

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read Application And Notes, If Any, Attached

## BUILDING DEPARTMENT PERMIT

Permit Number: 070313

This is to certify that COTTON STREET DEVELOPMENT LLC / Noble Restaurant Equi  
has permission to Install new Kitchen Hood System  
AT 505 FORE ST 038 C016001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of the State and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission procured before this building or part thereof is started or closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

### OTHER REQUIRED APPROVALS

Fire Dept. \_\_\_\_\_  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_  
Department Name

# WITHDRAW

Director - Building & Inspection Services

### PENALTY FOR REMOVING THIS CARD

**CITY OF PORTLAND, MAINE**  
**HISTORIC PRESERVATION BOARD**

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John Turk, Chair  
Rick Romano, Vice Chair  
Otis Baron  
Martha Deprez  
Kimberley Geyer  
Ted Oldham  
Cordelia Pitman

August 8, 2007

Nat Getchell  
Portland Pie Company  
505 Fore Street  
Portland, Maine 04101

Re: Installation of Exterior I

Dear Mr. Getchell:

On July 25, 2007, the City of Portland Certificate of Appropriateness for Building at 505-507 Fore Street. proposed installation met the Standard subject to the following condition

*Project ~~needs~~  
abandoned.*

- The proposed ductwork shall be installed on the exterior of the historic structure and later removed.
- The duct shall measure 4" diameter.
- A revised drawing reflecting the proposed installation and approval. *Note: revised drawing submitted and approved 8/7/07.*
- Entire installation to be painted dark gray, matte finish.

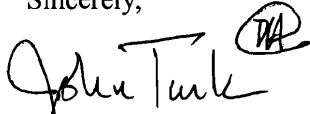
As you are aware, implementation of the proposed project will require consent of the building owner. The Historic Preservation Board was asked to make a determination as to whether the installation as proposed would meet Portland's historic preservation ordinance standards and therefore be granted a Certificate of Appropriateness.

All improvements shall be carried out as shown on the plans and specifications submitted for the 7/25/07 public hearing, except as to comply with the conditions above. Changes to the approved plans and specifications and any additional work that may be undertaken must be reviewed and approved by this office prior to construction, alteration, or demolition. If, during the course of completing the approved work, conditions are encountered which prevent completing the approved work, or which require additional or alternative work, you must apply for and receive a Certificate of Appropriateness or Non-Applicability PRIOR to undertaking additional or alternative work.

This Certificate is granted upon condition that the work authorized herein is commenced within twelve (12) months after the date of issuance. If the work authorized by this Certificate is not commenced within

twelve (12) months after the date of issuance or if such work is suspended in significant part for a period of one year after the time the work is commenced, such Certificate shall expire and be of no further effect; provided that, for cause, one or more extensions of time for periods not exceeding ninety (90) days each may be allowed in writing by the Department.

Sincerely,

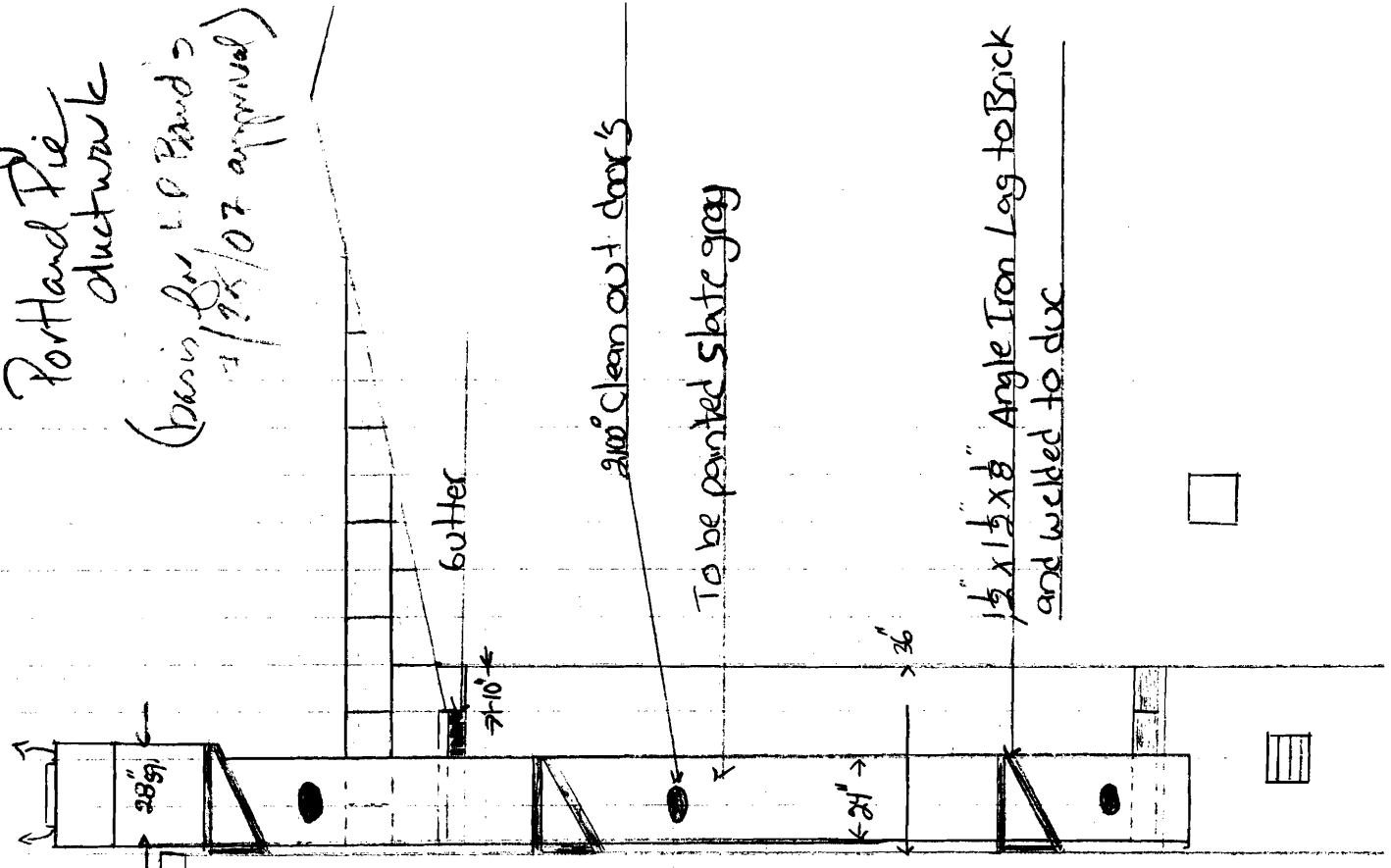


John Turk, Chair  
Historic Preservation Board

cc: Dan Bourgoin, Bourgoin & Son LLC

REVISED  
 drawing -  
 Portland Tie  
 ductwork  
 (basis for 10 Band 5)  
 (provide 20' x 15')

Front view



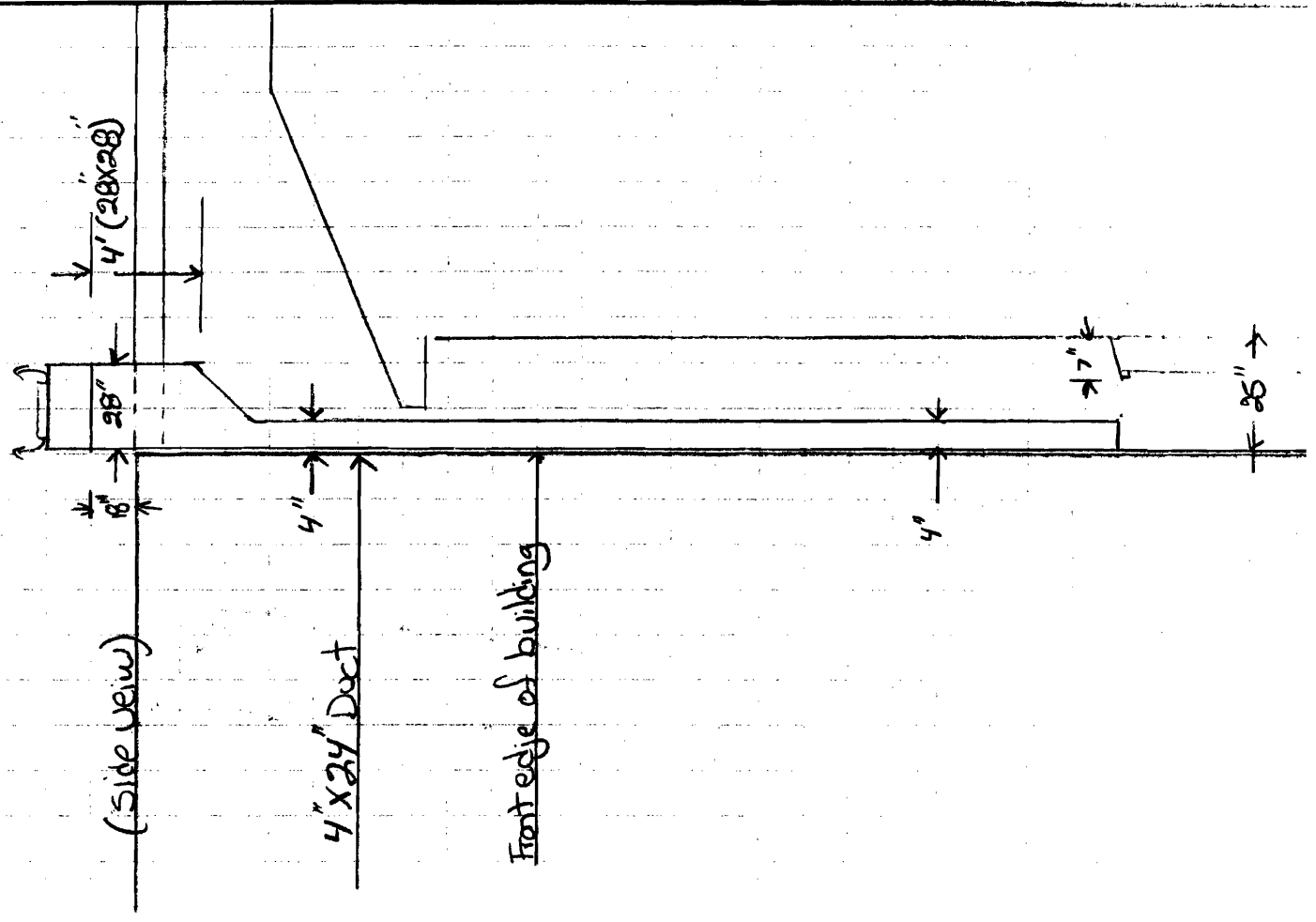
200° clean out doors  
 To be painted slate gray

1/2" x 1/2" x 8" Angle Iron Log to Brick  
 and welded to duct

(Side view)

4" x 24" Duct

Front edge of building



**City of Portland, Maine - Building or Use Permit Application**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-0313	Issue Date:	CBL: 038 C016001
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Location of Construction: 505 FORE ST	Owner Name: COTTON STREET DEVELOPME	Owner Address: PO BOX 6799	Phone:
Business Name:	Contractor Name: Noble Restaurant Equipment	Contractor Address: P.O. Box 1701 Portland	Phone 2077801196
Lessee/Buyer's Name	Phone:	Permit Type: Hood Systems, Commerical	Zone: <b>B-3</b>

Past Use: Commercial Restaurant - Portland Pie Company	Proposed Use: Commercial Restaurant - Portland Pie Company- Install new Kitchen Hood System	Permit Fee: \$170.00	Cost of Work: \$14,227.50	CEO District: 1
Proposed Project Description: Install new Kitchen Hood System		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: Type:	
		Signature:	Signature:	

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
Signature:	Date:

Permit Taken By: Idobson	Date Applied For: 03/26/2007	<b>Zoning Approval</b>	
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p align="center"><b>Special Zone or Reviews</b></p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p><i>ok S</i> Date: <i>3/27/07</i></p>	<p align="center"><b>Zoning Appeal</b></p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied <p>Date:</p>	<p align="center"><b>Historic Preservation</b></p> <p><i>to D.A 3/27/07</i></p> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied <p>Date:</p>
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**WITHDRAW**

**CERTIFICATION**

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>505 Fore St</u>		
Total Square Footage of Proposed Structure		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart#      Block#      Lot#	Owner: <u>Cotton Street Development LLC</u>	Telephone:
Lessee/Buyer's Name (If Applicable) <u>Portland Pie Company</u>	Applicant name, address & telephone: <u>Nathaniel Getchell 4 Marion Circle Cumberland, ME 04021</u>	Cost Of Work: \$ <u>14,227.50</u> Fee: \$ _____ C of O Fee: \$ _____
Current legal use (i.e. single family) <u>Pizza Restaurant</u> If vacant, what was the previous use? _____ Proposed Specific use: _____ Is property part of a subdivision? <u>No</u> If yes, please name _____ Project description:  <u>Noble Restaurant Equipment, PO Box 1701, Portland, ME 04101</u> 780-1196		
Contractor's name, address & telephone:  Who should we contact when the permit is ready: <u>Nat Getchell</u> Mailing address: _____ Phone: <u>207 632-1300</u>		

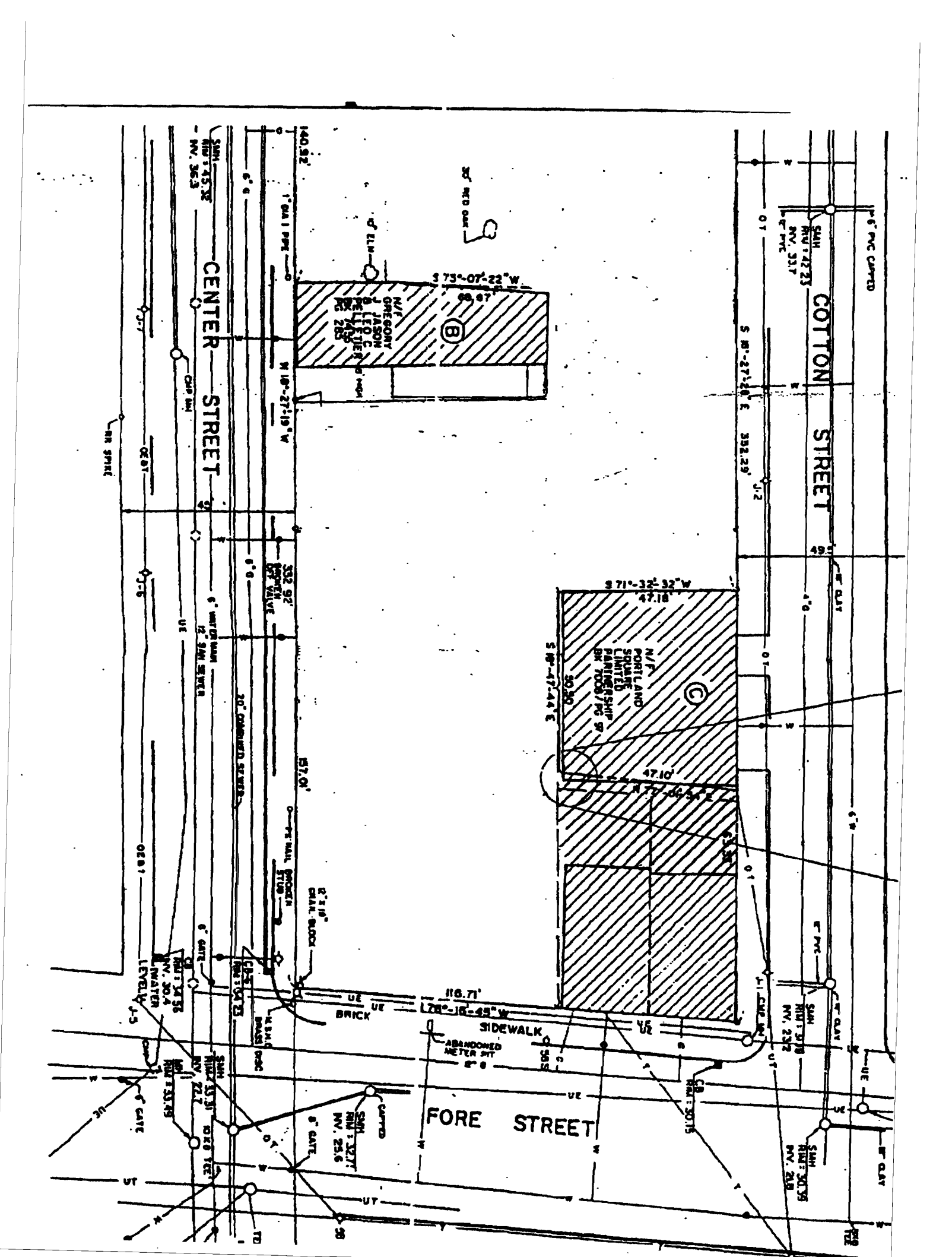
Please submit all of the information outlined in the Commercial Application Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information visit us on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), stop by the Building Inspections office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

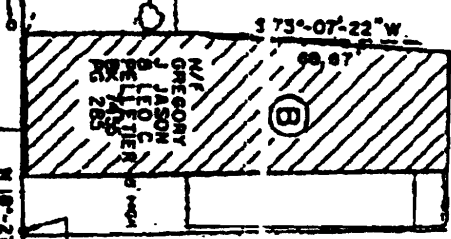
Signature of applicant: <u>[Signature]</u>	Date: <u>3-26-2007</u>
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This is not a permit; you may not commence ANY work until the permit is issued.

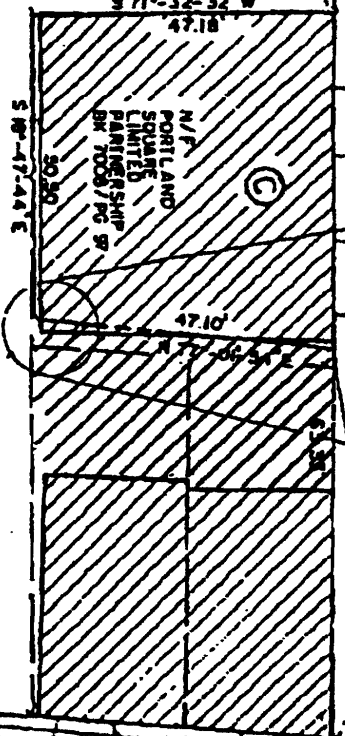


SUN  
REV. 27.23  
NOV. 23.7  
E PVC

COTTON STREET



N/E  
GREGORY  
JASON  
LEO C  
PETER  
REYNOLD  
PK 285



N/E  
PORTLAND  
SQUARES  
LIMITED  
PAINTERS  
SHIP  
BK 7008/PK 57

FORE STREET  
ABANDONED  
METER PIT  
SIDEWALK

SUN  
REV. 30.19  
NOV. 23.8  
E PVC

SUN  
REV. 32.7  
NOV. 25.6  
CUTTED

SUN  
REV. 33.78  
NOV. 23.78  
E PVC

SUN  
REV. 36.19  
NOV. 23.8  
E PVC

SUN  
REV. 38.7  
NOV. 25.6  
CUTTED



**NOBLE**  
**RESTAURANT EQUIPMENT**  
**PO BOX 1701**  
**PORTLAND, MAINE 04101**  
*cell - 939-3070*  
*fax - 207-780-1196*  
*phone - 780 - 1196*

# Estimate

Estimate No: 1086  
 Date: 3/15/2007  
 Territory:  
 Salesperson:

Bill To:

**Portland Pie**  
**Fore st.**  
**Portland ,Me.04101**

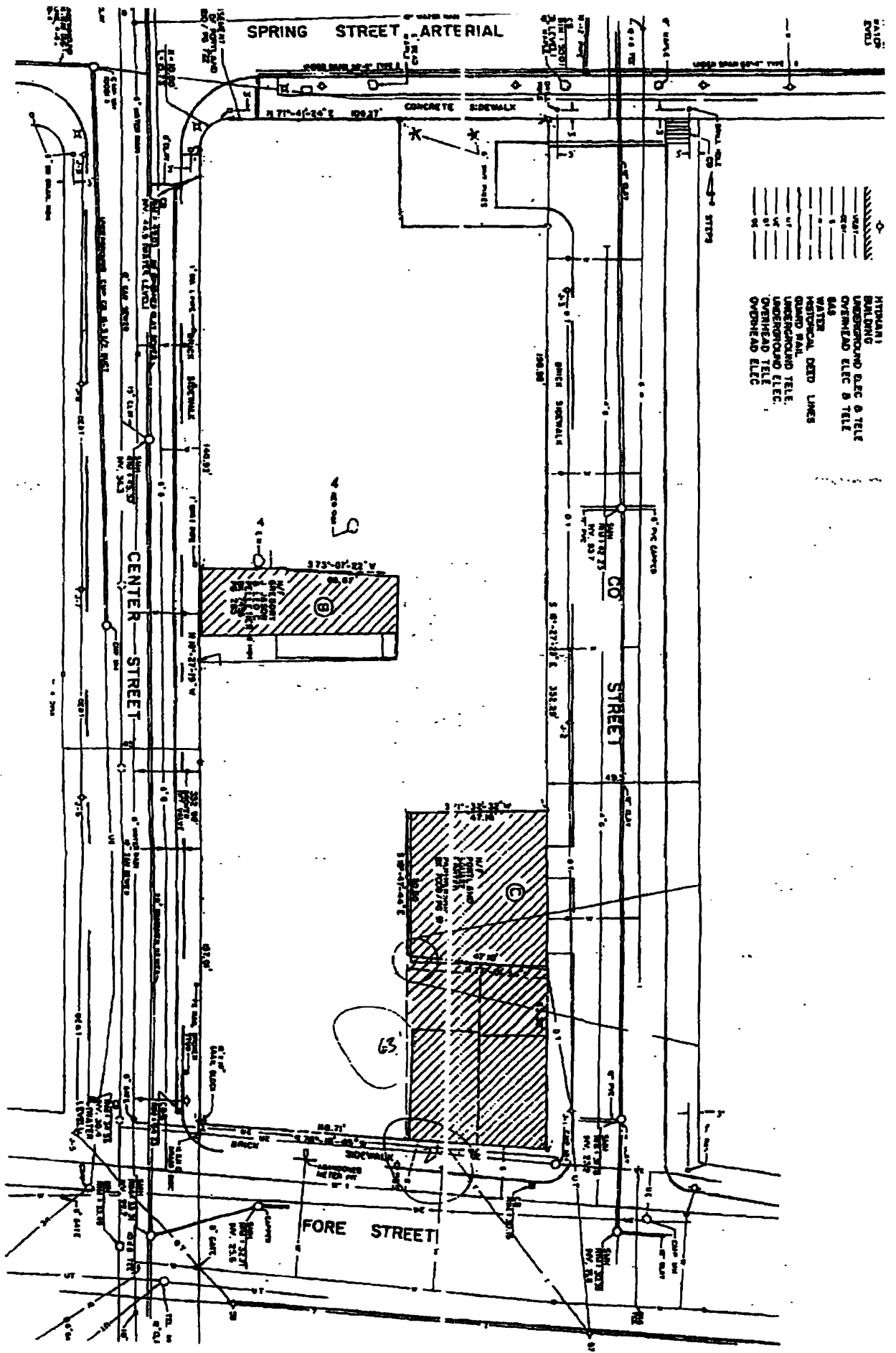
Code	Description	Qty	Hours	Rate	Amount
	# 1- submit conceptual design drawings				*
	# 2- demo current exhaust system and dispose of				*
	# 3- wall directly behind the new hood will be fire rated with steel stud wall				*
	# 4-once city has varified that the wall is constructed of steel studs 5/8" fire rated sheet rock will be installed it along with 24 ga. stainless steel sheets over the rock.				*
	# 5-one 6'x10' stainless steel type 1 hood to be installed with make-up air				*
	# 6- 16 ga. black iron duckting will be installed with all welded joints in interior of the building.				*
	# 7-15 ga. fire barrier insulation will be installed where ever the duct work encounters a combustable.				*
	# 8- once the ducting exits the building 16 ga. galvanized duct will be installed to roof line per code, this style will better handle the elements.				*
	# 9-two clean outs will be installed per code.				*
	# 10- one exhaust fan installed where duct work terminates.				*
	# 11- one make-up air fan will be installed in line with duct to plentium.				*
	# 12- one wall curb installed to except the exterior duct penetration.				*
	# 13- fire suppression system to code.	1.00	13,550.00		\$13,550.00

\* ~~XXXXXXXXXX~~

terms and conditions-this quote includes no electrical, carpentry or permits(however assistancewill be rendered ie paperwork filled out ect.) a 50% deposite will be required to start and balance due upon completion of work .

Subtotal	\$13,550.00
Tax - 5.00%	\$677.50
Total	\$14,227.50





- HITCHHIKERS  
 BUILDING  
 UNDERGROUND ELEC & TELE  
 OVERHEAD ELEC & TELE  
 GAS  
 WATER  
 MECHANICAL DRAIN LINES  
 UNDERGROUND TELE  
 UNDERGROUND ELEC  
 OVERHEAD TELE  
 OVERHEAD ELEC



# PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Lee Urban- Director of Planning and Development

Michael J. Nugent- Inspections Division Director

## Kitchen Exhaust System Checklist and Code Provisions

Dear Applicant,

The following is a checklist to assist you in filing for a permit for a Kitchen Exhaust system. The applicable Mechanical Code provisions have also been attached. Please complete this and submit job specific construction documents that demonstrate compliance with the attached information.

### Type of System:

Type I  Type II

(Type I systems are systems that vent fryers, grills, broilers, ovens or woks. Type II systems are systems that vent steamers and other non grease producing appliances)

### Type of Materials:

Is the hood Stainless steel or other type of steel? Stainless Steel If Other, what Type? \_\_\_\_\_

Is the duct work Stainless steel or other type of steel? 16 Ga Black Iron If Other, what type? 16 Ga Black Iron ~~with~~ welded seams

Thickness of the steel for the hood 16 GA

Thickness of the duct for the hood 16 GA

Type of Hood and Duct supports

3/8" Threaded Rod UL Ropes Sammys  
3/8 NUTS and Hardware

Type of seams and Joints All welded

Grease Gutters provided? yes

Hood Clearance from Combustibles materials 16" 15A Fire Barrier insulation

Duct Clearance from Combustibles materials 3" 15A Fire Barrier

Vibration Isolation System:

yes

Air Velocity within the duct system 1500 FPM

Grease accumulation prevention system

yes

Cleanouts yes

Grease Duct enclosure yes

Exhaust Termination @ ROOF 43" above the Roof line

Fire Suppression system

yes

Exhaust fan mounting and clearance from the roof or wall 43"

Exhaust fan distance from other vents or openings 10' OR MORE

Exhaust fan height above adjoining grade 28'

### Hood Specs

Style of hood Type one

Type of Filter: Aluminum

Height of filter above nearest cooking surface: Min 33" Max 48"

Capacity of hood in CFM 2500

Make up Air system description and capacity

INLINE Filter Supply FAN.

**Henckel Design and Fabrication**

134 Hartley Street  
Portland, Maine  
04103

Phone: 1-207-318-2623

Fax: 1-207-772-8952

E-mail: [petehenckel@maine.rr.com](mailto:petehenckel@maine.rr.com)

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March 15, 2007

**ATTN: CITY OF PORTLAND  
FROM HENCKEL DESIGN  
SUBJECT: EXTERIOR AND INTERIOR DUCT SUPORTS  
SITE LOCATION: PORTLAND PIE COMPANY**

The hood to be installed has a weight of 430LBS and will be hung at four points with a total Corner load of 107.5LBS each corner will be anchored using 3/8" threaded rod secured to the beams (note the beams size and there distance from the each load bearing support needs to be verified for the load rating) the rod will be anchored to the beams using a 3/8"UL rated sammy anchor system per code.

The duct work at the exterior of the building will transition from 16GA black iron to 16GA galvanized to with stand the elements this duct work as it exits the building will use existing penetrations no new holes are made in the historical part of the structure.

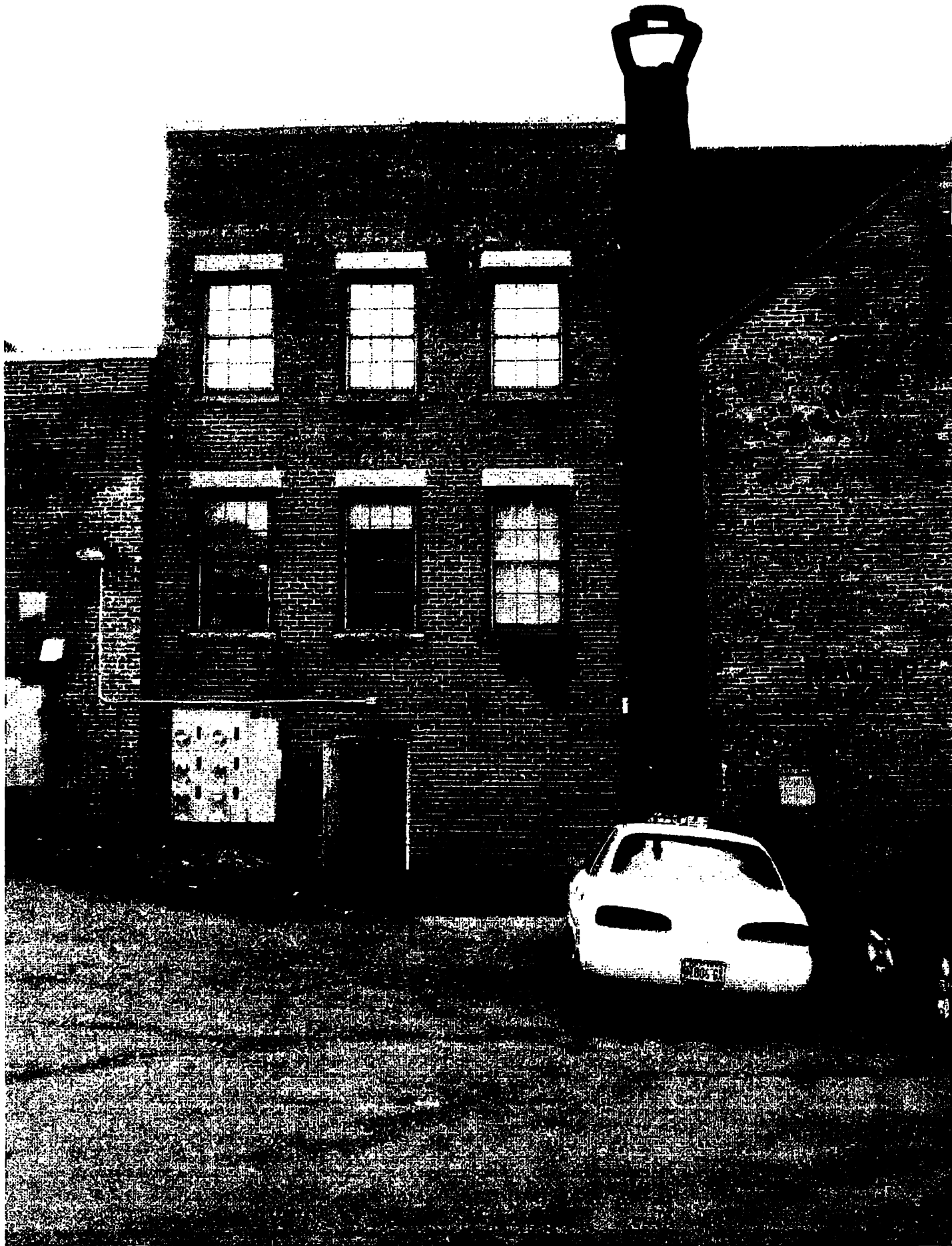
The exterior ducting will travel 43' above the roof line per code the duct will be supported By 11/ZX11/ZX1/8 angel iron at six points at three different elevation point along the duct line anchored by two hammer anchor pins per side.

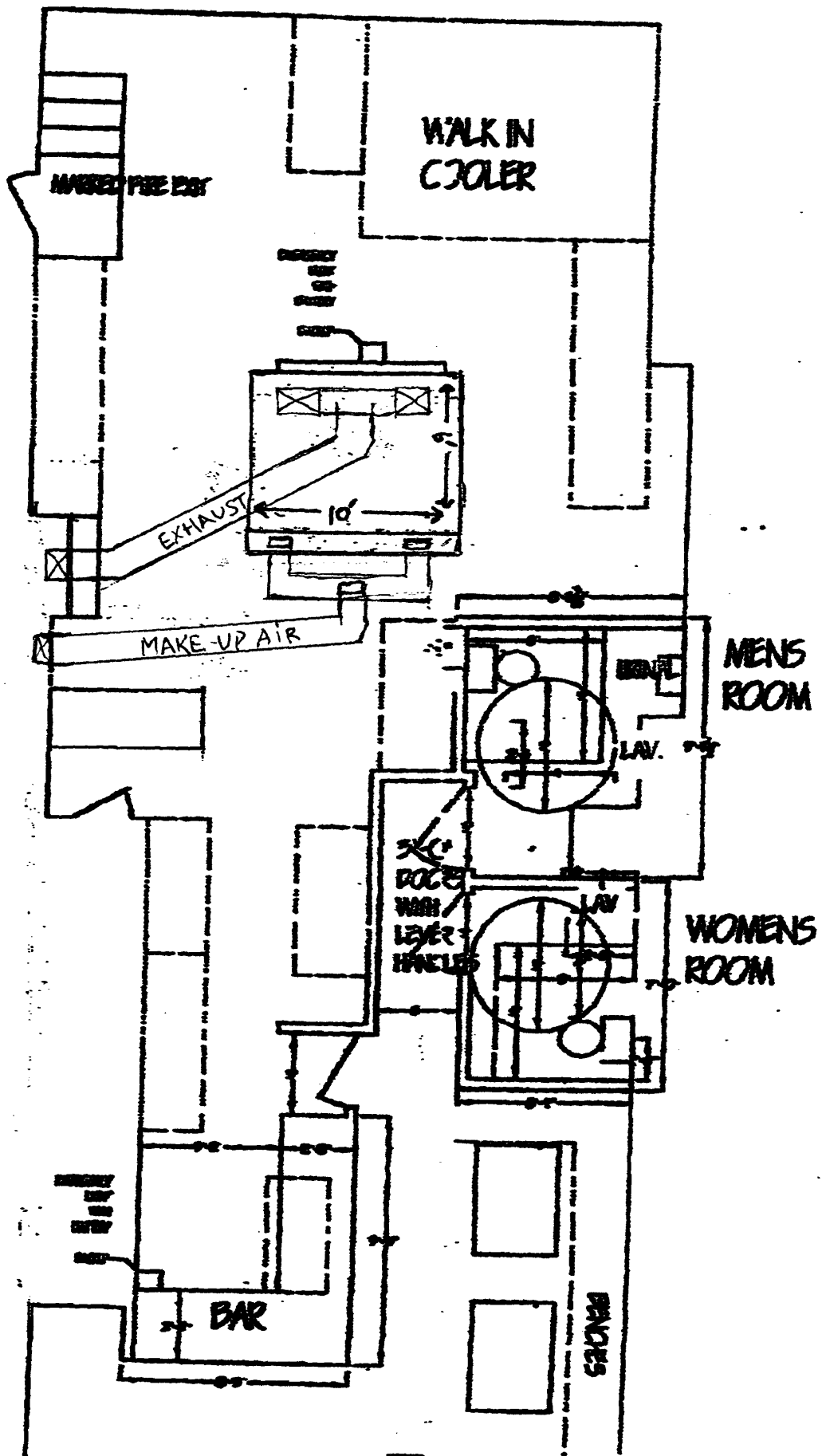
Once the duct work is in place the fan will be lifted in place and secured.

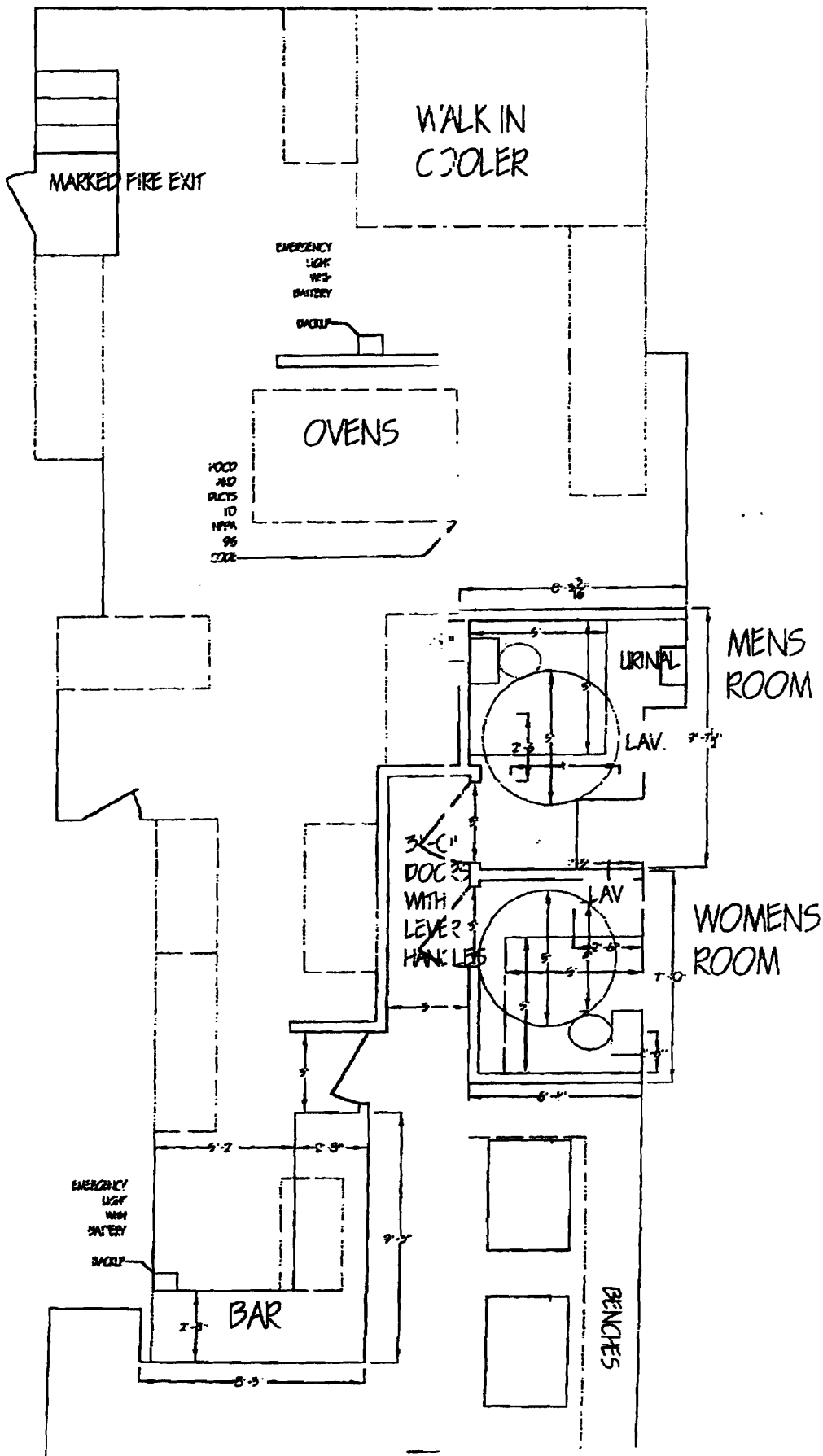
Please note that the exterior ducting will travel between the historical and the additional structure the ducting will be a minimum of 10' from any window and the make up air inlet will be located at the first floor elevation for maximum clearance.

Thank you H/D/F

- Restaurant Hoods • Boiler Breaching • HVAC Design • Curb Adapters and Unit Installations •
- Welded Ducting • Custom Welding Fabrication •







installed in frames or holders so as to be readily removable without the use of separate tools, unless designed and installed to be cleaned in place and the system is equipped for such cleaning in place. Removable filter units shall be of a size that will allow them to be cleaned in a dishwashing machine or pot sink. Filter units shall be arranged in place or provided with drip-intercepting devices to prevent grease or other condensate from dripping into food or on food preparation surfaces.

**507.11.2 Mounting position.** Filters shall be installed at an angle of not less than 45 degrees (0.79 rad) from the horizontal and shall be equipped with a drip tray beneath the lower edge of the filters.

**507.12 Canopy size and location.** The inside lower edge of canopy-type commercial cooking hoods shall overhang or extend a horizontal distance of not less than 6 inches (152 mm) beyond the edge of the cooking surface, on all open sides. The vertical distance between the front lower lip of the hood and the cooking surface shall not exceed 4 feet (1219 mm).

**Exception:** The hood shall be permitted to be flush with the outer edge of the cooking surface where the hood is closed to the appliance side by a noncombustible wall or panel.

**507.13 Capacity of hoods.** Commercial food service hoods shall exhaust a minimum net quantity of air determined in accordance with this section and Sections 507.13.1 through 507.13.4. The net quantity of exhaust air shall be calculated by subtracting any airflow supplied directly to a hood cavity from the total exhaust flow rate of a hood. Where any combination of extra-heavy-duty, heavy-duty, medium-duty, and light-duty cooking appliances are utilized under a single hood, the highest exhaust rate required by this section shall be used for the entire hood.

**507.13.1 Extra-heavy-duty cooking appliances.** The minimum net airflow for Type I hoods used for extra-heavy-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	550
Single island canopy	700
Double island canopy (per side)	550
Backshelf/pass-over	Not allowed
Eyebrow	Not allowed

For SI: 1 cfm per linear foot = 1.55 L/s per linear meter.

**507.13.2 Heavy-duty cooking appliances.** The minimum net airflow for Type I hoods used for heavy-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	400
Single island canopy	600
Double island canopy (per side)	400
Backshelf/pass-over	400
Eyebrow	Not allowed

For SI: 1 cfm per linear foot = 1.55 L/s per linear meter.

**507.13.3 Medium-duty cooking appliances.** The minimum net airflow for Type I hoods used for medium-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	300
Single island canopy	500
Double island canopy (per side)	300
Backshelf/pass-over	300
Eyebrow	250

For SI: 1 cfm per linear foot = 1.55 L/s per linear meter.

**507.13.4 Light-duty cooking appliances.** The minimum net airflow for Type I hoods used for light duty cooking appliances and food service preparation and cooking operations approved for use under a Type II hood shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	200
Single island canopy	400
Double island canopy (per side)	250
Backshelf/pass-over	250
Eyebrow	250

For SI: 1 cfm per linear foot = 1.55 L/s per linear meter.

**507.14 Noncanopy size and location.** Noncanopy-type hoods shall be located a maximum of 3 feet (914 mm) above the cooking surface. The edge of the hood shall be set back a maximum of 1 foot (305 mm) from the edge of the cooking surface.

**507.15 Exhaust outlets.** Exhaust outlets located within the hood shall be located so as to optimize the capture of particulate matter. Each outlet shall serve not more than a 12-foot (3658 mm) section of hood.

**507.16 Performance test.** A performance test shall be conducted upon completion and before final approval of the installation of a ventilation system serving commercial cooking appliances. The test shall verify the rate of exhaust airflow required by Section 507.13, makeup airflow required by Section 508, and proper operation as specified in this chapter. The permit holder shall furnish the necessary test equipment and devices required to perform the tests.

**507.16.1 Capture and containment test.** The permit holder shall verify capture and containment performance of the exhaust system. This field test shall be conducted with all appliances under the hood at operating temperatures. Capture and containment shall be verified visually by observing smoke or steam produced by actual or simulated cooking, such as with smoke candles, smoke puffers, etc.

## SECTION 508 COMMERCIAL KITCHEN MAKEUP AIR

**508.1 Makeup air.** Makeup air shall be supplied during the operation of commercial kitchen exhaust systems that are provided for commercial cooking appliances. The amount of



## SECTION 506 COMMERCIAL KITCHEN HOOD VENTILATION SYSTEM DUCTS AND EXHAUST EQUIPMENT

**506.1 General.** Commercial kitchen hood ventilation ducts and exhaust equipment shall comply with the requirements of this section. Commercial kitchen grease ducts shall be designed for the type of cooking appliance and hood served.

**506.2 Corrosion protection.** Ducts exposed to the outside atmosphere or subject to a corrosive environment shall be protected against corrosion in an approved manner.

**506.3 Ducts serving Type I hoods.** Type I exhaust ducts shall be independent of all other exhaust systems except as provided in Section 506.3.5. Commercial kitchen duct systems serving Type I hoods shall be designed, constructed and installed in accordance with Sections 506.3.1 through 506.3.12.3.

**506.3.1 Duct materials.** Ducts serving Type I hoods shall be constructed of materials in accordance with Sections 506.3.1.1 and 506.3.1.2.

**506.3.1.1 Grease duct materials.** Grease ducts serving Type I hoods shall be constructed of steel not less than 0.055 inch (1.4 mm) (No. 16 Gage) in thickness or stainless steel not less than 0.044 inch (1.1 mm) (No. 18 Gage) in thickness.

**Exception:** Listed and labeled factory-built commercial kitchen grease ducts shall be installed in accordance with Section 304.1.

**506.3.1.2 Makeup air ducts.** Makeup air ducts connecting to or within 18 inches (457 mm) of a Type I hood shall be constructed and installed in accordance with Sections 603.1, 603.3, 603.4, 603.9, 603.10 and 603.12. Duct insulation installed within 18 inches (457 mm) of a Type I hood shall be noncombustible or shall be listed for the application.

**506.3.2 Joints, seams and penetrations of grease ducts.** Joints, seams and penetrations of grease ducts shall be made with a continuous liquid-tight weld or braze made on the external surface of the duct system.

### Exceptions:

1. Penetrations shall not be required to be welded or brazed where sealed by devices that are listed for the application.
2. Internal welding or brazing shall not be prohibited provided that the joint is formed or ground smooth and is provided with ready access for inspection.
3. Listed and labeled factory-built commercial kitchen grease ducts installed in accordance with Section 304.1.

**506.3.2.1 Duct joint types.** Duct joints shall be butt joints or overlapping duct joints of either the telescoping or bell type. Overlapping joints shall be installed to prevent ledges and obstructions from collecting grease or interfering with gravity drainage to the intended collection point. The difference between the inside cross-sectional dimensions of overlapping sections of duct shall not exceed 0.25 inch (6 mm). The length of overlap for overlapping duct joints shall not exceed 2 inches (51 mm).

**506.3.2.2 Duct-to-hood joints.** Duct-to-hood joints shall be made with continuous internal or external liquid-tight welded or brazed joints. Such joints shall be smooth, accessible for inspection, and without grease traps.

**Exceptions:** This section shall not apply to:

1. A vertical duct-to-hood collar connection made in the top plane of the hood in accordance with all of the following:
  - 1.1. The hood duct opening shall have a 1-inch-deep (25 mm), full perimeter, welded flange turned down into the hood interior at an angle of 90 degrees from the plane of the opening.
  - 1.2. The duct shall have a 1-inch-deep (25 mm) flange made by a 1-inch by 1-inch (25 mm by 25 mm) angle iron welded to the full perimeter of the duct not less than 1 inch (25 mm) above the bottom end of the duct.
  - 1.3. A gasket rated for use at not less than 1,500°F (815°C) is installed between the duct flange and the top of the hood.
  - 1.4. The duct-to-hood joint shall be secured by stud bolts not less than 0.25 inch (6.4 mm) in diameter welded to the hood with a spacing not greater than 4 inches (102 mm) on center for the full perimeter of the opening. All bolts and nuts are to be secured with lockwashers.
2. Listed and labeled duct-to-hood collar connections installed in accordance with Section 304.1.

**506.3.2.3 Duct-to-exhaust fan connections.** Duct-to-exhaust fan connections shall be flanged and gasketed at the base of the fan for vertical discharge fans; shall be flanged, gasketed and bolted to the inlet of the fan for side-inlet utility fans; and shall be flanged, gasketed and bolted to the inlet and outlet of the fan for in-line fans.

**506.3.2.4 Vibration isolation.** A vibration isolation connector for connecting a duct to a fan shall consist of noncombustible packing in a metal sleeve joint of approved design or shall be a coated-fabric flexible duct connector listed and labeled for the application. Vibration isolation connectors shall be installed only at the connection of a duct to a fan inlet or outlet.

**506.3.3 Grease duct supports.** Grease duct bracing and supports shall be of noncombustible material securely attached to the structure and designed to carry gravity and seismic loads within the stress limitations of the *International Building Code*. Bolts, screws, rivets and other mechanical fasteners shall not penetrate duct walls.

**506.3.4 Air velocity.** Grease duct systems serving a Type I hood shall be designed and installed to provide an air velocity within the duct system of not less than 1,500 feet per minute (7.6 m/s).

**Exception:** The velocity limitations shall not apply within duct transitions utilized to connect ducts to differently

**506.3.11 Grease duct fire-resistive access opening.** Where cleanout openings are located in ducts within a fire-resistance-rated enclosure, access openings shall be provided in the enclosure at each cleanout point. Access openings shall be ~~equipped with tight-fitting sliding or hinged doors that are equal in fire-resistive protection to that of the shaft or enclosure.~~ An approved sign shall be placed on access opening panels with wording as follows: "ACCESS PANEL. DO NOT OBSTRUCT."

**506.3.12 Exhaust outlets serving Type I hoods.** Exhaust outlets for grease ducts serving Type I hoods shall conform to the requirements of Sections 506.3.12.1 through 506.3.12.3.

**506.3.12.1 Termination above the roof.** Exhaust outlets that terminate above the roof shall have the discharge opening located not less than 40 inches (1016 mm) above the roof surface.

**506.3.12.2 Termination through an exterior wall.** Exhaust outlets shall be permitted to terminate through exterior walls where the smoke, grease, gases, vapors, and odors in the discharge from such terminations do not create a public nuisance or a fire hazard. Such terminations shall not be located where protected openings are required by the International Building Code. Other exterior openings shall not be located within 3 feet (914 mm) of such terminations.

**506.3.12.3 Termination location.** Exhaust outlets shall be located not less than 10 feet (3048 mm) horizontally from parts of the same or contiguous buildings, adjacent property lines and air intake openings into any building and shall be located not less than 10 feet (3048 mm) above the adjoining grade level.

**Exception:** Exhaust outlets shall terminate not less than 5 feet (1524 mm) from an adjacent building, adjacent property line and air intake openings into a building where air from the exhaust outlet discharges away from such locations.

**506.4 Ducts serving Type II hoods.** Single or combined Type II exhaust systems for food-processing operations shall be independent of all other exhaust systems. Commercial kitchen exhaust systems serving Type II hoods shall comply with Sections 506.4.1 and 506.4.2.

**506.4.1 Type II exhaust outlets.** Exhaust outlets for ducts serving Type II hoods shall comply with Sections 401.5 and 401.5.2. Such outlets shall be protected against local weather conditions and shall meet the provisions for exterior wall opening protectives in accordance with the International Building Code.

**506.4.2 Ducts.** Ducts and plenums serving Type II hoods shall be constructed of rigid metallic materials. Duct construction, installation, bracing and supports shall comply with Chapter 6. Ducts subject to positive pressure and ducts conveying moisture-laden or waste-heat-laden air shall be constructed, joined and sealed in an approved manner.

**506.5 Exhaust equipment.** Exhaust equipment, including fans and grease reservoirs, shall comply with Section 506.5.1

through 506.5.5 and shall be of an approved design or shall be listed for the application.

**506.5.1 Exhaust fans.** Exhaust fan housings serving a Type I hood shall be constructed as required for grease ducts in accordance with Section 506.3.1.1.

**Exception:** Fans listed and labeled in accordance with UL 762.

**506.5.1.1 Fan motor.** Exhaust fan motors shall be located outside of the exhaust airstream.

**506.5.2 Exhaust fan discharge.** Exhaust fans shall be positioned so that the discharge will not impinge on the roof, other equipment or appliances or parts of the structure. A vertical discharge fan shall be manufactured with an approved drain outlet at the lowest point of the housing to permit drainage of grease to an approved grease reservoir.

**506.5.3 Exhaust fan mounting.** An upblast fan shall be hinged and supplied with a flexible weatherproof electrical cable to permit inspection and cleaning. The ductwork shall extend a minimum of 18 inches (457 mm) above the roof surface.

**506.5.4 Clearances.** Exhaust equipment serving a Type I hood shall have a clearance to combustible construction of not less than 18 inches (457 mm).

**Exception:** Factory-built exhaust equipment installed in accordance with Section 304.1 and listed for a lesser clearance.

**506.5.5 Termination location.** The outlet of exhaust equipment serving Type I hoods, shall be in accordance with Section 506.3.12.3

**Exception:** The minimum horizontal distance between vertical discharge fans and parapet-type building structures shall be 2 feet (610 mm) provided that such structures are not higher than the top of the fan discharge opening.

## SECTION 507 COMMERCIAL KITCHEN HOODS

**507.1 General.** Commercial kitchen exhaust hoods shall comply with the requirements of this section. Hoods shall be Type I or Type II and shall be designed to capture and confine cooking vapors and residues.

### Exceptions:

1. Factory-built commercial exhaust hoods which are tested in accordance with UL 710, listed, labeled and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.4, 507.7, 507.11, 507.12, 507.13, 507.14 and 507.15.
2. Factory-built commercial cooking recirculating systems which are tested in accordance with UL 197, listed, labeled and installed in accordance with Section 304.1 shall not be required to comply with Sections 507.4, 507.5, 507.7, 507.12, 507.13, 507.14 and 507.15.
3. Net exhaust volumes for hoods shall be permitted to be reduced during no-load cooking conditions, where

**HOOD INFORMATION**

HOOD NO.	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM					SUPPLY PLENUM					HOOD CONSTRUCTION	HOOD CONFIG.				
				TOTAL EXH. CFM	RISER(S)				TOTAL SUP. CFM	RISER(S)					END TO END	ROW			
					WIDTH	LENG.	DIA.	CFM	S.P.		WIDTH	LENG.	DIA.	CFM	S.P.				
1	7224 ND-PSP-F	10' 0.00"Nom. 10' 0.50"DB	450 Deg.	2500	10'	12'		1250	-0.399"	2125							430 SS Where Exposed	ALDNE	N/A

**HOOD INFORMATION**

HOOD NO.	FILTER(S)			LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD WEIGHT			
	TYPE	QTY	HEIGHT	LENGTH	QTY	TYPE	WIRE GUARD	LOCATION	TYPE	FIRE SYSTEM SIZE			ELECTRICAL MODEL #	SWITCHES QUANTITY	LOCATION
1	Alum. Baffle w/ Handles	6	16"	20"	3	Incandescent Light	NO							NO	501 LBS.

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO.	POS.	LENGTH	WIDTH	HEIGHT	RISER(S)				
					WIDTH	LENG.	DIA.	CFM	S.P.
1	Front	120"	16"	6"	10'	28"		1062	0.148"
					10'	28"		1062	0.148"

**HOOD OPTIONS**

HOOD NO.	OPTION
1	BACK STANDOFF 3' Wide

**CUSTOMER APPROVAL TO MANUFACTURE:**

- Approved as Noted
- Approved with NO Exception Taken
- Revise and Resubmit

SIGNATURE \_\_\_\_\_  
 Your Title \_\_\_\_\_ Date \_\_\_\_\_



JOB Portland Ple	
LOCATION	
DATE 3/14/2007	JOB # 570801
DWG # PortlandPle	DRAWN BY BFC
REV. 1.00	SCALE 8.5' x 11'


**ETL LISTING DESCRIPTION**  
**THE CAPTIVE AIRE MODEL**  
**ND-2 HAS BEEN E.T.L.**  
**TESTED, LISTED, AND**  
**APPROVED TO EXHAUST**  
**A MINIMUM OF 200 CFM PER**  
**LINEAR FOOT**  
**OVER 600 DEGREE COOKING**  
**EQUIPMENT**

**THE HOOD MAY BE INSTALLED WITH A 0 INCH CLEARANCE**  
**TO COMBUSTIBLE MATERIALS IF CONSTRUCTED IN ONE OF**  
**THE FOLLOWING METHODS:**

- 3" INSULATED SIDING
- 1" INSULATED SIDING
- 1" INSULATED SIDING
- BACK RETURN SUPPLY FLESH

**TABLE 1**

**CAPTIVE-AIRE HOODS ARE**  
**BUILT IN COMPLIANCE WITH**



**NFPA #96**  
**NSF**  
**UL 710 & ULC710 STANDARDS**  
**E.T.L. LISTED 3054804-001**

1. ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
2. ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
3. ALL ASSOCIATED HARDER MATERIALS BY INSTALLING CONTRACTORS.
4. 8" LEAD PIPING LOCATED AND WELDED HARDER SPACERS AS SHOWN ON PLANS.
5. ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER THE PLANS BY MECHANICAL CONTRACTORS.
6. ALL LIGHTS SHOWN INSTALLED BY CAPTIVE-AIRE, ARE FACTORY PROVIDED PER THE PLANS. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTOR.
7. LIGHTS FOR LEAD FIXTURES BY INSTALLING CONTRACTORS.
8. SEISED FIXTURES ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
9. INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF MECHANICAL AND ELECTRICAL ON THESE DOCUMENTS FOR ACCORDING TO SPECIFICATIONS AND REQUIREMENTS OF CODE REGULATIONS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SERIAL.
10. SERIAL AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE PROVIDED BY THE FACTORY PRIOR TO COMMENCEMENT OF INSTALLATION.
11. HOODS HOOD DIMENSIONS AS SHOWN ON DRAWINGS.

**GENERAL NOTES**

EXHAUST CFM=LENGTH OF HOOD X CFM/INCH. (LONG)  
 SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED

$$\text{TOTAL DUCT AREA} = 144 \times \frac{\text{CFM}}{\text{FPM}^2}$$

$$\text{DUCT LENGTH} = \frac{\text{TOTAL DUCT AREA}}{\text{DUCT DEPTH}}$$

\*CAPTIVE-AIRE VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1000 FPM AND A SUPPLY VELOCITY OF 1000 FPM. PLEASE CONSULT FACTORY FOR MAXIMUM ALLOWABLE DUCT SIZES

**CALCULATIONS UTILIZED**

**CUSTOMER APPROVAL TO MANUFACTURE:**

Approved as Noted

Approved with NO Exception Taken

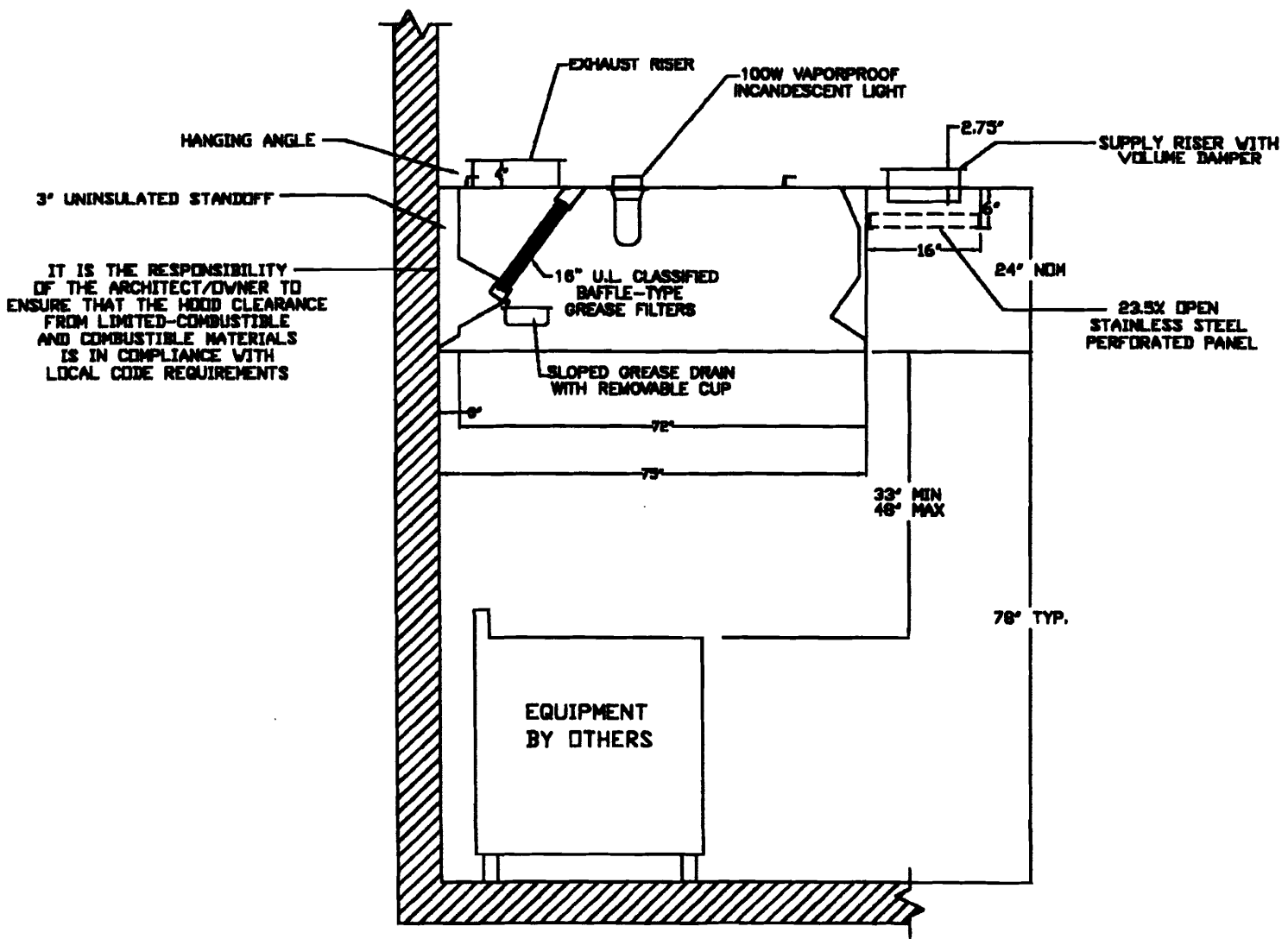
Revise and Resubmit

SIGNATURE \_\_\_\_\_

Your Title \_\_\_\_\_ Date \_\_\_\_\_



<b>JOB</b> Portland Ple	
<b>LOCATION</b>	
<b>DATE</b> 3/14/2007	<b>JOB #</b> 570801
<b>DWG #</b> PortlandPle	<b>DRAWN BY</b> BFC
<b>REV.</b> 1.00	<b>SCALE</b> 8.5' x 11'



IT IS THE RESPONSIBILITY OF THE ARCHITECT/DOWNER TO ENSURE THAT THE HOOD CLEARANCE FROM LIMITED-COMBUSTIBLE AND COMBUSTIBLE MATERIALS IS IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS

SECTION VIEW - MODEL 7224-ND with PSP Accessory

**CUSTOMER APPROVAL TO MANUFACTURE:**

Approved as Noted

Approved with NO Exception Taken

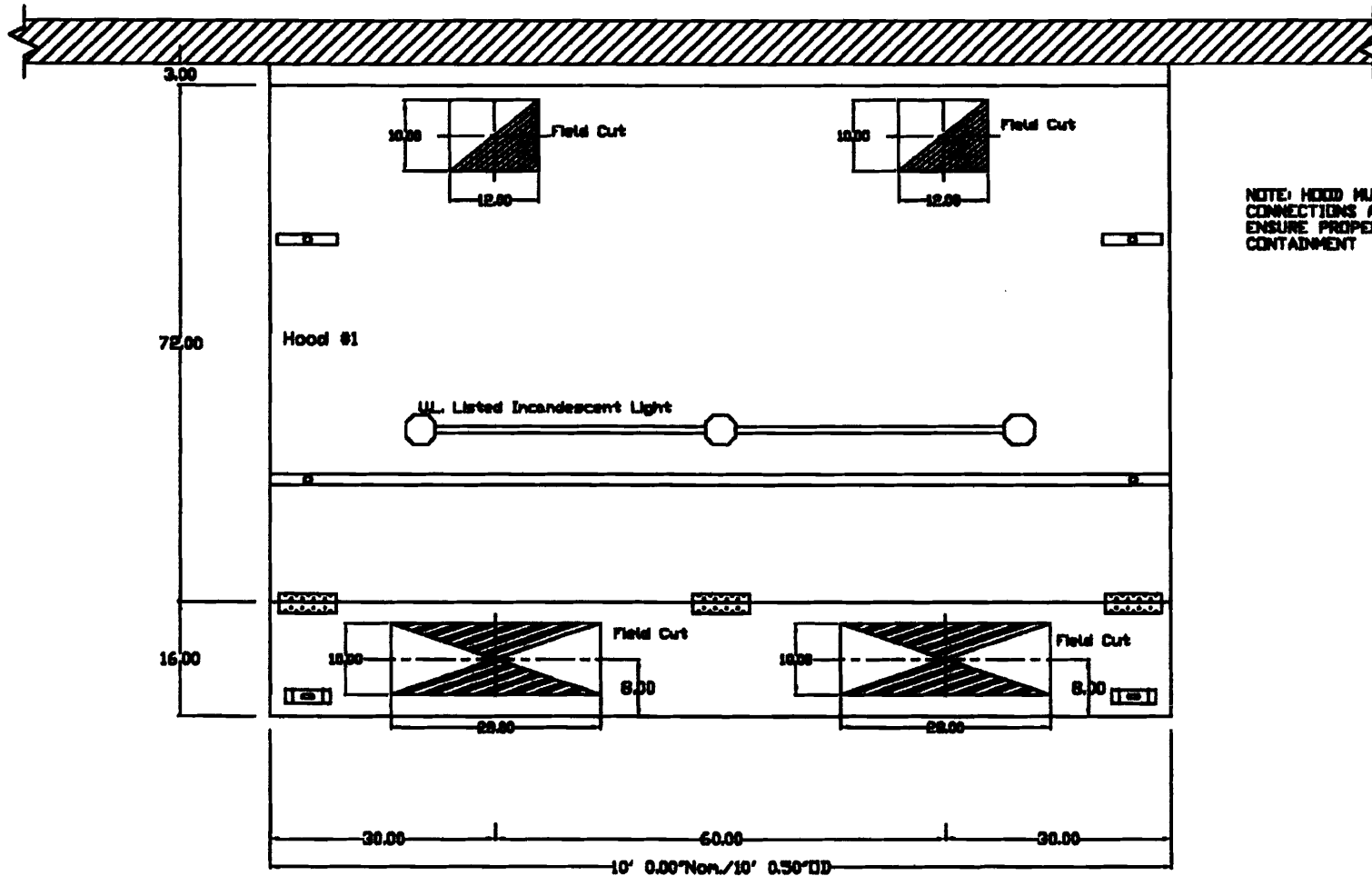
Revise and Resubmit

SIGNATURE \_\_\_\_\_

Your Title \_\_\_\_\_ Date \_\_\_\_\_



JOB Portland Ple	
LOCATION	
DATE 3/14/2007	JOB # 570801
DWG / PortlandPle	DRAWN BY BFC
REV. 1.00	SCALE 8.5' x 11'



NOTE: HOOD MUST HAVE (2) EXHAUST DUCT CONNECTIONS AS SHOWN IN DRAWING TO ENSURE PROPER CAPTURE AND CONTAINMENT

PLAN VIEW - 10' 0.00' LONG 7224ND-PSP-F

**CUSTOMER APPROVAL TO MANUFACTURE:**

- Approved as Noted
- Approved with NEI Exception Taken
- Revised and Resubmit

APPROVED BY: \_\_\_\_\_  
 TITLE: \_\_\_\_\_  
 DATE: \_\_\_\_\_



<b>JOB</b> Portland Pie	
<b>LOCATION</b>	
<b>DATE</b> 3/14/2007	<b>JOB #</b> 570801
<b>DWG #</b> PortlandPie	<b>DRAWN BY</b> BFC
<b>REV.</b> 1.00	<b>SCALE</b> 8.5' x 11'

**FAN INFORMATION**

FAN UNIT NO.	FAN UNIT MODEL #	EXHAUST FAN									SUPPLY FAN									
		MODEL	TAG	CFM	S.P.	RPM	H.P.	Ø	VOLT	FLA	BLOWER	HOUSING	TAG	CFM	S.P.	RPM	H.P.	Ø	VOLT	FLA
1	INLINE.1L-G10										G10	INLINE.1L		2125	0.350"	918	1.000	1	230	6.8
2	NCA18HPFA	NCA18HPFA		2500	2.250"	1332	2.000	1	230	12.5										

**FAN OPTIONS**

FAN NO.	OPTION (Qty. - Descr.)
1	1 - Vibration Isolation Ceiling Hangers for INLINE fans (set of
2	1 - Grease Box
	1 - Hinge Kit - Ships Loose for Curb Supplied by Others

**FAN ACCESSORIES**

FAN UNIT NO.	FAN UNIT TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1					YES			
2		YES						

**CUSTOMER APPROVAL TO MANUFACTURE:**

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

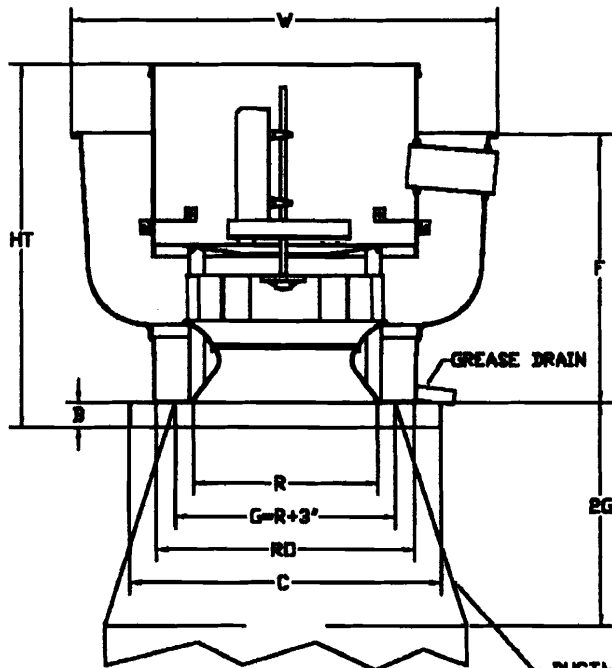
SIGNATURE \_\_\_\_\_

Your Title \_\_\_\_\_ Date \_\_\_\_\_



<b>JOB</b> Portland Pie	
<b>LOCATION</b>	
<b>DATE</b> 3/14/2007	<b>JOB #</b> 570801
<b>DWG #</b> PortlandPie	<b>DRAWN BY</b> BFC
<b>REV.</b> 1.00	<b>SCALE</b> 8.5' x 11'

**NCAHPFA SERIES UPBLAST EXHAUST FANS (UL762)**



**FEATURES:**

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL762
- ANCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

**NORMAL TEMPERATURE TEST**  
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

**ABNORMAL FLARE-UP TEST**  
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

**OPTIONS:**

- GREASE BOX
- HINGED FAN

NCAHPFA BELT DRIVE  
 CENTRIFUGAL UP-BLAST EXHAUST FANS DIMENSIONAL DATA

DUCTWORK BETWEEN  
 EXHAUST RISER ON HOOD  
 AND FAN (BY OTHERS)

FAN MODEL	HT	V	B	C	F	R	RD	WEIGHT LB
NCA18HPFA	33 3/8	38 7/8	2	28	29 1/2	18	24	195

09:36 AM

03/15/2007

**CUSTOMER APPROVAL TO MANUFACTURE:**

- Approved as Noted
- Approved with NO Exception Taken
- Revise and Resubmit

SIGNATURE \_\_\_\_\_  
 Your Title \_\_\_\_\_ Date \_\_\_\_\_

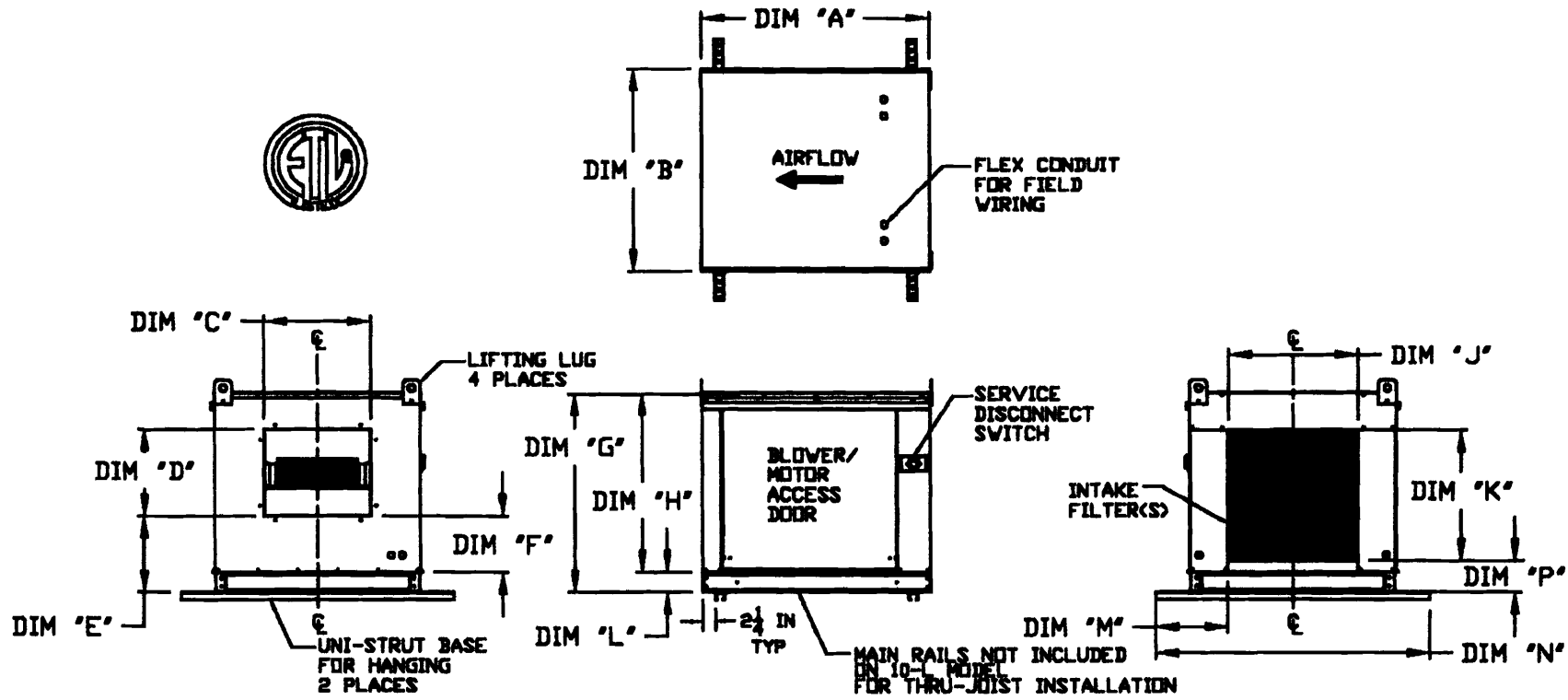


JOB		Portland Pie	
LOCATION			
DATE	3/14/2007	JOB #	570
DWG #	PortlandPie	DRAWN BY	BFC
REV.	1.00	SCALE	8.5' x



INLINE FILTERED SUPPLY FAN

BLR  
REV 02/08/2004



UNIT INFORMATION				UNIT DIMENSIONS															
BLOWER	FILTER SIZE	BLOWER SIZE	WEIGHT (lbs)	A	B	C	D	E	F	G	H	J	K	L	M	N	P		
10-L	(1) 16" N x 20" N	10 IN	195	32 1/8	27 3/8	13 1/4	11 1/2	N/A	8 1/8	N/A	22 1/16	16	18	N/A	5 1/16	35	2 1/8		
10	(1) 16" N x 20" N	10 IN	220	32 1/8	27 3/8	13 1/4	11 1/2	11 13/16	8 1/8	29 3/4	26 1/16	16	18	3 3/4	5 1/16	48	5 3/4		
12	(1) 20" N x 25" N	12 IN	320	40 1/8	37 3/8	15 3/4	13 9/16	13 1/16	9 3/8	36 3/4	33 1/16	22 3/4	24	3 3/4	6 1/16	48	5 3/4		
15	(1) 20" N x 25" N	15 IN	375	40 1/8	37 3/8	18 3/4	16	14	10 5/16	36 3/4	33 1/16	22 3/4	24	3 3/4	6 1/16	48	5 3/4		
18	(2) 20" N x 25" N	18 IN	470	45 1/8	41 3/8	22	19	17 15/16	12 5/8	43 3/8	38 1/16	30	30	5 1/4	5 1/16	60	7 1/2		

- NOTES:  
 1) ALL DIMENSIONS ARE NOMINAL AND GIVEN IN INCHES.  
 2) ACCESS DOORS LOCATED ON BOTH SIDES OF UNIT.  
 3) INSULATED CONSTRUCTION.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE \_\_\_\_\_

Your Title \_\_\_\_\_ Date \_\_\_\_\_



JOB	Portland Ple		
LOCATION			
DATE	3/14/2007	JOB #	570801
DWG #	PortlandPle	DRAWN BY	BFC
REV.	1.00	SCALE	8.5' x 11'

---

**Hood #1 (ETL LISTED, NFPA, NSF)**

7224ND-PSP-F - 10ft 0" Long Compensating Wall Canopy Hood with a Front

10' x 72"

Perforated Supply Plenum (PSP) Accessory.

- 430 SS Where Exposed
- Insulation for the PSP Housing - Front
- FILTER - 16"x 20" Kleen-Gard Aluminum Baffle Filter with Handles, UL Classified
- Incandescent Light
- FIELD CUT, SHIP LOOSE - SUPPLY RISER - 10"x 28" Supply Riser with Volume Dampers
- 1/2 Pint Grease Cup New Style, Flanged Slotted

**Fan #1 INLINE1L-G10 - Supply Fan**

INLINE1L-G10 Low Profile InLine Supply Unit w/ 10" Blower in Size #1 Housing

Supply Fan handles 2125 CFM @ 0.350" wc. Fan runs at 918 RPM.  
Supply Motor: 1.000 HP, 1 Phase 230 V, 6.8 FLA, ODP (Open Drip Proof)  
Side Discharge - Air Flow Right -> Left

- Vibration Isolation Ceiling Hangers for Indoor Un-tempered Supply Fans (set of 4).

**Fan #2 NCA18HPFA - Exhaust Fan (UL762 RATED)**

NCA18HPFA High Pressure Belt Drive Centrifugal Upblast Exhaust Fan with 20.75" wheel

Exhaust Fan handles 2500 CFM @ -2.250" wc. Fan runs at 1332 RPM.  
Exhaust Motor: 2.000 HP, 1 Phase 230 V, 12.5 FLA, ODP (Open Drip Proof)

- GREASE CUP - Grease Cup for kitchen-duty centrifugal exhaust fans, Box Dimensions 15-3/4 L X 5-1/16 W X 3-3/4 H (18 GA.)
- HINGE KIT - Standard Hinge kit for exhaust fan roof curbs. Includes Hardware. Ships Loose. Used on Fans with wheels 24 inches or smaller. 12 GA Galvanized.



CITY OF PORTLAND, MAINE  
Department of Building Inspection

# Certificate of Occupancy

LOCATION 505 Fore St

CBL 038 C016001

Issued to Nathaniel Getchell/self

Date of Issue 12/14/2004

This is to certify that the building, premises, or part thereof, at the above location, built — altered — changed as to use under Building Permit No. 04-1555, has had final inspection, has been found to conform substantially to requirements of Zoning Ordinance and Building Code of the City, and is hereby approved for occupancy or use, limited or otherwise, as indicated below.

PORTION OF BUILDING OR PREMISES

first floor left

APPROVED OCCUPANCY

restaurant  
use group: A2  
type: 3B  
IBC 2003

Limiting Conditions:

none

This certificate supersedes  
certificate issued

Approved:

12/14/04

(Date)

*N. Getchell*  
Inspector

*[Signature]*  
Inspector of Buildings

Notice: This certificate identifies lawful use of building or premises, and ought to be transferred from owner to owner when property changes hands. Copy will be furnished to owner or lessee for one dollar.

*MACE*  
*12-17-04*