

Project Profile

NCAR Wyoming Supercomputing Center | Cheyenne, Wyoming

Owner	National Center for Atmospheric Research (NCAR) and the University Corporation for Atmospheric Research (UCAR)
Client	H+L Architecture
Project Value	Confidential
Services Provided	Cost Consultancy & Scheduling
Project Size	150,000 sq ft
Architects	H+L Architecture / California Data Center Design Group



Renderings courtesy of H+L Architecture

Overview

The National Center for Atmospheric Research (NCAR) and its managing organization, the University Corporation for Atmospheric Research (UCAR) have moved forward on the world-class, collaborative endeavour of a supercomputing center dedicated to advancing scientists' understanding of climate, weather and other Earth and atmospheric processes. The 150,000 SF, Cheyenne-based facility, is being developed in partnership with the University of Wyoming, the state of Wyoming, Cheyenne LEADS, the Wyoming Business Council, and Cheyenne Light, Fuel and Power (CLF&P). Located in the North Range Business Park, NWSC will contain some of the world's most powerful supercomputers dedicated to improving scientific understanding of climate change, severe weather, air quality, and other vital atmospheric and geosciences topics. The center will also house a premier data storage and archival facility that holds irreplaceable climate records and other information.

The project is pending National Science Foundation's final approval; facility construction will begin in spring 2010 with construction and commissioning to be complete in 2011. The project is pursuing LEED™ Platinum certification.

Our role

Rider Levett Bucknall prepared the initial construction budget at the outset of the project based on early conceptual design information. As design development progressed, Rider Levett Bucknall prepared increasingly more detailed construction estimates with reports presented to the Owner at the schematic design (30%) and design development (65%) milestones. As various design and material options were explored, Rider Levett Bucknall provided comparative cost estimating studies to inform the decision making process regarding the financial implications of any option.

Concurrent with the cost planning services, Rider Levett Bucknall developed the overall project schedule, established dates and durations for the major design and construction activities, in addition to Owner required decision making and material procurement dates.

The contractor was appointed at the beginning of the construction documents (95%) phase of design. Rider Levett Bucknall's role included preparing a detailed construction estimate and comparing and reconciling it with the estimate prepared by the contractor prior to the GMP agreement.

Client benefits

Rider Levett Bucknall's proactive cost planning at all stages in the design process enabled the design team to stay within the anticipated project cost. Our numerous cost analyses for a wide range of construction options allowed the Owner to make informed design decisions with the benefit of understanding the cost implication of all options being considered. Progressively more detailed estimating confirmed the likely final cost of construction which was a valuable aid in the grant application process. It was critical for the Owner to know that the construction cost was appropriate and the schedule was neither too aggressive nor unreasonably long and that the project could reasonably be expected to be built within the stated budget and proposed schedule.

In addition, our independent estimates of cost, as compared and reconciled with the contractor's estimates safeguarded the Owner's financial interests by ensuring the contractor was not presenting a GMP for agreement that was either under or over stated.