

MEMORANDUM

To: Board of Regents
From: Board Office
Subject: Register of Iowa Braille and Sight Saving School Capital Improvement Business Transactions for the Month of November 2004
Date: December 1, 2004

Recommended Action:

Approve the Register of Capital Improvement Business Transactions for the Iowa Braille and Sight Saving School.

Executive Summary:

Requested Approvals Project description and budget (\$870,000) for the **Old Main Building—Heating Ventilating and Air Conditioning (HVAC) Improvements** project which would install a geothermal heat pump system to upgrade the heating and cooling systems for the Old Main Building.

The project would be processed through Iowa State University.

Background and Analysis:

Old Main Building—Heating, Ventilating and Air Conditioning (HVAC) Improvements

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 870,000	Dec. 2004	Requested

Background The Old Main Building is a multi-purpose building of approximately 70,000 net square feet which houses a dining hall, kitchen, administrative offices, classroom space, an assistive device center, a library, meeting rooms, an historical area, an auditorium, storage and support space.

The facility is cooled primarily with window air conditioners, which are not efficient for cooling a facility of its size. In addition, the air conditioning units obstruct daylighting into the building interior, detract from the overall appearance of the building, and must be removed and reinstalled by facilities staff on a seasonal basis.

The primary heat source for the building is the campus steam system; the majority of the building is heated with steam radiators and thermostatic control valves. The existing steam heat distribution system for the building is very old and in need of upgrading.

In the fall of 2004, Kapaun Consulting Engineers of Waterloo, Iowa, performed a feasibility study for the renovation of the heating, ventilating, and air conditioning system for the Old Main Building. The consultants' report outlines several alternative geothermal heat pump systems, with construction costs ranging from \$588,000 to more than \$1 million, to upgrade the heating and cooling systems for the building.

- Numerous studies have indicated that the building heating/cooling system that provides the lowest life cycle cost is a geothermal heat pump system.

An existing geothermal heat pump well field on campus, which was installed at Rice Hall in 2002, is currently underutilized and has sufficient expansion capacity to heat and cool the Old Main Building.

Project Scope

Work includes the installation of heat pumps utilizing the existing closed loop geothermal well field at Rice Hall. New distribution piping to the Old Main Building and electrical system distribution panel boards would also be installed.


The proposed system is based on current occupancy and usage levels of the building and could easily accommodate future expansion needs, if necessary.

The proposed system is the lowest cost alternative outlined in the consultants' study (\$588,000).

- The construction budget includes an escalation factor in the event that actual construction costs exceed the construction estimate.

Project Budget

Construction Cost	\$ 662,500
Professional Fees	122,180
Contingency	<u>85,320</u>
TOTAL	<u>\$ 870,000</u>
Source of Funds:	
Capital Appropriations	\$ 830,000
Building Repair Funds	<u>40,000</u>
TOTAL	<u>\$ 870,000</u>


Sheila Doyle

Approved: 
Gregory S. Nichols