

AEROSPACE LABORATORY

Carpenter Shop, Pattern Shop
Aeronautical Engineering Laboratory

Located 100 feet south of Engineering Annex. Long axis east-west.

Built: 1898
Architect: Not recorded
Contractor: Zitterell & Atkinson
Razed: 1973

The contract for construction of the Carpenter Shop was let in May 1898, in the amount of \$4,387.

In this department each student is supplied with a set of tools, most of which are new. These tools are kept, while not in use, in a pretty glass case just over each bench. Such tools as are not used much are obtained by checks, thus making each student individually responsible for tools used.(1)

The building was listed as "Pattern Shop" in the Biennial Reports through 1932. In 1934 it's name became Aeronautical Engineering Laboratory, presumably with a change in function at that time.

AGRICULTURAL ENGINEERING GARAGE

Tractor Garage

Built: 1914
Razed: 1925 (?)

Location: directly north of the north wing of Old Botany.

The first request for a building to house large equipment for the Agricultural Engineering Department appears in the Biennial Report for 1908-10 when the cost of a building 50 x 120 feet of steel frame, brick walls and slate roof was estimated at \$6000. In the report two years later the cost estimate was \$10,000.

It was September 1914, however, before any funds were allocated and then only \$100 was provided--for "a shed which shall contain two stalls for freight trucks, one stall for Superintendent's automobile, and three stalls for the dept. of Ag. Engr."(2) It was a frame building, 23 x 73 feet open to the east.

(1) ISC Student, September 6, 1898

(2) Minutes, September 1914

In 1916 an additional sum of \$300 was provided to build a chimney and forge, to provide steam radiation in the forge compartment, and to make "a few slight improvements in the remaining five compartments."(1)

The building is shown on a 1923 map but does not appear on one made in 1926. No specific reference has been found to determine the exact date it was razed.

AGRICULTURAL ENGINEERING MACHINE SHED

Built: 1931

Architect: Henry Geise, Professor of Agricultural Engineering

Contractor: Thomas Sloss, Supt. Bldgs. & Grounds

A capital appropriation request of \$5000 for this building was not allowed in 1928 or 1929. In 1930 the Board approved using money from the General Improvements Fund "when funds are available."(2)

The following spring the student paper reported on the work under way, referring to its being under construction on April 11 and expected to be completed in May.(3) It was then described:

The new addition is to be a storage shed for machinery that is being stored in various places at present. It will be open on the east. The brick work is the same as that of the present building. The construction is of special interest to the department because the bricks are backed up by a type of cement block that was developed in the department.

Since it was first built dividing partitions have been installed and doors added for better weather protection.

(1) Minutes, August 9, 1916

(2) Minutes, May 17, 1930

(3) Iowa State Student, April 11 and 23, 1931

AGRICULTURAL ENGINEERING SHOP AND SHED

Farrier's Shop

Built: 1923
Razed: 1962

Very little is recorded about this small concrete block building which stood just north of the east wing of Davidson Hall.

It is shown in the secretary's report for the year 1923-24 as having been built in that year at a cost of \$2457.44. It is carried on the financial reports from 1928 through 1952 at a value of \$2400. In the 1953 report the value was increased to \$3344 and continued at that figure through the 1961 report.

The building was razed in 1962 to make way for the Industrial Education addition to Davidson Hall.

No references to this Farrier's Shop have been found in the minutes of the Board or in the student paper.

AGRONOMY FARM CROPS LABORATORY

Stock Pavilion, Judging Pavilion #2,
Crop Science Laboratory

Built: 1903
Architect: Proudfoot & Bird
Contractor: C.E. Atkinson (Gen'l)
Campbell Heating Co. (Plbg. & Htg.)
Razed: 1972

Located at what is now the west end of south wing of Physical Plant Shops and Central Stores Building

At its meeting of November 21, 1902, the Board of Trustees allocated money from the special building tax fund for "erecting a judging pavilion for Agronomy and Animal Husbandry sixty feet in diameter, two stories and veneered with pressed brick."

Construction contract was awarded in March 1903, and the building was described: "This will be of buff brick, two stories high and octagonal shape. The first floor will be occupied by the department of Animal Husbandry and the second by the Agronomy department."⁽¹⁾ In the next issue of the paper the added information was given that "there will be

(1) ISC Student, March 25, 1903

three elevated rows of seats extending entirely around the room."

At the time of his resignation in 1910, President Storms said: "This building, thoroughly equipped in every way is conceded to be the best building of its kind on the continent."(1)

In 1911 it was connected to the central heating system.

The building was razed in 1972 to make room for the new Physical Plant Shops and Central Stores Building.

AGRONOMY GREENHOUSE

Built: 1940-41 Addition: 1950-51
Architect:
Contractor: Building & Grounds Dept. (Headhouse) 1940
 Ickes-Brown Greenhouse Mfg. Co. (1950)

The proposed new greenhouse for the Agronomy Department was described in the November 15, 1940 issue of the Iowa State Daily Student:

The greenhouse, which will consist of two greenhouse units and a head house, will be located in the area north of the Collegiate Press Building and west of Central Stores. The 20-year plan of Iowa State calls for the later addition of a third greenhouse unit and construction of an Agronomy Building west of the new greenhouse.

The greenhouse units, 100 by 33 feet in size, will feature overhead heating, the latest innovation in greenhouse temperature control....

The head house, 120 by 24 feet, will connect the two greenhouse units and will contain a freezing chamber for study of winter hardiness and frost resistance of seeds....

On December 3 the paper reported that ground had been broken for construction of the greenhouse. At the September 16, 1941, Board meeting President Friley reported that the greenhouse project had been completed.

The contract for the third greenhouse wing was awarded in March 1950. Work was accepted as complete in June 1951.

A fire in January 1953 resulted in a \$2650 loss to the building and equipment.

(1) ISC Student, March 15, 1910

AGRONOMY HALL

Built: 1950-52
Architect: Dougher, Rich & Woodburn
Contractor: Olson Construction Co.

As early as 1914 a request was initiated for funds for a new building for the Agronomy Department. The estimate then was for \$100,000 for the proposed building.(1) The need was again stated two years later. In 1925 the Board asked the President "to present estimate and recommendation for the location of an agronomy building."(2) By the year 1940 the Biennial Report listed a building for the department as one of those needed "in the near future", and the Minutes for August 28, 1940, put it first on the "most urgent" list.

But it was 1945 before the 51st General Assembly allocated an appropriation of \$360,000 for an Agronomy Building, and 1947 before the architect was selected.(3) Preliminary plans were approved in December 1948 and final plans in June 1949. Bids were received and contracts awarded in January 1950.(4)

Faculty and staff moved into the building in late July and August 1952(5) and formal acceptance from the contractors came in September.

AGRONOMY LABORATORY

Antigenic Laboratory

Built: 1960-61
Architect: Tinsley, Higgins, Lighter & Lyon
Contractor: James Thompson & Sons

Lease of a site for a laboratory to be erected by the Atomic Energy commission first came to the attention of the Board at the meeting of November 19-21, 1959. A lease for the project was executed in June 1960.(6)

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- (1) Biennial Report, 1912-14
 - (2) Minutes, April 15, 1925
 - (3) Minutes, March 10-11 and May 12-13, 1947
 - (4) Minutes, February 14, 1950
 - (5) Iowa State Daily, July 11 and August 15, 1952
 - (6) Minutes, June 8-10, 1960

The building was designed as an "Antigenic Laboratory" for the study of irradiation effects on swine. The A.E.C. awarded the construction contract in June 1960, and the facility was put into use the following year.

By 1969 the A.E.C. research project had been completed, the building was conveyed to the University, and the lease was terminated.(1)

The space was then allocated for use by the department of Agronomy and the building name changed accordingly.

ALUMNI HALL

Association Building

Built: 1904-07 Additions: 1914, 1943
Architect: Proudfoot & Bird
 1914: Proudfoot Bird & Rawson
Contractor: H.W. Schleuter

The first recorded reference to the building which became Alumni Hall was in a report by President Chamberlain to the Board of Trustees at their meeting in July 1890. He proposed a building to be used by the Christian Associations and the Literary Societies, to be erected by subscription and to be called "The Welch Memorial Hall." The project was approved as presented.(2)

The IAC Student, September 4, 1890, reported "The college has long needed such a hall, and the prospect that it will be in existence before '92 seems very flattering. \$9000 is already subscribed and it is thought the fund can easily be made to reach \$25000."

During the next ten years there are references to a "Society Hall" from time to time in the student paper, but little formal action was taken until October 1901 when the Trustees approved providing a site and furnishing "heat, light, water and janitor service" for the proposed building.(3)

The first really concerted effort to raise funds began with a mass meeting of the students in March 1902.(4) Iowa Governor Cummins and

(1) Minutes, June 26-27, 1969

(2) Minutes, July 1890

(3) Minutes, October 1901 and IAC Student, October 26, 1901

(4) ISC Student, March 15, 1902

YMCA traveling secretary, E.T. Colton, and J.G. Olmsted, "a practical business man of Des Moines" were the scheduled speakers.

By the fall of 1903 sufficient progress had been made to establish that construction could begin in the near future:

On excursion day the alumni building committee met with the building committee of the proposed Christian Association Hall, and agreed to add an additional floor to the building to be used by the alumni. The estimated cost of this addition is \$15,000, which will be paid by the alumni association in addition to what individuals have already subscribed. This will make the total cost of the building \$50,000 and it has been definitely decided to place it just south of Emergency hall. Messrs. Proudfoot & Bird are now working on plans which will include all the recent changes [and if they] are completed, the contract for the foundation will probably be laid this fall. The building as now proposed will have a basement and three floors. The basement will contain a swimming pool, shower baths, lockers, bowling alleys and a cafe. The first floor entrance opens into a large reception hall which will be one of the features of the building. A library, reading rooms, leisure room, the secretary's office, and separate from these is a reception hall and a parlor for women. On the second floor is an assembly room seating four hundred and fifty-people, a kitchen, a serving room, and five smaller rooms which ordinarily will be used for bible class rooms and such purposes, but which can be thrown together into one large dining room. The third floor will be a dormitory and the rooms will be let to students during the term but reserved for the alumni during commencement here. Several rooms will be held for the use of alumni visiting during the term. The building will fill a long felt want both in the religious and the social student life and will also be a step toward a future alumni hall."(1)

The construction contract was awarded in March 1904 and excavation started soon thereafter. By September the paper could record that the Y.M.C.A. Building "is almost enclosed".(2)

A formal agreement was executed in May 1904 between the College, the Y.M.C.A. and the Alumni Association, describing the responsibilities of each of the three bodies.(3) Work did not proceed as hoped for.

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- (1) ISC Student, October 3, 1903
 - (2) ISC Student, September 10, 1904
 - (3) Minutes, May 12, 1904

On February 1, 1905, the ISC STUDENT explained:

The Y.M.C.A. building was enclosed before the holidays and since then no work has been done upon it. Everyone would like to see it finished and furnished before very long but as long as some of those who subscribed for its erection do not speed up a little more it will have to rest.

The building stood unfinished for almost two years because of lack of funds to continue construction work. An article in the ISC STUDENT of August 31, 1906 discusses the situation at that time:

We had hoped very much that at the opening of this school year the students would find the new association building well under way. This would have been the case had it not been for the arrangements which were made for the completion of the building.

The students were appealed to during the latter part of last term and responded very liberally indeed to the call, subscribing over nine thousand dollars. The Alumni association pledged fifteen thousand dollars and in raising this, Mr. Noyes, a wealthy graduate living in Chicago, was appealed to for a large gift. He would help the matter along only under the condition that the whole matter of finishing the building, making collections, etc., be turned over to him. During last commencement the committee of the Alumni association met with the Y.M.C.A. board of directors and presented the proposition of Mr. Noyes to complete the building and subscribe what was needed in addition to subscriptions already made.

The advantages of having the building completed at once and free from debt without further anxiety and expense to the board appealed to them so strongly that the following resolution was passed: "Resolved that all accounts, notes, pledges and cash that are on hand for the completion of Alumni Hall, together with the contracts, estimates and all information in regard to the same be turned over to Mr. LaVerne W. Noyes of Chicago, Ill., for the purpose of making settlement with the contractor and the completion of the building with sole authority to act for the board."

A good deal of time was required to get everything ready to be turned over to Mr. Noyes as the accounts were all audited by an expert accountant. Mr. Noyes prolonged his vacation on this account but is now expected to return to Chicago about September fifteenth. It will then be possible to receive word from him as to what immediate action can be taken.

We trust that the students will look at this in a reasonable light and bear with us in this short delay. In the end the building will be finished sooner and in better shape than could otherwise have been done.

On September 17, 1906, the paper was able to report: "Definite contract was made last week in Chicago between the Y.M.C.A. here, Mr. Noyes and contractor Schleuter by which the building will be finished as soon as men and material can be gotten here."

A year later the building was finished:

After many trials and tribulations, several years of patient waiting, the endurance of the storms of winter and the rains of summer, without doors or windows, Alumni hall, better known to us as the Y.M.C.A. building, is completed. The interior wood work finishing is of oak throughout with hard wood floors. The swimming pool is of enameled brick on both walls and bottom. The assignment of rooms has not yet been definitely made, but the first floor will be used for general purposes, the second floor as assembly room, reading rooms, Bible study room, etc. The rooms of the third floor will be rented out for living rooms or for whatever purpose they may be needed. The furniture for the building is ordered and will be installed sometime during the month of September.(1)

Late in the year a dining room was established as reported in the paper:

The dining room in the basement of the Y.M.C.A. building will be opened at the beginning of next term. The cafe is to be a thoroughly up-to-date establishment, everything being new and of the latest model. The plan on which it is to be run will be so arranged as to meet the demands of all the people. Those who want a full dinner served to them and those who want but a cup of coffee and sandwich will have found in the cafe a long felt want.

The associations are to be highly complimented in their attempt to open up a cafe upon the campus for the college has suffered a great deal of knocking on the part of visitors and business men who come here, thinking that naturally there would be a cafe of some kind on the campus and then find out about 12 o'clock after the last car has gone that they must go down town to dinner.(2)

In 1914, after opening of the new State Gymnasium swimming pool, it was decided to eliminate the pool in Alumni Hall and turn the entire basement level into dining facilities. At the same time an addition to the south of the building was built to provide new space for the kitchen.(3) This addition included the basement and first floor level

(1) ISC Student, September 2, 1907

(2) ISC Student, December 16, 1907

(3) Iowa State Student, May 9 and 23, 1914

of the south wing.

With the opening of the Memorial Union in 1928 some of the functions of Alumni Hall were changed. The dining room ("College Inn") was closed, game rooms were modified and additional study rooms and offices were provided.

During World War II Alumni Hall became the Administration Building for the Naval Training School and during that period the upper floor of the south wing was added to provide more dormitory space.(1) The Navy moved out in December 1944 and Y.M.C.A. and Y.W.C.A. operations returned to the buildings and continue now.

AMES LABORATORY SERVICE BUILDINGS

(On Campus)

A group of five small buildings stands adjacent to and parallel to the North Western tracks north of the Metals Development Building. These were all built for the Ames Laboratory, funded by the Atomic Energy Commission. The basic data is given here for the buildings rather than in the alphabetical sequence.

MECHANICAL MAINTENANCE BUILDING

Built: 1963-64
Architect: Brooks-Borg
Contractor: Caldbeck, Inc.

WAREHOUSE & SHOP

Built: 1965-66 Addition: 1969-70
Architect: Tinsley, Higgins, Lighter & Lyon
 Addition: Ames Laboratory Building & Engineering Services
Contractor: King-Bole, Inc.
 Addition: James Thompson & Sons

MAINTENANCE SHOP

Built: 1966-67
Architect: Tinsley, Higgins, Lighter & Lyon
Contractor: King-Bole, Inc.

(1) Iowa State Daily Student, February 23 and April 28, 1943

PAINT and GRAPHITE SHOP

Built: 1966-68
Architect: Brown, Healey and Bock
Contractor: Carlson-Rockey, Inc.

CONSTRUCTION STORAGE SHED

Built: 1967
Architect: Ames Laboratory Building & Engineering Services

COMPUTER GARAGE

Built: 1948
Architect: Tinsley Higgins & Lighter, and Ames Lab Bldg. &
Engr. Services
Located on north side of Physics Hall Addition

AMES LABORATORY SERVICE BUILDINGS

(At Reactor Site)

These buildings, like those on the campus, were built for the Ames Laboratory with funds furnished by the Atomic Energy Commission.

WEATHER STATION

Built: 1962
Architect: Ames Laboratory Building & Engineering Services
Contractor: Ames Laboratory

WASTE DISPOSAL FACILITY

Built: 1963
Architect: Ames Laboratory Building & Engineering Services
Contractor: Ringland-Johnson, Inc.

WAREHOUSE

Built: 1965-66
Architect: Brooks-Borg
Contractor: King-Bole, Inc.

ANDREWS-RICHARDS HOUSE

Duplex "C", Ellen H. Richards House

Built: 1955-56
Architect: Gerald I. Griffith
Contractor: Lippert Brothers, Inc.

This third duplex house for Home Management had been considered even before the first two were built, but it was late in 1954 before financing as part of the dormitory system was arranged.(1) Schematic plans by Professor Wolf were approved and the architect was selected in February 1955.(2)

Construction started in September 1955 and was completed a year later in time for the opening of the fall quarter. The September 22, 1956, Iowa State Daily reported:

This duplex includes several economy measures such as no fireplaces in the living rooms, but one fireplace in the single recreation room to be used by both groups, and a classroom, which is in a new idea, to be used by the group for studying and by the department as an extra classroom....

Among the many objectives of the home management program is to help the home economics student get an integrated view of home-making responsibilities and to learn to make decisions on how to use time, money, and other resources to accomplish desired goals."

In September 1957 the house name was changed from Duplex "C" to Ellen H. Richards house, named for the first president of the American Home Economics Association. In December 1962 the east unit retained the name and the west unit became the Benjamin R. Andrews House, named for the early 1900's editor of the AHEA journal.(3)

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- (1) Minutes, October 14-15, 1954
 - (2) Minutes, February 10-11, 1955
 - (3) Iowa State Daily, December 12, 1962

APIARY

Built: 1916
Moved to Bee Farm: 1924

A honey and bee house was authorized for the Entomology Section of the Agricultural Experiment Station at the October 11, 1916, meeting of the Board. A small building called "Apiary" appears on the 1921 campus map, located just north of Osborn Drive about on a line with what is today the west side of Davidson Hall. It appears to have been about 10 x 15 feet in size (if drawn to reasonably accurate scale on that map).

In the spring of 1924 authorization was given to move "the smaller bee house used by the experiment station to the new bee farm (the Kimble ten acres), as soon as convenient."(1)

The Apiary was shown on the building list from 1918 to 1924 with a valuation of \$167. There is no subsequent record of its value or even its existence on the Apiary farm (Kimble acreage on Arbor Street -- now referred to as Farm Maintenance area).

ARMORY

Built: 1920-21 Burned: 1922 Rebuilt: 1923
Architect: Proudfoot, Bird & Rawson
Contractor: Supt. Thos. Sloss
Addition: 1941
Major remodeling: 1955-56
Architect: Brooks, Borg
Contractors: Structural Steel: Pittsburgh-Des Moines Steel Co.
 General: Lippert Brothers, Inc.

The earliest reference to an Armory was found in the May 1871 minutes of the Board of Trustees when a motion was carried to ask for \$500 for the erection of an armory. What was in the minds of the Board members then cannot be learned. But in the Biennial Report for 1886-87 the use was expressed in detail in the "pressing needs of the College":

An armory, to be used also as a gymnasium, and on commencements, junior exhibitions and similar occasions as an assembly room, instead of our chapel in the main building, small and overcrowded. Military tactics and drill are by law required in this College as a part of our course of study. To make the instruction most valuable mentally, and the drill most effective physically, daily

(1) Minutes, May 21, 1924

practice is needed, which is impossible in severe and stormy weather without a suitable armory. This building can be utilized as above indicated for other valuable purposes....A building 60 x 100 feet, of brick, with self-supporting roof and asphalt or cement floor, and sufficient for our needs, can be built for about ten thousand dollars. I can see no good reason why the State should not provide one, since it is essential to giving properly the instruction required of us by our organic law both State and Nation.

Although similar requests were repeated in each subsequent Biennial Report (with higher cost figures recorded) it was not until 1917, that progress toward obtaining a building was actually undertaken. On March 8 of that year the Iowa State Student reported that the armory was to be built east of the gymnasium. A month later a decision had been reached to locate the armory "directly west of the Chemistry Bldg., the long axis being north and south."(1) The architect was asked in June to prepare plans for armories at Iowa State and at the State University, "the buildings to be alike and the dimensions of each to be 150 ft. by 300 ft."(2) In September all activity on the two armories was postponed because of escalating materials costs, especially steel, resulting in inadequate appropriations for the buildings.(3)

It was 1919 before further steps were taken to obtain the armory. On July 23 of that year the Board Minutes show that the architect was asked to

prepare plans for an armory at the I.S.C.; said armory to consist of a drill shed and steel arches which are to be built after the most economical design for a clear span of 150 feet, the length of the drill shed to depend upon the money available (\$125,000) which amount shall include space for offices, shooting galleries, recitation rooms, storage space, etc., and care for all heating, plumbing, lighting and tunnels necessary to complete the building for use.

Bids for the steel trusses were taken and a contract was awarded on September 19, 1919 to McClintic Marshall Co. of Pittsburgh, on the basis of their low bid of four received. The bid assumed a building

(1) Minutes, May 11-12, 1917

(2) Minutes, July 6, 1917

(3) Minutes, September 13-14, 1917

150 feet wide and 210 feet deep.(1) No general contract was awarded. Supt. of Grounds, Thomas Sloss, was appointed to take charge of construction and to receive bids for and purchase all necessary materials. Excavation started about the first of February in 1920, and construction was completed in the fall of 1921.

The night of December 16, 1922, the Armory was gutted by a major fire. In addition to the building loss more than \$150,000 of army equipment was destroyed by the blaze. A charge of arson was filed but lack of evidence resulted in no sentencing on that charge. Actual cause of the fire was never conclusively determined.

Rebuilding started as soon as spring weather conditions permitted, and after the State Legislature appropriated \$125,000 for the purpose(2) Work was completed in the spring of 1924.

Between 1925 and 1930 several schemes were proposed for building an addition to the west side of the building to balance the extension on the east, but none of those suggestions materialized until 1941 when, with funds from the Works Progress Administration, an addition was constructed along the full west side of the building at a cost of \$47,000.(3)

Home basketball games were transferred from State Gymnasium to the Armory in the 1946-47 season, allowing for much greater spectator space.(4) Fifteen hundred seats were added the following season to raise the capacity to 7500. A new hardwood floor was installed in the fall of 1948.(5)

In May, 1955, an appropriation of \$150,000 was made for remodeling the Armory. The architect was appointed in June and construction contracts were awarded in October. Structural steel work was accepted in May and the other contracts in September of 1956. That work increased the seating capacity to 8500 and improved the main and subsidiary exits; the ventilating system was improved and roof repairs made. Final cost of this work came to \$202,500. Further improvements were made in 1960-62, especially on the heating and ventilating systems and for roof repairs.

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- (1) Minutes, October 8, 1919
 - (2) Iowa State Student, March 26, 1923
 - (3) Iowa State Daily Student, January 4, 1941
 - (4) Iowa State Daily Student, October 17, 1946
 - (5) Iowa State Daily, October 20, 1948