Form # P04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

B... INSPECTION

PERMIT

Application And Notes, If Any, Attached·

Permit Number: B4M37

PERMIT ISSUED
NOV 22 2004
CITY OF PORTLAND

This is to certify that Mardigan Stephen E/Paul La...e

has permission to Quiznos Sub Shop - Tenant E...p/ Renc...ions

AT 726 Forest Ave ...L 130 H021001

provided that the person or persons, ...m or ...poration ...epting this permit shall comply with all of the provisions of the Statutes of M...ne and of th... ...nances of the City of Portland regulating the construction, maintenance and ... of buildings and st... ...tures, 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.

N...ication ... inspec...n must ... gi... and wr...n permis...n procu... b...e this b...ding or ...t thereo... la...d or c... ...closed-in. H... R 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

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

PERMIT ISSUED

City of Portland, Maine - Building or Use Permit Application

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

Permit No:	Issue Date:	CBL:
04-1635	NOV 2 2 2004	130 H021001

CITY OF PORTLAND

Location of Construction:	Owner Name:	Owner Address:	Phone:
726 Forest Ave	Mardigan Stephen E	460 Baxter Blvd	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Paul Lapete	781 Third Ave Berlin	6037232889
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	**Zone:**
		Alterations - Commercial	B2

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	CEO District:
Commercial / CJ Thirsty Bar & Grille	Quiznos Sub Shop - Tenant Fit-up/ renovations	$213.00	$13,000.00	4

Quiznos Sub Shop - Tenant Fit-up/ Renovations

FIRE DEPT: ☑ Approved ☐ Denied

Signature:

INSPECTION:

Use Group: A-2 Type: 3B

11/22/04

Signature:

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: ☐ Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
ldobson	11/01/2004

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
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..

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
☐ Shoreland	☐ Variance	☐ Not in District or Landmar
☐ Wetland	☐ Miscellaneous	☐ Does Not Require Review
☐ Flood Zone	☐ Conditional Use	☐ Requires Review
☐ Subdivision	☐ Interpretation	☐ Approved
☐ Site Plan	☐ Approved	☐ Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	☐ Denied	☐ Denied
Date: OK with conditions 11/3/04	Date:	Date:

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

City of Portland, Maine - Building or Use Permit

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

Permit No:	Date Applied For:	CBL:
04-1635	11/01/2004	130 H021001

Location of Construction:	Owner Name:	Owner Address:	Phone:
726 Forest Ave	Mardigan Stephen E	460 Baxter Blvd	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone**
	Paul Lapete	781 Third Ave Berlin	(603) 723-2889
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		Alterations - Commercial	

Proposed Use:	Proposed Project Description:
Quiznos Sub Shop - Tenant Fit-up/ renovations	Quiznos Sub Shop - Tenant Fit-up/ Renovations

Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Marge Schmuckal **Approval Date:** 11/03/2004

Note: 10/13/04 - the fence is up per the court order and requirement of the parking section of the ordinance. **Ok to Issue:** ☐

1) Separate permits shall be required for any new signage.

2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 11/03/2004

Note: **Ok to Issue:** ☐

1) This permit DOES NOT include the Kitchen Exhaust hood and duct work..Separate plans must be submitted and approved prior to that installation.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Lt. MacDougal **Approval Date:** 11/03/2004

Note: **Ok to Issue:** ☐

1) means of egress shall have illuminated exit signs

Comments:

11/03/2004-mjn: Need space specific plans. Engineering for HVAC **and** Exhaust loads etc...

PERMIT ISSUED
NOV 22 2004
CITY OF PORTLAND

NOV - 1

All Purpose 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: 726 FOREST AVE. PORTLAND ME.		
Total Square Footage of Proposed Structure: 1633 (1 UNIT OF EXISTING STRUCT)	Square Footage of Lot: 1180 + 990 = 12,796	
Tax Assessor's Chart, Block & Lot — Chart# 130 Block# H Lot# 21+27	Owner: STEPHEN E MARDIGAN 726 FOREST AVE PORTLAND ME 04103	Telephone: 207-772-5555
Lessee/Buyer's Name (If Applicable): QUIZINE 51 US RT 1 NONESUCH PLAZA, SUITE 1 SCARBOROUGH ME 0476	Applicant name, address & telephone: PAUL H LAPETE 731 THIRD AVE BERLIN NH 03570 603-723-2889	cost Of Work: $ 13,000.00 Fee: $ 138.00

GRILLE

1

[redacted]

PAUL LAPETE

Mailing address: PAUL H LAPETE
731 THIRD AVE
BERLIN NH 03570

We will contact you by phone when the permit is ready, *You* must come in and pick up the permit and review the requirements before starting any work, with a Pian Reviewer. A stop work order will be issued and a $100.00 fee if any work starts before the permit Is picked up. PHONE: 1-603-723-2889

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APROVE THIS PERMIT.

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: Paul H Lapete Date: 9/25/04

This is NOT a permit, you may not commence ANY work until the permit is issued.
If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

130 H 21 a7

NOV -

September 30,2004

To Whom:

I am being contracted to install a Quiznos Sub Shop in the first floor Forest Ave. side of the two story building at 726 Forest Ave. I intend to use the existing windows, entry, furnace, A/C unit and Parking area. The interior will be framed to accommodate an approximately 1500 sq. ft. sub shop with 2 ADA bathrooms, a food storage area, walk in cooler and walk in freezer. The front line consists of 3 warmers, 2 reach in coolers, a microwave and a toaster oven. There are no grease laden vapors produced from this facility. The dining area consists of approximately 700 sq. A. which provides seating for 36 people.

In addition to the existing HVAC unit, I will install a A/C condenser unit in the ceiling with a compressor mounted on the exterior west end of the building. I will install a hood vent over the toaster with a 400 cfm in-line fan and 10" x 10: liquid tight duct work to exit the building on the North side where the previous exhaust fan was located. The walk in coolers and walk in freezers will have self contained condenser and compressor mounted to the top.

The interior of the dinning and front line will have vct tile floors, fabric back wall covering and suspended ceiling . The baths and storage areas will have vct tile, painted walls and suspended ceilings.

I have built other Quiznos Sub Shops in the Maine and New Hampshire area and they are a quality restaurant with a great product that the community always enjoys.

I thank you for your time and look forward to hearing from you at your convenience.

Sincerely yours,

Paul LaPete
603-723-2889

From: Marge Schmuckal
To: Gary Wood; Lee Urban
Date: Fri, Oct 8,2004 2:51 PM
Subject: 726 Forest Ave - old CJ's

Gary and Lee,
Just a follow-up on the fence issue. Yes a 4' chain link fence has been erected along the Nashes property. I measured it in several locations and the least amount was just over four feet.

Section 14-339 of the ordinance reads: "Where such off street parking shall abut a lont in a residence zone or a lot in residential use, a chain link, pickt or sapling fence, not less than forty-eight (48) inches in height, shall be provided and maintained between such off-street parking and that part of the lont line involved."

Mr. Mardigan did not finish the required fencing. He concentrated so much on the Nashes that he did not remember that a smaller portion of the rear of the property, where he has striped parking spaces, is also not fenced as required. I have already called him and left that message.

I am not releasing a building permit until that other fence has been erected and the ordinance has been met. I am not aware that there is a lot line dispute in that area. So this should be an easy task.

Marge

CC: Mike Nugent

10/13/04 All Fences All up

ning Division
Marge Schmuckal
Zoning Administrator

Department of Urban Development
Joseph E. Gray, Jr.
Director

CITY OF PORTLAND

LAND USE - ZONING REPORT

ADDRESS: 726 Forest Avenue - B-2 Zone - 130-H-021 September 21, 1999

REASON FOR PERMIT: To change the use fiom office to restaurant & lounge (other interior alterations previously issued.

PERMIT APPLICANT: Joseph R. Saucier

Your permit is being issued with conditions. If the following conditions are not or can not be completed within 60 days fiom the date of issuance, this permit shall be voided.

1. The parking spaces indicated along Concord Street (labeled K thru Q) shall either provide a continuous rectangular curb (wheel) guard at least 6 inches in height and permanently anchored and setback at least 5 feet fiom the sidewalk (street) line so that the end of a vehicle does not overhang into the sidewalk; or shall provide a continuous bumper guard of adequate strength, the top of which shall be at least 20" in height, again so that vehicles shall not project beyond its face into the sidewalk area.

2. Where your off street **parking** abuts a lot with a residential use, you shall provide and maintain a chain link, picket, or sapling fence, not less than 48 inches (four feet) in height between your parking and that part of the lot line involved.

3. The normal parking space size is **9' x** 19'. The marking of your spaces shall be altered to reflect the appropriate length requirements. 35% of provided spaces may be considered a compact size or 7.5' **x** 15' **if** denoted on site **as** such. You also must provide appropriate maneuvering room between spaces to allow proper entry and exiting. Space "J" may need to be eliminated based on these requirements.

4. Please note that all other licensing regulations under the City Clerk's office must be maintained.

5. **All** the external effects requirements of the **B-2** zone shall be met and maintained. This includes noise levels. The volume of sound, measured by a sound level meter with frequency weighting network, generated shall not exceed ***sixty*** (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. **,** and fifty-five (55) decibels on the A scale between 9:00 p.m. and **7:00** a.m., on impulse (less than one **(1)** second), at lot boundaries, excepting air raid sirens and similar warning devices.

Marge Schmuckal, Zoning Administrator

cc: *Gary* Wood, Corporation Counsel

Sec. 14-339. When located adjacent to a street or a residential use.

Where off-street parking for more than six (6) vehicles is required or provided on a lot in any business zone, the following requirements shall be met:

(1) Where vehicles are to be or may be parked within ten (10) feet of any street line, a continuous curb guard, rectangular in cross-section, at least six (6) inches in height

and permanently anchored, shall be provided and maintained at least five (5) feet from the street line between such off-street parking and that part of the street line involved; or a continuous bumper guard of adequate strength, the top of which shall be at least twenty (20) inches in height, shall be provided and maintained between such off-street parking and that part of the street line involved so that bumpers of vehicles cannot project beyond its face toward the street line involved either above or below the impact surface.

(2) Where such off-street parking shall abut a lot in a residence zone or a lot in residential use, a chain link, picket or sapling fence, not less than forty-eight (48) inches in height, shall be provided and maintained between such off-street parking and that part of the lot line involved.

(Code 1968, § 602.14.1)

Sec. 14-340. Construction requirements when more than six vehicles parked.

Where off-street parking for more than six (6) vehicles is required or provided, the following construction requirements shall apply:

(1) Appropriate driveways from streets or alleys, as well as maneuvering areas, shall be provided. Location and width of approaches over public sidewalks shall be approved by the traffic engineer.

(2) The surface of driveways, maneuvering areas and parking areas shall be uniformly graded with a subgrade consisting of gravel or equivalent materials at least six (6) inches in depth, well compacted, and with a wearing surface equivalent in quantities of compaction and durability to fine gravel.

(3) A system of surface drainage shall be provided in such a way that the waste run-off shall not run over or across any public sidewalk or street,

(4) Where artificial lighting is provided, it shall be shaded or screened so that no light source shall be visible from outside the area and its access driveways.

(Code 1968, § 602.14.J; Ord. No. 96-88, § 1, 7-19-88)

Editor's note—Ord. No. 96-88, § 1, adopted July 19, 1988, amended subsection (1) of this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 96-88.

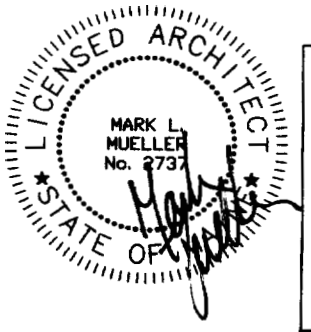
Sec. 14-341. Aisles required for six or more spaces.

In parking facilities containing six (6) or more parking spaces, there shall be provided vehicular access by one (1) or more aisles. Aisle widths shall be in conformance with the standards set forth in the City of Portland Technical and Design Standards and Guidelines, as hereafter amended.

(Code 1968, § 602.14.A; Ord. No. 272-77, 5-16-77; Ord. No. 389-89, § 2, 4-3-89)

Sec. 14-342. Reserved.

Editor's note—Section 1 of Ord. No. 354-85, adopted Jan. 7, 1985, repealed § 14-342, relative to a reduction of requirements by the board of appeals, which derived from Code 1965, § 602.14.K.



FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"

NOTE:
ALL DRAWING & NOTES OF THIS ADDENDA TO SUPERSEDE PLANS PREPARED BY QUIZNOS SUB, DENVER COLORADO. REPORT ALL DISCREPANCIES TO THE ARCHITECT PRIOR TO WORK.

ALL WORK SHALL CONFORM TO I.B.C. 2003, LIFE SAFETY 101 2003 EDITION, N.E.C., MAINE STATE PLUMBING CODE AND ASHRAE AND THE AMERICAN WITH DISABILITIES ACT.

THE BUILDING IS NOT SPRINKLERED

SEE ENCLOSED CUT SHEETS FOR PERTINET INFORMATION FOR THE TYPE 2 WARMING EXHAUST SYSTEM. THIS SYSTEM DOES NOT MEET THE REQUIREMENTS FOR NFPA 96. FUTURE UPGRADES TO TYPE I APPLICATIONS WILL MANDATE A SYSTEM UPGRADE.

130 H 21

NOV 1 9

MARK MUELLER ARCHITECTS
A.I.A.
100 Commercial Street
Suite 205
Portland Maine 04101
Phone/Fax 207 774 9057
Email MMArch@gwi net

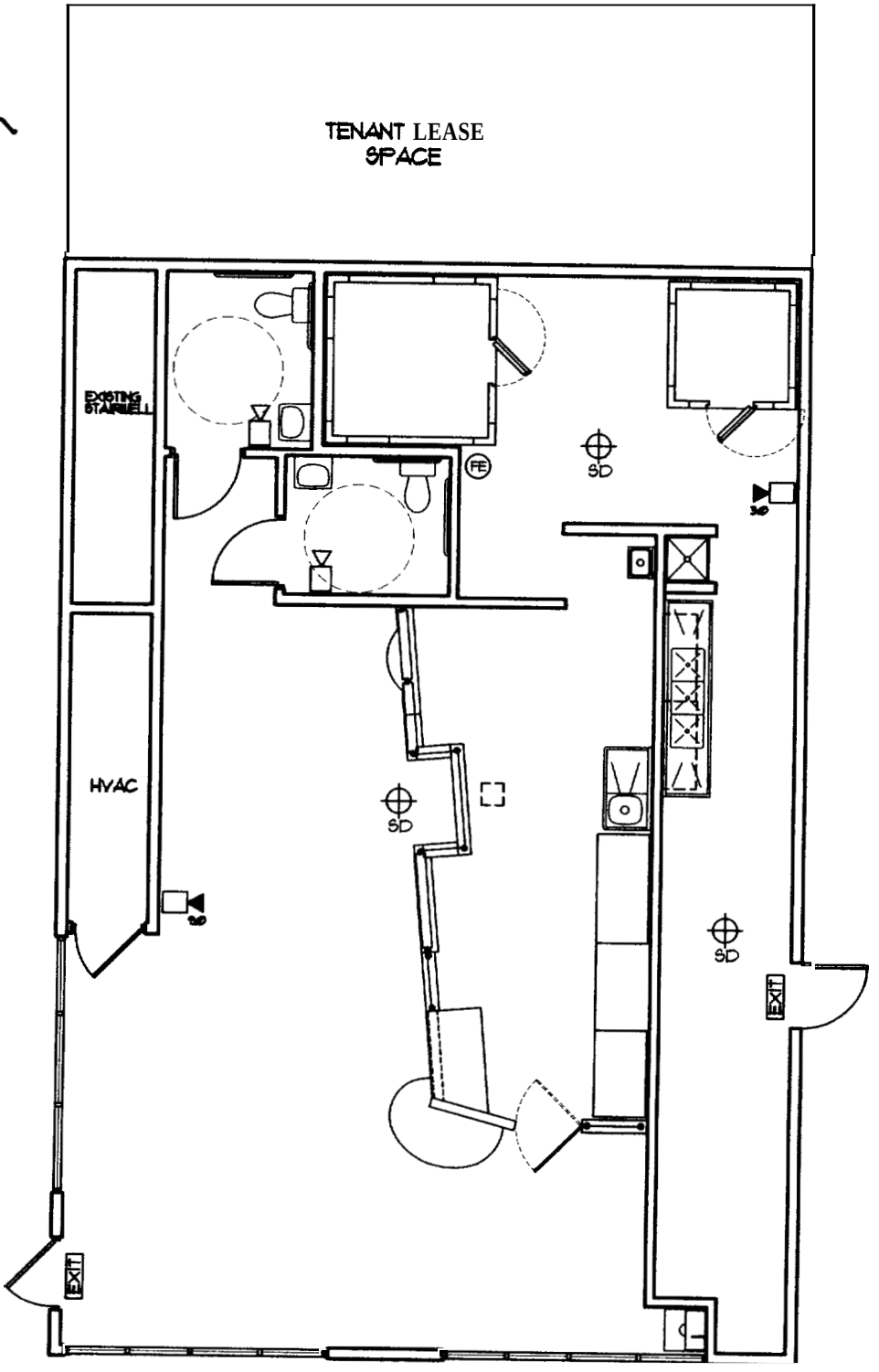
QUIZNOS

726 FOREST AVE. PORTLAND, MAINE 04102

DATE:
1/11/04

SHEET:
1 of3

LICENSED ARCHITECT
MARK L. MUELLER
No. 2737
STATE OF MAINE



LIFE SAFETY PLAN

SCALE: 1/8"=1'-0"

NOTE:
ALL ELEMENTS OF THE FIRE ALARM SHALL CONFORM TO NFPA 72 AND BE APPROVED BY THE CITY OF PORTLAND FIRE DEPARTMENT PRIOR TO WORK. CODE AND LOCAL AUTHORITIES SHALL SUPERCEDE THE SCHMATIC LAYOUT AS SHOWN.

SEE QUIZNOS CEILING PLAN FOR EMERGENCY LIGHT LOCATIONS.

LEGEND

- EMERGENCY BACKUP LIGHT (BY OTHERS)
- EXIT LIGHT
- SD SMOKE DETECTOR
- HD HEAT DETECTOR
- HORN/STROBE
- STROBE
- FE FIRE EXTINGUISHER
- PULL STATION (VERIFY W/ LOCAL FIRE CHIEF)

MARK MUELLER ARCHITECTS
A.I.A.
100 Commercial Street
Suite 205
Portland, Maine 04101
Phone/Fax 207 774 9057
Email MMArch@gwi.net

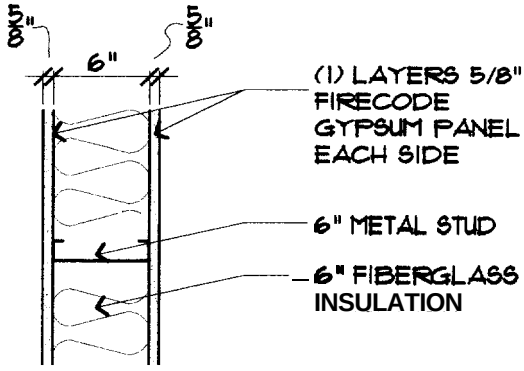
QUIZNOS

726 FORE ST AVE PORTLAND MAINE 04102

RATE:
11/11/04

SHEET:
2 OF 3

LICENSED ARCHITECT
MARK L. MUELLER
No. 2737
STATE OF MAINE



6" MTL. STUD WALL (1 HR. RATED)

(UL DESIGN: U 419) FIRE CAULK PERIMETER

TENANT SEPERATION WALL

DETAILS

SCALE: 1"=1'-0"

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Email MMArch@gwi.net

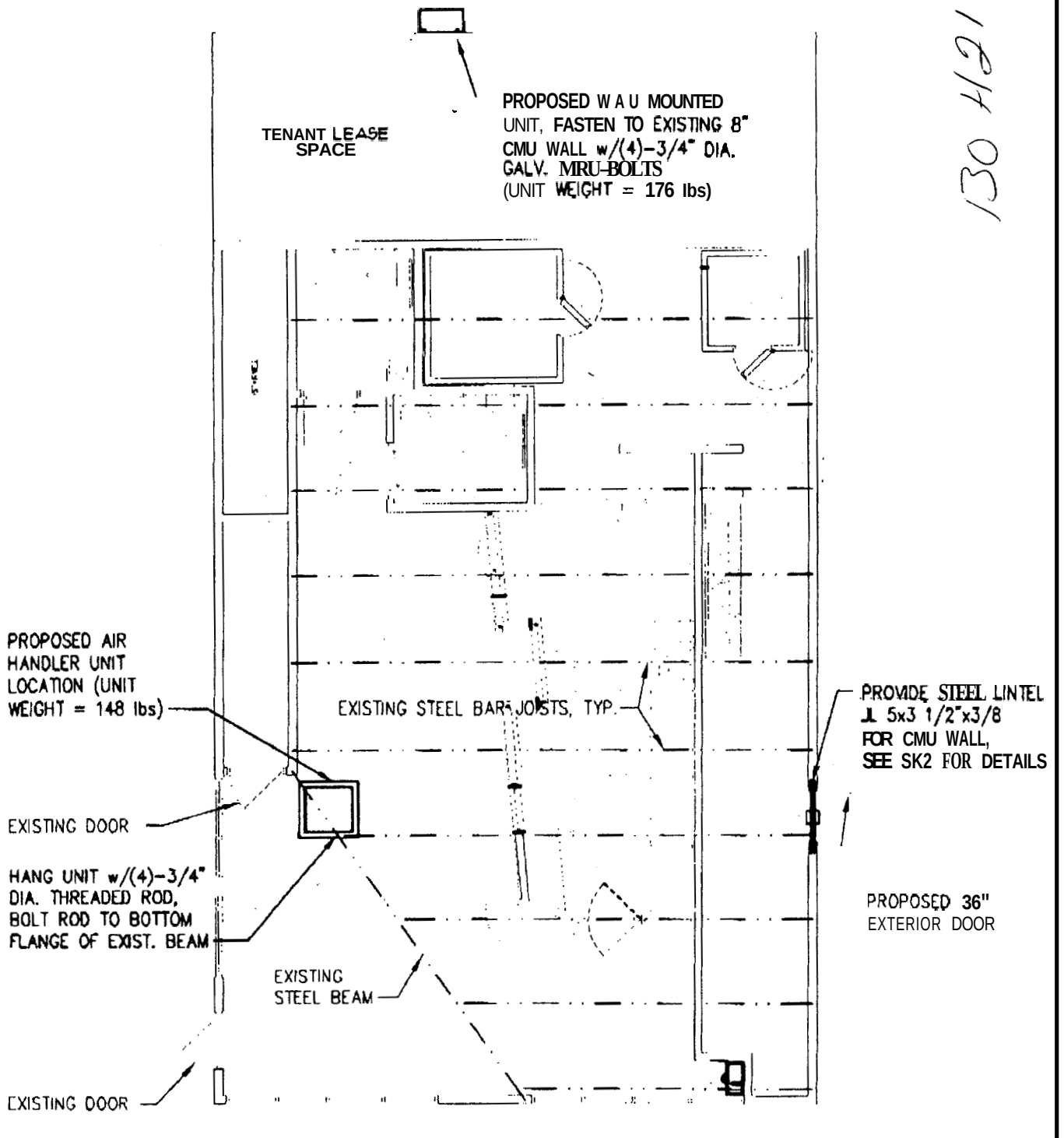
QUIZNOS

726 FORE ST AVE. PORTLAND, MAINE 04102

DATE:
11/11/04

SHEET:
3 OF 3

130 1/21



SHEET TITLE

QUIZNOS SUB

FOREST AVENUE — PORTLAND, MAINE

SHEET TITLE

EXISTING PLAN

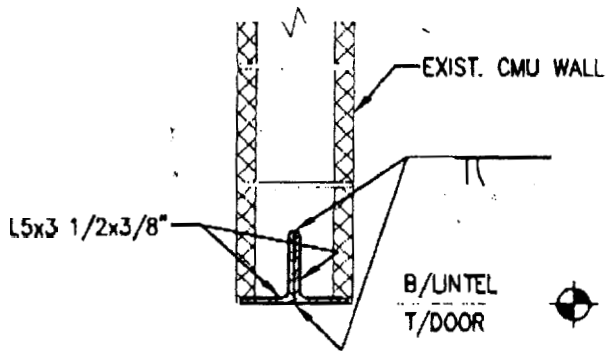
SCALE: 1/8"=1'-0"

CASCO BAY

90 Hodsdon Road, Pownal. ME 04069
Tel. 207.6884630 Fax 207.6889986
www.cascobayengineering.com

DESIGNED	ED
DRAWN	ED
DATE	11 16-04
CADD FILE	4091-S1 DWG
PROJECT NUMBER	4091

SK1



LINTEL DETAIL

NOTE:

1 LINTEL SHALL BEAR A MIN. OF 8" AT EACH WD.

SHER TITLE

QUIZNOS SUB

FOREST AVENUE PORTLAND, MAINE

SHEET TITLE

STEEL LINTEL DETAIL

CASCO BAY

90 Hodsdon Road, Pownal, ME 04069
Tel. 207.688.4630 fax 207.688.4986
www.cascobayengineering.com

DESIGNED	ED
DRAWN	ED
DATE	11-18-04
CADD FILE	4091-S1.DWG
PROJECTNUMBER	4091

SK2

ALL STRUCTURAL STEEL WORK WALL CONFORM TO:

AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUIVI OF STEEL CONSTRUCTION, NINTH EDITION
AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES

STRUCTURAL STEEL MEMBERS SHALL BE IN CONFORMANCE WITH THE FOLLOWING:

A U STEEL, UNO	ASTM A572, GRADE 50
ANGLES, PLATES	ASTM A36, Fy=36 KSI
STRUCTURAL TUBING	ASTM A500, GRAM B, Fy=46 KSI
STEEL PIPE	ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI

130 H 21

SHOP DRAWINGS SHAU BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO COMMENCING FABRICATION. SHOP DRAWINGS SUBMITTALS WALL INCLUDE:

CERTIFIED MILL TEST REPORTS OF STRUCTURAL STEEL (INCLUDING NAMES AND LOCATIONS OF MILLS AND SHOPS).
CERTIFIED MILL TEST REPORTS OF BOLTS NUTS AND WASHERS (INCLUDING NAMES AND LOCATIONS OF MILLS AND SHOPS).
STRUCTURAL STEEL FABRICATION AND ERECTION DRAWINGS WHICH INCLUDE BOLTED CONNECTIONS (SHOP AND FIELD) AND WELDED CONNECTIONS (SHOP AND FIELD) DEPICTING AWS WELDING SYMBOLS.
METAL DECK SHOP DRAWINGS DEPICTING SHEAR STUD LAYOUT ON BEAUS AND GIRDERS.

OWNER SHAU RETAIN, A QUALIFIED TESTING AGENCY TO PERFORM AND VERIFY THE FOLLOWING:

VISUAL INSPECTION OF ALL WELDS.
ULTRASONIC TESTING, IN ACCORDANCE WITH ASTM E-164, ON 100% OF ALL REID FULL PENETRATION WELDS.
PROVIDE RANDOM VERIFICATION HA ULTRASONIC TESTING OF SHOP FULL PENETRATION WELDS.
FIELD BOLTED CONNECTIONS, INCLUDING VERIFICATION OF BOLT GRADES.
SHEAR STUD QUANTITY, PROPER INSTALLATION, SIZE. AND SPACING. SHEAR STUDS SHALL CONFORM TO AWS D1.1.

BOLTED CONNECTIONS

FIELD CONNECTIONS SHALL UTILIZE MINIMUM 3/4-INCH DIAMETER A325 HIGH STRENGTH BOLTS, UNO. BOLTED CONNECTION SHALL BE SUP CRITICAL (SC) AT ALL MOMENT FRAMES, BRACED FRAMES, AND AT ADDITIONAL LOCATIONS INDICATED IN THE DRAWINGS. SLIP CRITICAL CONNECTIONS SHALL UTILIZE LOAD INDICATOR WASHERS OR TENSION CONTROL BOLTS. BOLT HOLES SHALL BE STANDARD SIZE, UNO.

HIGH STRENGTH BOLTS SHALL BE INSTALLED AND TIGHTENED PER AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS.

ANCHOR BOLTS SHALL CONFORM TO ASTM A307, GRADE A, STANDARD HEX HEAD FURNISHED WITH HEAVY HEX NUTS AND LOCK WASHERS.

CONTRACTOR SHALL DESIGN CONNECTIONS NOT ALREADY DETAILED ON STRUCTURAL DRAWINGS. DESIGN SHALL BE STAMPED BY A LICENSED STRUCTURAL ENGINEER AND SUBMITTED PRIOR TO COMMENCING FABRICATION.

WELDED CONNECTIONS

WELDING SHALL CONFORM TO AWS 011. USE LOW-HYDROGEN SMAW ELECTRODES WITH MINIMUM TENSILE STRENGTH OF 70 KSI.

STRUCTURAL STEEL SHALL RECEIVE THE FOLLOWING PROTECTIVE COATINGS:

DO NOT PAINT SURFACES TO RECEIVE METAL DECK AND/ OR SHEAR CONNECTORS FASTENED BY WELDING, CONTACT SURFACES OF HIGH STRENGTH BOLTED CONNECTIONS, FINISHED BEARING SURFACES. AND SURFACES TO BE WELDED IN THE FIELD. IF REQUIRED, PROTECT THESE SURFACES BY RUST-INHIBITING COATING THAT CAN BE REMOVED EASIERIOR TO ERECTION

UNEXPOSED STRUCTURAL STEEL SHAU BE CLEANED IN ACCORDANCE WITH SSPC-SP3 AND PAINTED WITH PRIMER PAINT, TNEMEC 10-99, OR EQUIVALENT. UNO.

EXPOSED STRUCTURAL STEEL TO RECEIVE ZINC-RICH EPOXY PAINT SHALL BE FIRST CLEANED IN ACCORDANCE WITH SSPC-SP6 ,COMMERCIAL BLAST CLEANING. USE TNEMEC ZIN-RICH EPOXY PAINT, OR EQUIVALENT. APPLY FINISH COAT PER ARCHITECT.

EXPOSED STRUCTURAL STEEL TO BE HOT-DIPPED GALVANIZED SHALL BE IN ACCORDANCE WITH ASTM A123.

SHEETTITLE

QUIZNOS **SUB**

FOREST AVENUE PORTLAND, MAINE

SHEET TITLE

STRUCTURAL **STEEL NOTES**

CASCO BAY

90 Hodsdon Road, Pownal, ME 04069
Tel. 207.688.4630 Fax 207.688.4986
www cascobavenaincc.rinp.com

DESIGNED	ED
DRAWN	ED
DATE	11-18-04
CADD FILE	4091-S1 DWG
PROJECT NUMBER	4091

SK3

Qvent™

Quizno's Hood Submittal Documents

Qvent™ is a custom ventilation solution engineered specifically to vent Holman MM14 conveyor warmers used in Quizno's operations. The process of warming a Quizno's sandwich in the specially designed Holman MM14 conveyor warmer is not a cooking process. With a maximum attained product surface temperature of 130°F, the process does not produce grease-laden vapors or smoke.

Qvent™ over Holman conveyor

Type II application

The Quizno's process of warming sandwiches in the Holman MM-14 conveyor warmer produces far less than the allowable amounts of grease and smoke stipulated by industry

Type 1 hood

Though this process is not a type 1 process , *Qvent*™ is in fact a UL 710 listed non-canopy style type I hood, built to NFPA 96. The fact that we are using this style of hood for a type II application is strictly a matter of economics. We are exceeding the minimum safety parameters established by your mechanical code. This is the same hood used by the manufacturer for many different national operations that, unlike Quizno's, are cooking operations. It is less expensive for us to provide this hood, than to create a whole new file and obtain listings from NSF for a type II configuration. With this type II application; there are no reauirements for all welded liquid tight ducts with rated shaft-wall enclosures or fire suppression systems. Though not required to follow type I protocol, we have recommended that an all welded duct system be provided to facilitate occasional cleaning (according to master cleaning schedule) with pressurized water. A major advantage of the *Qvent*™ concept is that the vent inlets are in close proximity to the heat source (directly above the tunnel outlets) with minimal entrainment of room air. This is the ideal situation to capture and contain excess heat, moisture and odor.

Duct

One of the components covered of the system is an 88" length of 18ga MSG liquid tight welded Stainless Steel (SS) duct that will connect to the duct collar. This duct section shall be field welded to the duct collar and then extend up to at least 6" above finished ceiling. A reflective ceiling panel needs to be removed, cut, and then fitted with the (provided) SS escutcheon (frame). The hood end of the duct

Johnson **Diversified Products, Inc. 1408 Northland Dr. #407, Mendota Heights, MN55120**
(800) 676-8488x111 fax (651) 686-7670 info@jdpinc.com http://u'ww.idpinc com

Qvent™

(inlet) is then inserted through the frame and welded to the hoods duct collar. On the discharge end of the duct we are providing some welded angles to enable connection of hanger rods to provide structural support to the duct and hood. It is important to have a 1/8-1/4" gap from the bottom of the hood to the top of the oven. The installing contractor shall provide and install the liquid tight welded 16ga black iron duct section that will close from the discharge side of our SS duct section to the fan, following local code requirements for type II systems.

Replacement air

Due to the proximity of the filters to the conveyor warmer, only low exhaust volumes (<1000CFM) are needed. Bathroom venting is usually about 250CFM (125CFM each for men's and women's). Add those values to our recommended 800CFM and the total exhaust for the store is 1050CFM. The average Quizno's store has approximately 1,300sq feet of floor space. With structural ceilings at approximately 15' the typical store envelope holds about 19,500 cubic feet of air. To hold the space with a slight negative (.02"W.C.) the HVAC system must be capable of providing roughly 750CFM of tempered (and air conditioned) fresh air. Note that one cubic foot of 68°F air heated to 165°F becomes 1.184 cubic feet of *air* due to The Ideal Gas Law. Negative pressures beyond .02"W.C. may be dangerous as gravity vented natural gas fired equipment (e.g., hot water heaters) may develop back *draft* conditions which may create a carbon monoxide (CO) problem. For those stores that have roof top unit (RTU) HVAC systems we recommend the use of a 8.5 –12 ton RTU (depending upon store size, design climate and store orientation) with a secondary minimal set-point controller and potentiometer. When the exhaust fan is on, a signal is sent to the RTU and the secondary minimal set-point controller will open the fresh air dampers on the economizer to full open (must be set by contractor upon installation). These dampers will provide between 600-900CFM fresh air (tempered or *air* conditioned) depending upon the size of the RTU. This is ideal to compensate for the volume of *air* exhaust by *Qvent™*

Exhaust Fan

The *Qvent™* exhaust fan has a solid-state variable speed controller that enables an increase or decrease in exhaust volumes based upon current in-store conditions. The electrician shall provide 115/60/1 4.4amp (1/6hp) on the roof. There is also a variable speed control dial that needs to be wired into the wall in the kitchen area with leads going to the fan J box. The ability to vary exhaust volumes will come in handy between peak demand and idle periods. This fan will move up to 1100CFM air, which will work for your double oven situations. Duct runs greater than 20 feet, with offsets, or sidewall discharge will require the use of a larger fan.

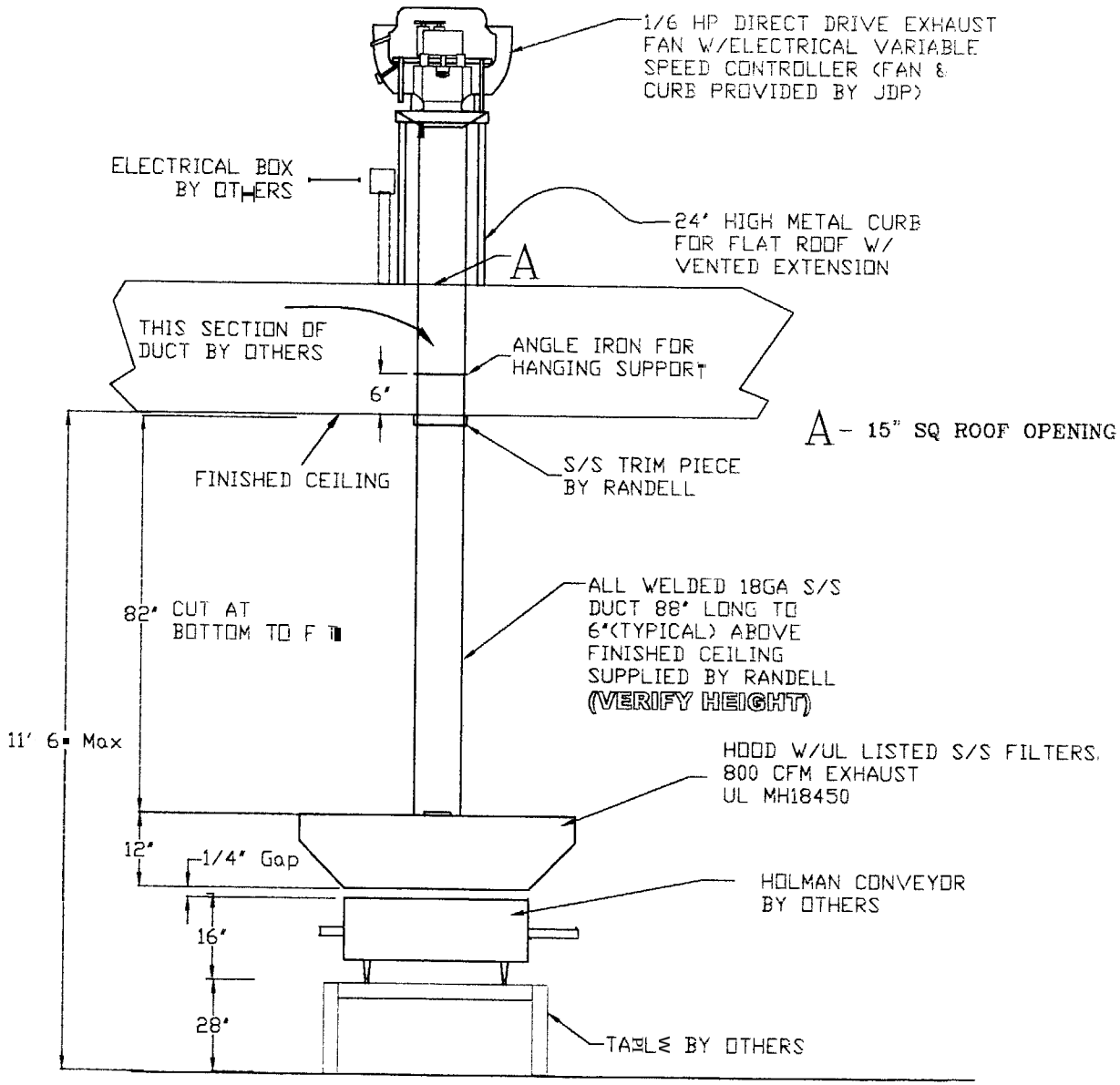
Documentation

Please find the attached documents:

1. Randell Manufacturing's drawing of hood and duct section
2. Loren Cook Specs on standard fan and curb supplied
3. EPA 202 testing from air and filter testing laboratories

If there are any questions or concerns about this *Qvent™* configuration, please feel free to contact Johnson Diversified Products at (800) 676-8488, and *speak* with Tom Johnson (X101) or Paul Johnson (X111). Also questions may be directed to us through email at mfoitaidrmc.com. Thank you.

Johnson Diversified Products, Inc 1408 Northland Dr. #407, Mendota Heights, MN55120
(800) 676-8488x111 fax (651) 686-7670 info@jdpinc coni http://www jdpinc com



QUOTE # QUIZNOS	SALES CONTACT:	QUIZNOS JOHNSON DIVERSIFIED	Randell A Rapid Industries Company 0520 South Colchester Road Veldman, Michigan 48893-9683 Phone 1-800-621-8560 Fax 1-800-634-5369
ORDER # *	ORIG. DWG. DATE: 03/25/99 CK REVISION DATES		
SHT 1 OF 1		Q\VENT SYSTEM	
SCALE 1/2 "=1'-0"			

APPROVED DRAWING REQUIRED BEFORE FABRICATION

- ☐ DRAWING APPROVED
- ☐ APPROVED AS NOTED
- ☐ RESUBMIT DRAWING

SCHEDULED SHIP DATE:

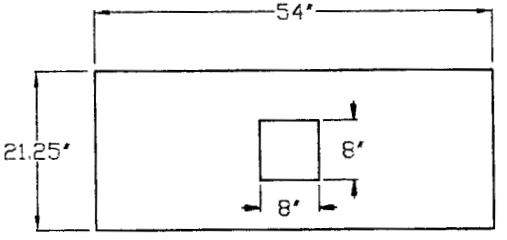
SIGNATURE:

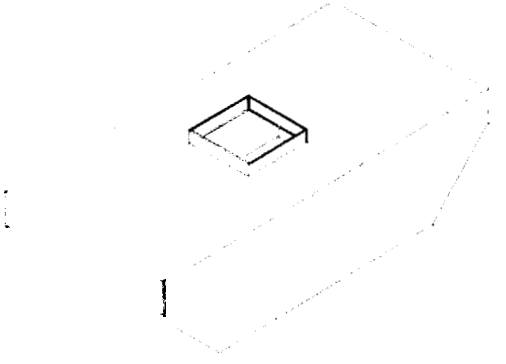
DATE:

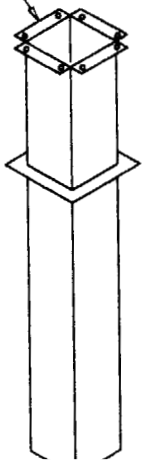
NSF

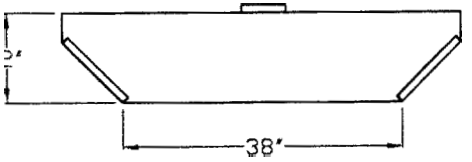
UL

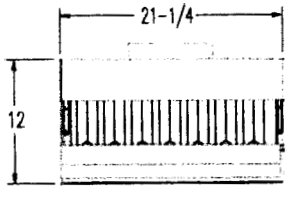
8" X 8" 18 GA S/S DUCT EXTENSION
WITH 1 1/2" WIDE PERIMETER CEILING TRIM
AND (4) 1 1/2"ANGLE X 6"LONG HANGING BRKTS
VERIFY HEIGHT REQUIREMENTS











Hood Item No.	Hood Length (IN.)	Hood Width (IN.)	Hood Weight (LBS)	Exhaust Rate (LIN.FT.)	xhaust C.F.M.	Exhaust Duct Size (IN.)	Exhaust Duct Velocity (F.P.M.)	Net Filter Area (SQ.FT.)	Velocity Thru Filters (F.P.M.)	Exhaust Static Pressure (IN.)	Supply C.F.M.	Supply Air Duct Size	Avg. Air Velocity Thru Diffus. (F.P.M.)
ITEM 1	54	21.25	70	226	800	8 X 8	1818	2.0	400	.50			

GENERAL NOTES

IF YOU ARE INSTALLING A VENTILATION EXHAUST SYSTEM INTO AN AREA WHICH HAS CERTAIN STANDARDS OR CODES OTHER THAN THOSE NORMALLY ACCEPTED IN THE FOOD-SERVICE INDUSTRY (NSF, UL, ETC.) RANDELL MUST BE ADVISED OF THESE SPECIFICATIONS IN DETAIL BEFORE FABRICATION OF THE EQUIPMENT BEGINS. FAILURE TO ADVISE RANDELL AIR SYSTEMS OF SPECIFIC REQUIREMENTS COULD RESULT IN THE JOB BEING DELAYED, ADDITIONAL COSTS, OR BOTH

APPROVED DRAWING
REQUIRED BEFORE FABRICATION

☐ DRAWING APPROVED
☐ APPROVED AS NOTED
☐ RESUBMIT DRAWING

BY: _____ DATE: _____

D. RANDELL HOODS MEET ONE OR MORE OF THE FOLLOWING:

U.L.710 MH18450 2/16/99
BOCA ICBO
NSF STANDARD(2)
STATE OF MICHIGAN
SBCCI NFPA 96

KEY

SUPPLY DUCT

EXHAUST DUCT

RIGINAL QUOTE ATE 2/16/99

ORIGINAL DRAWING DATE

ATE QUOTE LAST EVISED

DATE DRAWING LAST REVISED

EASON

ALES

Paul Johnson 800.676.8488 x111

QUOTE # QUIZINOS

ORDER # *

SHT 1 OF 1

SCALE 1/2 "=1'-0"

SALES CONTACT:

DRIG. DWG. DATE:05/25/98CR

REVISION DATES

QUIZNOS
JOHNSON DIVERSIFIED

HOLMAN WARMER
W/VENT SYSTEM

Randell
A RANDELL INDUSTRIES COMPANY
6520 South Colchester Road
Weidman, Michigan 48893-9683
Phone 1-800-621-8560
Fax 1-800-634-5369

APPROVED DRAWING REQUIRED BEFORE FABRICATION

☐ DRAWING APPROVED
☐ APPROVED AS NOTED
☐ RESUBMIT DRAWING

SCHEDULED SHIP DATE:

SIGNATURE:

NSF

UL UL

DATE:

COOK

MARK: QVENT ROOFTOP
PROJECT: QVENT ROOFTOP
DATE: 04-20-2000

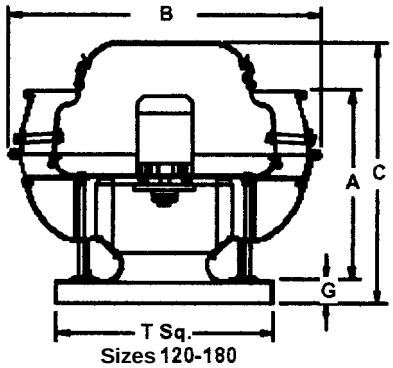
130 4/21

ACRU-D

Upblast Centrifugal Exhaust Ventilator Roof Mounted/Direct Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Sizes 120-180

Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Bhp (HP)
1	135R10D	1103	.500	1074	.148

Altitude (ft): 600 **Temperature** (F): 100

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/6	1075	115/1/60	ODP

1	2	3	4	5	6	7	8	LwA	dBA	Sones
76	77	71	61	59	56	51	47	67	56	8.5

Dimensions (inches)

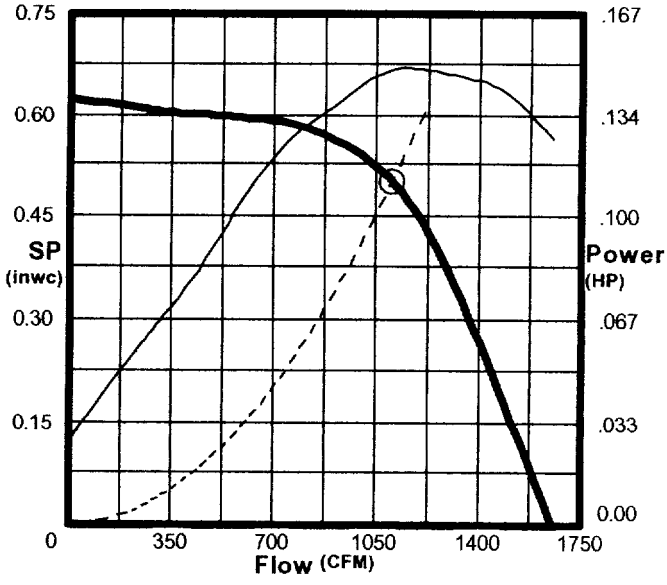
A	19-1/4
B	30-1/4
C	24-15/16
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2
Unit Wt(lbs)***	118

*Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Accessories:

STD DISCONNECT PREWIRED
ROOF CURB RCG 18-9.5H
FAN SPEED CONTROLLER 5 AMP 120 VOLT
LESS BIRDSCREEN
VE-19 VENTED EXTENSION

Fan Curve



Fan Curve Legend

CFM vs SP
CFM vs HP
System
Point of Operation

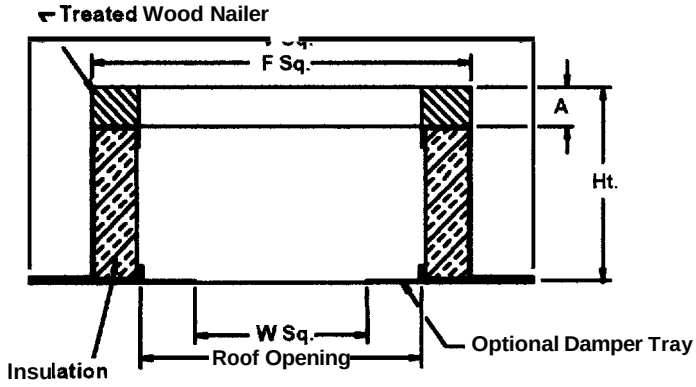
COOK

DATE: 04-20-2000

RCG
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:
18 gauge galvanized steel - 1-1/2", 3 lbs. density thermal and accoustical insulation - Continuously welded corners - CCA pressure treated wood nailer.

Options:(As noted below*)
1) No wood nailer (deduct 1-1/2" for actual height).
2) Damper tray.



Mark	Qty	Description	Ht	Options'	A	F Sq.	V Sq.	W Sq.	Roof Opening
QVENT ROOFTOP	1	RCG 18	9.5		1-1/2	18-1/2	22-1/2	11-3/4	15-1/2

COOK

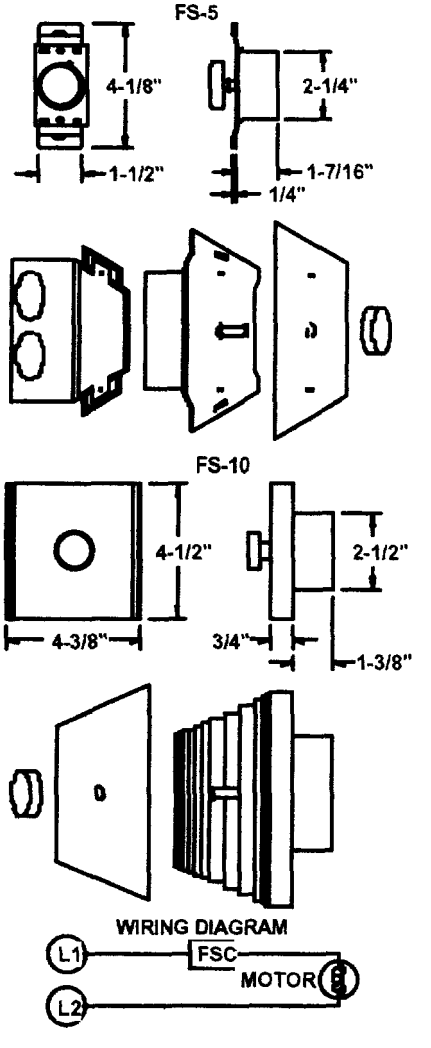
PROJECT: QVENT ROOFTOP
DATE: 04-20-2000

FSC
Fan Speed Controls

STANDARD CONSTRUCTION FEATURES:
PRODUCT DESCRIPTION- The "Quadrac" integrated semi-conductor device it is now possible to offer this system with many advantages. Fewer semi-conductor parts mean greater reliability and the passivation process used in the manufacture of the semi-conductor insures long life. Printed circuit construction eliminates wiring difficulties and guarantees workmanship. All of these factors serve to offer the most important of all features - quality. SPEED CONTROL - Positive **Off/On** action in the control dial. Speed range set to the customer's requirements. CONTROL RATING - 120 volts, 60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP, 15 AMP). 220/240 volt, 50/60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP). 220/240 volt model not UL listed. Fan cannot have UL listing if furnished with prewired 220/240 volt FSC. WARNING - Power must be turned off before installing this unit. STANDARD INSTALLATION- Fits any standard single gang box. Turn off power and connect the two wires on the control to the two switch wires in the usual manner. The connection box is not supplied. SPECIAL FEATURES - Complete range control, solid state "Quadrac" integrated circuitry solid state construction for long reliable operating Life, saves on electric bills.

Dimensions (inches)

Mark	Qty	Description
QVENT ROOFTOP	1	FSC 5 AMP 120 VOLT



COOK

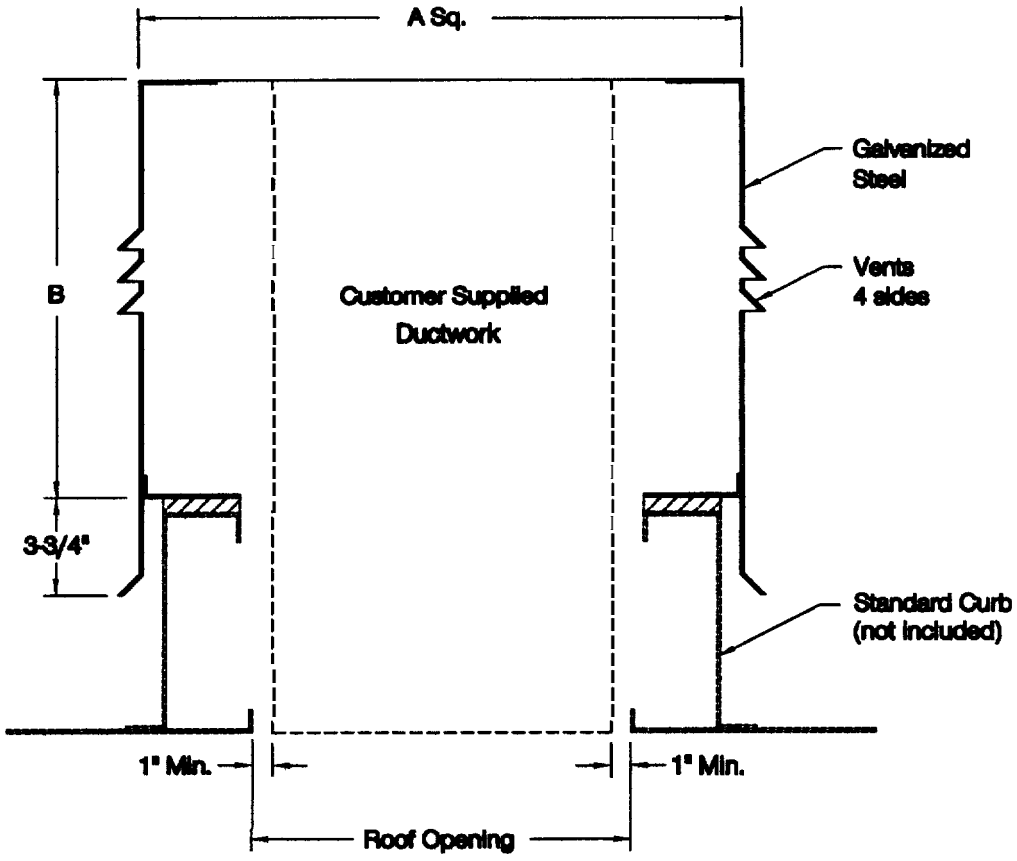
VE

DATE: _____

PROJECT: _____

LOCATION: _____

Vented Extension
Centrifugal Units



DIMENSION DATA

Qty	Mark	Lo-Pro Unit Size	VCR/ACRU's Unit Size	Cat. No.	A Sq.	B	Roof Opening *Sq.	Ship Wt.
		–	100	VE–17	17	20	13–1/2	18
		100	120, 135	VE–19	19	16	15–1/2	21
		120, 135, 150, 165	150, 165	VE–23	23	16	19–1/2	27
		180, 195, 210, 225	180, 195, 210, 225, 245	VE–29	29	16	25–1/2	34
		245, 270	270, 300	VE–35	35	16	31–1/2	39
		300, 330	330, 365	VE–41	41	16	37–1/2	44
		365, 402	402	VE–47	47	16	43–1/2	48
		–	445, 490	VE–53	53	16	49–1/2	53
		445, 490	–	VE–59	59	16	55–1/2	105
		540	–	VE–65	65	16	61–1/2	135

ALL DIMENSIONS IN INCHES. WEIGHTS IN LBS.
* ROOF OPENING SIZE FOR CURBS SUPPLIED BY COOK ONLY.

130421

AIR FILTER TESTING LABORATORIES,

4632 OLD LA ORANGE ROAD| CRESTWOOD, KENTUCKY 40014
PHONE| FAX (502)222-5720

REPORT NO. 9478 SHEET NO. 1

HOLMAN COOKING EQUIPMENT - OVEN WITH CONVEYOR
MODEL 318 HX SERIAL NO. 17047003-0496

TESTS ON HOLMAN COOKING OVEN WITH CONVEYOR USING EPA 202 METHOD SAMPLING THE EMISSIONS OF FATS AND GREASES,AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM PIZZA'S WERE COOKED AT TOP a BOTTOM TEMPERATURES AT 425 DEG. F

EPA METHOD 202 IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR. IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES,THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER ,THE THIRD IS EMPTY (TO CATCH ANY OVERFLOW), AND THE FOURTH CONTAINS SILICA-GEL ,A SUBSTANCE USED TO ABSORB MOISTURE FROM THE GAS STREAM.
THE BOTTLES ARE PLACED IN AN INSULATED CONTAINER PACKED WITH ICE. THE PROBE,BOTTLES,AIR FLOW METER,GAS METER ARE CONNECTED TO A VACUUM PUMP. M E SAMPLING RATE IS ABOUT 1 CFM PER MINUTE.

SAMPLE	INITIAL WT.	FINAL WT.	GAIN	TOTAL gms	AS mgrs
1	51.15	51.3	0.15	0.21	210
2	51.57	51.63	0.06		
AFS 3 MEDIA TEST					

R H = 67.7% DENSITY = 0.0717 LB / FT ^3

ACFM	TEMP F.	SCFM	SAMPLE TIME	TOTAL CUBIC FT.	AS CUBIC M	CONC. mgrs/m^3
500	78	4Q3	60	29554	837	0.251

ALLOWABLE CONCENTRATION IS 5.0 MILLIGRAMS PER CUBIC METER.

APPROVAL

TEST SUPERVISOR RJB.RS.WTS

DATE 7-23-1996

ENGINEERING APPROVAL David J. Murphy Jr.

STATE OF KENTUCKY
DAVID J. MURPHY, JR. 6035
REGISTERED PROFESSIONAL ENGINEER

AIR FILTER TESTING LABORATORIES,

4632 OLD LA GRANGE ROAD | CRESTWOOD, KENTUCKY 40014

PHONE | FAX (502)222-5720

REPORTNO. 9478 SHEET NO 2

HOLMAN CONVEYOR OVEN MODEL 318 HX SERIAL NO. 170447003-0496

TEST ON HOLMAN OVEN WITH CONVEYOR USING EPA METHOD 202 FOR SAMPLING THE EMISSIONS OF FATS AND GREASES, AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM THE PROCESS *OF* COOKING PIZZA'S

QUANTITY *OF* PIZZA'S COOKED 6
THE COOKING TEMPERATURE WAS SET FOR TOP & BOTTOM HEAT AT *425* DEG. |
THE CONVEYOR SPEED WAS SET - AT 10
AFTL FABRICATED A TEST HOOD . THE CONVEYOR OVEN WAS *ON* A TABLE INSIDE *OF* THE HOOD.
THE OVEN WAS PRE-HEATED TO 325 DEG. F
THE HOOD WAS CONNECTED TO A TEST PLENUM AND 500 CFM OF AIR WAS EXHAUSTED THROUGH THE TEST SET-UP
WITHIN THE TEST DUCT 2 LAYERS OF ASHRAE 95% MEDIA WAS PLACED IN SERIES TO CAPTURE *ANY* PARTICULATE MATTER BEING GENERATED DURING THE TEST. THE TWO LAYERS OF MEDIA WERE WEIGHED BEFORE AND AFTER THE TEST.
UPSTREAM *OF* THE MEDIA A PROBE WAS INSERTED TO SAMPLE THE EXHAUST AIR *STREAM* IN ACCORDANCE WITH EPA METHOD 202

EPA METHOD 202 IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR. IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES, THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER, THE THIRD IS EMPTY (TO CATCH ANY OVERFLOW), AND THE FOURTH CONTAINS SILICA GEL, A SUBSTANCE USED TO ABSORB MOISTURE FROM THE *GAS* STREAM. THE BOTTLES ARE PLACED INTO AN INSULATED CONTAINER PACKED WITH ICE. THE PROBE, BOTTLES, AIRFLOW METER, GAS METER ARE CONNECTED TO A VACUUM PUMP. THE SAMPLING RATE IS ABOUT 1 CFM.
AFTER THE TEST IS COMPLETED THE WATER IS MEASURED AND MIXED WITH METHYLENE CHLORIDE, PLACED IN A SEPARATORY FUNNEL, VIGOROUSLY SHAKEN, THEN ALLOWED TO SEPARATE THE MC FROM THE WATER. THE MC IS EVAPORATED TO DRYNESS.

EPA METHOD 202 PARTICULATE FILTER RESULTS

METER INITIAL	METER FINAL	ACF	TEMP	PRESSURE IN. Hg	SCF	CUBIC METERS
8762	949.47	73.27	78	3	64.94	1.84

INITIAL WEIGHT	FINAL WEIGHT	GAIN GRAMS	AS mgs.	CONC. mgs/m^3
1.00411	1.0046	0.00049	0.49	0.266

METHYLENE CHLORIDE EXTRACTION METHOD - NO GREASES DETECTED
ALLOWABLE CONCENTRATION IS 5.0 MILLIGRAMS PER CUBIC METER.

130 H21

AIR FILTER TESTING LABORATORIES, INC.

4632 OLD LA GRANGE ROAD I CRESTWOOD, KENTUCKY 40014
PHONE I FAX (502)222-5720

REPORTNO. 9305 SHEET NO. 1

HOLMAN COOKING EQUIPMENT - OVEN WITH CONVEYOR
MODEL 418 HX -SERIAL NO. 17230001-0496

TESTS ON HOLMAN COOKING OVEN WITH CONVEYOR USINQ EPA 202 METHOD SAMPLING THE EMISSIONS OF FATS AND GREASES,AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM PIZZA'S WERE COOKED AT TOP & BOTTOM TEMPERATURES AT 425 DEG,F

EPA METHOD 202 IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR. IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES,THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER ,THE THIRD IS EMPTY (TO CATCH ANY OVERFLOW), AND THE FOURTH CONTAINS SILICA-GEL , A SUBSTANCE USED TO ABSORB MOISTURE FROM THE GAS STREAM.
THE BOTTLES ARE PLACED IN AN INSULATED CONTAINER PACKED WITH ICE, THE PROBE,BOTTLES,AIR FLOW METER,GAS METER ARE CONNECTED TO A VACUUM PUMP. THE SAMPUNG RATE IS ABOUT 1 CFM PER MINUTE.

SAMPLE	INITIAL WT.	FINAL WT.	GAIN	TOTAL gms	AS mgrs..
1	50.34	50.53	0.19	0.27	270
2	50.72	50.80	0.08		
AFS 3 MEDIA TEST					

R H = 67.7% DENSITY = 0.0717 LB / FT ^3

ACFM	TEMP F.	SCFM	SAMPLE TIME	TOTAL CUBIC FT.	AS CUBIC M	CONC. mgrs/m^3
500	71.4	522	64	33428	947	0.285

ALLOWABLE CONCENTRATION IS 5.0 MILLIGRAMS PER CUBIC METER .

APPROVAL

TEST SUPERVISOR R.J.B.

DATE 5-09-1996

ENGINEERING APPROVAL David J. Murphy Jr

STATE OF KENTUCKY
DAVID J. MURPHY, JR. 6035
REGISTERED PROFESSIONAL ENGINEER

AIR FILTER TESTING LABORATORIES, INC.

PHONE | FAX (502)222-5720

REPORTNO. 9805 SHEET NO 2

HOLMAN CONVEYOR OVEN MODEL 418HX SERIAL NO. 17230001-0496

TEST ON HOLMAN OVEN WITH CONVEYOR USING EPA METHOD 202 FOR SAMPLING THE EMISSIONS OF FATS AND GREASES, AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM THE PROCESS OF COOKING PIZZA'S

QUANTITY OF PIZZA'S COOKED 6
THE COOKING TEMPERATURE WAS SET FOR TOP & BOTTOM HEAT AT 425 DEG.
THE CONVEYOR SPEED WAS SET - AT 10
AFTL FABRICATED A TEST HOOD. THE CONVEYOR OVEN WAS ON A TABLE INSIDE OF THE HOOD.
THE OVEN WAS PRE-HEATED TO 325 DEG. F
THE HOOD WAS CONNECTED TO A TEST PLENUM AND 500 CFM OF AIR WAS EXHAUSTED THROUGH THE TEST SET-UP
WITHIN THE TEST DUCT 2 LAYERS OF ASHRAE 95% MEDIA WAS PLACED IN SERIES TO CAPTURE ANY PARTICULATE MATTER BEING GENERATED DURING THE TEST. THE THREE LAYERS OF MEDIA WERE WEIGHED BEFORE AND AFTER THE TEST.
UPSTREAM OF THE MEDIA A PROBE WAS INSERTED TO SAMPLE THE EXHAUST AIR STREAM IN ACCORDANCE WJTH EPA METHOD #5.

EPA METHOD 202 IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR, IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES, THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER, THE THIRD IS EMPTY (TO CATCH ANY OVERFLOW, AND THE FOURTH CONTAINS SILICA GEL, A SUBSTANCE USED TO ABSORB MOISTURE FROM THE GAS STREAM. THE BOTTLES ARE PLACED INTO AN INSULATED CONTAINER PACKED WITH ICE. THE PROBE, BOTTLES, AIRFLOW METER, GAS METER ARE CONNECTED TO A VACUUM WMP. M E SAMPLING R A E IS ABOUT 1 CFM.
AFTER THE TEST IS COMPLETED THE WATER IS MEASURED AND MIXED WITH METHYLENE CHLORIDE, PLACED IN A SEPARATORY FUNNEL, VIGOROUSLY SHAKEN, THEN ALLOWED TO SEPARATE THE MC FROM THE WATER. THE MC IS EVAPORATED TO DRYNESS.

EPA METHOD 202 PARTICULATE FILTER RESULTS

METER INITIAL	METER FINAL	ACFM	TEMP	PRESSURE IN. Hg	SCFM	CUBIC METERS
623.03	699.00	75.97	70	6	59.83	1.89

INITIAL WEIGHT	FINAL WEIGHT	GAIN GRAMS	AS mgs.	CONC. mgs/m^3
			0.54	

AIR FILTER TESTING LABORATORIES, INC.

4832 OLD LA GRANGE ROAD | CRESTWOOD, KENTUCKY 40014

PHONE | FAX (502)222-5720

REPORTNO. 9479 SHEET NO 2

HOLMAN CONVEYOR OVEN MODEL 314 HX SERIAL NO. 170447003-0496

TEST ON HOLMAN OVEN WITH CONVEYOR USING EPA METHOD 202 FOR SAMPLING THE EMISSIONS OF FATS AND GREASES, AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM THE PROCESS OF COOKING PIZZA'S

QUANTITY OF PIZZA'S COOKED | 10

THE COOKING TEMPERATURE WAS SET FOR TOP & BOTTOM HEAT AT 350 DEG. F
THE CONVEYOR SPEED WAS SET - AT 14
AFTL FABRICATED A TEST HOOD. M E CONVEYOR OVEN WAS ON A TABLE INSIDE OF THE HOOD.
THE OVEN WAS PRE-HEATED TO 326 DEG. F
THE HOOD WAS CONNECTED TO A TEST PLENUM AND 500 CFM OF AIR WAS EXHAUSTED THROUGH THE TEST SET-UP
WITHIN THE TEST DUCT 2 LAYERS OF ASHRAE 95% MEDIA WAS PLACED IN SERIES TO CAPTURE *ANY* PARTICULATE MATTER BEING GENERATED DURING THE TEST. THE TWO LAYERS OF MEDIA WERE WEIGHED BEFORE AND AFTER THE TEST.
UPSTREAM OF THE MEDIA A PROBE WAS INSERTED TO SAMPLE THE EXHAUST AIR STREAM IN ACCORDANCE WITH EPA METHOD 202

EPA METHOD *202* IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR. IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES, THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER, THE THIRD IS EMPTY (TO CATCH *ANY* OVERFLOW). AND THE FOURTH CONTAINS SILICA GEL, A SUBSTANCE USED *TO* ABSORB MOISTURE FROM THE GAS STREAM. THE BOTTLES ARE PLACED INTO AN INSULATED CONTAINER PACKED WITH ICE. THE PROBE, BOTTLES, AIRFLOW METER, GAS METER ARE CONNECTED TO A VACUUM PUMP. THE SAMPLING RATE IS ABOUT 1 CFM.
AFTER THE TEST IS COMPLETED THE WATER IS MEASURED AND MIXED WITH METHYLENE CHLORIDE, PLACED IN A SEPARATORY FUNNEL, VIGOROUSLY SHAKEN, THEN ALLOWED TO SEPARATE THE MC FROM THE WATER. THE MC IS EVAPORATED TO DRYNESS.

EPA METHOD 202 PARTICULATE FILTER RESULTS

METER INITIAL	METER FINAL	ACF	TEMP	PRESSURE IN. Hg	SCF	CUBE METERS
949.58	33.19	83.61	82	3	73.56	2.08

INITIAL WEIGHT	FINAL WEIGHT	GAIN GRAMS	AS mgs.	CONC. mgs/m^3
0.97034	0.9705	0.00016	0.16	0.077

METHYLENE CHLORIDE EXTRACTION METHOD - NO GREASES DETECTED
ALLOWABLE CONCENTRATION IS 5.0 MILLIGRAMS PER CUBIC METER.

ISO 421

AIR FILTER TESTING LABORATORIES, INC.

4632 OLD LA GRANGE ROAD | CRESTWOOD, KENTUCKY 40014
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REPORTNO. 9479 SHEET NO.

HOLMAN COOKING EQUIPMENT - OVEN WITH CONVEYOR
MODEL 314 HX -SERIAL NO. 17047003-0496

TESTS ON HOLMAN COOKING OVEN WITH CONVEYOR USING EPA 202 METHOD SAMPLING THE EMISSIONS OF FATS AND GREASES,AND USING AFS3 MEDIA TO CAPTURE TOTAL EMISSIONS OF GREASE AND FATS FROM PIZZA'S WERE COOKED AT TOP & BOTTOM TEMPERATURES AT 425 DEG. F

EPA METHOD 202 IS A TECHNIQUE FOR SAMPLING A SMALL PART OF OF THE TOTAL EXHAUST AIR IT CONSISTS OF A PARTICULATE FILTER HOLDER, 4 IMPINGER BOTTLES IN SERIES,THE FIRST TWO CONTAIN 100 ml OF DISTILLED WATER ,THE THIRD IS EMPTY (TO CATCH *ANY* OVERFLOW), AND THE FOURTH CONTAINS SILICA-GEL , A SUBSTANCE USED TO ABSORB MOISTURE FROM THE GAS STREAM.
THE BOTTLES ARE PLACED IN *AN* INSULATED CONTAINER PACKED WITH ICE. THE PROBE,BOTTLES,AIR FLOW METER,GAS METER ARE CONNECTED TO A VACUUM PUMP. THE SAMPLING RATE IS ABOUT 1 CFM PER MINUTE.

SAMPLE	INITIAL WT.	FINAL WT.	GAIN	TOTAL gms	AS mgrs
1	51.3	51.54	0.24	0.25	250
2	51.52	51.53	0.01		
AFS 3 MEDIA TEST					

ACFM	TEMP F.	SCFM	SAMPLE TIME	TOTAL CUBIC FT.	AS CUBIC M	CONC. mgrs/m^3
500	82	489	90	44004	1246	0.201

ALLOWABLE CONCENTRATION IS 5.0 MILLIGRAMS PER CUBIC METER.

APPROVAL

TEST SUPERVISOR RJB,RS

DATE 7-25-1996

ENGINEERING APPROVAL David J Murphy Jr

STATE OF KENTUCKY
DAVID J. MURPHY, JR. 6035
REGISTERED PROFESSIONAL ENGINEER