

CITY OF
PORTAGE
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**CONSTRUCTION BOARD
OF APPEALS**

November 28, 2011

CITY OF PORTAGE
CONSTRUCTION BOARD OF APPEALS
A G E N D A

November 28, 2011

The City of Portage Construction Board of Appeals will hold a meeting on November 28, 2011 at 5:00 p.m. in Conference Room One, Portage City Hall, 7900 South Westnedge Avenue.

APPROVAL OF MINUTES:

*April 12, 2010

OLD BUSINESS:

None

NEW BUSINESS:

*825 Barberry Avenue – Variance request for Outdoor Solid Fuel-Fired Furnace

STATEMENT OF CITIZENS:

ADJOURNMENT:

Material Transmitted

Star (*) indicates printed material within the agenda packet.

CITY OF PORTAGE CONSTRUCTION BOARD OF APPEALS

 **DRAFT**

Minutes of Meeting – April 12, 2010

The City of Portage Construction Board of Appeals meeting of April 12, 2010 was called to order at 5:00 p.m. in Conference Room One of Portage City Hall, 7900 South Westnedge Avenue, Portage, Michigan.

MEMBERS PRESENT:

Thomas Wilkinson, Lawrence Schmidt, Bill Miller and John Kounelis.

MEMBERS ABSENT:

None

MEMBERS EXCUSED:

William Leach, William Koopsen and Brett Grossman.

IN ATTENDANCE:

Terry Novak, Deputy Director of Building Services and Mike Beery Building Inspector.

APPROVAL OF MINUTES:

The minutes of November 30, 2009 were approved.

BOARD ACTION:

10323 Archwood Drive – Show Cause Hearing for water damaged single-family house.

Chairman Wilkinson commenced the Show Cause Hearing for the vacant single-family house located at 10323 Archwood Drive. Deputy Director Novak provided background information, including the citizen notification of water emanating from the house and the follow up action taken by the Department of Community Development and Fire Department. Deputy Director Novak informed the Board that approximately eight foot of water was observed in the basement of the house and that portions of the first floor ceiling had collapsed. Building inspector Beery advised that on a recent inspection of the house, mold was observed through the windows and that there was also a concern regarding the integrity of the damaged structural components of the house. Deputy Director Novak advised the Board that unsafe structure and show cause hearing notifications were transmitted to the property owner listed on the tax rolls as required by ordinance and also to the local and national mortgage company office of Wells Fargo to ensure all interested parties received notification. Deputy Director Novak further advised an April 8, 2010 email communication was received from Chad McDowell, Real Estate Property Preservation Representative for Wells Fargo requesting that the hearing be postponed until April 29, 2010 to allow time for the demo work to be completed. Deputy Director Novak read the email verbatim to the Board and indicated that he had spoke to Mr. McDowell and agreed to relay his request that the Board allow Wells Fargo until April 29, 2010 to remove the house.

A motion was made by Member Schmidt requiring that the house be razed and removed from the site and that the site be restored by April 29, 2010. If the owner fails to complete the demolition and site restoration, the matter is to be transmitted to City Council for authorization to raze the structure. Member

Miller seconded the motion. The motion passed unanimously.

ADJOURNMENT:

The Board meeting adjourned at 5:20 p.m.

Respectfully Submitted,



Terry A. Novak,
Deputy Director of Building Services

TO: Construction Board of Appeals

FROM: Vicki Georgeau, ^{VJ} Director of Community Development

DATE: November 11, 2011

SUBJECT: Variance Requests – 825 Barberry Avenue

CODE SECTION: City of Portage Codified Ordinances, Article 6 – Outdoor Solid Fuel-Fired Furnaces, Section 34-153 - Regulations

RECOMMENDATION: A request for variances pertaining to the installation of an outdoor solid fuel-fired furnace has been received from Richard Karnemaat, 825 Barberry Avenue. The property has been combined with 8412 Tranquil Street to create a parcel approximately 6.24 acres in size.

Outdoor solid fuel-fired furnaces are designed as a primary source of heat for a building and require a continual source of fuel to operate. The furnaces are located outside away from buildings and function by burning wood or other solid fuels in an enclosed firebox that is surrounded by a chamber of water. As the fire burns, the water is heated and pumped to a heat exchanger located in the building through underground piping.

The requested variances by Mr. Karnemaat pertain to the location and installation of the furnace, specifically:

1. A reduction in required distance from the nearest residential dwellings not on the same property. (300 feet required -- 260 feet proposed from the dwelling at 845 Barberry Avenue)
2. A reduction in required distance from any property line. (100 feet required - - 5 feet proposed)
3. A reduction in chimney height. (minimum 15 feet above the ground surface or the height of the highest eve of any residential home within 500 feet required -- cap only with no chimney proposed)

As background information, the Outdoor Solid Fuel-Fired Furnaces Ordinance was established in 2009 after considerable research and study due to the potential problems associated with the continual burning and smoke that outdoor furnaces present. The ordinance is structured with specific constraints regarding proximity to residential dwellings to ensure that outdoor furnaces are installed in limited locations to minimize negative impacts of smoke, odor and fumes on surrounding properties.

Hawkins Energy, manufacturer of the proposed furnace has indicated to staff that the proposed unit could be located a distance of 250-feet away from the house at 825 Barberry Avenue and meet the requirements of the City Code. In addition, Hawkins Energy advised that a kit can readily be installed on the unit to increase the height of the chimney to 15-feet above the ground surface without any negative impacts on the furnace. A vicinity map is attached that illustrates the required 100-foot setback from property lines, 300-foot separation from adjacent residences, and conforming locations for the outdoor furnace that meet the requirements of Section 34-153.

It is the recommendation of staff that the proposed outdoor furnace be installed in accordance to the specifications provided in Section 34-153.

Attachments: City of Portage Code of Ordinances, Article 6 – Solid Fuel-Fired Furnaces
Aerial photograph of 825 Barberry Avenue
Construction Board of Appeals Application and Information for 825 Barberry Avenue

S:\2011-2012 Department Files\Board Files\CONSTRUCTION BOARD\2011 11 03 VG Outdoor Furnance 825 Barberry Avenue.doc

ARTICLE 6. - OUTDOOR SOLID FUEL-FIRED FURNACES

Sec. 34-151. - Purpose.

Sec. 34-152. - Definition.

Sec. 34-153. - Regulations.

Sec. 34-154. - Existing outdoor fuel-fired furnaces.

Sec. 34-155. - Appeals and variances.

Sec. 34-156. - Violations.

Sec. 34-151. - Purpose.

- (a) Residential, commercial, and industrial establishments situated within the city are entitled to clean air and environmental circumstances free of unreasonable dust, obnoxious odors, noxious fumes and smoke, as well as an environment free of stored debris and storage of combustible fuels in adjacent or exposed areas within densely populated areas.
- (b) Research indicates that outdoor solid fuel-fired burning furnaces cause emission problems that cross property lines. Because the smoke stays close to the ground, it can easily reach humans working or playing outdoors, or penetrate neighboring buildings. The low-lying smoke can cause visibility problems, worsen cardiovascular problems such as angina, irritate eyes and lungs, trigger headaches, worsen respiratory diseases such as asthma, emphysema and bronchitis.

(Ord. No. 09-02, 3-10-2009)

Sec. 34-152. - Definition.

Outdoor solid fuel-fired furnace means a furnace or boiler, fueled by wood, coal, corn or other types of solid fuel, located outside of the structure it is intended to heat, with the designated purpose of providing indoor heat for water and/or air for a residence or other structure. The provisions of this article do not apply to furnaces or boilers fueled by natural gas, propane, or fuel oil if the furnace or boiler has been inspected and approved by the governing entity.

(Ord. No. 09-02, 3-10-2009)

Sec. 34-153. - Regulations.

- (a) No outdoor solid fuel-fired furnace shall be located on a parcel of land less than five acres in area.
- (b) No outdoor solid fuel-fired furnace shall be located in any area that is part of a condominium subdivision or platted subdivision.
- (c) The outdoor solid fuel-fired furnace shall be located at least 300 feet from the nearest residential dwelling unit which is not on the same property as the outdoor fuel-fired furnace and be at least 100 feet from any property line.
- (d) The outdoor solid fuel-fired furnace shall have a chimney that extends at least 15 feet above the ground surface. If there are any residential dwelling units within 500 feet of the outdoor fuel-fired furnace, the chimney shall also extend at least as high above the ground surface as the highest eave line of all such residential dwelling units. A lesser chimney height may be approved by the construction board of appeals if necessary to comply with the manufacturer's specifications.
- (e) The outdoor solid fuel-fired furnace must be UL (Underwriters Laboratories, Inc.) listed, certified or approved by another recognized product safety certification organization. Outdoor solid fuel-fired furnaces must meet all specifications provided by the manufacturer.
- (f) Outdoor solid fuel-fired furnaces shall not be used to burn any fuel other than the fuel specified by the manufacturer. Outdoor solid fuel-fired furnaces shall not be used to burn processed wood products, painted or treated wood, recyclable materials, plastics, rubber, paper products, trash or rubbish.
- (g) A mechanical permit for the installation of a outdoor solid fuel-fired furnace shall be obtained from the department of community development after review and approval of the outdoor solid fuel-fired furnace by the fire department and approval by the department of community development. The permit

application shall include, but not be limited to, the following:

- (1) A drawing identifying all of the information necessary to assure compliance herewith, including property lines, location of neighboring properties and structures, and height of nearby buildings.
- (2) The manufacturer's specifications for the outdoor solid fuel-fired furnace.
- (h) No outdoor solid fuel-fired furnace shall be installed or located in the front yard of a lot or parcel as defined in chapter 42, section 112.
- (i) Outdoor solid fuel-fired furnaces shall only be operated between October 1st and May 1st in a given year.
- (j) Ashes or waste resulting from burning fuel in an outdoor solid fuel-fired furnace shall not be accumulated or stored on the premises.
- (k) All fuel materials shall be neatly stacked or stored.

(Ord. No. 09-02, 3-10-2009)

Sec. 34-154. - Existing outdoor fuel-fired furnaces.

Any outdoor solid fuel-fired furnace in existence on the effective date of this article may remain, provided that the owner applies for and receives a permit from the department of community development within 180 days from the effective date of this amendment. All provisions of this article shall apply to an existing outdoor solid fuel-fired furnace except the provisions of subsections 34-153(a), (c) and (d).

(Ord. No. 09-02, 3-10-2009; Ord. No. 09-05, 4-14-2009)

Sec. 34-155. - Appeals and variances.

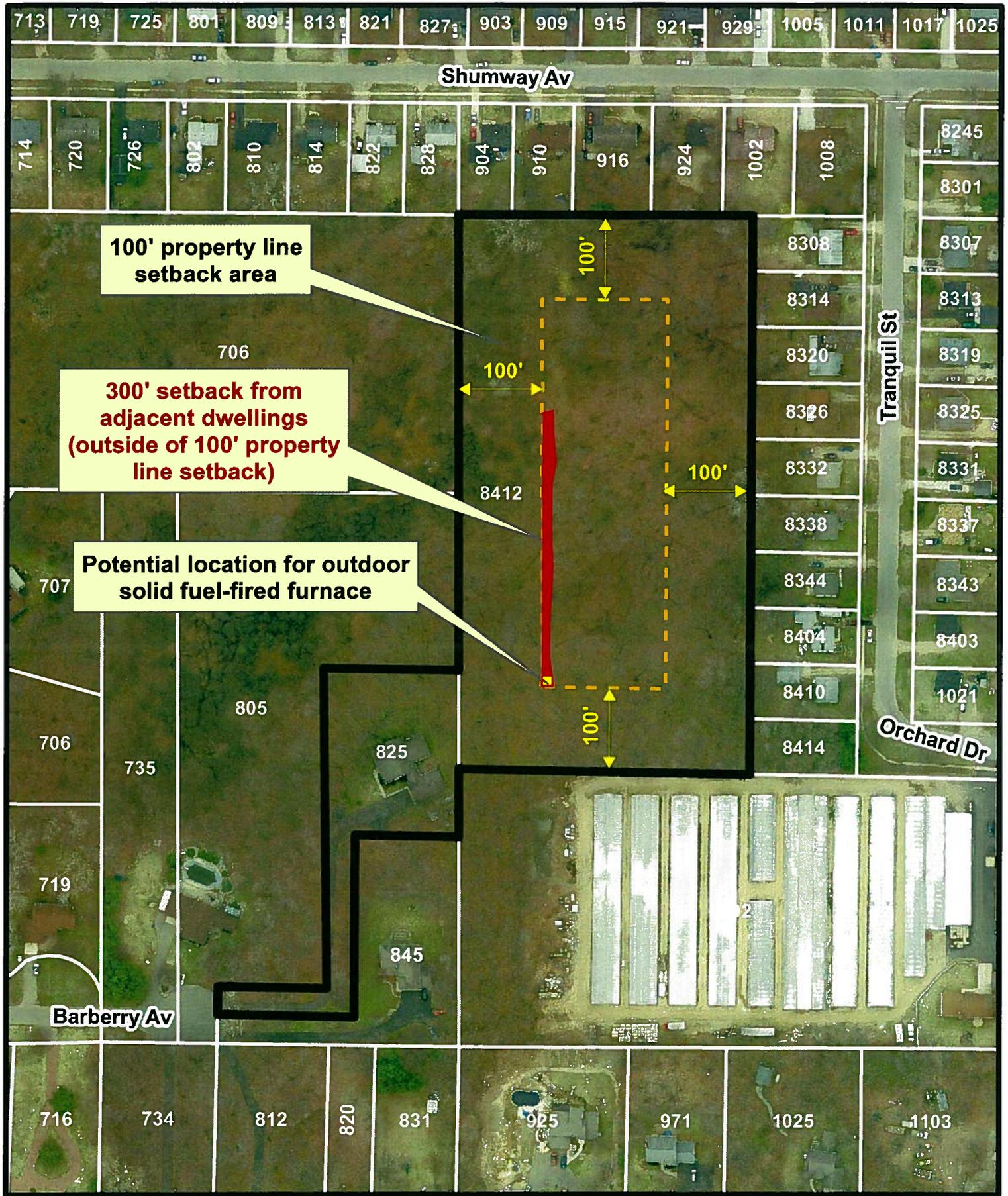
- (a) A denial of a permit under this article, or other decision of the director of community development in connection with the administration of this article may be appealed to the construction board of appeals.
- (b) A request for a variance from the strict application of the requirements of this article for a minimum parcel size, setback, or chimney/stack height may be made to the construction board of appeals.
- (c) All provisions of chapter 42, article 3, construction of board of appeals, shall apply to any appeal and variance request under article 6. Additionally, written notice of the public hearing shall be given by first class mail to abutting property owners and properties across the street from the subject parcel to be mailed no less than 15 days before the date of the hearing containing the date, time and place of the hearing.

(Ord. No. 09-02, 3-10-2009)

Sec. 34-156. - Violations.

The director of community development and other persons who are employed by the city in that department and who are duly authorized by the director may issue and serve appearance tickets and municipal civil infraction citations upon persons who violate this article.

(Ord. No. 09-02, 3-10-2009)



-  Subject Property
-  100' Setback from property line
-  Areas 300' from adjacent dwellings Outside of 100' Setback

Construction Board of Appeals
825 Barberrry Avenue &
8412 Tranquil Street



1 inch = 150 feet

RECEIVED

OCT 28 2011

COMMUNITY DEVELOPMENT

CONSTRUCTION BOARD OF APPEALS

APPLICATION # _____

HEARING DATE: _____

FILING DATE _____

I (we) Richard Kannemaat (names) of 825 Barberrry (address) hereby appeal to the Board of Appeals for an interpretation from a decision of the Department of Community Development, Building Services Division, dated _____, 19____, whereby the Department of Community Development denied a permit (____); other (____) (explain) _____

ADDRESS OF PROPERTY IN QUESTION

Street Address: 825 Barberrry Ave.

Lot _____ of _____ Plat

Legal Description (if unplatted land): Parcel # 00022-205-D
combined: 00022-205-B (825 Barberrry Ave)
00022-110-0 (8412 transmitt)

TYPE OF HEARING

Code Interpretation Variance

Interpretation relates to Article 6 Section 34-153 Paragraph c, d

Reason for request: seeking approval for outdoor fuel furnace

____ Alternate materials and methods of construction _____

Reason for request: _____

____ Show Cause Hearing for condemnation proceedings (Building Board of Appeals Only)

Has any previous application or appeal been filed in connection with these premises? No If so, when? _____

Applicant's interest in premises affected? _____

Phone Number 324-4216 Signature of Applicant Richard Kannemaat

October 26, 2011

To: Construction Board of Appeals Members
From: Portage Resident
Richard Karnemaat
825 Barberry Ave.
Ph. 324-4216

Re: Appeal request for Outdoor Solid Fuel Fired Furnace

Thank you for reviewing the attached information for consideration of a variance from the Article 6, Section 34-153 regulations.

The current regulations, written a number of years ago, were based on existing technology at that time, with primary focus on protecting adjacent properties from smoke emissions. Recent advances in wood furnace technology to efficiently recover heat and minimize smoke emissions are primary to my variance requests outlined below. The proposed unit meets UL and EPA Phase 2 requirements, and after approximately 5 minutes at start-up, per the manufacturer, the unit emits "no smoke".

Property Diagram and Aerial View

Parcel 205D; (combined parcels; 00022-205-B and 00022-110-0) total; 6+ acres
The combined parcel is an irregular shape and exceeds the minimum acreage requirement (5 acres).

Adjacent properties;

	<u>Distance of home to proposed Wood Furnace location</u>
1092 Orchard – commercial green house operation and home	approx. 600' +
Tranquil homes;	approx. 350' +
805 Barberry - home	approx. 380'
845 Barberry - home	approx. 260'

34-153 C;

1. Distance from nearest residential dwelling; current requirement 300' min.
Variance request to 260'
 - Home at 845 Barberry is not in prevailing wind direction
 - Technology of proposed furnace emits "minimum to no smoke" – much less than unregulated fireplaces and full-time in-home wood burning stoves currently operated in area.
2. Property line set back; current requirement 100'
Variance request to 5'
 - No adjacent homes are impacted
1092 Orchard – home and commercial green houses – (see property diagram)
Fence, 8' high soil berm, trees and retaining pond provide buffer zone.
 - Irregular lot shape. Locating 100' from property line would put unit closer to adjacent properties impacted by prevailing winds.
 - Desire to minimize required length of underground insulated poly pipe (\$7.00 per foot)

34-153 D;

1. Chimney Height; current regulation; 15' above ground and/or min. height of highest eve of homes within 500 ft.
Variance request; "cap only" per manufacturers recommendation
 - The stack regulation is designed to elevate smoke emissions. After start up, the proposed unit does not emit smoke.
 - Closest home at 260' is not in direction of prevailing winds from the West.
 - The elevation 20' to the north of the proposed location is 10'+ lower and would put the top of the chimney below the grade of my home.

Thank you for your immediate consideration. If you would like to visit the site to substantiate my requests, you are welcome at any time. After installation, I also invite those interested to observe the unit in operation.

I started investigating manufacturer's a few months ago, and this model from Shelby, MI based Hawken Energy meets cost, warrantee, service and technology features that exceeded my expectations with minimal to zero impact to adjacent homes and property owners. Upon your approval, I look forward to hopefully moving forward with the permit and installation processes.

Thanks. Rick Karnemaat

N

E



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Prevailing Wind Direction

X - proposed wood furnace location

City of Portage Map Document



web mapping by
Amalgam LLC

 1:3700
Map Publication:
Fri Oct 21 2011 02:15:30 PM

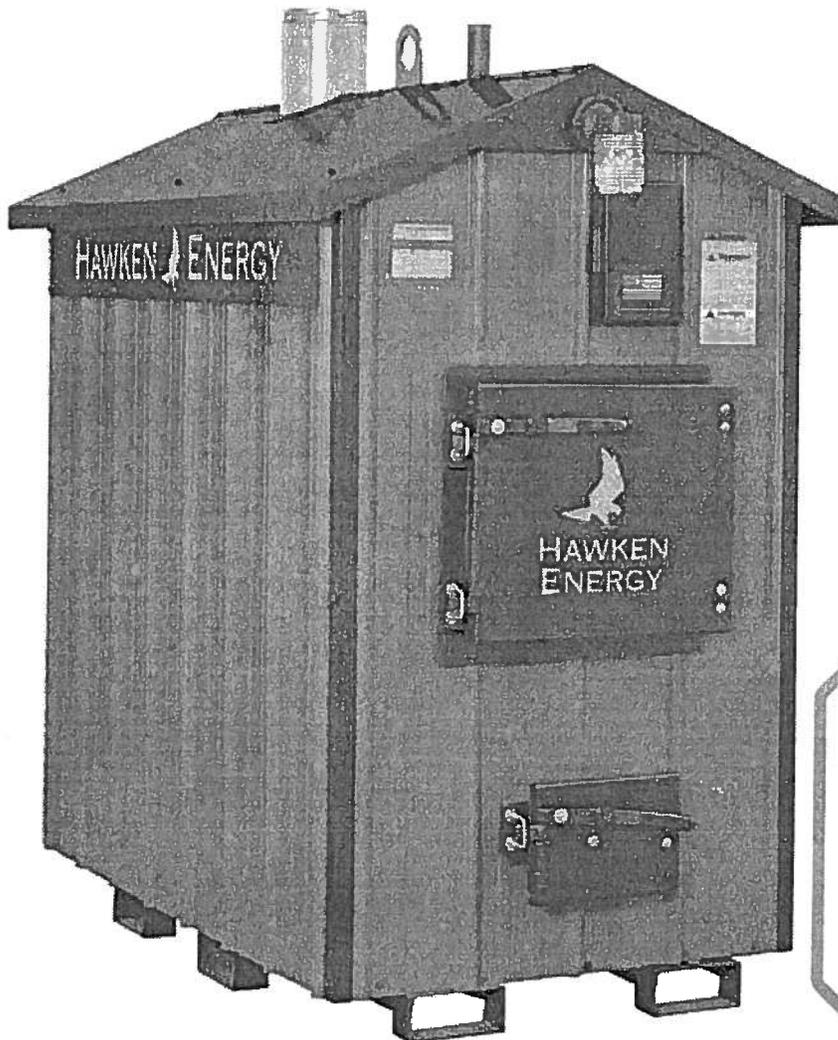
Disclaimer:

This map does not represent a survey or legal document and is provided on an "as is" basis. City of Portage expresses no warranty for the information displayed on this map document.

HAWKEN ENERGY



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HAWKEN ENERGY
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HAWKEN ENERGY

**H.E.A.T.
Newsletter**

(Hawken Energy
Achievements and Tidbits)

October 18, 2011

In This Issue:

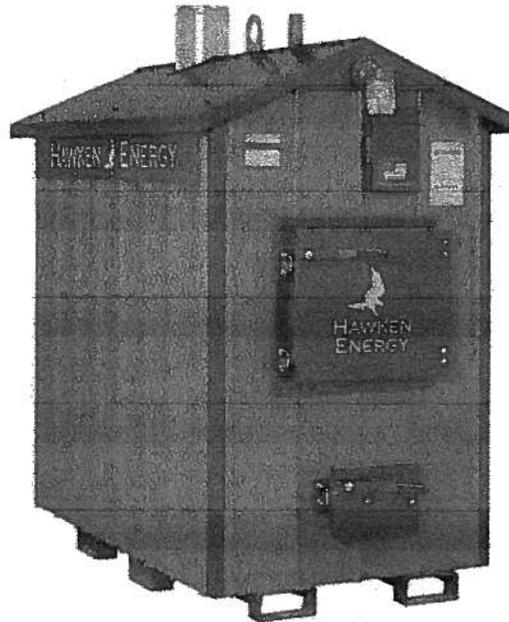
Article: Our Newest Product,
Emergency Parts to Keep on
Hand

Product Spotlight

Joke of the Month

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**HAWKEN ENERGY
PASSES EPA PHASE 2 TESTING
WITH THEIR NEW
GX10 OUTDOOR WOOD FURNACE:**



Preliminary results are in, Hawken Energy's newest model, the GX10, has qualified for the US EPA Phase 2 Hydronic Heater Program. Publication on the EPA's website is pending.

The GX10, Hawken Energy's newest outdoor wood hydronic heater, has an output of 144,000 BTU/hr and an average efficiency rating of 85%.

This newest and most efficient of Hawken's models brings affordable wood heating options back to regulated states such as Pennsylvania and New York. Priced well below the competition after instant rebates and the federal tax credit of \$300, this is **THE LOWEST PRICED** qualifying outdoor boiler that qualifies by a large margin.

The GX10 utilizes gasification technology to achieve extremely high temperatures. Air introduced into the firebox is forced down through the coals. This ignites the flammable compounds in the

smoke and creates burn temperatures exceeding 1,500°F. Temperatures often exceed 2,000°F.

This extremely hot gas passes through three heat exchangers before exiting the stack at temperatures well below 380°F.

The GX10 is sized to heat most homes, up to 3,500 sq/ft. "Customers can expect comfort and savings, the best of both worlds" said Warren Walborn, president and CEO of Hawken Energy. "Wood heat should be affordable and we're trying to help people stay warm."

Hawken has already pre-sold the first runs of this unit. To get on the order list contact Hawken Energy today. A 20% deposit is required to hold your place on the list. The larger size furnace, the GX10, is expected sometime next year.

For more information about Hawken Energy or the GX10 gasification furnace visit us [online](#) or contact your local Hawken Energy Factory Rep.

Contact Info:

Email

Local:

(231) 8618200

Toll Free:

(888) Log-Burn
(888) 564-2876

Fax:

(231) 861-0111

Mail:

Hawken Energy
PO Box 351
Shelby, MI 49455

Write a review

Hawken Energy | 1064 Industrial Park Dr | Shelby, MI | 49455 | (231) 861-8200

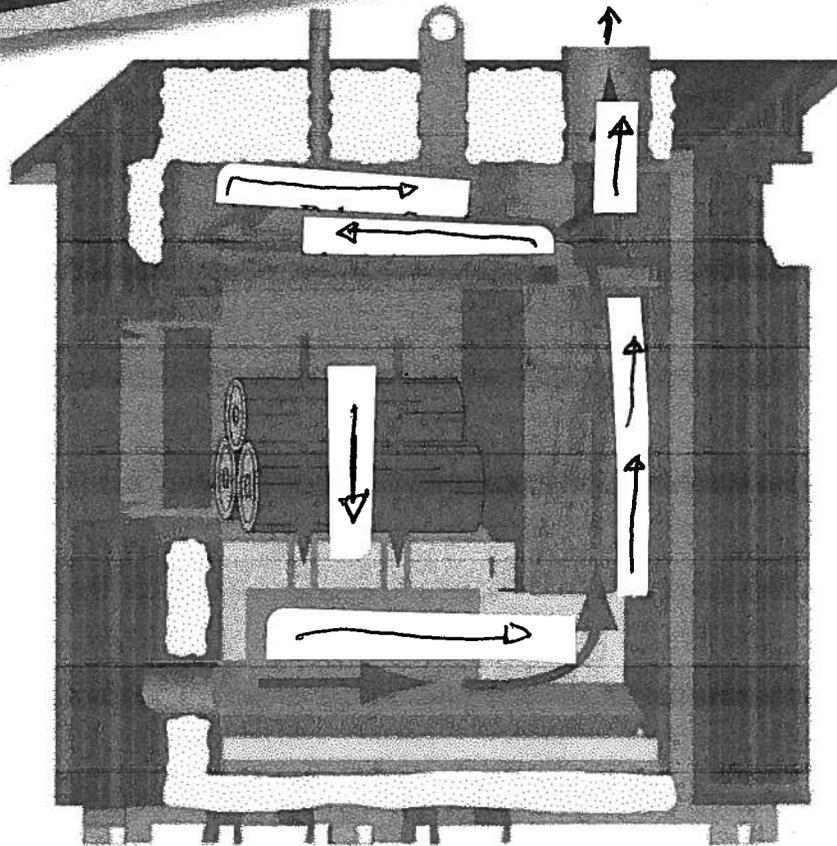
Min. clearance from building: 16" (proposed: ~ 25')

Stack Height - Cap only

Per manufacturer:

Unit emits smoke for ~ 5 minutes at start-up.
As soon as the coals are hot, "NO SMOKE".

UL Certified: 2325



GX10 SPECIFICATIONS

Approx. sq/ft ¹	3,500	Width ⁴	46"	Weight	1,200 lbs
Approx. BTU ²	144,000	Length ⁴	62"	Firebox-Inside	32" Deep
Water Capacity	107 gal	Height ³	80"	Feed / Return Connections	2 x 1"
Chimney Diameter	6"	Door Size	18" x 18"	Efficiency ⁵	85%
Outside Footprint	42" W x 70" L				

1. Rating varies according to location and building insulation quality.
2. BTU's vary according to wood type and moisture.
3. Chimney cap adds 12" to height.
4. Roof overhang on width included.
5. Measured using lower heating value at chimney.

