



HVAC / Power Equipment Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

- A floor plan that includes structural details, size and dimensions of the floor the equipment is going to be installed.
- Information on how the unit is being vented & hanging details if appropriate.
- Details of the specific equipment being installed; ie, specifications and any heating technical specifications. Often this information can be obtained from the manufacturer's spec sheet or retail advertisements.
- A plot plan showing the shape and dimension of the lot, with the distance from the actual property lines, and the principal structure may be required.
- Proof of ownership is required if it is inconsistent with the assessors records.

All HVAC installations must be conducted in compliance with the
IRC 2009 Building Code

Separate permits are required for plumbing and electrical installations, as required.

Separate permits are also required based on different properties (different Chart, Block and Lot.)

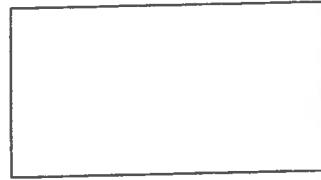
Permit Fee: \$30.00 for the first \$1000.00 construction cost, \$10.00 per additional \$1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.



FILL IN AND SIGN WITH INK

Application for Heating, Ventilation, Air Condition (HVAC) Cooking or Power Equipment



To the Inspector of Buildings, Portland Maine:

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

Address/CBL: 032-I-021-001 Use of Building: Office Space Date: 11/15/13
Name and Address of Owner: Buckstar, LLC: 4 Canal Plaza, Portland, ME 04101

Installer's Name and Address: Doug Sawyer Mid-Maine Generator PO Box 147 Winthrop ME
E-Mail: dsawyer@kaplanelectric.com

<p>Location of Appliance:</p> <p><input checked="" type="checkbox"/> Basement <input type="checkbox"/> Floor</p> <p><input type="checkbox"/> Attic <input type="checkbox"/> Roof</p> <p>Type of Fuel:</p> <p><input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Solid</p> <p>Appliance Name: <u>Bosch Greenstar 151</u></p> <p>UL Approved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Will appliance be installed in accordance with the manufacturer's installation instructions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Type of License of Installer:</p> <p>Master Plumber #: _____</p> <p>Solid Fuel #: _____</p> <p>Oil #: _____</p> <p>Gas #: <u>PNT 7087</u></p> <p>Other: _____</p>	<p>Type of Venting: (Plan required for submittal)</p> <p><input type="checkbox"/> Masonry Lined Factory Built: _____</p> <p><input type="checkbox"/> Metal Factory Built UL Listing: _____</p> <p><input checked="" type="checkbox"/> Direct Vent Type: <u>PVC</u> UL #: _____</p> <p># of Tanks: <u>NAT</u></p> <p>Type of Fuel Tank:</p> <p><input type="checkbox"/> Gas <input type="checkbox"/> Oil</p> <p>Size of Tank: <u>NA</u></p> <p>Distance from tank to center of flame: <u>NA</u></p> <p>Cost of Work: \$ <u>25,000</u></p> <p>Permit Fee: \$ <u>\$270.00</u></p>
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Approved

Approved with Conditions

See attached letter or requirements

Fire: _____

Electric: _____

Building: _____

Inspector's Signature

Date Approved

Signature of Installer: Douglas R Sawyer

E-Mail: dsawyer@kaplanelectric.com



PORTLAND MAINE

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

Jeff Levine, AICP, Director
Director of Planning and Urban Development

Tammy Munson
Director, Inspections Division

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no permit application can be reviewed until payment of appropriate permit fees are **paid in full** to the Inspections Office, City of Portland Maine by method noted below:

- Within 24-48 hours, once my complete permit application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- Within 24-48 hours, once my permit application and corresponding paperwork has been electronically delivered, I intend to **hand deliver** a payment method to the Inspections Office, Room 315, Portland City Hall.
- I intend to deliver a payment method through the U.S. Postal Service mail once my permit paperwork has been electronically delivered.

Applicant Signature: *Abigail Cassidy on behalf of Buckstar, LLC*

Date: *11/15/13*

I have provided digital copies and sent them on: *yes*

Date: *11/15/13*

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means ie; a thumb drive or CD to the office.

Room 315 - 389 Congress Street- Portland, Maine 04101 (207) 874-8703 - Fax: 874-8716 - TTY: 874-8936

Bosch Greenstar Boilers



	Space Heating + DHW			Space Heating Only		
	Greenstar Combi 100	Greenstar Combi 151	Greenstar 57	Greenstar 100	Greenstar 131	Greenstar 151
Model	ZWB28-3	ZWB42-3	ZBR16-3	ZBR28-3	ZBR35-3	ZBR42-3
Part Number - NG	7738100002	7713331041	7712231416	7712231415	7712231414	7712231413
Performance Specifications						
Fuel	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP
Input Maximum (MBH)	100.8	151.6	57.2	100.8	131.9	151.6
Input Minimum (MBH)	34.6	36	12.9	24.6	36	36
DOE Heating Capacity (MBH)	89.4	134.4	50.8	89.4	116.7	134.4
Net I=B+R (MBH)	79	117	45	79	103	117
AFUE	90%*					
Low Temp Application Efficiencies	98.9%	96.8%	98.7%	98.5%	97.5%	96.8%
DHW Flow Max (ΔT at 72°F)	2.65 GPM	4.0 GPM	-	-	-	-
Water Volume (Gal)	1.0	1.0	1.0	1.0	1.0	1.0
Technical Data						
Weight (Without Packaging)	110.2 lbs	110.2 lbs	103.6 lbs	103.6 lbs	103.6 lbs	103.6 lbs
Dimensions W x H x D	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"
Minimum Recommended Pipe Size	1"	1"	1"	1"	1"	1"
Supply Tappings	1"	1"	1"	1"	1"	1"
Return Tappings	1"	1"	1"	1"	1"	1"
Domestic Cold Water Supply	¾"	¾"	-	-	-	-
Domestic Hot Water Supply	¾"	¾"	-	-	-	-
Gas Connection Size	¾"	¾"	¾"	¾"	¾"	¾"
Vent Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
Vent Material	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC
Combustion Air Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
High Altitude Capability	No De-Rating up to 6,000'	De-Rating 3% per 1,000'	No De-Rating up to 6,000'	No De-Rating up to 6,000'	No De-Rating up to 6,000'	De-Rating 3% per 1,000'
Gas Pressure Minimum WC	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"	NG 3.5" / LP 8"

* In November of 2012, AHRI, the agency that regulates AFUE ratings, announced that due to a testing inaccuracy all modulating gas condensing boilers from all manufacturers are down-rated to 90%. Bosch is working closely with AHRI to ensure that ratings reflect accurate test results. For more information visit www.ahri.ca/PDFs/20121128DOE_AFUE_Revision_Measurements.pdf

§Copies of original warranties in their entirety are available at www.boschheatingandcooling.com

Part Number	Description	Price List
Greenstar		
7713331041	Greenstar Combi 151	\$4,851.00
7738100002	Greenstar Combi 100	\$3,712.00
7712231416	Greenstar 57	\$2,855.00
7712231415	Greenstar 100	\$3,712.00
7712231414	Greenstar 131	\$4,183.00
7712231413	Greenstar 151	\$4,488.00

Part Number	Description	Price List
Greenstar Accessories		
7719003525	FB100 (Auxilliary Room Sensor)	\$128.00
7719003526	IPM2 (2 Zone Model)	\$256.00
7719003527	ISM2 (Solar Thermal Module)	\$256.00
7719003528	ICM (Cascade Module)	\$466.00
7719002503	Cleaning Tool	\$20.00
7719002502	Cleaning Brush Set	\$69.00

OUTPUTS

Capacity BTU/HR @ 65°F Entering Air										
Model	Fan Speed	Pressure Drop (Ft.)	ENTERING WATER TEMPERATURE (Deg. F.) - BTU/Hrs.							
			140'	150'	160'	170'	180'	190'	200'	210'
PSU-10	max. min.	2.75	4278	5325	6192	7024	7957	9081	9736	10598
			2994	3727	4334	4915	5570	6350	6810	7415
PSU-15	max. min.	3.07	5120	6255	7382	8933	10590	12250	14349	15430
			3580	4375	5163	6250	7412	8575	10040	10800
PSU-23	max. min.	3.82	8790	10932	13070	15210	17370	19500	21530	23820
			6150	7651	9145	10645	12160	13645	15072	16675
PSU-30	max. min.	4.6	10050	12750	15800	19150	22000	24900	27750	30450
			7030	8900	11020	13380	15350	17400	19425	21310
PSU-40	max. min.	4.6	19720	21384	23166	25300	29402	31600	35640	40700
			17000	18250	20050	23008	25200	27055	29184	31040

NOTES:

1. PSU 10, 15 & 23 capacities based on 2 gpm correction factors for:
.5 gpm = .80; 1.5 gpm = .96; 2.5 gpm = 1.07; 3 gpm = 1.12; and 5 gpm = 1.23.
PSU 30 & 40 capacities based on 3 gpm correction factors for:
1 gpm = .85; 5 gpm = 1.18.
2. Aquastat set to close on a rise to 130°F and to open on a drop to 110°F. For outputs at 130°F and below optional field mounted 110°F-90°F aquastat is required.
3. It is recommended that selections be made at low speed at the desired water temperature.

MODEL	UNIT WEIGHT	WT. PACKED	CUBIC FT./MINUTE	
			MAX.	MIN.
PSU-10	24.6 lbs.	28 lbs.	75	50
PSU-15	33 lbs.	37 lbs.	140	100
PSU-23	44 lbs.	50 lbs.	210	150
PSU-30	37.75 lbs.	45.25 lbs.	270	196
PSU-40	53.56 lbs.	62.86 lbs.	378	275

ENGINEERING SPECIFICATIONS

Construction. All PSU fan convectors are constructed of an internal "Heatpack" section mounted to a well designed back chassis. All components are then enclosed under a shroud (cover) which is made of high grade zinc coated steel painted with a dove grey baked enamel finish.

"Heatpack" Section. A uniquely designed internal component consisting of the coil, fan and motor assembly and all controls integrally mounted.

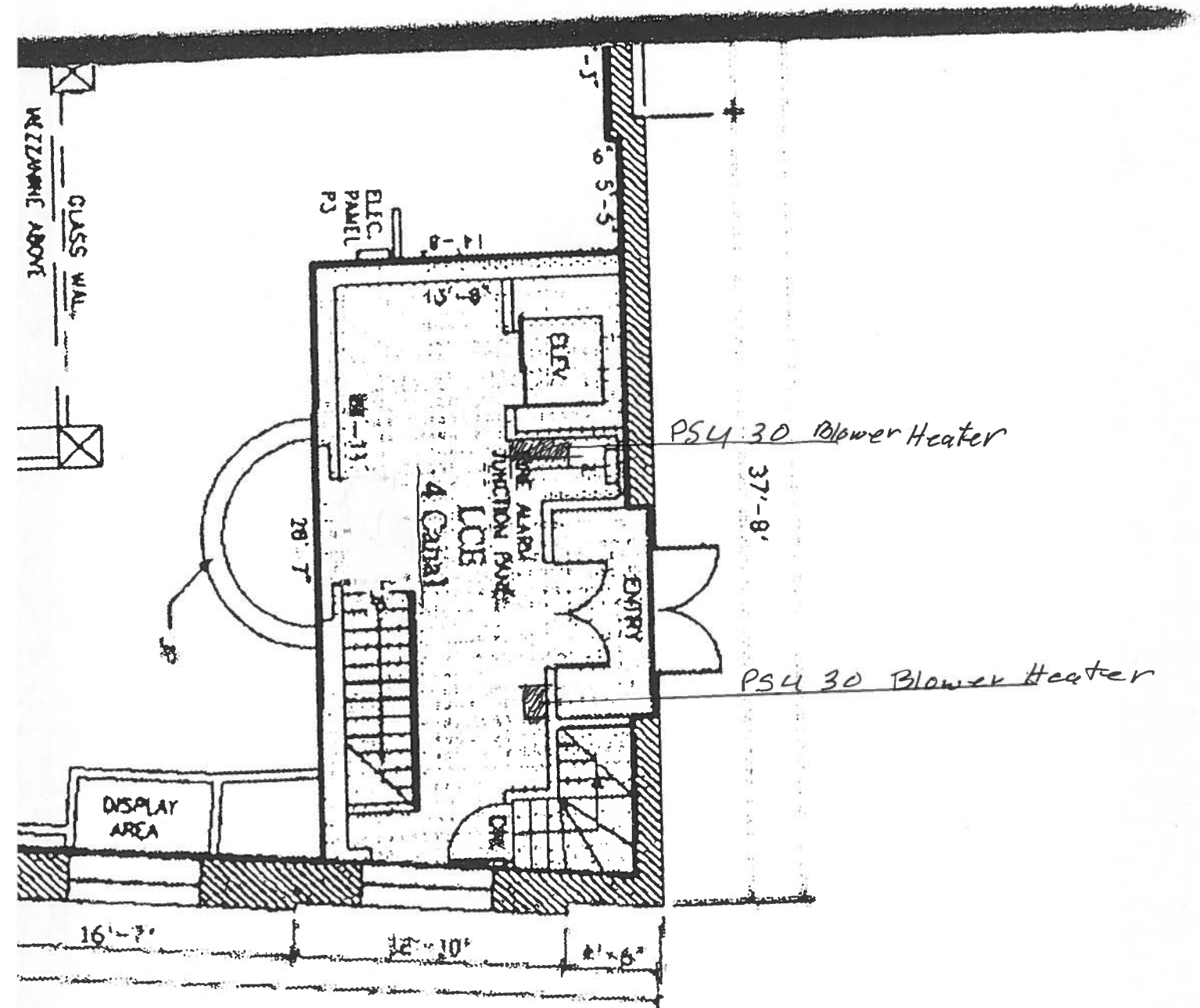
Heat Exchanger. A highly efficient, headered coil, made of copper tubes expanded into smooth aluminum plate fins (10 FPI), tested at 300 PSI, and sealed for quality. The heat exchanger is positioned in each PSU unit for maximum heat transfer over the coil.

Fan and Motor Assembly. High spec tangential SEL fan and motor assembly consists of high static fan wheel and scroll, detachable motor, replaceable "easy glide" sleeve bearings, and the fan and motor cut out are protected to UL/CSA specifications. This fan and motor assembly is designed to run whisper quiet without vibration.

Controls. All PSU units have integral two speed, max.-off-min., and switches (optional wall mounted fan speed controller is available). The LTC – low limit aquastat is also a high spec item with a close tolerance designed to close on a rise to 130°F+/-3°F and open at 110°F+/-3°F. For low temperature systems you will have to change out the aquastat located on the second copper tube U bend behind the speed switch, in the main control box, underneath the cover shroud.

Water Connections. Supply and return connections are 1/2" (PSU 10, 15 & 23) or 3/4" (PSU 30 & 40) sweat connections located on the left hand side of the unit as you face the grille. A water vent with wide convenient screwdriver slot is accessible on the left of the unit underneath.

Electrical Connections. (PSU 10, 15 & 23) 120/60/1 power supply is required. The cover shroud (i.e. the cover) must be removed to bleed the unit. (PSU 30 & 40) 120/60/1 power supply is required. All that's required is to knock out the junction box hole you want to use and wire to the L1 and L2 leads. There is a convenient one screw access plate on the top of the unit to get at the ground.



PS4 30 Blower Heater

37'-8"

PS4 30 Blower Heater

16'-7"

32'-10"

21'-6"

28'-7"

GLASS WALL
WIZARDING ABOVE

ELECT. PANEL
P3

AIR ALARM
JUNCTION BOX

4 CANAL
LCB

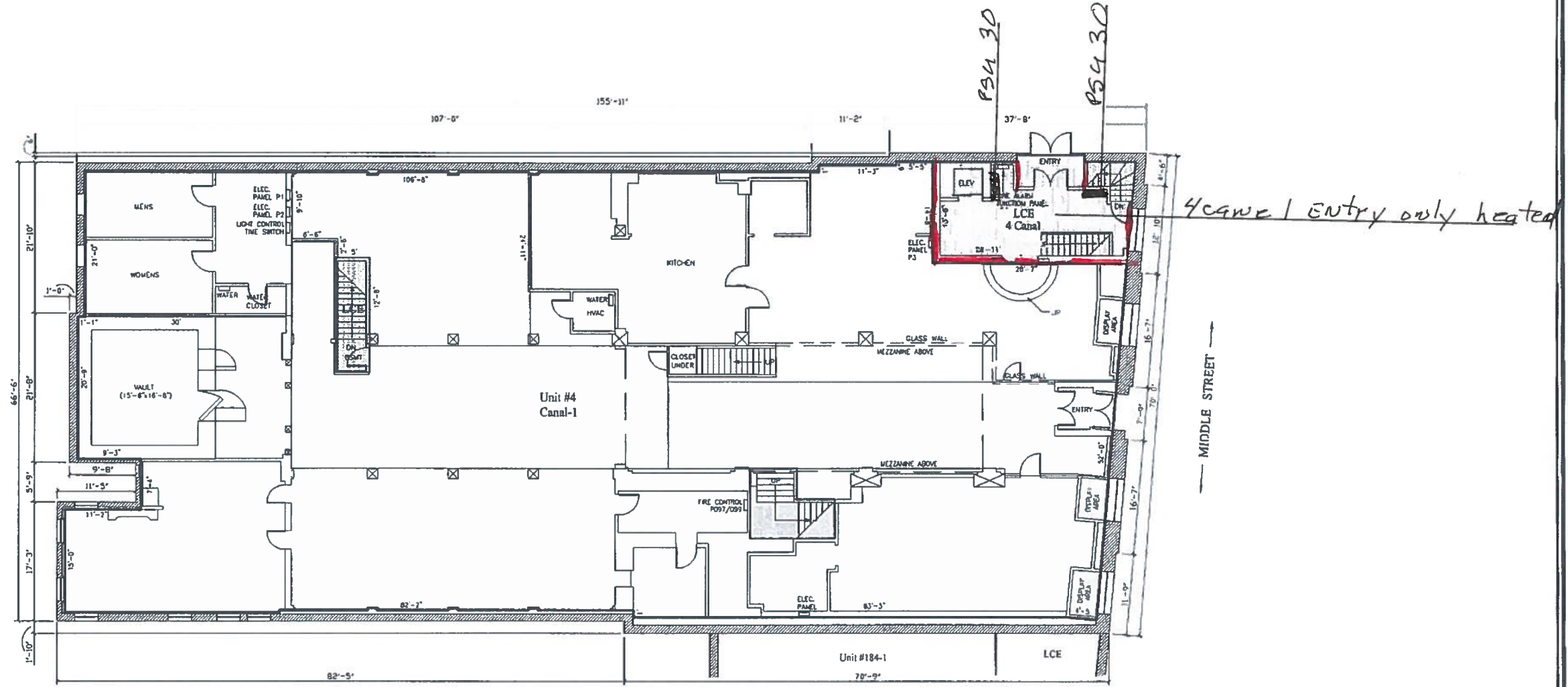
ENTRY

D.M.K.

ELEV.

DISPLAY
AREA

↑



FIRST FLOOR

LEGEND
 CE COMMON ELEMENT
 LCE LIMITED COMMON ELEMENT
 UNIT BOUNDARY



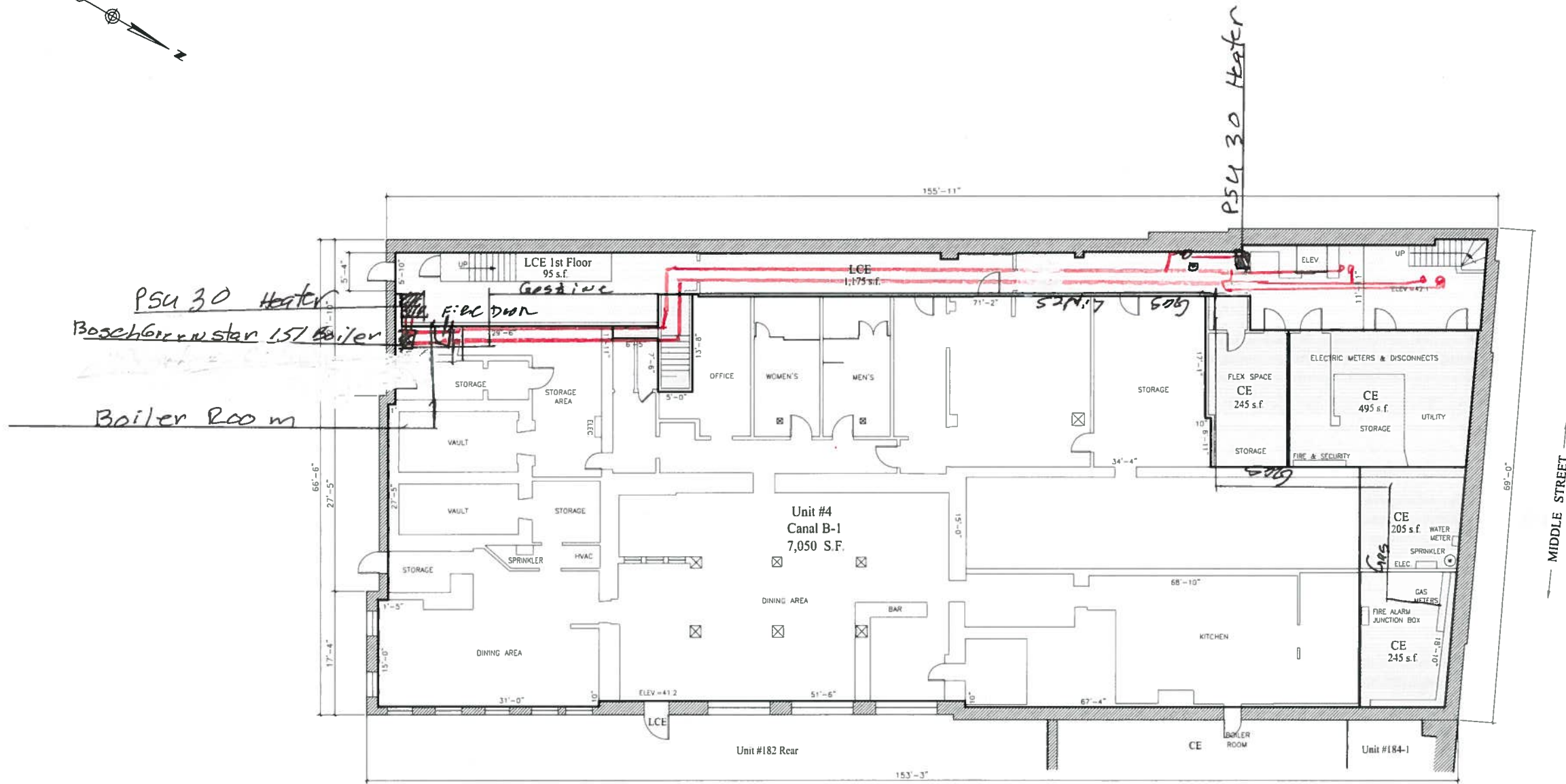
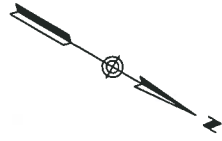
NOTE:
 1. ALL UNITS AND CE SUBJECT TO DEVELOPMENT AND SPECIAL DECLARATORY RIGHTS.
 2. INTERNAL PARTITIONS AND DESIGNATIONS ARE ILLUSTRATIVE ONLY.

VERTICAL BOUNDARY
 4 CANAL - 1ST FLOOR PLAN
 BOYD BLOCK CONDOMINIUM
 176-188 MIDDLE STREET, PORTLAND, MAINE
 MADE FOR RECORD OWNER
 BUCKSTAR LLC
 100 SILVER STREET, PORTLAND, MAINE 04101

OWEN HASKELL, INC.
 300 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
 PROFESSIONAL LAND SURVEYORS

Drawn By	EB	Date	Job No.
Traced By	JLW	JANUARY 31, 2011	2010-131P
Check By	JWS	Scale	Orig. No.
Book No.	FILE	1/8" = 1'	8 OF 9

JOHN W. SWAN, PLS NO. 1038



BASEMENT

Note: Unit Canal B-1 subject to Reserved Access Easement to LCE and CE and Utilities

LEGEND
 CE COMMON ELEMENT
 LCE LIMITED COMMON ELEMENT
 UNIT BOUNDARY



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JOHN W SWAN, PLS NO 1038

REV. 1	12-14-11	STAIRWELLS
VERTICAL BOUNDARY		
4 CANAL - BASEMENT PLAN		
BOYD BLOCK CONDOMINIUM		
176-188 MIDDLE STREET, PORTLAND, MAINE		
MADE FOR RECORD OWNER		
BUCKSTAR LLC		
100 SILVER STREET, PORTLAND, MAINE 04101		
OWEN HASKELL, INC.		
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424		
PROFESSIONAL LAND SURVEYORS		
Drawn By	EB	Date
Trace By	JLW	AUGUST 2, 2011
Check By	JWS	Scale
Book No.	FILE	1/8" = 1'
		Job No.
		2010-131P
		Draw. No.
		5 OF 10