

THINGS TO CONSIDER WHEN

# Buying, Leasing, or Renting a Home in Interior Alaska





# Welcome to Fairbanks

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# WELCOME TO FAIRBANKS *Where Old...*

The history of Fairbanks can be traced to the founding of a trading post by E.T. Barnette on the south bank of the Chena River on August 26, 1901. The area had seen human occupation since at least the last ice age, but a permanent year-round settlement was not established at the site of Fairbanks until the 20th century.

The discovery of gold near Barnette's trading post caused him to turn what had been a temporary stop into a permanent one. The gold caused a stampede of miners to the area and buildings sprang up around Barnette's trading post. In November 1903, the area's residents voted to incorporate the city of Fairbanks, electing Barnette as the city's first mayor, and the city flourished for a time as thousands of people came seeking their fortunes during the Fairbanks Gold Rush.

By World War I, however, the easy-to-reach gold was exhausted and Fairbanks' population plunged as some men went to war and many miners moved to promising finds at Ruby and Iditarod. But completion of the Alaska Railroad in 1923 – which allowed heavy equipment to be brought in for further development of Fairbanks' still-rich gold deposits - caused a renewed surge of interest and economic activity in the region and, along with bumps like the WW2 build-up and Trans-Alaska Pipeline construction boom, set Fairbanks back on the path to becoming the community it is today.



C143, Alaska Dog Team



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*Elbridge Truman Barnette, Yukon riverboat captain, banker, and swindler, founded the city of Fairbanks, Alaska, and served as its first mayor. Born: 1863, Akron, OH - Died: May 22, 1933, Los Angeles, CA*

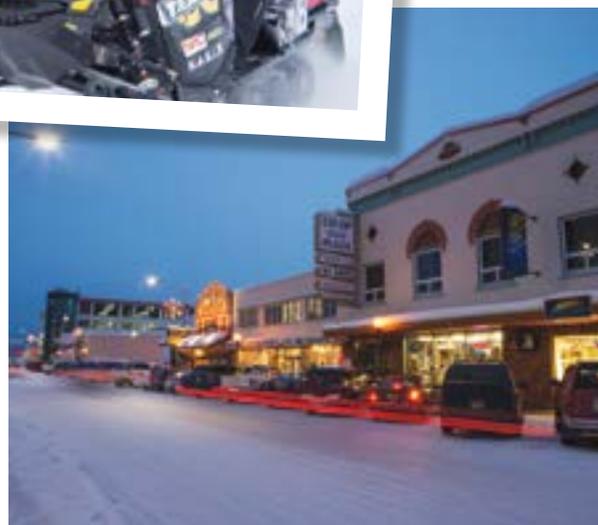
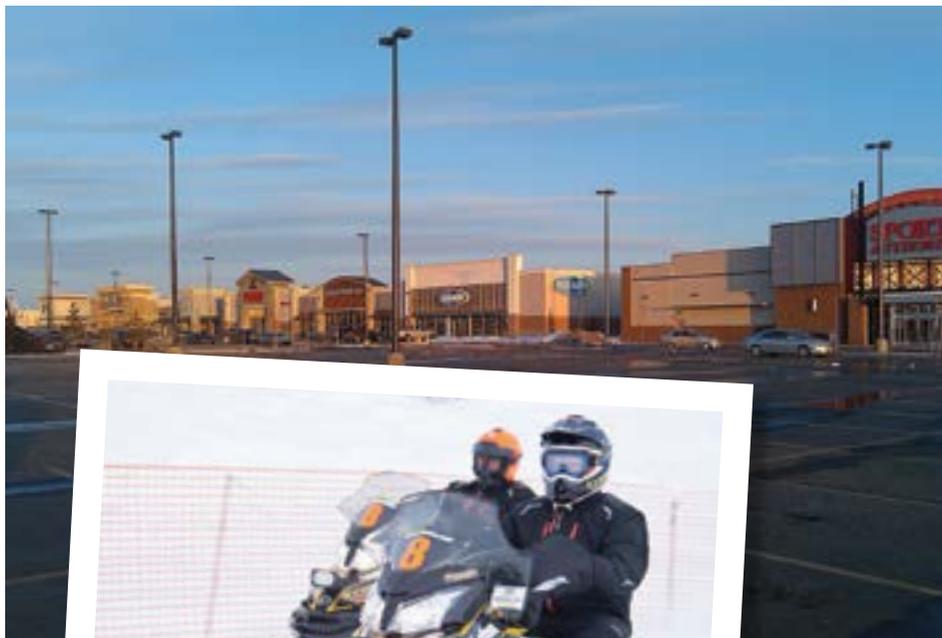
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# WELCOME TO FAIRBANKS *...meets new...*

Today, Fairbanks is Alaska's "Golden Heart City" and second largest community. It boasts all the goods, services and conveniences one might expect in a small-to mid-sized American community. This includes road, rail and air access, phone, fiber-optic and wireless connectivity, international, national and local retailers, and restaurants catering to nearly all tastes and dining experiences.

And being the home of both the main campus of the University of Alaska state-wide system and nestled in the wild heart of Alaska, Fairbanks offers not only world class educational opportunities but world renowned cultural and year-round outdoor recreational opportunities – all bathed, in summer, in the light of the Midnight Sun and many within a mere thirty-minute drive of most residences.



# WELCOME TO FAIRBANKS ...in the Circumpolar North

Yes, in most ways, life in Fairbanks Alaska looks much like life in “Anywhere USA”. It does, however, offer some unique challenges owing to its location at the “Top of the World”. Situated only 198 road miles from the Arctic Circle, Fairbanks winters tend to be considerably colder, darker and longer than any other major metropolitan center in the United States.

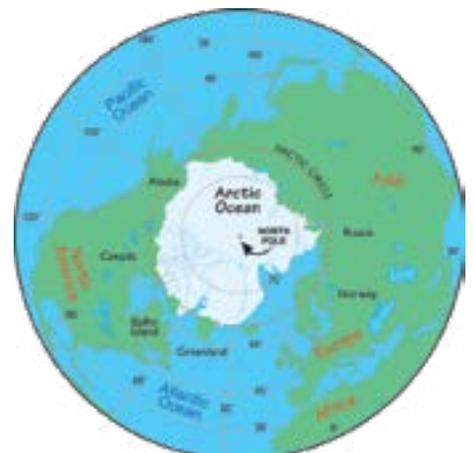
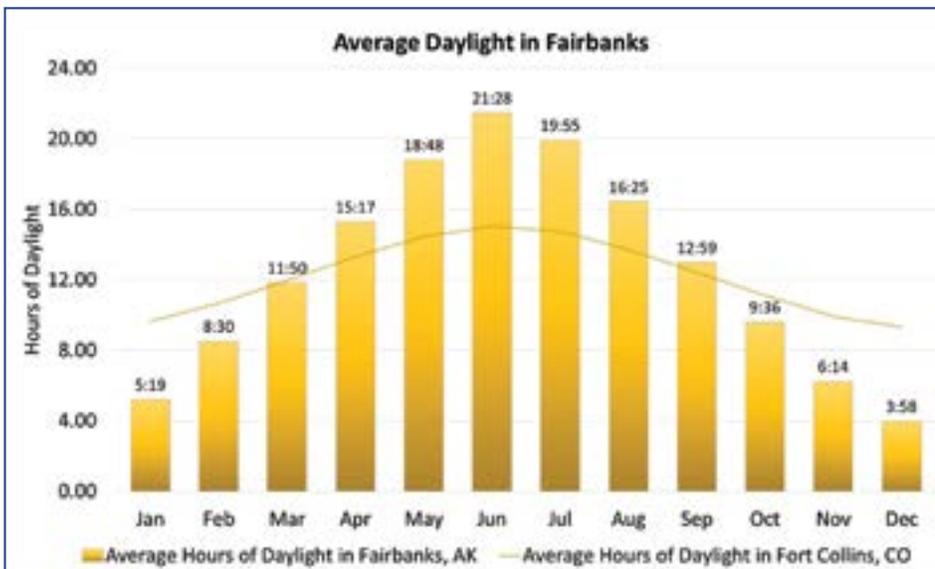
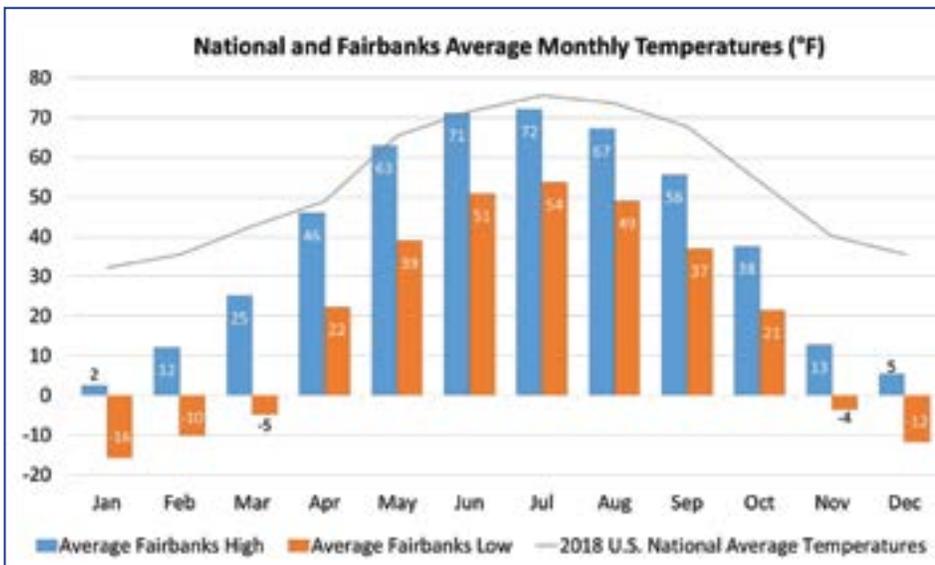
For comparison, during the Winter Solstice, the shortest day of the year, Fort Collins in Colorado receives 9hr 20min of daylight. By contrast, Fairbanks receives less than 3hrs 45min. Likewise, where the average temperature in January in the “Lower 48” is roughly 32°F, the average January temperature in Fairbanks is a chilly -16°.

Additionally, though Fairbanks is a thoroughly modern community, as a relatively young community in a relatively young state, not all the services one might expect to be provided by the City or by the State in the Lower 48 are necessarily provided to or in all locations across the community. “Road Service” (neighborhood street plowing and maintenance) is one example, with many locations outside of the Cities of Fairbanks



and North Pole being served by self-taxing “road service areas” if at all. Another example is “enforced building codes” and standards. Both City of North Pole and City of Fairbanks have codes for construction and inspectors which enforce them within their boundaries. The Fairbanks North Star Borough, however, like the State of Alaska, has neither residential building codes nor officers enforcing them.

It’s for these reasons the community has created this resource guide for residents who are considering taking on the responsibility of heating, lighting, servicing and maintaining a home in Alaska’s Golden Heart. This booklet isn’t meant to give you “all the answers” but will, hopefully, give you a general understanding of the kinds of questions to ask, the kinds of answers to be listening for and some of the places you can go to get further information when *Buying, Leasing or Renting a Home in Interior Alaska*.



## ASSESSING THE HOUSE ITSELF *Building Envelope*

# Q & A

*As implied, the “building envelope” is a catch-all term for the materials that enclose a structure - things like the roof, walls, windows, door and foundation that separate the interior living space from the world outside. As a rule, you’ll be looking for a structure where the component parts offer good insulating capacity (often described with a numeric “R-value,” with higher numbers offering greater insulating power), and any gaps or seams are filled with the materials, like sealants or weather stripping, that minimize airflow (often referred to as a “tight” structure).*

### WALLS

Walls comprise the greatest exterior surface area of a house and can be the source of a substantial amount of heat loss. Most homes in Fairbanks are built with two-by-six (2x6) frame construction with R-19 or R-21 fiberglass batting, although many homes built in the 1960s, 70s, and 80s used two-by-four (2x4) wall studs. Older houses with 2x4 exterior walls, unless they’ve been “furred-out”, are more expensive to heat, as one of the greatest sources of heat loss is conduction through the walls’ studs and the 2x4 studs don’t have as high an R-value as the fiberglass insulation between them.

Two telltale signs of conductive heat losses through the framing are the vertical rows of dark dots and/or shadow outlines of the studs that appear on the inside of exterior walls. This is caused by microscopic airborne dust particles that are deposited on particularly cold parts of the exterior walls where humid indoor air condenses during the winter. The screws or nails in the sheet rock (which create the dot patterns) are especially conductive. New paint, of course, will hide this temporarily.

Any home that has added extra insulation such as rigid foam on the outside of its walls (furred-out) will generally be a superior choice as the additional insulation greatly reduces conductive heat losses through the framing. However, it is important that the building have sufficient exterior insulation to keep the structural sheathing above the dew point (a ratio of 2/3 exterior to 1/3 interior insulation is recommended for the Fairbanks climate). Otherwise, the retrofit may trap moisture inside the walls, leading to mold and rot. Double-wall construction, structural insulated panels (SIPs) or insulated concrete forms (ICFs) can also be very efficient, but typically are found only in more expensive homes.

### WINDOWS

The best option for Fairbanks is a triple-pane window. The next best are double-pane windows, which can be adequate if they are in good condition. Many older homes in Fairbanks, however, have single-pane windows – if not all, one or some. These are the least desirable option as they suffer from high heat losses.

For frames, vinyl or fiberglass is ideal, though wooden frames are acceptable if they are in good shape. Metal frames, however, should be avoided because metal is highly conductive and, therefore, will have the high heat losses. Sliding windows should also be avoided as they are more prone to heat loss and frost-related operational issues due to air leakage. Instead, look for single or double-locking casement windows. In any case, check for weather stripping that ensures the window seals properly and prevents unwanted airflow.

*Is the foundation insulated and, if so, how and with what?*

*If there’s a crawl space, is it otherwise insulated, and how and with what?*

*Generally speaking, how “tight” is the home? Interior vapor barrier? Waterproof exterior sheathing layer?*

*Was any of the installation “after market” and, if so, was it done under your ownership or a previous owner, and was the work performed by owner or by a licensed/bonded professional? If by a professional, who/what company?*

*Is there exterior insulation and, if so, what type and thickness (Aggregate R-Value)?*

## EXTERIOR DOORS

As with windows, exterior doors should be well insulated, well hung and appropriately weather sealed to ensure the minimal amount heat loss possible. Unlike windows, however, a metal door may be satisfactory if it has an insulated core - as most of the doors offered by local hardware stores do. Finally, extra attention should be paid to exterior doors containing windows to confirm they are double-paned.

## ROOF SYSTEMS

The current code minimum for ceiling insulation is R-38. This requires a 12" deep rafter bay, or a truss roof with similar capacity if fiberglass batting is used. Fiberglass and cellulose are the most common insulations you will find in Fairbanks. Other common products are sprayed-in foam or rigid foam board, which can achieve R-38 with only roughly 8 inches of thickness. It is common for the roofs in older homes to have less insulation than meets current recommended minimum standards. The attics in most older truss-roofs, however, lend themselves well to comparatively inexpensive insulation upgrade of blowing in an additional layer of cellulose insulation – an upgrade that can be done by any number of local contractors, or by the home owner themselves using materials which can be purchased from many local hardware stores, and equipment which can be rented from many of those same hardware stores or one of the numerous equipment rental establishments across the community.

## BASEMENTS, CRAWLSPACES AND FOUNDATIONS

Foundation insulation is one area that should be looked at closely. The current recommended minimum insulation value for the walls of basements and crawlspaces is R-15. This is equivalent to roughly three inches of rigid foam insulation. Many older homes do not have any foundation insulation, which is a big source of heat loss. All-weather wood foundations are relatively common in and around Fairbanks but are perfectly acceptable if properly engineered.

If the stud bays in this type of foundation are insulated with fiber glass, that insulation should be examined for moisture damage. In general, the source of any water staining under a house should be identified.

Additionally, with much of the lower-lying area of the community resting in the flood plain of the Tanana River Watershed, basements (with wall heights greater than 4') are not allowed in special flood hazard areas. Also, crawlspaces must meet FNSB floodplain management (Title 15) regulations. For more information, visit the FAQ page maintained by the Borough: <http://www.co.fairbanks.ak.us/cp/Pages/Flood-Permits.aspx>

## MOISTURE ISSUES

Though relatively high water tables in many locations across the community sometimes necessitate the use of sump pumps, the "water" discussed here is the moisture naturally created by ourselves and our home living – things like breathing, cooking and bathing.

Mold and water damage around windows (or, if inspecting a home in winter, frost or icing on the windows) is often indicative of a ventilation or humidity problem. If extensive water damage around windows is present, moisture problems may go deeper in places such as bathrooms and basements.

Once mold has established itself in other parts of the home, the situation should be approached with extreme caution due to the potential health risks and associated remediation costs. Children or others with sensitive immune systems will be at the greatest risk for mold-related health issues. Moisture can come from many sources including occupants, cooking and crawlspaces without good vapor barriers applied continuously to the ground. A continuous ground vapor barrier is a code requirement in all residential construction in the state.

# Q & A

*What depth of studs were used to frame the house? Six inch? Eight inch? More?*

*What type of insulation is in the walls and what's the R-value?*

*What type of windows? Double pane? Triple pane? More?*

*What type of insulation is in the attic / under the roof and how much (Aggregate R-Value)?*

# Home Energy Rating Certificate



The Building Located At:  
**Six Star House**  
 Fairbanks, Alaska

Has Been Energy-Rated As:  
  
**Six Star**

## Efficiency Score

95.8 points



## Amount of CO2 Produced by the Home

28,572 pounds per year

## Projected Annual Energy Costs

\$3,610 per year

## Score with Renewables

95.8 points

## Estimated Annual Energy Costs

Space Heating \$1,154

Water Heating \$488

Space Cooling \$0

Lights & Appli. \$1,968

Renewables \$0

Owner of Record: .

Legal Description

Energy Rater: \*\*\*\*\*

\*\*\*\*\*, Inc. dba \*\*\*\*\* & Associates

Date Construction Began: 7/1/2018

Certifying BEES: 2012

Energy Rating Date: 3/18/2018

File: \*\*Construction20\*\*KayleeLane\*\*\*\*.hm2

AkWarm: 2.10.0.0 Library: 2/27/2018

I certify that this Energy Rating is true and correct, to the best of my knowledge and belief, and the structure located on the above described property complies with the all the requirements of the building energy efficiency standards as required by Section .04 Part A. of the AHFC New Construction Inspection Guidelines, per the standards adopted by 15 AAC 155.010.

Energy Rater Signature

Date

Return to: \_\_\_\_\_

## Energy Cost and Features Report

(DOCUMENT DOES NOT NEED TO BE RECORDED)

<p><b>Property:</b> Six Star Six Star House Fairbanks, Alaska</p> <p><b>House:</b> Single Family Living Floor Area: 1,968 square feet No Attached Garage</p>	<p><b>Rater:</b> **** * ****, Inc. dba ***** &amp; Associates P.O. Box 83149 Fairbanks, Alaska 9970*</p> <p><b>Rating:</b> BEES</p>
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**Envelope Efficiency**

Floor Insulation	R-39.4 *
Wall/Door Insulation	R-30.3
Ceiling Insulation	R-76.3
Window U-Value	U-0.18
Window SHGC	0.22
Window to Wall Ratio, Living Space	3.7%
South Facing Window Area	20 square feet
Air Leakage	1.0 Air Changes per Hour at 50 Pascals 0.05 Air Changes per Hour Natural

\* Includes the insulating value of the ground in contact with these components.

**Space Heating System**

Fuel	#2 Oil
System Type	Boiler
Model	FCX
Efficiency	91%
Btu/hr Output	76,000 Btu/hr
Primary Htg. Sys. Design Load	33,076 Btu/hr
Garage Htg. Sys. Design Load	0 Btu/hr
Supplemental Fuel	None
Thermostat Setting	70.0 degrees F
Setback Thermostat	None

**Water Heater**

Efficiency	82%
Location	Conditioned Space
Fuel Type	Propane

**Space Cooling System**

None Present

**Ventilation**

System Type	Heat Recovery Ventilator
Required Ventilation	50 CFM
Measured Ventilation	98 CFM

**Other**

Number of Bedrooms	2
Clothes Dryer Fuel	Electricity
Cooking Range Fuel	Electricity
Oven Fuel	Electricity
Miscellaneous Lights/Appliance Use	Average
CAZ Test Normal Conditions	Pass

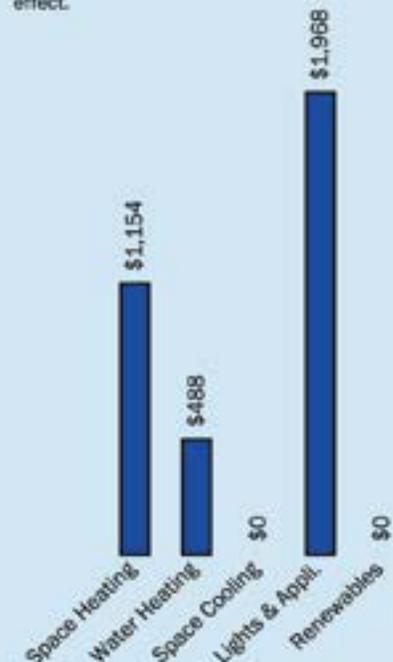
**Additional Information:**

Ignoring 0.0 MMBtu excess renewable space heat for month 6. Ignoring 0.0 MMBtu excess renewable space heat for month 7.

ver. 2.10.0.0, library: 2/27/2018, file:  
\*\*Construction20\*\*KayleeLane\*\*\*\*.hm2

**Estimated Annual Energy Costs**

Actual use and costs may vary from these estimates depending upon weather conditions, occupant life styles and utility rates currently in effect.



Electricity: \$0.2367/kWh, Propane: \$3.99/gallons, #2 Oil: \$3.19/gallons  
 Space Heating: 131 kWh of Electricity, 352 gallons of #2 Oil  
 Water Heating: 122 gallons of Propane  
 Space Cooling:  
 Lights & Appliances: 8,312 kWh of Electricity

# Q & A

## VENTILATION

An energy efficient home will typically have a very “tight” envelope in order to reduce heat losses from air leakage. However, as noted in the Moisture & Water Issues section, lack of sufficient air flow can lead to humidity build-up within the home. For this reason, some form of mechanical ventilation is recommended to ensure humidity control and occupant health. A heat-recovery ventilator (HRV) system, with its control options, measurable change of air and ability to conserve heat, currently represents the most advanced form of ventilation.

A heat-recovery ventilator (HRV) is similar to a balanced ventilation system, except it uses the heat from the outgoing stale air to warm up the incoming fresh air by moving them past each other in a heat exchanging “core”.

If no maintenance history is available for the HRV system, it may be necessary to contact an HVAC contractor to test the system and make sure it is balanced. A balanced system will be most efficient, as it draws in the same amount of air being exhausted.

Other ventilation techniques may be code compliant, but do not recover heat and may not regulate humidity. In this regard, dedicated ventilation systems with outside makeup air sources in the living spaces (such as the Fresh 80 “pop up” wall vents) are still allowed by code, if properly sized and installed. Additionally, all new homes are required by code to have mechanical ventilation. In new construction, a kitchen fan must be vented to the outside. In older homes, direct-vented kitchen fans are also highly recommended if installation is possible.

## ENERGY RATINGS

Air leakage can be one of the biggest culprits for heat losses and also one of the hardest sources of loss to identify. Therefore, if a prospective buyer has reached a point where they are serious about a particular home, an energy rating can be a good resource. A state-certified energy rater will perform a blower door depressurization test along with a detailed analysis of the house’s construction, insulation and mechanical systems. This data is then entered by the rater into a design heat loss modeling program that calculates the yearly heating and electricity costs of the home. With the rater’s input, the software also produces a written report on any deficiencies and areas where the greatest efficiency gains can be made. Short of actually living in the home, energy ratings provide the most comprehensive method for determining a home’s energy performance.

As you can see, an energy rating, as performed and provided by a state-certified energy rater, offers a prospective buyer or leasee (or even renter) a veritable treasure trove of information about a home; giving them not only a good estimate of the year-on-year “cost of operations” for the structure but pointers on how those costs might be reduced. Bearing this in mind, a prospective buyer/leasee/renter should ask if an energy rating has been performed and for a copy of the results.

An energy rating on a home can cost from \$350 to \$600 depending on the size and complexity of the structure, however, and therefore represents an economical investment on the part of the buyer/leasee if the home seller or lessor doesn’t have a recent energy rating they can provide.

A list of energy raters can be found on the Alaska Housing Finance Corporation website at <https://akrebate.ahfc.us/raterlist.aspx>

***Air handling &/or treatment:  
Does the home have an HVR (heat recovery ventilation) system?***

***Water and Sewer:  
How are water and sewer service provided to the home?***

***Water:  
Piped water service? Delivered water with holding tank? Well?***

***If delivered, what size is the holding tank, and is it within the structure or buried outside?***

***If well, when was the last time it was tested for contamination?***

***Is piped water service (GHU or City of North Pole) expected to be available and, if so, when?***

## UTILITIES *Heating Your Home*

### PRIMARY HEATING APPLIANCES

A recent survey of heating options shows a wide range of appliance and systems in use across the community, from oil-fired hydronic base-board systems, to gas-fired forced air systems, to “Toyo stoves”, to electric heaters (though it must be noted that electricity is one of the very most expensive ways to heat a space). As a general rule, though, oil-fired systems are the most common, with natural gas based systems becoming increasingly prevalent as local supply and availability increases.

Regarding oil-fired systems: The rule of thumb for appliance replacement is 30 years, and appliances 10-years-old or younger will tend to be both more efficient and easier/cheaper to retrofit to natural gas use. That being the case, a prospective buyer will want to ask after the age and type of appliance. They will also want to inquire after the service history of the appliance to ensure it has received its recommend level and frequency of maintenance.

Regarding natural gas based systems: Natural gas has been available to a small area of the community for many years and, with major private and public investments having recently been made to expand delivery capacity to and throughout City of Fairbanks and City of North Pole, is poised to become even more broadly available in coming years. For these reasons, prospective buyers may look at homes that are either already on natural gas or, particularly for very new-built homes, have heating systems ready to accept piped natural gas but currently being fueled by propane. As currently priced, however, though utility natural gas has historically being less expensive than oil, propane has been and remains one of the most expensive fuels one can use for home-scale space heating. For this reason, those considering buying a home being heated with propane will want to contact the Interior Gas Utility to find out how quickly they’ll be able to transition to less expensive natural gas.

### THE FUEL BILL

In all cases, the fuel bills of previous owners can provide valuable information about heating and utility costs. Conversely, a home insulated to lower standards than those mentioned above and no fuel history should be approached with more caution. Also keep in mind that the presence of a wood stove in the home can greatly misrepresent the actual heating fuel bill as its use, by design, is meant to defray the cost of using the primary heating appliance.

### WOOD AND PELLET STOVES

Wood stoves are fairly common throughout the Interior and an EPA-certified wood stove can be an economical way to provide supplemental heat. They do, however, require a sizable amount of time and work to safely and properly operate. Clearances to combustibles should be closely inspected, especially where chimney pipes go through the roof. Many chimney fires turn into house fires due to improper clearances inside the roof cavity. There should be no insulation or framing contacting the chimney inside the roof. Also, with the community facing increasing Clean Air regulation by state and federal regulators, a prospective wood stove user needs to be aware of their responsibility to properly split, stack and store their wood so it will be appropriately dry before use (6 month storage, minimum). A link to wood burning information is available from the University of Fairbanks Cooperative Extension Service at <http://alaskawoodheating.com/>.

Pellet stoves are also fairly common throughout the community. Though they tend to be more expensive to operate than wood stoves on a direct cost basis (pellet fuel and electricity), they balance this with their tendency to be considerably cleaner burning and easier to operate & maintain than wood stoves. In any case, pellet stoves, like wood stoves, can be an economical way to provide supplemental heat in a home but should be inspected to ensure they have been properly installed and maintained.

# Q & A

*May I have copies of the utility bills for the last year?*

*What is the primary heating system for the home – oil, natural gas, propane, electric, wood, other?*

*If oil, natural gas or electric, is the system base-board, forced air, radiant?*

*If propane, what’s the expected timeline for delivery of piped natural gas?*

*If the primary heat source is oil-fueled: What is the make & model of the furnace? How old is it?*

*What grade of fuel oil is usually used? #1 or #2?*

*What’s its service history; general frequency of maintenance and tuning? What is the furnace’s “name plate” efficiency?*

*When was the furnace last tested for efficiency and what was its recorded efficiency at time of last testing?*



Finally, with Fairbanks working to address a winter time air quality challenge, there are certain days where wood (logs and, to a lesser degree, pellets) should not or may not be burned. This should not pose a major challenge for most structures but this is something of which a prospective buyer or lease should be aware. More information regarding local air quality and things being done to improve it (including cash assistance to Change Out older, dirtier heating appliances with newer, cleaner ones!) are available on the Fairbanks North Star Borough website at <http://fnsb.us/transportation/pages/air-quality.aspx>

## **WATER**

Whether a home receives its water from a piped distribution system (utility), well or delivery service, sub-zero weather will freeze and damage pipes, drains, tanks, etc. unless these components are correctly installed. So, all water and drain lines need to be well insulated or placed inside heated space, and should be inspected to ensure they are.

Often, electric heat tape is used to keep water lines from freezing. Thermostatically controlled “self-limiting” heat tape is desirable due to its increased efficiency. Heat tape can be a major fire hazard if not maintained, installed incorrectly or used in the wrong application. Holding tanks should either be located inside a home’s heated space or buried and insulated sufficiently to avoid freezing. Freeze prone areas in a house include locations near entry and exit points to the home’s building envelope, such as doors and windows, and low-lying drains and drain traps. If the house draws its water from a well, it should be tested for flow and any indication of contamination.



## **SEPTIC**

Homes with indoor plumbing that do not have access to public sewer systems (generally, anywhere outside of City of Fairbanks) are served by individual septic systems of various types. All conventional systems use a septic tank. In Alaska, septic systems should be registered with the Department of Environmental Conservation (DEC), which prescribes various standards for their installation. DEC is an excellent source of information about septic and water systems, and maintains a “what to look for when buying a home with a septic system” section on its website: <https://dec.alaska.gov/water/wastewater/engineering/buying-a-home>

# Q & A

*Is there a solid-fuel (wood or wood pellet) secondary heat source for the home? If “yes”: Interior wood stove(s), pellet stove(s), fireplace(s) If a wood stove(s), is it old (over 10yrs), middle (5-10yrs) or new (under 5yrs)? Is it combustion (most common) or gasifying (rare)? If combustion (most common), is the appliance EPA certified and on the FNSB list of approved appliances?*

*What’s its service history; general frequency of maintenance and tuning? Exterior wood, coal or waste-oil boiler? Is it combustion (most common) or gasifying (rare)?*

# LOG HOUSES

Log homes are not uncommon in Interior Alaska. A home built with undersized logs such as six-inch or eight-inch three sided logs may suffer significant conductive heat losses through the walls. An eight-inch, three sided log is going to provide a nominal R-value of roughly 10 - significantly less value than a properly detailed 2x6 frame wall filled with R-21 fiberglass.

If a three-sided log home is small, such as a cabin, the heating costs may be higher than a comparable home constructed with 2x6 stud framing but it might still be affordable. A large home with 8-inch logs may become prohibitively expensive to heat with higher fuel prices.

As wood may be more reactive to climactic changes than other construction materials, and, especially in the case of new-build, may experience a degree of shrinkage as it matures, special attention should be paid the spaces between logs of a log home and ensuring they are properly sealed. Particularly in three-sided log homes, a flexible caulking such as Permashink is beneficial as it is specifically designed to bond with wood to seal the joints and gaps in logs.

Homes that use the full scribe (round log) method and large-diameter logs in the 16" range can perform very well but will command a higher price.



## OTHER CONSIDERATIONS

# Q & A

### PERMAFROST

As the name implies, “permafrost” is ground that remains completely frozen for at least two years straight – or, in the case of Interior Alaska, millennia. It can be found intermittent across the entire community but is most often found in low-lying areas, the north sides of hills or down in flat shaded areas with lots of ground cover. Unsurprisingly, many properties in the Interior contain permafrost yet, though it is fairly common, structures built on this type of ground should be approached with due caution.

For most homes built on permafrost, seasonal movement will be a fact of life unless a home is built on driven piles, which are expensive. Houses built on permafrost must have a feasible way of adjusting their foundations. Additionally, all connections to the house, such as the foundation and buried power, water and waste lines, need to allow for seasonal movement. Therefore, the more complex the home, and the more plumbing and other systems involved, the greater the chances for problems.

From a maintenance perspective, small, adjustable, dry cabins are typically the best choice. A properly constructed house can perform successfully on permafrost, too, but it is advisable to consult a structural engineer before any purchase negotiations take place. It should also be noted that some banks may not be willing to finance a home built on this type of soil due to the inherent risks.

### ROAD MAINTENANCE

As noted in the introduction, roads in the Interior are maintained by a patchwork of different entities – if at all. Roads within the city limits of Fairbanks and North Pole are maintained by the Cities. Highways and other major roads are maintained by the state DOT. Many subdivision roads are maintained under contract by self-taxing “Road Service Areas”. That leaves hundreds of miles of residential roads within the Borough that, being outside the cities, outside of a Road Service Area and off the major thoroughfares, are not maintained by any organized service provider. In these instances, private property owners are responsible for their own road maintenance.

### EMERGENCY SERVICES

Similarly to road service areas, most of the populated area of the FNSB is served by Fire Service Areas. Outside of these Fire Service Areas, a property may only be protected from fire in limited circumstances, and property insurance could be affected. Further, if a subdivision’s road is not built to Borough standards, emergency response vehicles may have difficulty reaching a property.

You can check the status of a property you’re interested in buying or leasing relative to this and other services by visiting the Fairbanks North Star Borough “Service Areas” page: <http://co.fairbanks.ak.us/pw/pages/Service-Area-Resident-Resources.aspx>

### FLOOD INSURANCE

Since the construction of the Chena River Lakes Flood Control Project in 1973, major flooding has not been an issue for Fairbanks and North Pole. Still, the broader community being in the natural flood plain of the Tanana River (Tanana Valley Watershed), there are areas around the community deemed “susceptible” or even “prone” to flooding by federal and local administrators, or for which flood insurance might simply be desirable for peace of mind. To find out if a property you’re considering buying or leasing falls into this category, visit the FAQ page on the Borough website: <http://www.co.fairbanks.ak.us/cp/Pages/Flood-Permits.aspx>

*Is this house built on permafrost?  
And, if so, does it rest on piles or adjustable footings?*

*Is this road maintained,  
and by whom?*

*Is this road built to  
Borough standards?*

*Is this property in a  
fire service area?*

*Does the structure meet  
zoning requirements?*

*Has the property ever flooded or  
rest in a location where  
I should consider flood insurance?*

## FOR MORE INFORMATION...

As referenced throughout this Booklet, a number of entities and organizations across the community and state offer informational resources and assistance to people thinking about taking responsibility for a home (buying, leasing or renting) or about making improvements to the residence in which they are already living. Some of those many, many resources include:

Alaska Housing Finance Corporation:	<a href="http://www.ahfc.us">www.ahfc.us</a>
Buyer's Resources:	<a href="http://www.ahfc.us/buy">www.ahfc.us/buy</a>
Energy Rater List:	<a href="http://www.ahfc.us/pros/energy/energy-rater">www.ahfc.us/pros/energy/energy-rater</a>
Information Sheets:	<a href="http://www.ahfc.us/efficiency/research-information-center/fact-sheets-and-information">www.ahfc.us/efficiency/research-information-center/fact-sheets-and-information</a>
Cold Climate Housing Research Center:	<a href="http://www.cchrc.org">www.cchrc.org</a>
Publications Library:	<a href="http://www.cchrc.org/publications">www.cchrc.org/publications</a>
Interior Alaska Builders Association:	<a href="http://www.interioralaskabuilders.com">www.interioralaskabuilders.com</a>
Buyer's & Relocation Information:	<a href="http://www.interioralaskabuyersguide.com/library">www.interioralaskabuyersguide.com/library</a>
UAF Cooperative Extension Services:	<a href="http://www.uaf.edu/ces">www.uaf.edu/ces</a>
Energy & Housing Publications:	<a href="http://www.uaf.edu/ces/family/energy">www.uaf.edu/ces/family/energy</a>
Fairbanks North Star Borough:	<a href="http://www.co.fairbanks.ak.us/Pages/default.aspx">www.co.fairbanks.ak.us/Pages/default.aspx</a>
Community Planning:	<a href="http://co.fairbanks.ak.us/cp/Pages/default.aspx">co.fairbanks.ak.us/cp/Pages/default.aspx</a>
Assessing:	<a href="http://fnsb.us/assessing/Pages/Real-Property-Assessment-and-Tax-Information.aspx">fnsb.us/assessing/Pages/Real-Property-Assessment-and-Tax-Information.aspx</a>
Air Quality:	<a href="http://fnsb.us/transportation/pages/air-quality.aspx">fnsb.us/transportation/pages/air-quality.aspx</a>
City of Fairbanks:	<a href="http://www.fairbanksalaska.us">www.fairbanksalaska.us</a>
City of North Pole:	<a href="http://www.northpolealaska.com">www.northpolealaska.com</a>
Interior Regional Housing Authority:	<a href="http://www.irha.org">www.irha.org</a>
Interior Weatherization:	<a href="http://interiorwx.org">interiorwx.org</a>
State Dept. of Environmental Conservation:	<a href="http://dec.alaska.gov/water/wastewater/engineering/buying-a-home">dec.alaska.gov/water/wastewater/engineering/buying-a-home</a>

### NOTES:

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Brought to you by the Fairbanks Economic Development Corporation Housing Task Force, and its 20+ member organizations and individuals, with the assistance of 5th Avenue Design & Graphics.