Passive Solar Heating
House Design for Northern Climates

Summer Sun
- Summer sun is blocked by extended overhang, keeping home cool.

Winter Sun
- Winter sunlight will enter directly through windows, delivering thermal energy.
- Window or vents allow summer heat to be released.
- Insulated window shades available to trap heat at night.
- Window size are maximized to receive maximum thermal energy during winter.
- Highly insulated roof blocks summer sun’s thermal energy from entering home.
- Heavily insulated walls and roof.
- Thermal energy is trapped by highly insulated walls and roof.
- Thermal Mass flooring stores thermal energy for night time. Some homes use in floor hot water systems to redistribute heat throughout house.

Solar Collector
- Solar Collector
- Extended Overhang
- Insulated window shades available to trap heat at night
- Thermal Mass
- Solar Hot Water Storage Tank
- Thermal Mass flooring stores thermal energy for night time. Some homes use in floor hot water systems to redistribute heat throughout house.