entire hood

<u>Hood Exhaust CFM Table</u>		<u>CFM/ lineal ft. of hood front</u>
		<u>Canopy or Non-canopy Hood</u>
1.	Extra heavy-duty cooking appliances (non-canopy hood not allowed) Type I hood eg. All solid-fuel including solid-fuel pizza oven	<input type="checkbox"/> 550
2.	Heavy-duty cooking appliances Type I hood eg. Wok, broiler(gas or electric), gas burner range	<input type="checkbox"/> 400
3.	Medium-duty cooking appliances Type I hood eg. Deep fryer, Top range (gas or electric), skillet	<input type="checkbox"/> 300
4.	Light-duty cooking appliances Type II hood eg. Pizza oven (electric or gas), solid-fuel (see #1)	<input type="checkbox"/> 200

Exhaust duct system (506.3.4)

Applicant shall provide the specified air velocity in exhaust duct.

Duct size _____ in. X _____ in., duct area = _____ in. x _____ in. = _____ ft²
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Type of Hood Air Velocity (FPM) CFM/Duct Area (ft²) Proposed Air Velocity

1. I Req. 500 to recom. 2500 _____ / _____ = _____ FPM

 II Recom. 500 to 2500 _____ / _____ = _____ FPM

2. Static pressure loss

duct _____ in. + grease filters/extractor _____ in. + other _____ in. = Total _____ In. of H²O

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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.

4. Exhaust fan shall be interlocked with Type I cooking appliances and makeup air system. (507.2.1.1, 508.1)

Exhaust Outlet location (506.3.4)

Exhaust outlet location (506.3.12)		Min. required	Proposed
1.	Exhaust outlet shall terminate	Type I	40 in.
		Type II	24 in.
	Distance from same or adjacent		_____ in.
			_____ ft.
	Distance from adjoining grade		_____ ft.
	Distance from property line		_____ ft.
	Distance from windows and doors		_____ ft.
	Distance from mechanical air in-		_____ ft.
		_____ ft.	
	Distance of duct above adjoining	16 ft.	_____ ft.
2.	If exhaust outlet terminates at exterior wall, provide cleaning equipment per DR6-2005		Yes No

Makeup air (508.1, E 1412.4.1)

1. Applicant shall provide makeup air not less than 90% of the exhaust.

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Duct enclosure (506.3.10, 506.3.11)

1. Ducts penetrating a ceiling, wall or floor shall be enclosed in a duct enclosure having fire rating per IBC Table 601 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 704.8 of the International Building Code.
2. For code compliance purposes, it is acceptable to assume that ducts penetrating concrete, brick or steel ceilings, walls or floors shall require a 2-hour fire-resistive duct enclosure, and for others, it shall be 1 hour.

Type of Construction	Min. Fire-Resistive Const. of Enclosure	Proposed	Proposed material and Construction
IA, IB, IIIA, IIIB	2 hour	_____ hr.	_____
IIA, IIB, IV, VA	1 hour	_____ hr.	_____

3. Duct penetrates Type VB roof/ceiling assembly ONLY, may omit the enclosure per 506.3.10 Ex. #3.
4. Duct enclosures shall be separated from the duct by at least 3 in. Proposed _____ In.
5. Duct enclosure shall be of METAL STUD construction and shall be sealed around the duct at the point of penetration and vented to the exterior through a weather-protected opening.
6. Duct enclosures shall serve only one kitchen exhaust duct.
7. 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 access door which reads - "ACCESS PANEL. DO NOT OBSTRUCT"

Multiple hood venting (507.15)

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.
2. A hood outlet shall serve not more than a 12-foot section of hood.

Additional Information for Type I hood only (507):

- 1 Grease filters shall be installed at minimum 45 degree angle and equipped with drip tray and gutter beneath lower edge of filters (507.11.2)

Proposed _____ Degrees
- 2 Distance between lowest edge of grease filters and cooking surface of:
 - Grill, fryer, exposed flame shall be not less than 2 ft.

Proposed _____ ft.
 - Exposed charcoal, charbroil shall be not less than 3 1/2 ft (507.11)

Proposed _____ ft.
- 3 Type I hood and duct shall have clearances from combustible construction of:
 - GWB on metal stud (minimum 3" clearance required) (506.3.6, 507.9)

Proposed _____ in.
 - GWB on metal stud (minimum 18" clearance required)

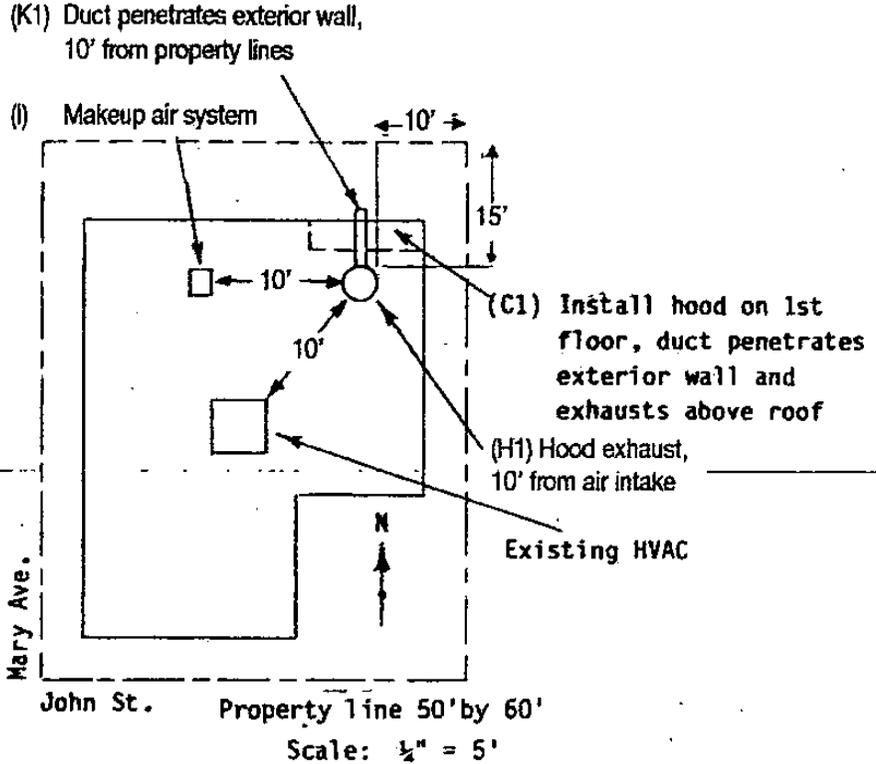
UNPROTECTED	PROTECTED With 1-hour Fire-Rated Material and Metal Stud Construction	
Hood Min Req. 18 in. Proposed _____ in.	Min Req. 3 in.	Proposed _____ in.
Duct Min Req. 18 in. Proposed _____ in.	Min Req. 3 in.	Proposed _____ in.

- 4 Hoods less than 12 inches from ceilings or walls shall be flashed solidly.

Flashing provided Yes No Distance from ceiling _____ in., wall _____ in.
- 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, 507.7)
- 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 Fire Suppression System. Fire Suppression System shall be per International Fire Code
- 8 Performance test certificate of the hood system shall be provided to owner before final approval. Test shall verify proper operation, the rate of exhaust, makeup air, capture, and containment performance of the exhaust at normal operating condi-

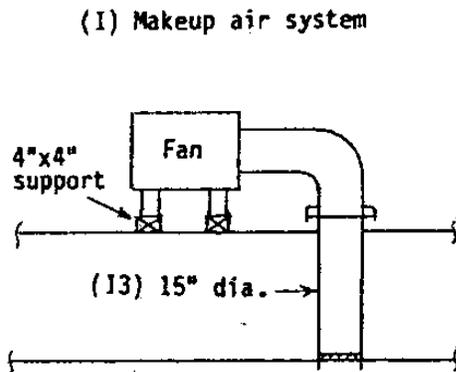
Example 1
Mechanical Plot Plan

1. Identification of adjacent streets, property and alleys.
2. Any easements that cross the property or other pertinent legal features.
3. Property line and property dimension.
4. Location, size and shape of any structure present on site and proposed for construction.
5. A North arrow and scale.
6. Locate and describe the job. Show location of hood, hood exhaust and supply, existing HVAC, and HVAC exhaust and supply.

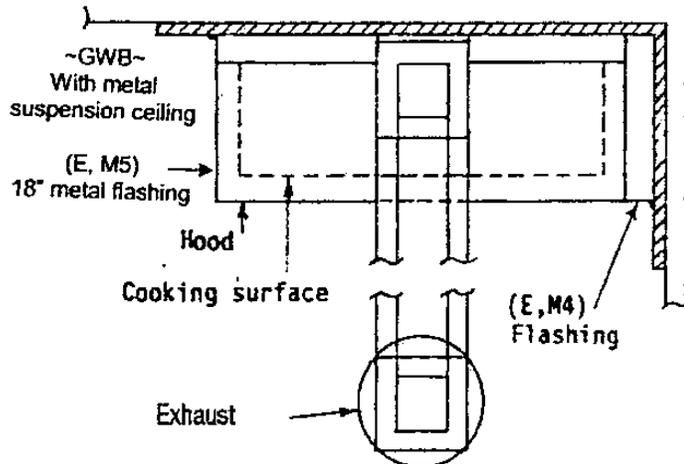


Example 2

Elevation View of Makeup Air System



Plan View of Hood System



Example 3
Elevation Views of Hood System

