# High Mountain Hearth Solutions, Inc.

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## **Confidential Inspection Report**

### **Three Seasons Condominiums**

701 Gothic Rd Mt Crested Butte, CO 81225

#### **Owner**

Carol Blund Burns

Unit Number 308

Inspection Date 10/16/2015

This report is the exclusive property of the Inspection Company and the client whose name appears herewith, and its use by any unauthorized persons is prohibited.

### **Property Management Company**

## Crested Butte Lodging 701 Gothic Rd Mt Crested Butte, CO 81225

Date Of Inspection			
	10/16/2016		
Inspector			
	Rick Church		
	Certified F.I.R.E. Inspector #213		
Type of Inspection			
	N.F.P.A. Level II Chimney Inspection		
Fireplace Location			
	Third Floor		

### **PLEASE NOTE:**

If this inspection takes place during a resale or transaction of property, then we recommend that all repair suggestions we make within this report should be completed well before the close of escrow, by a certified specialists, who may identify additional defects or recommend some upgrades that could affect your evaluation of this property.

#### **GENERAL DISCLAIMER**

Customer understands that the Inspector may be required to walk on the roof to gain access to the chimney and adjacent areas. The Inspector will use reasonable care to avoid damage to the roof. However, damage to the roof may occur. Inspector will not be responsible for any damage or repair whatsoever to the roof as a result of this inspection.

Customer understands that the Inspector cannot obtain access to certain portions of the fireplace and certain enclosed adjacent areas. The Inspector makes no representations express or implied and will not be responsible in any way whatsoever for deficiencies, improper installation, or improper equipment in inaccessible areas.

The findings listed within this report are based on the condition of the appliance system at the time of this inspection and may be limited due to access or type of inspection requested.

#### **LEVEL II - INSPECTION DESCRIPTION**

This Level II Inspection is based on the requirements set forth by the National Fire Protection Association 211 Inspection Standards. These Inspection Standards are found in chapter fourteen of the 2010 edition of the NFPA 211. These Inspection Standards are recognized throughout the United States by the Fireplace and Venting Industry as "The Industry Standards". Based on this fact, the Inspector is professionally and legally obligated to abide by these standards.

Note that the Client has the right to negate or dismiss any portion or all of these standards. However, please be notified that this action may release the Inspector from any liability and relinquish your right to seek reimbursement for damages. These standards are recommended in the best interest of all parties.

A Level II inspection is indicated when verification of the suitability of the chimney for new or changed conditions of service is needed, or when a Level I inspection is not sufficient to determine the serviceability of the chimney is needed.

A Level II inspection shall be conducted upon:

- 1) Addition or removal of one or more connected appliances, or upon replacement of an appliance with one or more dissimilar type, input rating, or efficiency.
- 2) Prior to relining of a flue or replacement of flue lining.
- 3) Upon a sale or transfer of the property.
- 4) After a building or chimney fire, weather or seismic event, or other incident likely to have caused damage to the chimney.

A Level II inspection shall include all accessible portions of the chimney exterior and interior, including areas within accessible attics, crawl spaces, and basements, and accessible portions of the appliance and chimney connection.

## **Older Manufactured Fireplace and Chimney System**



**Manufactured Fireplace** 



**Manufactured Chimney System** 

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## Firebox Floor

### Warning

#### **Older Fireplace**

The firebox refractory floor is showing cracks from long term use. The purpose of the refractory floor is to help insulate the combustible building materials beneath the fireplace. Firebricks are installed on top of the refractory floor, which is acceptable except there and large cracks between the bricks which could allow heat and/or sparks down in between the bricks. Long term exposure to excessive heat can lower the ignition temperature of the combustible building materials beneath the fireplace, and what may not have been a safety issue in the past could possibly become a fire hazard. Because of this issue, combined with the other issues found in this inspection, it is recommended that, for the protection of life and property, this fireplace and chimney system not be used to burn any type of fire.



#### National Fire Protection Association, N. F. P. A., 211, 2010

A.14.3 (Chimney inspection required to ensure).....(4) General condition of appliance

## **Firebox Baffles**

### Warning

#### **Older Fireplace**

The firebox baffles on the sides and back of the firebox are warping from long term use. The purpose of the baffles is to help provide an insulating airspace between the firebox and the outside of the fireplace, which is next to the combustible framing of the structure. As the baffles continue to warp, the airspace becomes smaller and misshaped, likely reducing the insulating value the airspace behind the baffles provide. Long term exposure to excessive heat can lower the ignition temperature of the combustible building materials around the fireplace, and what may not have been a safety issue in the past could possibly become a fire hazard. Because of this issue, combined with the other issues found in this inspection, it is recommended that, for the protection of life and property, this fireplace and chimney system not be used to burn any type of fire.



#### National Fire Protection Association, N. F. P. A., 211, 2010

A.14.3 (Chimney inspection required to ensure).....(4) General condition of appliance

## **Fireplace Damper**

## Warning

### **Older Fireplace**

While the damper in this fireplace appears to function as well as can be expected for a fireplace of this age, it has a tendency to 'stick' and take more force to open and/or close than someone unfamiliar with its operation might think. This could possibly lead to a fire being lit without it being confirmed that the damper is in the full open position. Because of this issue, combined with the other issues found in this inspection, it is recommended that for the protection of life and property, this fireplace and chimney system not be used to burn any type of fire.

#### National Fire Protection Association, N. F. P. A., 211, 2010

A.14.3 (Chimney inspection required to ensure).....(27) Operation and closure of damper assembly

## Age of System

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#### **Older Fireplace**

A general industry standard for the useful life expectancy of a manufactured fireplace and chimney system sold today is 15-25 years. Over the course more than 30 years of use these fireplaces have seen, the acidity of creosote and flue gasses that naturally occur during a wood fire can begin to break down the metal inside the fireplace and chimney. In this weakened state the metal may not be able to withstand the extreme temperatures of a chimney fire, or even those temperatures reached during a regular fire. Taking into account the overall age and condition of this fireplace and chimney, it is clear that this fireplace and chimney system has outlived its useful life expectancy. Because of this issue, combined with the other issues found in this inspection, it is recommended that, for the protection of life and property, this fireplace and chimney system not be used to burn any type of fire.

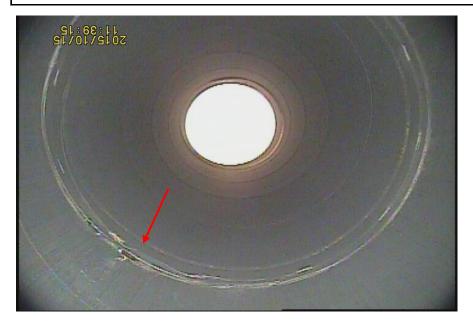
## **Interior Chimney Scan**

## Warning

Over time and use, the metals inside the chimney can break down due to the extreme temperatures and the harsh gasses produced during combustion. As seen in the photos below, the video scan of the inside of this chimney shows signs of deterioration. This is an area of serious concern, for the protection of life and property, this fireplace and chimney system should not be used for any type of fire.

#### National Fire Protection Association, N. F. P. A., 211, 2010

A.14.3 (Chimney inspection required to ensure).....(5) Chimney or vent and its connector for general suitability....





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## **Chimney Condition**

### Warning

### **Probable Moisture Damage to Chimney**

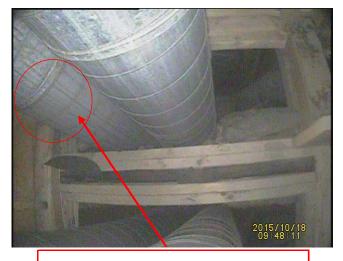
Many of the chimneys in this complex show evidence of moisture on the outside of the outer wall of the chimney. Judging by how the moisture entered and exited the different layers at the joints of the chimneys, it is evident that the moisture has been both on the inside and outside of the outer wall of the chimney. Over time, moisture can break down the integrity of the walls and joints of the chimney, weakening the system and making it unsafe to use. The photos below are representative of the conditions found.

#### National Fire Protection Association, N. F. P. A., 211, 2010

A.14.3 (Chimney inspection required to ensure).....(32) Freedom from rust or corrosion of readily accessible metal parts in factory-built fireplaces and chimneys



Lines of moisture running in and out of the seams of the outer wall of the chimney



Lines of moisture running in and out of the seams of the outer wall of the chimney



Signs of moisture presents on the outer wall of the chimney



Signs of moisture damage on the outer wall of the chimney

## **Chimney Clearance**

#### Hazard

### **Unsafe Chimney Systems**

This listed and tested manufactured chimney pipe requires 2" clearance to combustible materials. Inside virtually every chase in the complex, virtually every chimney was in contact with, or had inadequate clearance to, combustible materials. The photos below are representative of the conditions found. This is an area of serious concern, for the protection of life and property, this fireplace and chimney system should not be used for any type of fire.

#### National Fire Protection Association, N. F. P. A., 211, 2010

6.1.1 Factory-built chimneys and chimney units shall be listed and installed in accordance with..... the listing and the manufacturer's instructions.



Combustible building material in direct contact with the chimney. This is a serious fire hazard



Combustible insulation in direct contact with the chimney. This is a serious fire hazard



Inadequate clearance to combustible building materials and insulation, which are in direct contact with the chimney. This is a serious fire hazard



Insulation has fallen on top of a fireplace. This is a serious fire hazard

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## **Chimney Firestops**

#### Hazard

#### **Unsafe Chimney Systems**

Each time a chimney passes through a floor or ceiling a firestop is required to prevent or slow the spread of flames and smoke in the unfortunate event of a fire. Units on the first floor should have 3 firestops, one at the first floor ceiling, second floor ceiling, and third floor ceiling. Second floor units should have two firestops, and third floor units should have one. Throughout the entire complex we found virtually no adequate firestops. The photos below are representative of the conditions found. This is an area of real concern, for the protection of life and property, this fireplace and chimney system should not be used for any type of fire.

#### National Fire Protection Association, N. F. P. A., 211, 2010

7.1.6.2 All spaces between chimneys and the floors and ceilings through which the chimneys pass shall remain fully open but shall be firestopped with noncombustible material.



Insulation touching chimney & fireplace, a 2" airspace is required

No firestop provided where chimney passes through floor/ceiling



No firestop provided where chimney passes through floor/ceiling

Debris touching chimney, a 2" airspace must be maintained



Each chimney must have a firestop where it passes through a floor/ceiling. No firestops have been provided



It appears that insulation has been placed on chicken wire in place of an adequate firestop. This is not approved and is a fire hazard

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## **Chase Top Termination**

### **Needs Service**

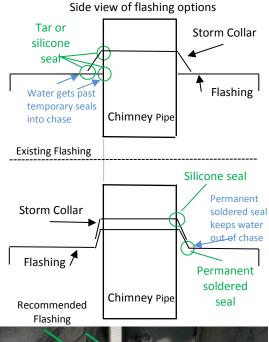
#### **Inadequate Seal**

The storm collar seal on the chimneys in these chases is no longer keeping out all of the moisture. This type of flashing construction relies on temporary seals like tar or silicone to keep moisture from entering the structure, and these components break down over time, as is the case with these chase covers. If constructed differently, a soldered joint is the primary barrier which keeps the moisture out of the chase. A short term fix would be to reseal the existing storm collars, but it is recommended that in the near future the chase covers be replaced with covers that have a soldered collar in place as the primary defense against moisture. The photos below are representative of the conditions found.















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## **Chase Top Termination**

### **Needs Service**

### **Metal Deteriorating**

The photos below show that the metal composing the chase covers on this complex is rusting and deteriorating. At the time of this inspection the covers have not rusted through, but it is recommended that these chase covers be replaced in the near future to prevent property damage. The photos below are representative of the conditions found.









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## **Conclusion**

Based on the findings of this camera inspection listed in this report and the opinion of this inspector, this fireplace and chimney system has missing components, deteriorated components, and inadequate clearances, and can no longer be depended on to safely perform its intended use. This wood burning system has outlived its useful life expectancy and is no longer safe to use.

FOR THE PROTECTION OF LIFE AND PROPERTY, IT IS RECOMMENDED THAT THIS FIREPLACE AND CHIMNEY SYSTEM BE REMOVED AND REPLACED, AND NO LONGER BE USED TO BURN ANY TYPE OF FIRE.

The findings listed within this report are based on the condition of the fireplace and chimney system at the time of this inspection, and may be limited due to access

or type/level of inspection requested.

#### Rick Church Certified F.I.R.E. Inspector #213

Fireplace Investigation Research & Education Certified F.I.R.E. Inspector #213
National Fireplace Institute Certified Master Hearth Professional #149637
Chimney Safety Institute of America Certified Chimney Sweep #7362
National Fireplace Institute Certified Pellet Specialist #149637
National Fireplace Institute Certified Gas Specialist #149637
National Fireplace Institute Certified Woodburning Specialist #149637
Member, National Chimney Sweeps Guild











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