

Innovative Building in Alaska

"Promoting and advancing the development of healthy, durable, and sustainable shelter for Alaskans and other Circumpolar people."

Bruno Grunau, P.E.
EE Now Conference, January 13, 2015



Research • Innovation • Education



COLD CLIMATE HOUSING RESEARCH CENTER

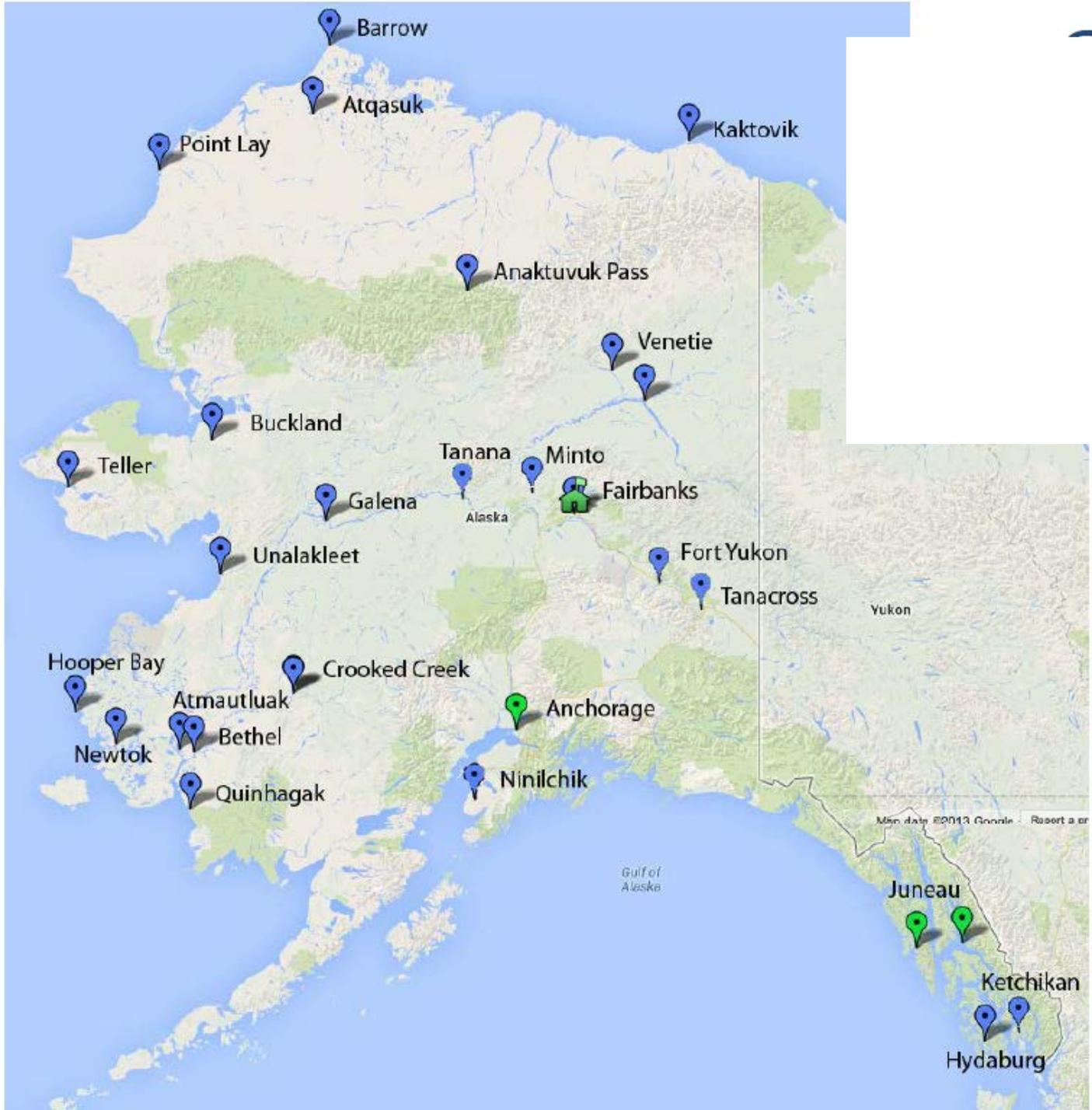
CCHRC



2013

2015







Alaska Climate Region 5

Anaktuvuk Pass





















Alaska Climate Region 3

Quinhagak







- Better organization
- NFD
- Large open living space
- space around city













Crooked Creek











(907) 283-5110



ALASKA
ENGINEERED
TRUSSES

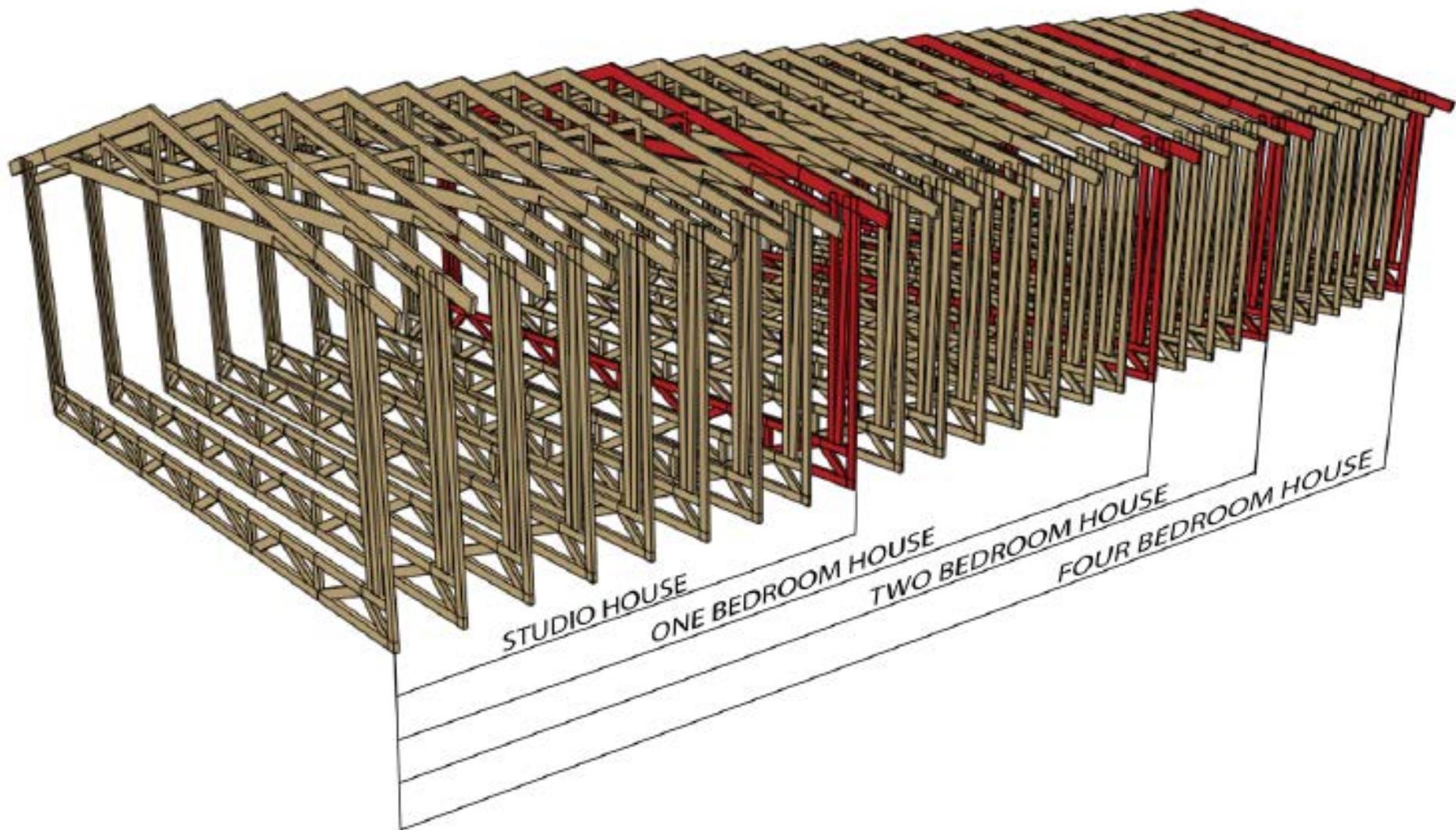
The Trusses Division

www.aktruss.com

URETHANE SERVICES

283-5110 ~ 398-7699













Atmautluak, AK



WELCOME HOME 7
CHRIS NICHOLAI DA
DAVID SIMS JOHN

**DESIGN. TRAIN. BUILD. EDUCATE.
REPEAT.**

Start a contracting company





**Limited Equipment
Unlimited Ingenuity**



Ability to Construct



Occupant Education



“This is what was built”
versus
“This is what we have built”.



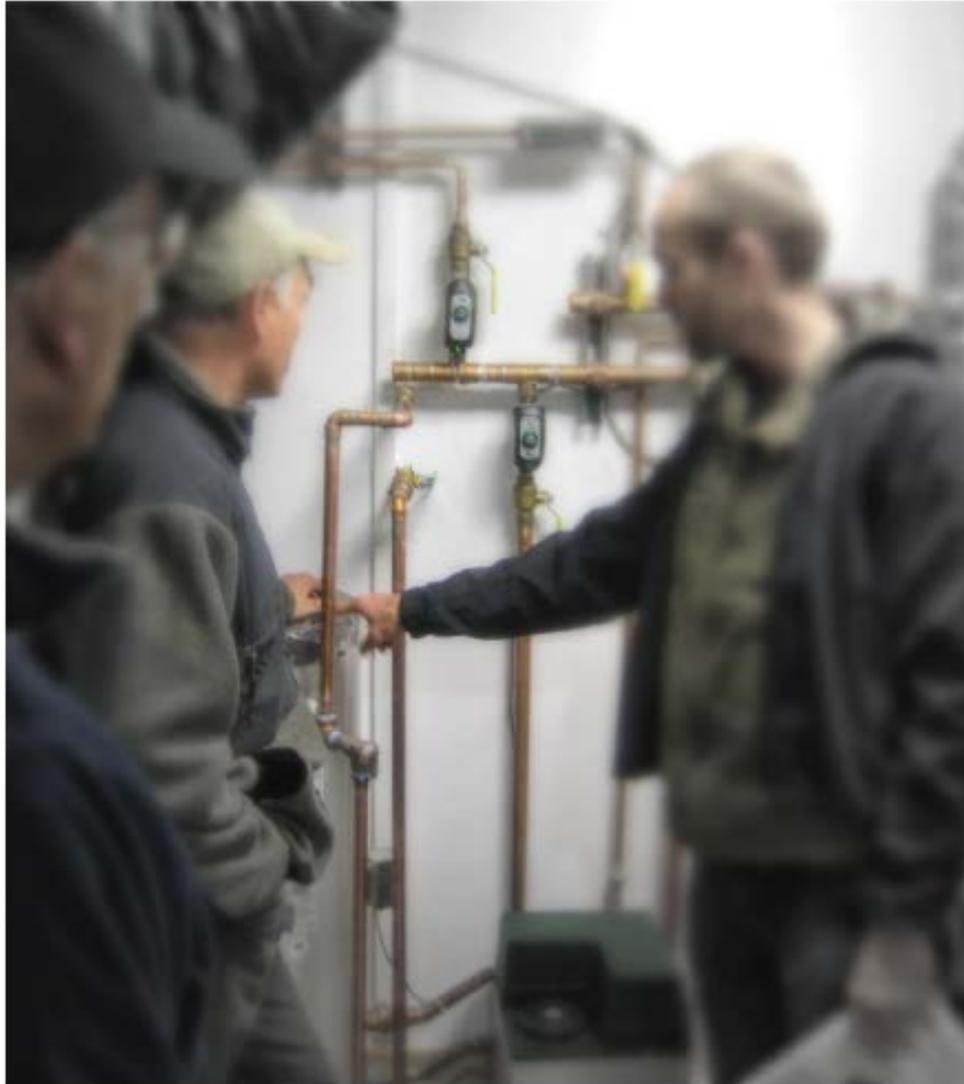
Video

THE SUSTAINABLE VILLAGE @ UAF



THE BR**HEAT**HE SYSTEM

MECHANICAL HEATING AND VENTILATION

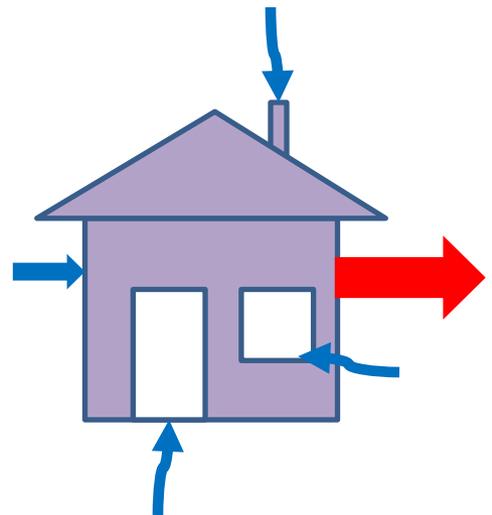
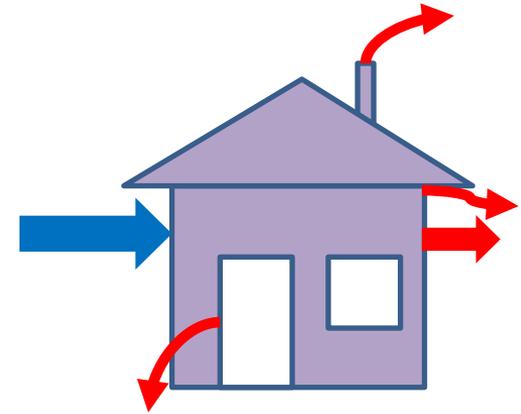
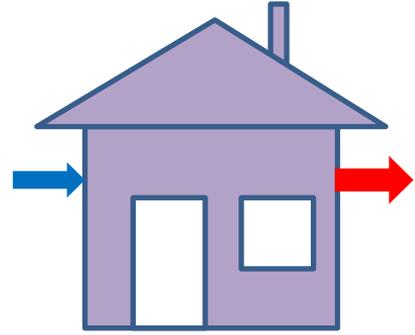
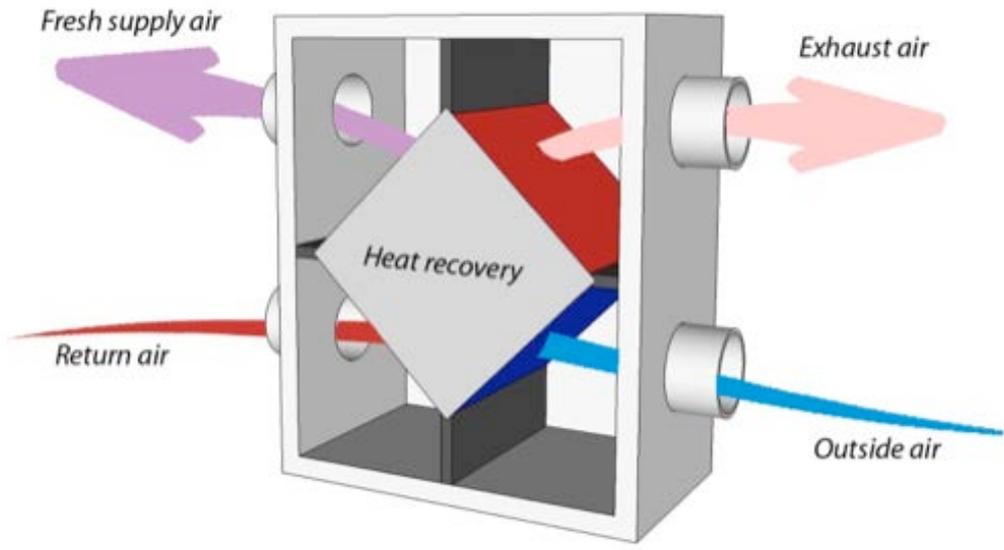




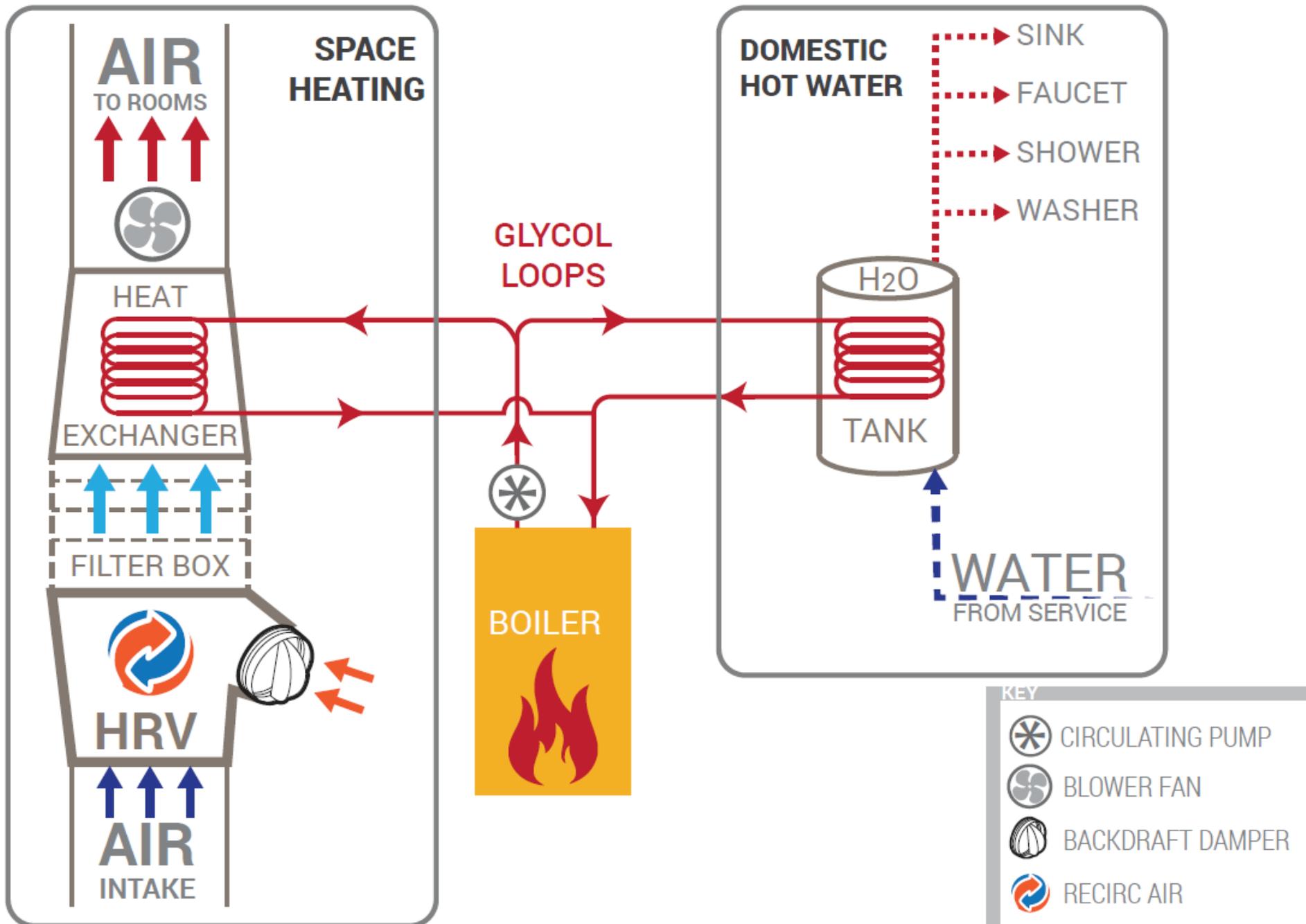
Handwritten markings on the wall, possibly initials or a signature, appearing as stylized characters.



Air exchange mode



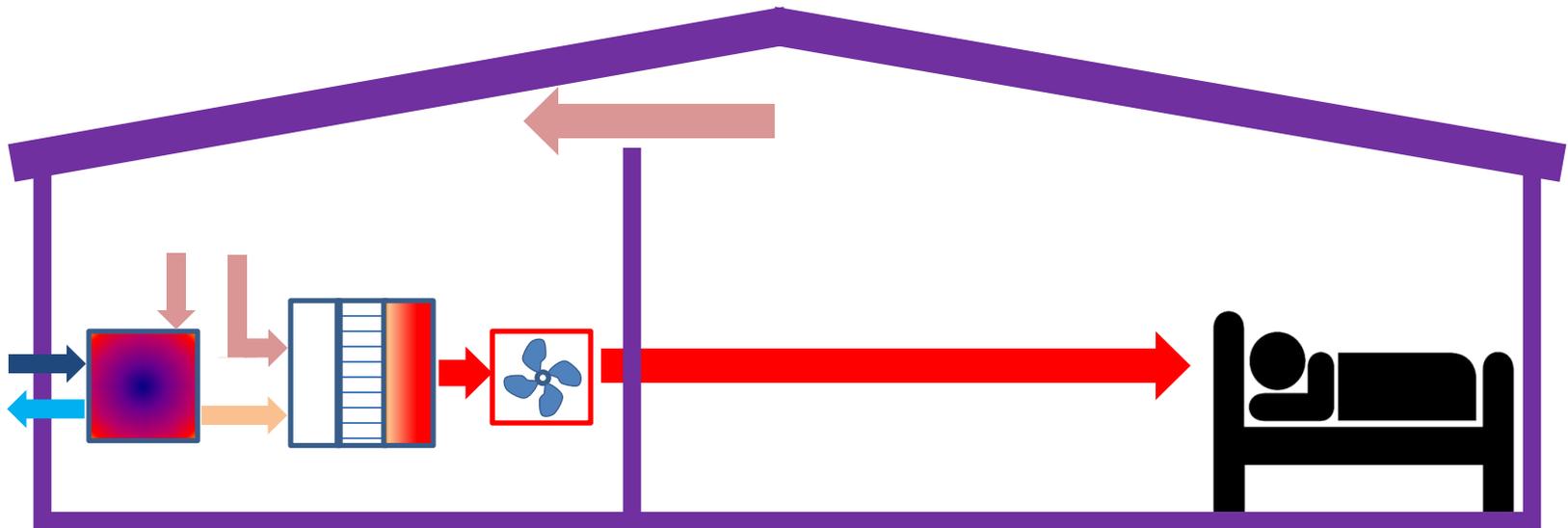
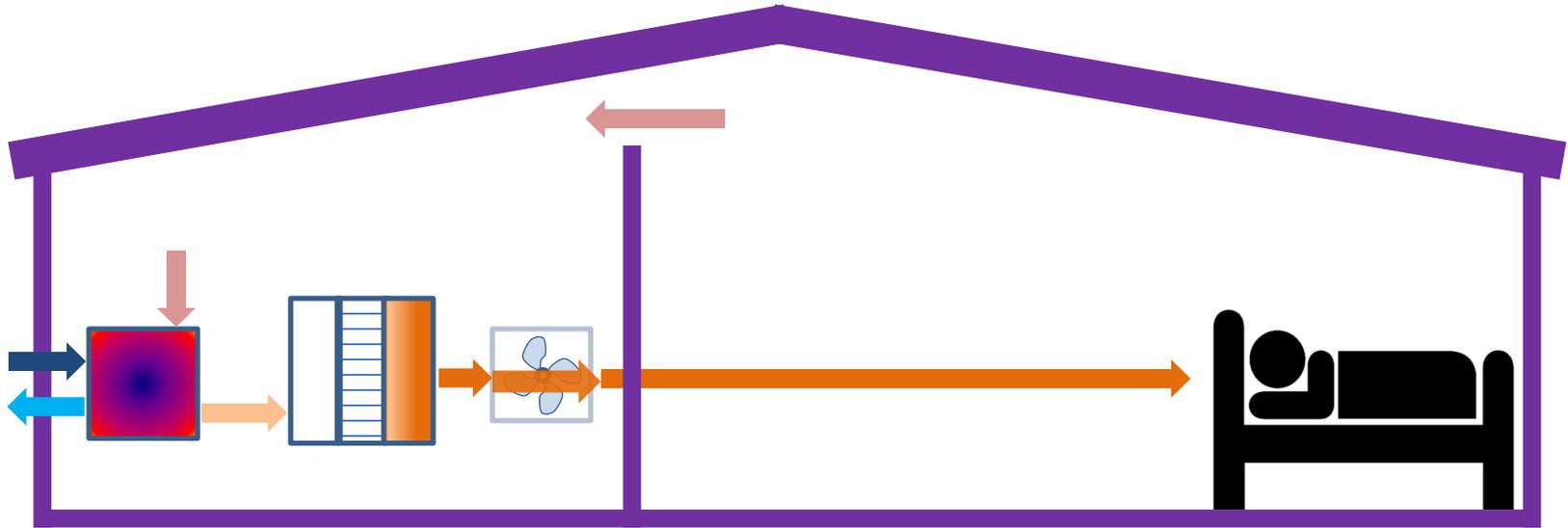
BRHEATHE SYSTEM SKETCH





71 SEP 07
8122 RS OCT 12
16 SEP 12

AH

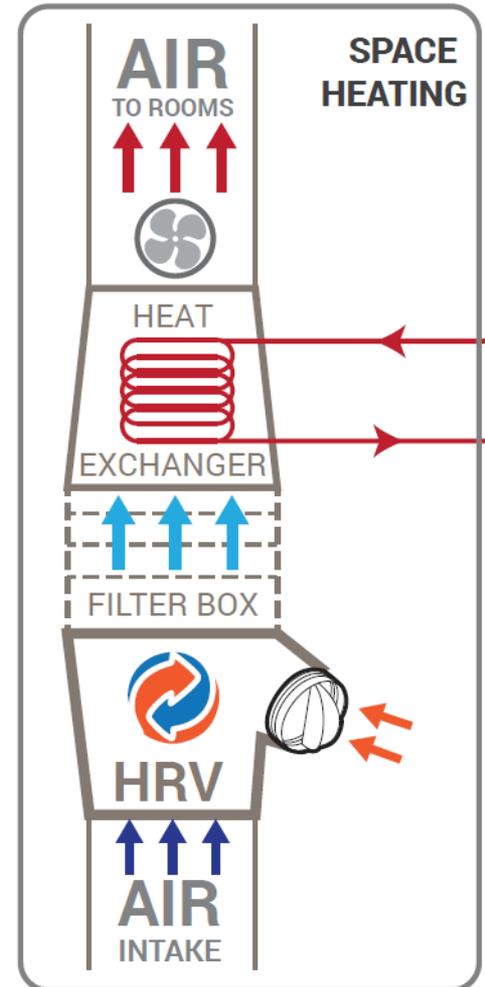




BrHEAThe System

What makes it unique?

1. **Balanced Airflow**
2. **Recirculated Air**
3. **Comfortable Fresh Air**
4. **Primary Heating System**
5. **Simple**
6. **Energy Efficient**
7. **Smart Thermostat**



Next Steps



BETHEL TRUSS PLANT

AVCP in partnership with CCHRC
Bethel, Alaska - November 2015

**Economic Development - Develop Skill Force –
River Communities - Local Lumber**

Next Steps

- **Alternative to Spray Foam**
 - **Building Envelope with Mineral Wool**



Thank you



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