

# HIGH ENERGY PHYSICS



Fig. 1. The High Energy Physics lab in 1994. The building is 'L' shaped, with a 44 by 104 foot shop wing, and a 45 foot one story office wing on the east side. The shop section has a steel frame, while the rest of the building is of concrete block. [Author Photo, AP-39]

In response to a talent drain in physics to the coasts, several Universities combined to form the Midwestern University's Research Association (MURA). MURA was intended to combine resources and personnel to provide a nuclear physics study center in the Midwest. An early accomplishment of MURA was the securing of a contract with the Argonne National Laboratory in Illinois for a bubble chamber of a new design. This bubble chamber was a very large magnet with a liquid hydrogen chamber in the gap of the magnet. The size of the device, a ten foot cube weighing 180 tons, meant that it required a separate building for its assembly.<sup>1</sup>

In December 1960, the University's department of planning and construction produced a specification for a "temporary building to adequately permit the assembly of a Hydrogen Bubble Chamber." The size of the bubble chamber to be assembled defined the design of the building. It was to have a shop wing of 50 by 80 feet, with twenty feet of head room, a floor capable of 10,000 pounds per square foot, and explosion proof electrical systems (because of the use of liquid hydrogen), and an office wing. Preliminary and final plans were combined into one presentation, which the regents approved on March 3, 1961.<sup>2</sup> Construction contracts were let by the regents on April 7, 1961, with the general contract going to Crissinger Construction of Madison for \$65,185. The total cost of the building was \$145,000 including a \$22,000 crane. The \$145,000 cost was evenly split between an NSF grant and a WARF award. Construction began immediately, and on November 20, 1961, the University accepted the building as "substantially complete".<sup>3</sup>

The bubble chamber went to Argonne Labs in 1963, and later to Fermi Labs, where it is still used. The high energy physics department used the building until the renovation of the center section of Chamberlin Hall, which was taken over by physics in 1973. In 1974 through 1988 the building became the home of various programs in the Environmental Studies department. In 1989 the building became the home of the department of grounds.<sup>4</sup>

1) *Wisconsin Alumni Magazine*, June 1961, p. 14; Bill Winter of MURA, and Bob March of physics, interviews fall 1994; MURA consisted of Wisconsin, Northwestern, Illinois, Michigan, Indiana, Notre Dame and Purdue.

2) Proposed High Energy Physics Laboratory, series 24/9/2 box 12; *Regent's Minutes*, November 4-5 1960, March 10, 1961.

3) *Regent's Minutes*, April 7, 1961; Small to Ahern, November 20, 1961 series 24/9/2/ box 13. Plans at the physical plant plans room.

4) *Daily Cardinal*, December 5, 1963, October 6, 1966; Records of the office of Space Management.