The University of Alaska’s Sustainable Village

A dynamic and evolving community at the University of Alaska Fairbanks, committed to the tenets of sustainability, demonstrating what can be achieved to secure an enduring future for people of the circumpolar north.
The UAF Sustainable Village

A RESEARCH PROJECT IN SUSTAINABLE LIVING
The UAF Sustainable Village

2011-2012

- Student Design Competition
- Site development
- Design first low cost net-zero-energy homes
- Spring Construction
- Students as live-in researchers
- Next steps for a ten year program
Sustainable Village Design Competition
Student concept to working drawings

warmth + shade
- Rw overlay shutters rotate R-10 grooved heat loss at night on the exterior, in the summer they roll up to create shaded and shade from unwanted solar gain.

garden
- rooftop or ground level gardens provide personal space for each resident and a relaxing place to read, with raised beds to produce food, with benches and garden canopies over the lower level for sun soaking.
A research cluster

Each house has unique combination of foundation, wall and mechanical systems.
Natural habitat with current residents
A light footprint
A sense of place
Thermal raft foundation (2 homes)
Driven steel pile foundation (2 homes)
REMOTE System with 8” EPS foam
REMOTE system with 12” exterior cellulose
Recycled material
On-site water and wastewater
Sustainable Village
“Willow House”
Solar Hydronic Heating
Sustainable Village
“Spruce House”
Highly efficient integrated heating/ventilation/power
An Urban Forest
Move in