



USING AGENCY AND PROFESSIONAL MEP COUNSEL SESSION
October 23, 2009

PROJECT: Lock Haven University Science and Math Center
DGS Project No. 409-62

Architecture
Construction Management
Engineering
Graphic Design
Interior Design
Program Management
Strategic Facilities Planning

Commissioning Agent Summary:

LHU has adopted ESCO policy of 70 MBH/SF/YR allowable energy usage for buildings. This figure was provided as an HVAC guideline basis for design. LHU also offered comfort control design criteria as 72F cooling and 70F heating.

LHU terminal HVAC system preference for this project is water source heat pumps. A geothermal heat pump loop should be evaluated for feasibility in preliminary design phase. With all terminal HVAC systems, prudent design layout is stressed to allow unit accessibility for routine maintenance or replacement.

Amid water shed environmental impact LHU does not desire an evaporative cooling tower as part of the HVAC design solution.

LHU encourages the use of natural gas fired, low NOx condensing boilers to provide heating hot water. Cx note: If mechanical room space permits, utilization of a multiple boiler set will reduce energy costs and afford proportional backup capability in the event of a single boiler failure.

LHU recommends a multiple exhaust fan approach for laboratory fume hoods. Make up air unit parings with fume hood exhaust groups should be considered for economic and energy usage viability. Laboratory hood monitoring shall be incorporated in the HVAC building management system.

CO2 monitoring is currently utilized by LHU. A demand based ventilation design in classrooms will increase overall HVAC efficiency.

LHU is adopting Automated Logic as the university's HVAC control platform.

Design consideration shall be given to heating transitional spaces ie. entrance vestibules due to the high infiltration rates experienced.

LHU recommended exploring the option of acquiring domestic hot water for the Science and Math Center from the adjacent Gymnasium domestic HW system.

The Cx Agent notes that the Professional has agreed in good faith to explore and address LHU's MEP recommendations as discussed throughout the session.

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