PHYSICAL EDUCATION BUILDING

Women's Gymnasium

Built: 1940-41 Addition: 1970-72 Architect: 1940 Tinsley McBroom & Higgins

1970 Frevert-Ramsey

Contractor: 1940 Hagstrom Constr. Co.

1970 James Thompson & Sons

"A suitable gymnasium for girls is on the list of college needs that I will present to the board in the near future, and is near the top of the list." That statement by President Pearson was quoted in the <u>lowa State Student</u> on November 16, 1925. Funds were requested in subsequent years but it was not until after the destruction of Margaret Hall by fire in 1938, and the loss of women's facilities there, that action was finally taken to provide money for a new building.

The 48th General Assembly, in 1939, appropriated \$250,000 for a gymnasium for women. Plans and specifications were approved in December and contracts were awarded in January 1940. The building was accepted on January 16, 1941.(1)

A good description of the original building appeared in the January 3, 1940, issue of the Iowa State Daily Student:

The structure, to be of brick with stone trim, will be located just north of the women's tennis courts and west of the road which runs north and south past the playfield. It will face south.

The building will measure 226 x 103 feet, with a main gymnasium 112×70 feet. At one end of the gymnasium will be a stage 18×12 feet.

Seven offices occupy the front section, with the gymnasium directly back of them.

A 30 x 75 foot swimming pool room, tiled in medium green and pastel green, will occupy one end of the building. The pool proper will be the pool on the second floor, along one side, is a balcony, which has four tiers of seats. [sic]

An archery court 34 x 84 feet, is located in the basement. The building will provide a dance studio measuring 32 x 45 feet, with several smaller locker, shower and storage rooms.

⁽¹⁾ Minutes, January 16, 1941

Walls throughout the building will have 6 feet of glazed brick wainscoting, and plaster from there to the ceilings. In the gymnasium, however, the glazed brick will reach to the doors.

Plans for an addition on the north were first recorded in 1945.(1) However, it was 1966 before the next request for funds reached the priority list and 1969 before an appropriation was made. In that year a federal grant was also made in the amount of \$739,287, to participate in the total project cost of \$2,680,000.

Contracts for the addition were approved in October 1970 and the building was completed for occupancy in December 1972.

PHYSICAL PLANT SHOPS and CENTRAL STORES

Central Stores, Physical Plant

Built: 1933 Additions: 1936-37; 1971-73

Architect: 1933, 1936 - A.H. Kimball

1971 Woodburn & O'Neil

Contractor: 1933 Kucharo Const. Co.

1936 Ben Cole & Sons 1971 Mueller Const. Co.

At the Board meeting of April 26, 1933, President Hughes made the following recommendation which was approved and referred to the Special Building Committee with power to act:

I recommend that \$30,000 of the Book Store fund be spent in the erection of the first unit of the Central Stores Building, this building to be of the simplest possible construction of brick and concrete and having two stories and a basement, the floor of the first story to be on a level with a truck bed so that material can be loaded in and out most readily. The erection of this building will free the rear of Botany Building from use as a store room and would thus make available some very much needed space for the Botany Department. It would also make possible the consolidation of two store rooms and save some money in help. There are many other advantages in this arrangement, and I hope the Board will approve this recommendation.

It seems probable that the preliminary plans had been developed prior to that date since construction bids were received on June 27, including an alternate proposal to omit the three south bays. A contract was awarded on the basis of the smaller size building. The mechanical and electrical work was to be provided by the Buildings and Grounds

⁽¹⁾ Iowa State Daily Student, November 2, 1945

Department.(1)

When excavation was made for the foundations a layer of quick sand was encountered. This resulted in a change in footing design and a separate contract for the additional labor and material, in the amount of \$3258.15, was negotiated with the contractor for the extra costs.(2)

Construction was completed and the project accepted in November 1933.

In 1936 a grant of \$13,500 from the Federal Emergency Administration of Public Works, together with a State appropriation of \$16,500, made possible the construction of a south addition to the Central Stores Building. Contracts were awarded in September and the building was completed and accepted on January 30, 1937.(3)

This building became the headquarters for the Buildings and Grounds Department (later Physical Plant Department) as well as for Central Stores.

Minor remodeling in 1958-59 added about \$7500 to the building valuation and included construction of a covered dock on the east side.(4)

Long-range planning to replace the numerous small, outmoded buildings in the Physical Plant service area with new facilities is first recorded in the <u>Iowa State Daily</u> for December 10, 1960: "The old buildings around the physical plant will be removed and adequate buildings constructed." By 1963 the plans were somewhat more developed: "The expansion of physical plant shops and stores will provide additional shop space for the University's maintenance force, additional storage space for maintenance materials, and garage space for the storage and servicing of University-owned vehicles."(5)

An appropriation of \$1,000,000 for Physical Plant Shops and Stores was requested in 1966 and in subsequent years, but it was 1971 before funds were made available for construction. The architect had been retained in 1968 to enable plans to be prepared so that bids could be received and construction started at the earliest possible date.(6)

⁽¹⁾ Minutes, June 28-29, 1933

⁽²⁾ Minutes, October 11, 1933

⁽³⁾ Minutes, February 25, 1937

⁽⁴⁾ Iowa State Daily, November 7, 1959

⁽⁵⁾ Iowa State Daily, November 14, 1963

⁽⁶⁾ Minutes, September 12-13, 1968

The schematic drawings for the proposed building were approved by the Board as recorded in the Minutes of the January 14-15, 1971, meeting when the following project description was presented:

The proposed building will house all Physical Plant Shops and Central Stores Warehouse facilities and Central Receiving, as well as Physical Plant and Purchasing Department administrative offices. It will replace eleven miscellaneous outdated and inefficient buildings.

New construction will consist of a "U" shaped one-story structure with full ground floor in the shops wing and partial ground floor in the warehouse wing. This building will abut the existing Central Stores and Physical Plant office building which will be renovated to accommodate all administrative office functions of the Physical Plant and Purchasing Departments. The new structure will be of steel framing with a composite steel and concrete floor system and exterior walls of precast concrete and metal siding.

Bids for the construction of the new building were received and contracts awarded in October 1971.(1) The project was completed and occupied late in 1973.

PHYSICAL PLANT STORAGE SHED

Built: 1973-74

Contractor: Advanced Building Systems, Inc.

This prefabricated metal building was erected to provide storage space for equipment used by the Physical Plant, particularly grounds maintenance machines. It also houses supplies of materials used in maintenance operations.

Prior to construction of this building many tractors, snow plows, street cleaners and similar pieces of major equipment were kept in the open where they were exposed to the elements and consequently subject to more rapid deterioration. The enclosed space also ensures easier starting of motors in cold weather.

⁽¹⁾ Minutes, October 13-15, 1971

PHYSICS HALL

Built: 1921-23 Court enclosures: 1950; 1960-61

Addition: 1964-68

Architect: 1921 Proudfoot Bird & Rawson

1950 T.K. Fitzpatrick 1960 Brooks, Borg 1964 Russell & Lynch

Contractor: 1921 Supt. of Buildings & Grounds

1950 James Thompson & Sons

1960 J.E. Whitfield

1964 Woodruff-Evans Construction Co.

The earliest request for funds for a building for the department of Physics was made in the Biennial Report for 1908-10 when \$150,000 was requested. That request was repeated in subsequent years but it was 1921 before the project was authorized and in that year \$225,000 was appropriated for the building.

Foundations for the structure were placed in the fall of 1921, but it was the following spring before any superstructure was started, and then work progressed slowly because of a shortage of brick masons. The building was not completed until the fall of 1923.

An interesting aspect of the construction of this building was the making of bricks at the job site, as reported in the <u>Iowa State</u> Student on October 23, 1922:

One of the features in the construction of the new Physics building is the use of cement brick which are being made on the job.

The finishing brick used in the first 6½ feet are of white cement and sand. This type of brick is much lighter than the clay brick and easier to handle, although they crack and break easily.

For the upper part of the construction a buff brick is being made in which rock dust is used in place of sand and has proven very successful, the finished brick taking a fine lustre.

The plant for turning out the brick is located just east of the new building. The economy in the use of the cement brick instead of the clay has already been proven and it is expected that a considerable amount of money will be saved thru their use.

About a month later, on November 27, the paper reported:

Construction work on the new Physics building is progressing rather slowly due to the shortage of brick layers, insufficient supply of cement brick, and the day labor method of construction, according to those in charge. The most serious shortage is in brick layers. Two nine-hour shifts of laborers are working on the brick machines turning out about 2500 completed bricks every nine hours. Five hundred thousand of these bricks will be needed to complete the building.

With the exception of the facing brick for the inside walls, all the material for finishing the building is now on hand....

The cornerstone for the building was laid on December 6, 1922, with President Pearson presiding at the ceremony.

By September "The 277 \times 181 foot Physics building with its outside row of rooms practically completed, is the largest and most nearly complete building under construction on the Iowa State campus..."(1)

A general description of the building appeared in the student paper on November 23, 1923:

The new Physics building....is now occupied, although it is not completely finished inside. It is located just east of the Chemistry and Science building. It is a one story construction, built of brick, and faced with Bedford limestone. The walls of the recitation rooms and laboratories are finished in gray and buff brick, the floor being concrete. The corridors are floored with red tile which was made by the ceramics department. The work was rushed during the summer so that the building would be ready for occupation during the fall quarter. It is said to be the best equipped physics building in the country. Each room has connections for alternating and direct electrical current, gas, water, and compressed air. Switchboards in various rooms are so arranged that apparatus can be connected to any of the various sources of current in the building. The heat is supplied from the college power plant, and is connected to the building by a new heating tunnel which joins the old one. A fully equipped machine shop is included in the building. Except for some work in the basement, and inside finishes the building is completed. The total cost of the building was \$250,000, while new equipment valued at more than \$50,000 will be installed.

The instrument maker's shop was installed in 1930.(2) Acoustic panels were installed in the large lecture hall in 1931.(3)

⁽¹⁾ Iowa State Student, September 24, 1923

⁽²⁾ Iowa State Student, September 22, 1930

⁽³⁾ Iowa State Student, December 15, 1931

In 1950 the north courts were filled in providing additional room, especially for the instrument shop and glass fabrication facilities. Enclosure of the south courts was accomplished in 1960-61, making added research laboratories available to the department.

A National Science Foundation grant of \$1,106,000 plus a state appropriation of \$1,350,000 in 1963 made possible the planning and construction of a basement plus five story addition adjoining the north side of the original physics building. Construction contracts were awarded in November 1964, but it was April 1968 before the new addition was completed and ready for occupancy.

In 1968 a major renovation was undertaken in the original building especially in the heating and air conditioning systems.

PLANT INTRODUCTION GREENHOUSE

Built: 1948-49 Additions: 1953, 1962-63

Architect: Physical Plant

Contractor: 1948 American - Moninger Greenhouse Mf. Co.

James Thompson & Sons

1962 Winandy Greenhouse Constructors

Physical Plant

Plans for this building were authorized in March 1948 and a contract for the greenhouse construction was awarded in May and for the foundations and headhouse in June.

This original building was U-shaped with the headhouse and offices on the east side and two greenhouse wings built to the west. Funds for the project were provided by the United States Department of Agriculture. Work was completed and accepted in February 1949.(1)

The <u>Iowa State Daily</u> for August 7, 1953, reported that "The Department of Plant Introduction now has the glassed-in portion of its new green-house completed" and that "work which was started last spring will be completed before winter." This project apparently was handled by the Physical Plant and enclosed the area between the two original green-house wings. There is no mention of this work in the Minutes.

The 1962 project was an extension westward of the north wing of the original greenhouses. It was funded by United States Department of Agriculture Regional Research Funds. It was completed in May 1963.

⁽¹⁾ Minutes, February 8, 1949

PLUMBING SHOP

Chemistry Annex #2

Built: 1943-44

Architect: A.H. Kimball Contractor: Weitz Company

Razed: 1972

This building stood east of the Central Stores Building, about in the center of the court between the two wings of today's Physical Plant Shops and Central Stores Building.

Some confusion exists in the 1943-44 references to this building in the Minutes. In the entries of that period it is called "Addition to Annex #2, Physical Chemistry Building." Nothing has been found to indicate a structure in that location to which this Annex might have been an addition. The building was U-shaped with the bottom of the U to the north. The west wing was 22 feet wide, the east wing 40 feet, with a 15 foot wide court between the two legs of the U.

The contract to construct the building was entered into in December 1943 and it was completed in February 1944.(1) Funds came from the federal government.

In 1953 the College purchased the Annex from the Atomic Energy Commission for \$3,150.(2)

The building was subsequently used for and became known as the Plumbing Shop. It also housed the Credit Union in the southeast corner until that organization erected a new building.

The Plumbing Shop was razed in 1972.

⁽¹⁾ Minutes, March 23, 1944

⁽²⁾ Minutes, September 10-11, 1953

POPE COTTAGE

Built: 1877 Purchased by College: 1884

Architect: Unknown Contractor: Unknown Purchased for \$3,000

Professor of Chemistry, Thomas E. Pope, built this house on the south side of what is now Lincoln Way in 1877. When he was called to M.I.T. he offered the property to the college and the purchase was agreed to in 1884. Professor Wynn had rented it from Professor Pope before the purchase was made and remained there through 1885. Subsequent occupants are listed:

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This frame house was typical of the residential design of its period with two stories and basement. Inside plumbing and electricity were installed in 1902. The porch on the southeast corner was added in 1924.

POULTRY HOUSES

Hen Houses

The need for a hen house was first recorded in the January 1868 minutes of the Board. A hen house was built in 1871 as an addition to the Cattle Barn and is described under that heading.

In December 1874 the Board included in its legislative request an item of \$1200 "for swine houses, corn cribs and Fowl Houses."(1) Not until 1880 were funds for those structures made available. A total of \$158.22 was used for the Poultry House.(2)

By 1886 there had been a change in need because the minutes of the May meeting of the Board that year directed that the hen house be moved, rearranged and repaired for use as a swine house.

There is no way to determine just where these early, minor structures were located.

The <u>IAC Student</u> on May 14, 1892, records that "they've built a hen house near the grape patch."

Subsequent buildings for poultry are covered separately and were built on the new Poultry Farm, which is the site where the Tower Residences are located now.

⁽¹⁾ Minutes, December 1874

⁽²⁾ Minutes, December 1880

POWER and HEATING PLANT

Built: 1906-07 Additions: 1910, 1948-50

Architect: 1906 Proudfoot and Bird

Mechanical System by Professor G.W. Bissell

1910 Proudfoot Bird & Rawson

1948 (& subsequent) Brown Engineering Company

Contractor: 1906 Bartlett & Kling

1910 C.W. Ennis

1948 Fuel Economy Engineering Co. 1968 Ringland-Johnson-Crowley

The idea of a central heating system for all college buildings was expressed as early as 1891 as recorded in the Biennial Report for 1890-91:

We should have a general central heating system connecting all of these buildings, thereby making janitor hire much less, diminishing the cost of fuel and adding greatly to the security of all of our buildings from fire, as well as contributing to the cleanliness and general culture of the whole institution.

For the next ten years, with expansion of the Power Station on the west side of the campus it was possible to "get by". Construction of Engineering Hall (Marston) in 1900-03, and Central (Beardshear) in 1903-06 would add new loads impossible to meet at the Power Station and the need for a new facility became imperative. In 1904 the architect was retained to prepare plans for the new structure and Professor Bissell was authorized to draw up plans and specifications for all of the mechanical equipment.

At that time the site for the new plant was assumed to be north of Margaret Hall. The Simonds landscape plan of 1903 showed the site at a location where the Quadrangle was built later. The present location was finally determined in May 1906.(1)

Construction bids had been received in January and again in March 1905, but both times they exceeded available funds and were rejected. New bids for construction at the east side of the campus, and subsequent to a new appropriation, were submitted at the June 5-6, 1906, Board meeting and the contract was then awarded to Bartlett & Kling.

When the building construction was completed the following year the generating equipment was ready and power was then furnished to the entire campus. By 1908 one boiler had been installed and heat was being furnished, through the tunnel system to the major buildings on the campus.

⁽¹⁾ Minutes, May 9, 1906

An addition to the plant to make room for additional boilers was erected in 1910. In 1912 coal and ash handling equipment was installed. A new concrete smoke stack, 225 feet tall, was built in 1913-14. The older portion of the building received a new tile roof in 1914. Two new boilers were added in 1915, as were new stokers.

A new 2200 volt 1250 KVA 3-phase steam generator was installed in 1919.(1) The item in the paper about the installation stated that "the new generator will carry the full load of the college and the lighting of the Fourth Ward."

In 1928 a new 1500 KW turbine was purchased and a cooling pond was built in association with it. Ten years later a new steam boiler was put in to replace two older ones, and other related equipment was also included.

A contract for engineering services in the design of alterations and additions to the Power and Heating Plant was executed with Brown Engineering Company in 1946. This initiated a project involving extensive remodeling and changes in the building and equipment, a process that has continued to the present in several stages. A turbogenerator unit, surface condensor, steam generator, switchgear cooling tower, and coal handling and ash handling equipment were contracted for in 1947. The following year enlargement of the building was started to provide space for the new equipment. That contract was completed in 1950.

The steam generator was converted to gas instead of coal in 1951, and a new generator unit was added in 1952.

In 1952 contracts were awarded for an additional steam generator and for a turbo generator for electric power, both with various items of associated equipment. These replaced older units no longer adequate for then current needs. The new equipment necessitated some changes within the building.

Numerous equipment additions, modifications and replacements within the building were made in the sixties and seventies, and continue as new loads are generated by additional buildings on the campus.

A central chilled water system for the cooling of campus buildings was initiated in 1966 with the retention of Brown Engineering Company to design the system. Contracts for the chilled water equipment and for addition to the building to provide for it were executed in 1968.

A fire on July 2, 1979, seriously damaged an electrical turbine in the building and also destroyed sections of the roof and south wall of the plant.

⁽¹⁾ Iowa State Student, October 1, 1919

POWER STATION

Power House, Boiler House, Pumping Station

Built: 1891 Addition: 1897

Architect: Foster & Liebbe Contractor: W.B. Christy 1891 Jackson & Moss 1897

Located just north of Laboratory of Mechanics, where east part of Mechanical Engineering Laboratory stands now.

The contract for construction of a new boiler house was awarded to W.B. Christy in July 1891, in the amount of \$2849.(1) Later in the year \$400 was appropriated for purchase of a boiler.

A pump house was an integral part of the new water system designed by Anson Marston in 1896. That structure was erected as a westward extension of the Power Station in 1897 under contract with Jackson & Moss for \$1330 with an additional \$290 for building the foundations for and installation of the pumping machinery.(2)

In 1899 a new boiler was installed in the Power Station at a cost of \$1109.65.(3) Another addition and boiler were added in 1902.(4)

The Power Station housed the electrical generating plant as well as the pumping station and also served as a laboratory facility for Mechanical Engineering.

The building was razed in 1912 to make room for the new Mechanical Engineering Building.(5)

⁽¹⁾ Minutes, July 1891

⁽²⁾ Minutes, May 1897

⁽³⁾ Minutes, July 1899

⁽⁴⁾ Minutes, May 1902

⁽⁵⁾ Minutes, June 1912

PRESIDENT'S BARN

Built: 1874 Razed: 1905

This barn, located about 175 feet east of South Hall, was apparently built by President Welch with his own funds. The 1874 date of construction rests on an entry in the May 1874 minutes when funds were appropriated "for the painting of the new barn and the wood-shed to the President's house."

At the December 1878 Board meeting purchase of the barn was discussed, but no action was taken. Apparently it was then bought by Professor Stalker for use by his department. The March 1879 issue of The Aurora reported:

The barn, formerly used by the President, is being fitted up for a dissecting room for the use of the veterinarians. It is to be ceiled throughout. Professor Stalker says that, when completed, it will be better that the dissection rooms in the Veterinary College in New York or Toronto.

In December 1880 Professor Stalker asked the Board of Trustees to reimburse him for a barn he purchased to use for a veterinary hospital. Not until 1882 was he paid and then he paid the college \$40 in cash, in addition to his \$225.61 investment in the barn, and received in exchange 40 acres of land owned by the college in Boone County.

In 1889 the barn was "set apart as a tool room and stable in charge of the committee on Public Grounds."(1) A few years later the upper floor was assigned to Domestic Economy for storage. (2)

At the Board meeting of December 23, 1904, the custodian was authorized "to remove the old barn back of Music Building." (i.e. South Hall)

⁽¹⁾ Minutes, November 1889

⁽²⁾ Minutes, May 1893

PRINTING BUILDING

Printing Services and Publications Building

Built: 1967-68

Architect: Brown, Healey & Bock Contractor: Carlson, Rockey, Inc.

The function of the building is, in part, well defined in the project description presented to the Board on Jan. 13-14, 1966, when the project was approved:

For more than thirty-five years mimeographing, printing, and related services have been carried on at Iowa State University by what is referred to as the Printing Department. This department is not a commercial printing plant, but instead provides a variety of office-type duplicating and mailing services. Its equipment includes electric typewriters, mimeographs, small offset presses, an ozalid machine, and machines for assembling, addressing and stuffing mailing pieces. It sets no type. All of the larger long-run and more complicated printing jobs are sent off campus to commercial shops. The Printing Department is operated primarily for the internal or departmental convenience of the University and is not a commercial-type printing plant. Examples of its work are examination questions, laboratory manuals, pamphlets for the Extension Service, printed programs, circular letters, the Faculty Newsletter, and a great variety of leaflets, forms and announcements from various campus departments. mails catalogues and other materials to prospective students, publications to alumni and parents, and special printed pieces to specialized lists maintained by the Alumni Office, the Extension Services and others. The purpose of the centralized service is to avoid duplication of equipment and personnel in the many departments of the university and to produce quickly and economically the day-to-day printing needs of the University. This service is a self-supporting activity, and income to meet its operating and capital costs is derived from intramural charges to the departments which use the service.

During development of the drawings for the building the decision was reached to enlarge its scope to provide space for the Information Service storage and mailing office for bulletins and brochures.(1)

Construction contracts were awarded in June 1967 and the building was put into operation in May 1968.

⁽¹⁾ Minutes, September 7-9, 1966

PUMP HOUSE

Engine House

Built: 1884

Architect: Foster & Liebbe Contractor: V. Tomlinson

Burned: 1904

Located at about the intersection of today's Osborn Drive and Wallace Road, or perhaps a little farther south.

A structure to cover the pump and boiler near the spring had been built as part of the water system installed in 1872.(1) (See section on Water Supply in this volume.)

In 1897 a recommendation was made "that the old grinding house and engine room be fitted over for an implement store house and suitable provisions made therein for instruction in agricultural physics."(2) It is thought that the structure here referred to was the 1872 pump house. At the same meeting the Board adopted a report against making repairs because "your committee after an examination of the building find it dilapidated and badly out of repair, and its convenience very poor, really unfit for an implement shed."

In 1884 a new Pump House was erected in the same area near the spring which served as the main campus water supply until the new system was installed in 1897. This was built under contract with V. Tomlinson at the same time he was building the addition to Engineering Hall (Laboratory of Mechanics). Cost was \$750 for construction and \$30 for architect's fees. A boiler house was added in 1894, built by A.H. Chaffee for \$383.

In September 1904 authorization was given to install an electric motor-driven pump.

In November the building burned and request was made for funds to replace it with a fireproof structure.(3)

⁽¹⁾ Biennial Reports, 1871 and 1872-73

⁽²⁾ Minutes, May 1897

⁽³⁾ Minutes, November 1904

PURCHASING WAREHOUSE

Bookstore Storage

Built: 1956-57 Architect: None

Contractor: Abild Construction Co. and

Physical Plant

Authorization to purchase two metal prefabricated buildings to be "used as storage warehouses for the College Bookstore, Inventory Clerk, Central Stores, and Physical Plant" was given at the Sept. 20-21, 1956, Board meeting. The buildings were to be 40×80 feet each.

It was established that the foundations and floor would be built by Physical Plant. The contractor submitting the low bid for furnishing and erecting the building proposed a single structure of 76 feet by 98 feet, with an alternate to omit one bay. That alternate was accepted.(1)

The following June 6 the <u>Iowa State Daily</u> reported that the building was under construction. No record has been seen to determine when the project was finished, but it was probably late in that summer or early in the fall.

⁽¹⁾ Minutes, November 1-3, 1956

QUADRANGLE

Veterinary Quadrangle

including Biomedical Engineering Laboratory

Built: 1910-12 Biomed. Engr. Lab.: 1960-62

Architect: 1910 Proudfoot, Bird & Rawson

1960 Dougher-Frevert-Ramsey

Contractor: 1910 Benson & Marxer

1969 W.A. Klinger Company

Requests for appropriations for new facilities for the Veterinary Medicine Division were introduced in 1893 and in subsequent biennia until \$150,000 was allocated in 1909. Preliminary plans had been started in 1908 and final drawings were made in 1910.

Several sites were considered for the location of the new building: (1) the site of the then existing Veterinary Hospital; (2) the site of what is now Clyde Williams Field; (3) a site north of today's Davidson Hall; (4) the actual site where the building was erected.(1)

The construction contract was awarded in the amount of \$135,700 in November 1910, and excavation was underway by December.(2) Actual construction began the following spring. The building was occupied in March 1912.(3)

The new structure was described in the Biennial Report for 1910-12:

During the past year the group of new veterinary buildings planned has been completed with the exception of the Experiment Station and Diagnostic Laboratories. The group of five completed includes the Administration building with dean's and surgeon's offices, assembly room, library, general museum, and faculty room; the Pathology building accommodating the Department of Pathology and Bacteriology; the Anatomy building for the Department of Anatomy and Histology; the Physiology building in which the work of the Department of Physiology and Pharmacology is carried on; and the Hospital or Clinic building for the use of the Department of Surgery and Practice. Each building has the necessary offices, laboratories, store rooms, and rooms for animals for laboratory purposes. Each building is adapted to the work of its respective

⁽¹⁾ ISC Student, October 11, 1909 and Minutes, May 1910

⁽²⁾ ISC Student, December 5, 1910

⁽³⁾ ISC Student, March 12, 1912

department without interfering with work or plans of any other. This arrangement has proven eminently successful, and is stimulating individual work in a very effective way.

Minor modifications and repairs were made in subsequent years. In 1929 a frame addition was erected at the northwestern corner of the Quadrangle as reported in the student paper for September 26:

A \$6,000.temporary frame structure, to be used by the Veterinary Anatomy Department and built on the north of the present laboratory, will be ready for use soon after college starts this fall. It will be a one-story building, measuring 40 by 50 feet, and will double the present laboratory space. The old accommodations were barely able to take care of half of the class enrollment.

That frame structure continued in use until it was razed to make room for the new Diagnostic Laboratory in 1954.

The Christian Petersen mural sculpture and his free-standing figure of "The Gentle Doctor" were installed in the Quadrangle court in 1938. The mural was subsequently removed to the new facilities when the college moved there in 1975. (See "Sculpture".) The southwest wing of the Quadrangle, most recently known as the Biomedical Engineering Laboratory, has been called Instrumentation Research Laboratory in all of the Board proceedings. It had also been referred to as Physiological Instrumentation Research Laboratory (title on contract drawings), and Biomedical Electronics Laboratory.

A grant of \$200,000 from the United States Public Health Service covered about half the first cost of the building and equipment. Construction contracts were awarded in December 1960 and it was completed for use in the fall of 1962.(1)

In 1964-65 a \$40,000 remodeling project was completed in the wing for Physiology and Pharmacology. King-Bole was the general contractor for that project.

When the College of Veterinary Medicine moved from the Quadrangle in 1976 the vacated structure was allocated to the College of Education and to the Department of Psychology.

Frevert-Ramsey-Drey were selected as architects for a major remodeling of the building in 1976. Bids on that project were received in October 1979, and work on the remodeling was started late in the fall by Webster Construction Co.

⁽¹⁾ Iowa State Daily, October 31, 1962

The building name was modified to Quadrangle when the Veterinarians moved out and the Diagnostic Laboratory wing became known as Quadrangle-North. (See that separate entry.) The Biomedical Engineering wing then lost separate identity and is now considered part of the Quadrangle.

QUADRANGLE - NORTH

Veterinary Diagnostic Laboratory

Built: 1954-56

Architect: Dougher, Rich & Woodburn

Contractor: W.A. Klinger Co.

The first reference to the Diagnostic Laboratory appeared in the Iowa State Student on June 7, 1928, as follows:

A new diagnostic laboratory has been installed in the basement of the Pathology Department of the Veterinary building for the purpose of examining the large numbers of specimens that are sent into the department for diagnosis.

The new laboratory includes four rooms, the waiting and reception room, the animals room, the bacteriology room, and the post mortem room. The equipment has not all been installed but the laboratory will be ready for use by next fall.

From an average of fity towns there are at least 375 specimens sent weekly into this department for free diagnosis. These specimens include all kinds of livestock and poultry, especially baby chicks, cattle, swine, and sheep. A large number of dogs are sent in on the assumption that they have rabies.

Funds for a new facility were included in the appropriations made in 1945 and 1947, and in the latter year the architect was selected. Final plans were approved in July 1950.(1) Bids were received in September but were rejected. New bids were taken in 1951, but again were rejected. The site at that time was on the north side of the Veterinary Clinic. In 1953 the decision was reached to change the site to the Quadrangle area.(2) A new appropriation, totalling \$600,000 had been made that year.

Construction contracts, based on new plans and the new site, were awarded in November 1954.(3)

⁽¹⁾ Minutes, July 20, 1950

⁽²⁾ Minutes, September 10-11, 1953

⁽³⁾ Minutes, December 9-10, 1954

During construction of the new facility Dean I.A. Merchant was quoted in the paper as follows:

The present building is so crowded that the new addition will be completely used as soon as it is finished. It is a good example of building for crowded conditions of the past rather than expansion of the future, but the laboratory should be adequate for diagnostic services for a number of years.(1)

The building was accepted as complete in May 1956.

For changes in 1976 and later see entry for Quadrangle.

RENDERING PLANT

Refuse Disposal Plant
Post-Mortem & Rendering Plant

Built: 1917

Architect: Proudfoot, Bird & Rawson Contractor: Direction of Thomas Sloss

Razed: 1936

Recommendation for this building was made in March 1914 and was approved. However, it was another three years before the project was funded for a total of \$6350 of which \$3850 came from the Serum fund and \$2500 from the Small Buildings Fund.(2)

The building was located about in the center of the west side of the present Clinic Building.

When the structure was razed in 1936 the student paper described its functions:

The rendering plant...has been used to take care of hog carcasses used in the production of hog cholera serum. It was equipped with vats, distilling apparatus, grinders, and other machinery relative to extracting from the carcasses fat which was still further processed into the syrup. Much of the machinery was transferred to the Chemical Engineering Building where it will be utilized for the manufacture of wallboard. During recent years, the building was also pressed into service as an emergency laboratory and for the performing of post mortems on large animals.(3)

⁽¹⁾ Iowa State Daily, March 24, 1955

⁽²⁾ Minutes, May 3, 1917

⁽³⁾ Iowa State Student, November 21, 1936

RESEARCH REACTOR

Built: 1961-64

Architect: Burns & Roe, Inc.(a division of the American

Machine and Foundry Company)

Contractor: Mason Construction, Inc.

The earliest reference to this project appeared in the August 14, 1958, edition of the <u>Iowa State Daily</u> where it was recorded that the building had been approved by Congress and by the President but that the appropriation bill was still subject to congressional action. This was an Atomic Energy Commission operation for the Ames Laboratory with only federal funding to cover costs.

By the end of 1959 the appropriation had been made and in January 1960 design of the facility was started.(1) The construction contract was awarded in April 1961, at which time the building was described:

The facility....will have a total gross area of 38,900 square feet. The reactor will be a 5,000 kilowatt, heavy-watt moderated research reactor with all embedded systems sized for future conversion to 10,000 kilowatts.

.... The reserach reactor facility will be used to help determine what happens to materials in a radiation field, to produce radio-active nuclides for inorganic and analytical chemistry studies, to search for a better understanding of the relationships between structure and properties of materials, to study the behavior of materials in the environment of an operating reactor and to investigate corrosion of metal containers by liquid metals in the prescence of high neutron flux.(2)

In April of 1962 it was reported that the project was about 20% completed. A cornerstone unveiling ceremony was held during Veishea in May 1963. On September 11, 1965, the paper reported that this was one of the buildings that had been completed.

Actual operation of the reactor was started on February 17, 1965.(3)

The reactor was deactivated and completely removed from the building in 1978. The building has since been used for other Ames Laboratory activities.

⁽¹⁾ Iowa State Daily, January 26, 1960

⁽²⁾ Iowa State Daily, April 21, 1961

⁽³⁾ Iowa State Daily, February 18, 1965

RIDGEWAY HOUSE

Gladstone Hotel

This house, located at 128 Lynn Avenue, was apparently rented in 1938 when, on September 17 the <u>Iowa State Daily Student</u> states that "the Gladstone Hotel has been converted into a supervised women's dormitory and renamed Ridgeway Hall."

The College purchased the building (and site) in July 1941.(1) On September 23 of that year the student paper reported:

A nameless dormitory, which has been in turn, a fraternity, a hotel, a rooming house, and a temporary shelter for a burned-out fraternity, will house 29 Iowa State women this fall. The most common name for the edifice is Gladstone Hotel, but it will have a new name when the women move in, for theirs is the task of choosing a name...the building was completely redecorated, inside and out....

Schilletter tells that the name Ridgeway was the choice of the new occupants.(2) In 1942 it housed men, but in 1943 again became a women's residence.

The house was rented to Kappa Kappa Gamma sorority from 1946-50. Later it housed graduate men students.

Ridgeway House was sold, on a bid basis, to St. Thomas Aquinas Church in 1958.(3)

⁽¹⁾ Minutes, June 28 and September 16, 1941

⁽²⁾ Schilletter, 1970

⁽³⁾ Minutes, September 11-12 and October 23-25, 1958

ROBERTS HALL

Built: 1935-36

Architect: Oren Thomas

Contractor: James Thompson & Sons

This women's hall project was initiated in the spring of 1935 with the retention of the architect, as recorded in the Minutes of April 15. It was planned to finance the building with a combination of a federal grant and borrowed funds.(1) However, that grant was not approved and the full cost of the project fell on the borrowed funds.

Contracts for construction were awarded on October 30, 1935, and the work was completed and accepted by October of 1936.

Roberts Hall completed the complex of structures around Carrie Lane Court.

The sculptured panel behind the fountain on the east wall of Roberts Hall was made by Christian Petersen and installed in the spring of 1940.

In 1969-71 this hall, along with Birch and Welch, was extensively remodeled. Since then it has housed men.

⁽¹⁾ Minutes, June 19, 1935

ROSS HALL

Classroom and Office Building #3

Built: 1970-73

Architect: Hansen Lind Meyer, Inc. Contractor: James Thompson & Sons

The building program for this building, as furnished to the architect in June of 1968, called for a net assignable area of 60,000 square feet, and with a total project budget of \$3,000,000. The schematic drawings presented to and approved by the Board in December 1968 showed a seven-story building with an attached wing with three lecture halls, one story in height. The plans showed the site as due north of Curtiss Hall, with the lecture hall wing on the south side of the higher structure.

Uncertainty about financing resulted in temporary suspension of architectural work on the project between February 19 and May 22, 1969, following announcement of the state appropriation of funds for the project. Continuing high rates of cost escalation made it apparent that the building as originally programmed could not be built within the funds budgeted. In June the architect was instructed to delete one story from the seven-story unit and to delete the two 100 station lecture rooms from the lecture hall unit, and to include the low unit as an alternative in the bidding.

During the next year the drawings were developed and completed and bids for construction were received on October 6, 1970. As a result of the bidding it became necessary to omit the construction of the lecture wing entirely, and on that basis the contracts were awarded on October 7.

Concern had earlier been expressed about the location of the building, principally in the effect its shadow would have on the greenhouses to its north, and also its relationship to the long-range campus plan then completed by Johnson, Johnson & Roy.

The decision was then reached to relocate the building from the original site north of Curtiss Hall to its present location to the northeast of that building. That decision resulted in a number of objections, particularly from some students, but the controversy soon died out. Construction of the new building started in November 1970 and the building was occupied and in use in the fall term of 1973.

Ross Hall houses the offices for the departments of English, History, Philosophy and Political Science.

The building is named for Earle Dudley Ross who was a professor of history and College historian. He first came to Iowa State in 1923. Dr. Ross died in 1973, shortly after the building had been named in his honor.

RUMINANT NUTRITION LABORATORY

Horse Barn #3

Built: 1929 Remodeled: 1957

Architect: 1929 Buildings & Grounds Department

1957 Physical Plant Department

Contractor: 1929 L.D. Anthony

1957 James Thompson & Sons

The construction of Horse Barn #3 was authorized and undertaken in 1929.

Kooser recorded that the contractor was L.D. Anthony, that the work was done under the direction of the Superintendent of Buildings and Grounds, and that the project cost was \$9900.(1)

In 1952 plans were prepared for remodeling the building for use as a Nutrition Research Laboratory, and the Physical Plant proceeded with extension of utility lines to the building. The actual remodeling for the laboratory was not started until about five years later when a construction contract was awarded in February 1957, and the work was accepted in November of that year. (2)

SAFFORD COTTAGE

Hibbard House

Built: 1903

Moved to Ag 450 Farm in: 1958

Professor B.H. Hibbard built this two-story and basement house on Lincoln Way just east of Mrs. Beardshear's house in 1903. This was a location about 200 feet west of what is now Linden Hall.

In 1912 he sold the house to Miss Ruth B. Safford, instructor in English, who lived in it until September 1923 when it was purchased from her by the College for \$5700, including the garage.

Subsequents occupants were: (3)

⁽¹⁾ Kooser, 1939

⁽²⁾ Minutes, February 7-8 and November 14-15, 1947

⁽³⁾ D. Kehlenbeck, typed notes

1923 - 24 Dean John Foster 1925 - 39 Swan Eckberg (Gardener) 1939 - 43 Grad dormitory for girls 1943 - 47 Dormitory employees 1947 - 57 Dean J.F.D. Smith

In 1958 the house was moved to the Ag 450 farm where it is still standing.

SANITARY BUILDING

Hospital, Music Hall, Cranford Hall

Built: 1884-5 Remodeled: 1900

Architect: Foster & Liebbe (1884) Contractor: V. Tomlinson (1884)

Razed: 1927

Located about 200 feet northwest of the northwest corner of Memorial Union.

"Prominent among the urgent necessities I have mentioned, is a college hospital for sick students...We believe that we could secure the College from the inroads of the various infections if we had the means of isolating the patient so that we could at once disinfect his room. A college hospital, which could be built at limited expense would thus enable us, in nearly all cases, to save the suffering, if not the lives, of the young people committed to our charge."(1)

Funds were made available in the following year, 1884, when plans were prepared and contract for construction was awarded at a cost of \$4000.

The hospital facilities were located on the second floor of the building with the first floor allocated for use by the Veterinary Department for theoretical classwork. This use prevailed until 1893 when the Veterinary Department moved into Botany Hall (then Agricultural Hall), and the Sanitary Building was used exclusively as a hospital.

In 1900 a remodeling project was undertaken. General work was by C.R. Cushman for a sum of \$1795. Two furnaces were installed by Lennox Machine Co. for \$365 and L.H. Kurtz did the plumbing and gas fitting for \$600. The work accomplished was described in the Biennial Report of 1900-01:

^{(1) 10}th Biennial Report, 1882-83. President's Report

The building for the college hospital has been entirely rearranged during the biennial period and put in a much improved condition. The space has been enlarged by the change; the heating facilities have been made adequate; a nurse and cook provided, and a general homelike atmosphere created throughout the building.

On January 1, 1902, the hospital caught fire from an over-heated air pipe from the furnace. The fire was extinguished by the college fire department. Repairs and repainting were completed in time for the reopening of school in February at a total cost of \$384.34.

In 1907 the hospital functions were moved to West Boarding Cottage. The following year, after some remodeling, the Sanitary Building became a sub-faculty rooming house. In 1912, when South Hall burned, the Music Department was moved to the Sanitary Building which then became Music Hall. It served in that capacity until 1927 when the building was razed.

Sanitary Hall was a two-story frame building with a third floor small square tower at the front, topped by a sharp pyramidal roof. There was also a basement under about three fourths of the building.

SCHEMAN CONTINUING EDUCATION BUILDING

Built: 1973-75

Architect: Crites & McConnell and Brooks-Borg & Skiles Acoustical Consultant: Paul S. Veneklasen & Associates

Contractor: Adolfson & Peterson, Inc.

This fourth and last building brought the Iowa State Center to completion in September 1975. This was the only one of the Center buildings planned on the basis of a written building program prepared by the University Architect. That program was given to the design architects in March 1972 and their schematic drawings were approved in June of that year.

Bids for construction were received and contracts were awarded in September 1973. Two years later construction was completed and the building was dedicated on September 21, 1975.

The five million dollar building was financed entirely by donations through the Iowa State University Foundation, including a \$1,000,000 gift from Carl H. Scheman, a retired civil engineer who had graduated from Iowa State College in 1910. Between 1912 and 1918 he served as assistant to President Pearson. He then became associated with the Chicago Bridge and Iron Company for the balance of his career.

A gallery on the third floor of the building is the museum area for the Brunnier collection of China and other art objects and a doll collection. Other art displays are shown there on a temporary basis. Henry J. Brunnier, class of 1904, was also a civil engineer.

The auditorium, which seats about 440 people, was named for Thomas H. Benton, an agronomy graduate in 1914, who donated \$250,000 for that purpose while he was a member of the Board of Governors of the ISU Foundation.

SCHILLETTER VILLAGE

Built: 1973-76

More married student housing units to the north of University Village were originally contemplated as Phase III of that project. In 1969 a revised project description was presented to the Board:

....it was deemed desirable to introduce a different type of unit in order to avoid a monotonous appearance by too frequent repetition of the same type of structure. A new building type was, therefore, designed consisting of 12 units with 4 units on each of 3 floors....(1)

That plan was abandoned, and after erection of a trial prefabricated four-plex unit at the Swine Nutrition Farm had proved satisfactory it was decided to use that type of structure for the next married student housing project.

Approval of a contract with Jon Crose and Associates for site planning design was given in May 1972.(2) In February 1973 contracts were arwarded for the site work and for the erection of 11 prefabricated buildings. The prefabricated units were made by Sandler-Bilt Homes; site work and general construction was by H&F Builders, Inc. The buildings were occupied that fall.

Another 25 units were added in 1974, again using Sandler-Bilt structures but with Allen Construction Co. as general contractor.

Two more additions, in 1975 and 1976, added another 39 units to the village.

The name of the village, authorized in May 1974, honors Dr. J.C. Schilletter who directed the residence systems over twenty years.

⁽¹⁾ Minutes, November 13-14, 1969

⁽²⁾ Minutes, May 11-12, 1972

SCIENCE HALL

Built: 1915-16 Addition: 1953-55 Architect: 1915 Proudfoot, Bird & Rawson

1953 Tinsley, Higgins & Lighter

Contractor: 1915 J.B. Evans Const. Co. 1953 James Thompson & Sons

The Biennial Report for 1906-08 expressed the problems of space for the Zoology department:

The zoology laboratories have crowded into the basement (of Morrill Hall) and even to the window sills. The students positively cannot be accommodated if there be any increase, as there certainly will be according to the natural rate of growth. The trustees are nonplussed.

Two years later the first biennial report of the new Board of Education reported on the Science Division: "A new building for this department is a practical necessity."

An allocation of \$65,000 became available for a building for bacteriology and zoology (Science Building) in January 1915, and the Board architect was asked to prepare tentative plans.(1) The plans and specifications were presented and approved on February 3, 1915. The following June the architect was instructed to prepare final plans and specifications. At the September Board meeting it was reported that bids had been received, but all were too high. The architect was authorized to negotiate with the low bidder and a contract was awarded on the basis of certain changes from the original plans, including a substitution of Bedford stone for granite, plaster instead of marble walls in toilet rooms and reinforced concrete in lieu of structural steel frame.(2)

An interesting description of the building appeared in the <u>Iowa State</u> Student on February 26, 1916:

When fully equipped and ready for occupancy next fall, the new Iowa State science building will represent an investment of nearly \$95,000, and will be without a peer in the country from the standpoint of laboratory facilities and equipment. Four stories and a basement are to be included in the new structure which is 114 feet long by 50 wide. Absolute fireproof construction is used throughout, the building being built entirely of concrete with red brick and Bedford stone facing.

⁽¹⁾ Minutes, January 22, 1915

⁽²⁾ Minutes, September 28, 1915

The present structure is planned as a unit in a larger hall to be added to as conditions warrant. North light laboratories with 5 by 8 plate glass windows will give excellent lighting for microscope work. The Ames architects have taken for their model, the buildings of the Boston Institute of Technology, on which over \$4,000,000 have been expended.

Bacteriology class rooms and laboratories will occupy the lower two floors while the top floors will be devoted to zoology, human physiology and embryology. The botany department will move into the quarters in Central building vacated by the bacteriology staff and the temporary laboratory structure at Central station torn down. A large basement in the new building will probably be devoted to the rearing of rabbits and guinea pigs for experimental work. Work in entomology and apiculture is to continue in chemistry hall.

J.B. Evans declared bankruptcy and completion of the building became the responsibility of Superintendent Sloss. It was ready for use in the fall of 1916. Change orders during construction resulted in, among other items, reinstatement of the marble in the rest rooms.

At the time plans for the building were prepared it was known that additions would be needed, and the first request for funding such an addition was made in the amount of \$100,000 at the February 8, 1923, Board meeting. By the time the Biennial Report for 1926-28 was issued the estimated cost had doubled. Two years later the 1928-30 Report showed a figure of \$250,000 for a new wing to the building.

It was not until 1947 that an appropriation was made for the Science Building addition and the architect was retained. In 1949 an additional appropriation was made. However, bids were not received until April 1951, and then all bids were rejected. New bids were received, on modified plans in December 1952 and contract awards were made the next month.(1)

During the 1970's remodeling of various laboratories and offices was required as new space allocations were made in conjunction with the new facilities made available in Science Addition #2.

The latter building is reported separately inasmuch as it is a separate structure and not physically connected with Science Hall.

⁽¹⁾ Minutes, January 8-9, 1953

SCIENCE HALL ADDITION #2

Built: 1969-73

Architect: James Lynch & Associates Contractor: James Thompson & Sons

The Board of Regents request for capital improvement funds for the 1965-67 biennium included \$1.1 million for a science building addition.(1) The money was not allocated that year, but two years later an appropriation was made in the amount of \$2,400,000. An additional \$996,000 came from Higher Education Facilities grants.

The addition was planned as a completely seperate building. The building program showed most of the net useable area (48,500 sq. ft.) allocated for zoology and entomology, with 11,150 sq. ft. for psychology and 7800 sq. ft. for general classroom area, and an alternate to provide 1300 sq. ft. for earth science observation space on the roof. The building program was given to the architect on the first of November 1967 and his preliminary plans were approved by the Board at the April 1968 meeting.

Bids for construction were received on October 2, 1969, and construction started the following month. The building was substantially completed by the end of 1972 but it was the following March before occupancy came about.

Before the building had been completed some changes in space assignments had been made. Facilities were provided to house the Fish and Wildlife Biology and space for psychology was eliminated, resulting from a reduction in total area necessitated by cost inflation.(2)

⁽¹⁾ Iowa State Daily, August 13, 1964

⁽²⁾ Minutes, January 14-15, 1971

SEED PROCESSING PLANT

Utility Barn (Beach Avenue)

Built: 1926-27 Addition: 1955-56

Architect: 1926 Agricultural Engineering Department

(J.B. Davidson and Bruce E. Russell)

1955 A.E. Department (Norval Curry)

Contractor: 1926 A.E. Dept. & Physical Plant

1955 W.A. Klinger Co.

The original building was built by the Agricultural Engineering department as an experimental undertaking. It was described in the May 5, 1927, issue of the Iowa State Student:

Construction work on the new masonry roof barn at the Iowa State Animal Husbandry Experimental Farm, which was started last fall has been resumed and the structure should be completed within the next two months, according to Prof. J.B. Davidson, head of the Agricultural Engineering Department at Iowa State.

The novel feature of the barn will be the fact that no wood is to be used except for door and window construction. The shape of the roof will be what is known in structural circles as an inverted catenary. By use of this style of construction the roof acts as its own support leaving the room in the hay mow entirely free of the usual framing timbers. Even the hay mow floor is made of concrete which will allow for the storage of grain as well as hay.

The idea of a masonry barn was conceived about 15 years ago by Professor Davidson. Shortly after that, his idea was partially carried out by the construction of one section of a masonry roof on a barn in the animal husbandry lot which stood for about 10 years, then was torn down. From much valuable information gained from experience with this section, plans were drawn and a one-sixth scale model was built last summer by Bruce E. Russell, A.E. '25. Following this college officials agreed to build a barn under these plans to be used by the animal husbandry experiment farms.

From previous experiences it has been proven that the structure is sound as far as wind resistance is concerned; in fact in this respect it is stronger than a wooden barn, says Professor Davidson. He also states that the shape is satisfactory from the feed and masonry standpoint but the one big problem is to find some method of putting the material in place without spending too much labor on it.

The barn is the first of its kind in the country, the plans having

been originally worked out by Professor Davidson and others in the Agricultural Engineering Department. The construction work going on at the present time is under the supervision of Henry Giese, an assistant in the department.

The Financial Report for 1930 called this "Utility Barn" and valued it at \$11,600.

Bids for an addition to the building were received in November 1954, but these were rejected, plans were modified, new bids were taken and contracts awarded in February 1955.(1) The work was accepted the following January.(2)

SEED SCIENCE BUILDING

Seed Laboratory

Built: 1976-77

Architect: Wilkins, Bussard & Kikis Contractor: Allen Construction Co.

The Seed Laboratory which had been housed in Botany Hall and had long been in need of larger and more efficient space received a state appropriation for a new building in 1975. Work on the building program had started the preceding fall and it was ready when the architect was selected in March 1975.

Schematic drawings were presented to and approved by the Board in September 1975. During the next eight months the drawings were developed and specifications were written. Contracts for construction were awarded in July 1976 and work on the building began later that month. The building was occupied in December 1977.

The laboratory includes space for seed testing operations, administrative offices, research space, teaching space and an area for the Iowa Crop Improvement Association facilities. A contribution of \$275,000 had been made to the project by that organization.

⁽¹⁾ Minutes, February 10-11, 1955

⁽²⁾ Minutes, January 12-13, 1956

SERUM PLANT

Hog Serum Plant, Biological Laboratory

Built: 1913

Architect: Mr. King of Building & Grounds Dept. Contractor: LThomas Sloss, Supt. Bldgs. & Grounds

Razed: 1926(1)

This building was located at what is now the northwest corner of the Veterinary Clinic. It was a U-shaped structure 100 feet wide with the two wings, each 40 feet wide by 150 feet long, built of brick and with cement floor. It faced south.

A hog-cholera epidemic in 1913 resulted in the loss of 25 per cent of the state's swine population.(2) The Serum Plant was erected that year, on an emergency basis, to produce a serum to counteract the disease. A special state appropriation provided for construction, equipment and some operating costs, although the total operation was assumed to be self-supporting.

The plant continued in operation until 1920 when the governor ordered it shut down when operational costs became too high for the reduced demand for the serum. (3)

From then until the building was razed it was used for research by the veterinary medicine division.

⁽¹⁾ M. Kooser, 1939

⁽²⁾ C.H. Stange, 1929

⁽³⁾ ISC Student, February 16, 1920

SHEEP BARN

Built: 1922 Addition: 1925

Architect: Proudfoot, Bird & Rawson

Contractor: Supt. of Buildings and Grounds

Razed: 1969

The Sheep Barn was built on the site, now open, just north of the Antigenic Laboratory (Agronomy Laboratory).

Prior to about 1921 many of the animals used by the "animal husbandry" department were housed in the area east of the buildings on the east side of Knoll Road, south of the physical plant area and north of College Creek. It was then decided that animals should be relocated to the north to the area in the vicinity of the then fairly new Meat Laboratory, and steps were taken to effect that move.

The Sheep Barn was one element in the new complex, and was described in the Iowa State Student on September 27, 1922:

The new sheep barn north of the hog barns that were built recently, will be roofed over this week and should be completed this fall. The front part and one wing are being built this year, leaving another wing to be completed in the future. Animal husbandrymen believe they have a sheep barn that is as near model as would be practical to build. It forms the northeast corner of a quadrangle of barns which the proposed horse barn will complete when constructed.

The wing was added in 1925.(1)

By 1969 the building was no longer needed and it was razed.

⁽¹⁾ Minutes, April 16, 1925

SHEEP BARNS and SHEDS

Various structures have been erected on the campus and designated as Sheep Barns, Sheep Houses or Sheep Sheds. The locations of these different buildings are not always identified with any degree of certainty.

The earliest reference found occurs in the Minutes for March 23-24, 1865, wherein the committee recommends "a modle sheep house for the accommodation of six breeds of two each, also a fatning pen for mutton sheep." (Spellings as originally written.)

Apparently the first shelters were built in 1867 as described in the Farm Superintendent's report included in the Minutes on January 13-17, 1868:

From lumber that had been used about the brick yard I had 3 sheep houses or sheds erected 24 feet by 12 each with double board roofs of sound lumber, each having access to an open yard for air and exercise yet so constructed that the different lots can be kept apart from each other. The work all done by farm hands. Cost for nails \$10.00.

In 1882 "Prof. Knapp submitted to the Board bills paid by him for the erection of the present sheep barn" The Board ordered that \$71.94 be appropriated from the State Appropriation for Sheep barns to pay the bills.(1)

A year later the Board "ordered that upon completion of the sheep barns" the remaining balance in the appropriation be transferred to another account. This may refer to the 1882 barns or to new ones.(2) At the same meeting it was "ordered that the proposition of V. Tomlinson herewith submitted to erect sheep barns for the sum of \$415.00 be accepted."

An 1883 map shows two buildings called sheep barns located in the area where the Food Technology Building stands now.

By 1897 further action had become necessary as recorded in the Minutes for November 16-19:

We recommend an appropriation of \$600 for removing and remodeling the old sheep barn, the sheep shed and barn now being decayed and very discreditable in appearance and unworthy of a state institution.

⁽¹⁾ Minutes, May 23-26, 1882

⁽²⁾ Minutes, May 22-25, 1883

A contract for "the addition and alteration to the sheep barn" was executed with W.M. Rich in June 1898.(1) That building was razed in 1927.

Three sheep sheds were built in the pasture north of the North Western railroad (to the east of what is now Hawthorn Court). The 1940 Financial Report shows the date of acquisition of two of them as 1911. The third had been destroyed by fire in 1938, but was probably built at the same time. The other two burned in 1959 under strong suspicions of arson.

The Sheep Barn built in 1922 is separately covered.

The Financial Reports from 1940 to 1959 show another Sheep Barn, presumably replacing the one lost in 1938. This newer building, valued at \$1912 was written off in 1959, perhaps another fire loss of that year.

SILOS

The earliest reference to a silo appeared in <u>The Aurora</u> in the July 1883 issue:

One of the most practical and important experiments prosecuted by Prof. Knapp is now subjected to the test, and if successful will prove of great advantage to the farming public. A silo has been built in one corner of the barn 16.66 x 11.8 feet, and about 20 feet deep. This was made with air tight sides, and on the 16th and 17th inst. was filled with clover and other grasses from the college lawns and farm. The grass was raked as soon as cut and hauled directly to the silo where it was spread and packed as thoroughly as possible. Twenty-one and one-fifth tons of grass was put in the pit and a loose floor of two inch plank fitted over it, a loose cross floor was put in and on this boxes of sand were placed to the amount of about five tons. The grass settled under this weight in twentyfour hours from fifteen to ten feet, and the Professor expects it to settle five feet more, making "canned grass" with a weight of about 40 pounds per cubic foot.

Ensilage has been in use in the east for several years and we think will be a success here, and if so, the Professor will "can" large quantities of corn and grass another year. We shall watch with interest the outcome of the experiment.

In the Biennial Report for 1896-97 it is stated, "We are seriously in need of a commodious horse barn....It is desirable to build, in connection with it, a silo with a capacity of 400 tons in order that we may have proper facilities for feeding in accord with this important method of preserving foods."

The September 23, 1905, issue of the <u>ISC Student</u> reported that "the brick silo located on the northwest corner of the experiment station barn was filled with corn from the fields north of the Chicago & Northwestern tracks."

About a year later it was recorded that "The Experiment Station is constructing a new silo. It is of hollow building brick and is called the Iowa Silo. It will have several advantages: a well insulated wall; durability; and reasonable cost."(1)

In 1912 a new development, a concrete silo, was undertaken. That is described in the following account from the the October 5, issue of the ISC Student:

"As solid as the rock of Gibralter," was the claim made yesterday by Mr. A.M. Lawrence for the big forty foot reinforced concrete silo he is building for the college at the northeast corner of the cattle barns. "This type of silo is absolutely indestructible by wind or fire; it will never cost a cent for repairs, is absolutely vermin proof, and will protect the ensilage as well or better than any other type of silo against spoilage from air or moisture" said he.

The new silo is a present to the farm department of the college. The Universal Portland Cement Company of Chicago has sent Mr. Lawrence here to Superintend the erection of the silo, and is furnishing all the cement used in its construction with out charge to the college. The steel forms for the concrete are furnished by the Enterprise Monolithic Silo Construction Company of Chicago, and the metal roof is supplied by the Hyrib Roofing Company. The concrete mixer is loaned by the Cement Tile and Machinery Company of Waterloo. So apart from the labor, and the gravel used, this silo is a gift to the college of a most practical kind.

The silo under construction has a diameter of fourteen feet, and will be forty feet high. Its capacity of ensilage will be about one hundred forty tons. Six inch solid concrete walls from a one part cement to a five part bank run gravel sand mixture, are reinforced at the bottom by steel triangle mesh two layers, one of No. 4 and one of No. 6 mesh being placed in the first twenty

⁽¹⁾ ISC Student, September 14, 1908

feet, and a single No. 6 layer reinforcing the remaining twenty feet. The silo will have a continuous door and a chute, the door frame being entirely of concrete construction. The metal roof is also coated with cement.

The Universal Portland Cement company is not in the silo construction business, but is making a demonstration here in this silo of the advantages of concrete construction in silo building.
"Engineers the world over all agree that the best building material known to man is reinforced concrete," said Mr. Lawrence. "It is true that the initial cost of a concrete silo is somewhat greater than that of a wooden silo of equal capacity, and in some cases the tile block silo can be erected more cheaply, but when the farmer takes into consideration the stability and permanence of his concrete silo, its unquestioned imperveriousness to air and moisture, and the fact that once properly built he will never be at additional expense for repairs, he will conclude that the concrete silo is the cheapest in the long run."

"Concrete silos have been built in many of the eastern states for some time past, and are now being rapidly introduced in the middle west. The price of concrete construction ranges from ninety cents to four dollars per ton capacity, depending upon local conditions, labor, accessibility to gravel, and etc. Any farmer who has had some experience in concrete construction can put up his own silo, although we advise the farmers to secure the services of a competent contractor whenever possible."

Completion of that silo was reported on October 29.

When the new Cattle Barn was built in 1925 hollow tile silos were included at the northeast and northwest corners of the barn. They were 16 feet in diameter and 45 feet high.(1)

A short review of the silos appeared in the October 18, 1927 issue of the Iowa State Student:

The first block silo to be built in the state of Iowa was constructed on the Iowa State farm and now stands north of the old cattle barns, where it was erected in 1907 by the Agricultural Engineering Department.

When this silo was contemplated as an experiment, most people considered the project foolish and when the contract for the properly shaped blocks was let, taxpayers appeared impressed by the fact that their money was being spent foolishly.

⁽¹⁾ Iowa State Student, November 6, 1925

The silo has been in use up until this year, when the new barns were completed and the stock moved to the new location.

Another silo, partially constructed for experimental work, and located north of Old Agricultural Hall, was one of the earlier silos. It consisted of only six compartments and was used as a test for water-proofing compounds on its walls. It was also used to show farmers the methods of constructing a permanent, hollow clay block silo.

SLOSS HOUSE

"The Pines"

Built: 1882-83

Architect: J.B. Ballenger Contractor: V. Tomlinson

Bid for construction of this residence for a professor came to \$2200. A porch was added in 1884. In November of 1884 Professor Bessey submitted a request for reimbursement of \$104.50 for expenses he had incurred in making the house fit for occupancy, including sheeting the house with tarred paper, building a wood shed and well house and a privy.

Minor repairs were made in 1897 and 1904, and again in 1915. In 1925 extensive repairs were made, including an extension of the south porch, and removal of the porch across the west front. The garage was also added on the northwest corner at that time.(1) A total of \$6500 was allocated for the work.

Occupants of the house:

1883 - 1884	Charles E. Bessey
1885 - 1888	Byron D. Halsted
1889 - 1892	Louis H. Pammel
1893 - 1894	G.E. Patrick
1895 - 1896	W.S. Franklin
1897 - 1908	George W. Bissell
1909 - 1915	Warren H. Meeker
1916 - 1924	J.G. Hanmer

⁽¹⁾ Conversation with Dr. Margaret Sloss, May 1977

1925 - 1936 Thomas Sloss

1937 Delta Zeta

1938 - 1947 Home Management House

1948 - 1969 Ben W. Schaefer

1970 - 1978 Applied Art

1978 - Agricultural Education and Sociology

SNEDECOR HALL

Service Building

Built: 1938-39 Addition: 1960-61

Architect: 1938 Thorwald Thorson

1960 Russell & Lynch

Contractor: 1938 Harlan Contracting Co.

1960 Carlson-Rockey, Inc.

Construction of a building to house various service functions of the college was authorized by the Board in July 1938, subject to obtaining a 45% grant from the Public Works Administration. Those services were itemized in the Iowa State Daily Student on September 20, 1938:

Housed in the new structure will be the mimeograph machines now in the basement of Morrill Hall; visual instruction and film storage which now occupies part of the first floor of Engineering Hall; the statistical laboratory now located on the top floor of Beardshear Hall; Station WOI, which is now located in Engineering Annex; the photographic studio now on the first floor of Agricultural Hall and offices for the equipment and inventory clerks.

An agreement with the architect was reached in August 1938, the grant was approved, bids were received on November 23, and construction work started by December 1.

By the fall of 1939 the building was ready for occupancy, and the contracts were accepted as completed in November of that year.(1)

Long range planning during the years 1945-47 made references to an addition on the south of the Service Building, but it was 1959 before the project was activated, when the architect was retained in October. The building became ready for use in the summer of 1961. A National Science Foundation Grant of \$4300 had been received to defray a small part of the construction cost.

⁽¹⁾ Minutes, November 10, 1939

In 1964 the studios and other facilities of WOI moved to the new Communications Building, thus freeing the third floor of the Service Building for other use. A remodelling project resulted with planning and design by the Physical Plant and with Carlson-Rockey, Inc. as general contractor. A grant of \$26,600 from the National Science Foundation paid for approximately fifty percent of the project cost.(1)

The Service Building became Snedecor Hall in November 1969, named for Professor George Waddel Snedecor.

SOIL TESTING LABORATORY

Poultry Laboratory

Built: 1919 Addition: 1956 Architect: 1919 Proudfoot Bird & Rawson

Contractor: 1919 Supt. of Buildings & Grounds

1956 James Thompson & Sons

The first unit (east section) of this building was erected in 1919 as a poultry laboratory. It was 20' \times 80' with basement and first floor, of brick construction. It's cost was \$5836.33. It had first been requested in 1910.(2)

The poultry laboratory continued in use until 1965 when it moved to Kildee Hall.

The Soil Testing Laboratory addition on the west end of the building was built in 1956-57.

Soil Testing had been housed in the old Forage Crops Lab (see North Studio) and on the upper level of the Poultry Lab before the addition was completed, and has used the entire building since 1956.

⁽¹⁾ Minutes, November 11-12, 1965

⁽²⁾ Biennial Report, 1908-10