Potential Mitigation Strategies for Buildings and Infrastructure on Thawing Permafrost

Tracy Sehmel, Cold Climate Housing Research Center, tracy@cchrc.org Robby Strunk, Cold Climate Housing Research Center, Robby.Strunk@nrel.gov Navigating the New Arctic: Ice-rich Permafrost Systems project (NSF Award 1928237) www.geobotany.uaf.edu/nna





Permafrost thaw impacts an ecosystem that arctic villages depend on and destabilizes buildings and infrastructure that people live and work in. Both aspects are fundamentally connected to health. A cracked building can let moisture into a home, which can lead to black mold and respiratory distress. We conducted a literature review and interviews to identify the mitigation strategies for new and existing infrastructure that are listed below. They are categorized by type. Our next step in this research is to evaluate the feasibility of each option for Alaska communities. Photos taken in Point Lay, AK.

