BIA Providers Conference

15 Minutes of Building Science

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Building Science Basics

• Constants (sort of)
  – Heat
  – Air
  – Water/Moisture

• Variable
  – Occupants
The Basics of Building Science

• Heat moves from hot to cold
• Air leakage is a major cause of energy inefficiency
• Air moves from high pressure to low
• Air Leakage is a primary Moisture Movement Mechanism
• Moisture moves from wet to dry
• Bulk water & moist air movement causes major moisture problems
Your house acts like a chimney

Stack Effect

House As A System
House As A System
House As A System
Air Leaks to Attic
Air Leaks to Attic
Anatomy of an Ice Dam
House As A System
House As A System
House As A System
Proper Ventilation

• Build Tight – Ventilate Right
Quiet, Efficient, Continuous Duty Fan

Panasonic 90cfm

Panasonic 70/110cfm
House As A System
House As A System
Backdrafting
House As A System

Crawlspace air
Doing it Right
House As A System

Garage air

Crawlspace air
Car Running in Garage, Door Open
Carbon Monoxide Increases Rapidly
Make our Homes

- Safe and Healthy
- Comfortable
- Durable
- Affordable
- Environmentally responsible
Your House is a System

...which requires proper operation & maintenance
Questions?

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