2004 Design-Build Construction Project

Sustainable Building Technology Center

Project Description And location The Technology Center will be a 3200SF facility constructed on the campus of **Chief Dull Knife College**, on the Northern Cheyenne Indian reservation in Montana.



New Technology Center, Chief Dull Knife College Campus

Intended Use The technology center will be used to offer hands-on educational programs for tribal members. Tribal members will have the chance to learn basic construction skills, in addition to how to build, repair, and winterize their homes.

Sustainable Technologies The project will utilize **strawbale construction** technology and **radiant floor heating**, in addition to other sustainable technologies. Much of the existing building currently on the site will also be reused.



Existing storage structure to be dismantled and the new technology center will be built in its place.



The steel frame in the existing building will be salvaged for use in the new building.

Funding The base building costs will be funded by a **USDA Rural Development** Grant. Design and project management services are contributed by the American Indian Housing Initiative and the **National Science Foundation**.

<u>/:!!!</u>

www.engr.psu/greenbuild

Sustainable Technologies



Integrated Design: Sustainability from start to finish



Design for Constructability Detailed construction plans maximize efficiency in design, minimizing materials, cost, & labor.



Daylighting Design Day-Lighting analysis used maximize use of daylight and minimize energy costs.



Materials Research

Investigation of materials for each component of the building, from quality windows which retain heat, to waterless urinals, to reflective paint for better light..