DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that KAPLAN 540, LLC

Located At 540 DEERING AVE

Job ID: 2011-09-2328-HVAC

CBL: 125- F-001-001

has permission to Install 2 American Standard Silver Series Gas Furnaces
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

10/20/11

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Job No:	Date Applied:	CBL:	
2011-09-2328-HVAC	**9/27/2011**	**125- F-001-001**	
Location of Construction: **540 DEERING AVE**	Owner Name: **Kaplan 540, LLC**	Owner Address: **49 OCEAN AVE** **PORTLAND, ME 04103 - MAINE**	Phone:
Business Name:	Contractor Name: Revision Heat	Contractor Address: 1053 Forest Ave., Portland, ME	Phone: 207-221-5677
Lessee/Buyer's Name:	Phone:	Permit Type: **HVAC - HVAC**	Zone: **B-2b**
Past Use: Retail	Proposed Use: Same - Retail – Artist & Craftsman Supply – install American Standard Silver Series gas unit	Cost of Work: **11000.00**	CEO District:
		Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature: Capt. Pelletier 10/4/11	Inspection: Use Group: M Type: HVAC ASHRA 62.1/90.1 Signature: 10/20/11
Proposed Project Description: **Install heating system**		Pedestrian Activities District (P.A.D.)	
Permit Taken By:			

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 electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: OK 9/29/11 ABM	Date:	Date: ABM

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 appication 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

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

1. Final at completion of work

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

PORTLAND MAINE

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

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-09-2328-HVAC **Located At:** 540 DEERING AVE **CBL:** 125- F-001-001

Conditions of Approval:

Building

1. This appliance shall be installed and vented in accordance with the manufacturer's specifications and the UL listing.
2. The installation must comply with the State of Maine gas regulations.
3. Installation shall comply with ASHRAE 62.1 & 90.1 – 2007.

Fire

2. Installation shall comply with City Code Chapter 10.
3. Fuel-fired boilers shall be protected in accordance with NFPA 101, *Life Safety Code*.
4. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances*;
5. NFPA 54, *National Fuel Gas Code*;
6. NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*;
7. NFPA 91, *Standard for Exhaust Systems for Air Conveying Vapors, Gases, Mists, and Noncombustible Particulate Solids*;
8. NFPA 70, *National Electrical Code*; and the manufacturer's published instructions.

auth...

$-26.
2011-09-232P

Done

FILL IN AND SIGN WITH INK

RECEIVED SEP 27 2011
Dept. of Building Inspections
City of Portland Maine

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 540 Deering Ave 125-F-001 Use of Building Commercial Date ______

Name and address of owner of appliance Artist + Craftsman Supply, 540 Deering Ave, Portland ME

Installer's name and address ReVision Heat 1053 Forest Ave, Portland ME RYAN

Telephone 207-221-5677

Location of appliance:

- ☐ Basement
- ☐ Floor
- ☐ Attic
- ☐ Roof

Type of Fuel:

- ☒ Gas
- ☐ Oil
- ☐ Solid

Appliance Name: American Standard Silver Series

U.L. Approved ☒ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☒ Yes ☐ No

IF NO Explain: ______

The Type of License of Installer:

- ☐ Master Plumber # ______
- ☐ Solid Fuel # ______
- ☐ Oil # ______
- ☐ Gas # PNT 6491
- ☐ Other ______

Type of Chimney:

- ☐ Masonry Lined
  Factory built ______
- ☐ Metal
  Factory Built U.L. Listing # ______
- ☒ Direct Vent
  Type ______ UL# ______

Type of Fuel Tank

- ☐ Oil
- ☐ Gas

Size of Tank Natural Gas

Number of Tanks ______

Distance from Tank to Center of Flame ______ **feet.**

Cost of Work: $ ______

Permit Fee: $ ______

Approved

Fire: ______

Ele.: ______

Bldg.: ______

Approved with Conditions

☐ See attached letter or requirement

Inspector's Signature ______ Date Approved ______

Signature of Installer ______ 207.653-5205

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

CITY OF PORTLAND, MAINE
Department of Building Inspections

Original Receipt

2

9/27/11 20

Received from Daniel Comeau

Location of Work 540 Deering Ave

Cost of Construction $ 10,537- Building Fee:

Permit Fee $ 130- Site Fee:

Certificate of Occupancy Fee:

Total: 130

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other

CBL:

Check #: Credit card Total Collected $ 130-

No work is to be started until permit issued.
Please keep original receipt for your records.

Taken by: Donna Kelly

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

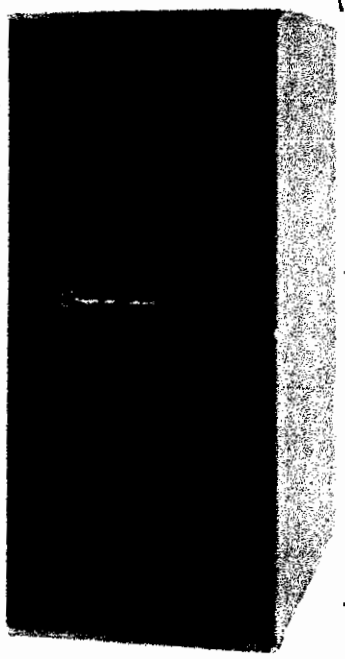
reVision heat

Professional design, installation and service of alternative heating systems to eliminate oil consumption

Steve
Cell # 318-6021
Hm # 871-5863

Natural Gas Warm Air Furnace Proposal

Client: Artist and Craftsman's Supply House
Location: 540 Deering Ave, Portland ME 04103
Date: August 17, 2011



Units to be hung from ceiling for $300 add. charge per unit

recycle plenums

recycle tstats

Co-ordinate oil removal
Extra Cost to empty

We're Putting in a Y into A roof Drain For Condensate We'll need Those components.

Overview

Based on an onsite evaluation reVision heat proposes two of your existing oil fired furnaces with a pair of American Standard Silver condensing natural gas furnaces. This gas furnace is a condensing furnace, which means it pulls so much heat out of the flue gasses that they condense, extracting 95% of the energy out of the furnace. Flue gasses are vented with PVC pipe.

We propose placing both warm air furnaces on the far wall from the front entrance. This location will provide the best opportunity for these appliances to provide most of the heat for the space. Ideally, the oil furnace will run rarely to never, and the roof top units will run occasionally.

We're removing two 80,000 BTU oil furnaces with two 120,000 BTU gas furnaces. We're oversizing the equipment in the hope that in doing so we keep the existing roof top units and oil furnace in the rear off as much as possible.

Assuming we can displace 100% of the oil heat, but none of the roof top units, this system will displace 2489 gallons of oil with 2787 therms of Natural Gas. This is based on 20% higher efficiency with the new system. In dollars, that means displacing $8200 in oil costs with $3900 in Natural Gas

for a savings of $4,000 per year. You may need to burn some oil on very cold days, but you may also be able to offset some of the roof top consumption with the more efficient condensing furnaces.

Scope of Work

Price to include the following

- Removal of existing oil fired hot air furnaces and oil tanks
- Installation two American Standard condensing warm air furnace
- Re-installation of existing duct work plenums
- Gas piping from the meter to the new furnaces
- Re- working the gas service to provide gas to the units
- Pulling a permit with the city of Portland
- Coordination with Unitil for increased gas service
- Moving waste oil to oil furnace in the rear of the building
- Installation of Carbon Monixide detectors near the furnaces
- All licenses and permits required for a code compliant installation

Total Price..... $10,537

Important Notes

- Whenever possible, reVision heat will donate serviceable equipment to the Habitat for Humanity's Re-Store in the customer's name. All other equipment and any recovered heating oil will be recycled.
- With the installation of natural gas fired equipment reVision heat strongly recommends the use of carbon monoxide detectors.

Next Steps

If this proposal meets with your approval, an installation contract will be prepared for your signature along with an invoice for an initial deposit of 1/3rd the total cost of the proposal.

Important Notes

- **Estimates of equipment or system efficiency, performance or expected energy savings are for informational purposes only. Due to the large number of variables affecting efficiency and performance that are beyond reVision heat's control, reVision heat makes no warranty or guaranty that the equipment or system installed in accordance with this proposal shall perform in accordance with such estimates.**

- **If the client specifies design changes which result in the need for materials or labor beyond the scope of this proposal, these should be discussed as early as possible. A change order will be**

American Standard
HEATING & AIR CONDITIONING

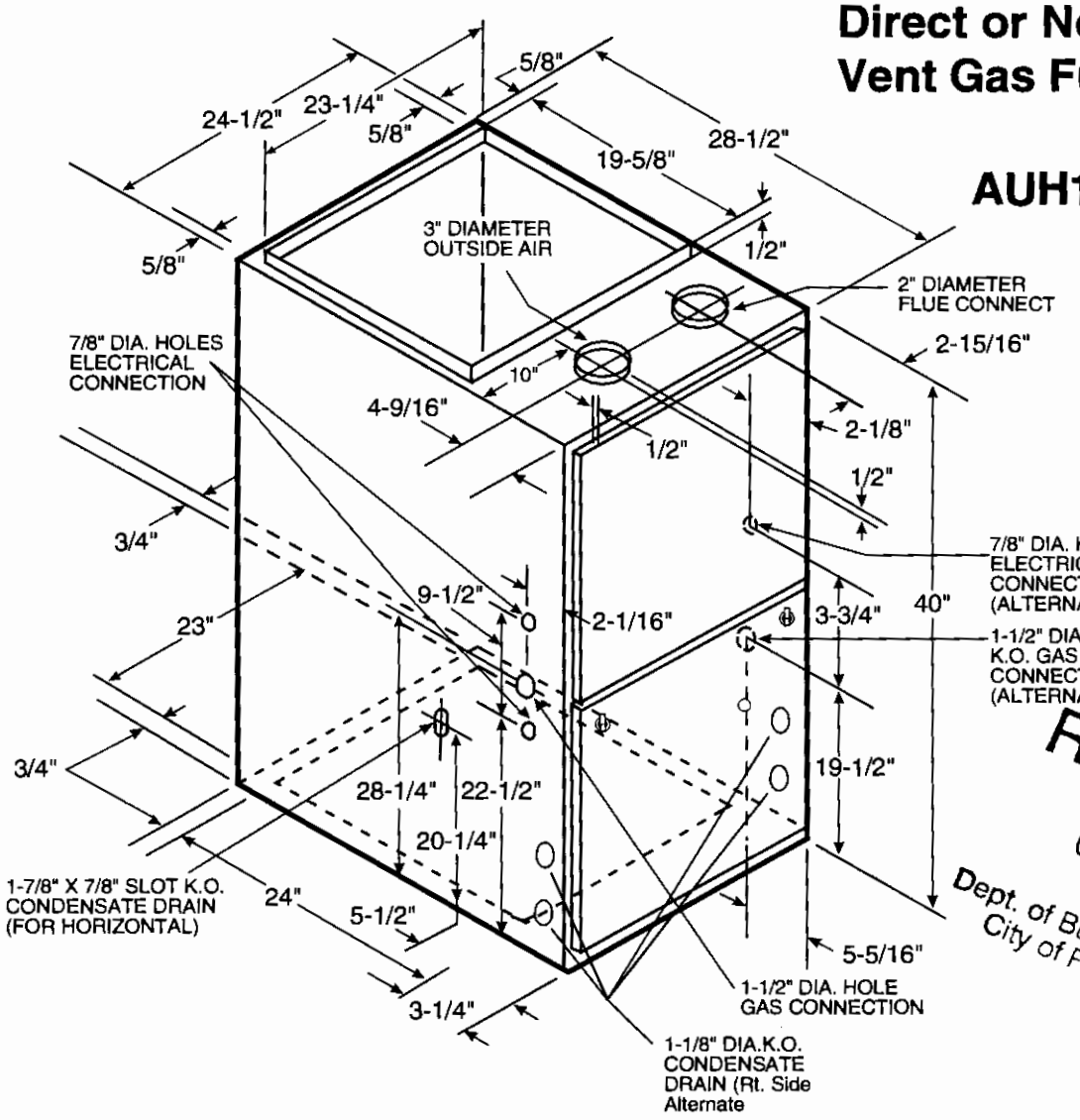
AUH1D120-SPEC-1A

TAG: _____

SPECIFICATION

Upflow / Horizontal Direct or Non-Direct Vent Gas Furnace

AUH1D120A9601A



FURNACE AIRFLOW (CFM) VS. EXTERNAL STATIC PRESSURE (in. w.c.)										
MODEL	**SPEED TAP**	**0.10**	**0.20**	**0.30**	**0.40**	**0.50**	**0.60**	**0.70**	**0.80**	**0.90**
*UH1D120A9601A	4 - HIGH - Black	2380	2334	2287	2241	2193	2118	2043	1956	1870
	3 - MED.-HIGH - Blue	2042	2029	2016	1984	1952	1892	1830	1771	1712
	2 - MED.-LOW - Yellow	1695	1690	1684	1668	1652	1627	1601	1545	1489
	1 - LOW - Red	1402	1404	1406	1397	1387	1358	1328	1285	1242
*= First letter may be "A" or "T"										

CFM VS. TEMPERATURE RISE												
MODEL	**Cubic Feet Per Minute (CFM)**											
	1300	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**	**2000**	**2100**	**2200**	**2300**	**2400**
***UH1D120A9601A**			70	66	62	59	56	53	50	48	46	44
*= First letter may be "A" or "T"												

General Data ①

TYPE	Upflow / Horizontal
RATINGS ②	
Input BTUH	110,000
Capacity BTUH (ICS) ③	104,500
AFUE	95.0
Temp. rise (Min.-Max.) °F.	40 - 70
BLOWER DRIVE	DIRECT
Diameter-Width (In.)	11 x 10
No. Used	1
Speeds (No.)	4
CFM vs. in. w.g.	See Fan Performance
Motor HP	3/4
R.P.M.	1100
Volts/Ph/Hz	115/1/60
COMBUSTION FAN - Type	Centrifugal
Drive - No. Speeds	Direct - 1
Motor HP - RPM	1/20 - 3450
Volts/Ph/Hz	115/1/60
F.L. Amps	0.71
FILTER — Furnished?	No
Type Recommended	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 24x25 - 1in.

VENT PIPE DIAMETER — Min. (In.)⑤⑥	3 Round
HEAT EXCHANGER	
Type-Fired	Alum. Steel
-Unfired	
Gauge (Fired)	20
ORIFICES — Main	
Nat.Gas. Qty. — Drill Size	6 — 45
L.P. Gas Qty. — Drill Size	6 — 56
GAS VALVE	Redundant - Single Stage
PILOT SAFETY DEVICE	
Type	Hot Surface Ignition
BURNERS — Type	Multiport Inshot
Number	6
POWER CONN. — V/Ph/Hz ④	115/1/60
Ampacity (In Amps)	12.9
Max. Overcurrent Protection (amps)	20
PIPE CONN. SIZE (IN.)	1/2
DIMENSIONS	H x W x D
Crated (In.)	41-3/4 x 26-1/2 x 30-1/2
Uncrated (In.)	40 x 24-1/2 x 28
WEIGHT	
Shipping (Lbs.) / Net (Lbs)	205 / 195

Notes
① Central Furnace heating designs are certified by AGA and CSA.
② For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level. For Canadian applications, above input ratings (BTUH) are up to 4,500 feet, derate 4% per 1,000 feet for elevations above 4,500 feet above sea level.
③ Based on U.S. government standard tests.
④ The above wiring specifications are in accordance with National Electrical Code; however, installations must comply with local codes.
⑤ Refer to the Vent Length Table in the Installer's Guide or the Allowable Vent Length label located on the furnace.
⑥ All "UH1 furnace models have a vent outlet diameter that equals 2".

Mechanical Specifications

NATURAL GAS MODELS—Central heating furnace designs are certified by the American Gas Association for both natural and L.P. gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

SAFE OPERATION — The Integrated System Control has solid state devices, which continuously monitor for presence of flame, when the system is in the heating mode of operation. Slow opening, dual solenoid combination gas valve and regulator provide extra safety and quieter operation.

QUICK HEATING— Durable, cycle tested, heavy gauge **aluminized steel heat exchanger and stainless steel secondary heat exchanger** quickly transfer over 90% of the heat to provide warm conditioned air to the structure. **Low energy power vent blower,** to increase efficiency and provide a positive discharge of gas fumes to the outside as it draws outdoor air in for sealed combustion, which means it uses no indoor air for combustion.

Since American Standard Heating & Air Conditioning has a policy of continuous product and product data improvement, it reserves the right to change specifications and design without notice.

Technical Literature - Printed in U.S.A.

American Standard
Heating & Air Conditioning
6200 Troup Highway
Tyler, TX 75707

BURNERS — Multi-port, in-shot burners will give years of quiet and efficient service. All models can be converted to **L.P. gas** without changing burners.

INTEGRATED SYSTEM CONTROL— Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service. The built-in, selectable **"Cooling Fan Off"** feature provides time-delay capability like a BAY24X045 Time-Delay Kit for cooling operation. Also contains connection points for E.A.C./humidifier.

AIR DELIVERY — The multispeed, direct-drive blower motor, with sufficient airflow range for most heating and cooling requirements, will switch from heating to cooling speeds on demand from room thermostat. The blower door safety switch will prevent or terminate furnace operation when the blower door is removed. (Fan relay and 35VA control transformer is standard).

STYLING — Heavy gauge steel and "wraparound" cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. The heat exchanger section of the cabinet is completely lined with foil-faced fiberglass insulation. This results in quiet and efficient operation due to the excellent acoustical and insulating qualities of fiberglass.

FEATURES AND GENERAL OPERATION — These High Efficiency, Direct Vent, Condensing Gas Furnaces employ a Hot Surface Ignition system, which eliminates the waste of a constantly burning pilot. They are convertible for HORIZONTAL use by rotating the unit to its left side. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

a. Low energy power venter.
b. Vent proving differential switch.

Library	Unitary
Product Section	Furnaces
Product	Furnace
Model	AUH1
Literature Type	Submittal
Sequence	-
Date	06/09
File No.	AUH1D120A-SPEC-1A
Supersedes	AUH1D120A-SPEC-1