

United States Department of the Interior
National Park Service

For NPS use only

National Register of Historic Places
Inventory—Nomination Form

received MAY 30 1985
date entered JUN 27 1985

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Agricultural Engineering

and/or common N/A

2. Location

street & number 460 Henry Mall, University of Wisconsin Campus not for publication

city, town Madison vicinity of

state Wisconsin code 55 county Dane code 025

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input checked="" type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input checked="" type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input type="checkbox"/> museum
			<input type="checkbox"/> park
			<input type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input type="checkbox"/> scientific
			<input type="checkbox"/> transportation
			<input type="checkbox"/> other:

4. Owner of Property

name University of Wisconsin, Board of Regents

street & number 1860 Van Hise Hall

city, town Madison vicinity of state Wisconsin 53706

5. Location of Legal Description

courthouse, registry of deeds, etc. Register of Deeds, Dane County Courthouse

street & number 201 Monona Avenue

city, town Madison state Wisconsin 53706

6. Representation in Existing Surveys

title Madison Campus Architectural Historical and Archeological Survey
has this property been determined eligible? yes no

date 1978 federal state county local

depository for survey records Dept. of Planning and Construction, University of Wisconsin

city, town Madison state Wisconsin

7. Description

Condition

excellent
 good
 fair

deteriorated
 ruins
 unexposed

Check one

unaltered
 altered

Check one

original site
 moved date _____

Describe the present and original (if known) physical appearance

Located at 460 Henry Mall on the University of Wisconsin Madison campus, the Agricultural Engineering building is a two-story Georgian Revival structure built of red brick in running stretcher bond with a raised rusticated basement and a concrete foundation. The main (east) facade overlooks Henry Mall, while Linden Drive borders the north facade. The Agricultural Journalism building lies to the south and the Biophysics-Molecular Biology Lab to the west. Rectangular in shape, the Agricultural Engineering building measures 150 feet along the east and west facades and forty-five feet along the north and south facades. The symmetrical exterior features brick quoins, a modillioned cornice with dentils, and central projecting pedimented pavilions on each of the north, south, and east facades. Each pavilion has quoins and returned eaves, and is accented with a large multi-paned semi-circular window, evoking a fan light, at second story level. A flight of exterior concrete steps rises from Henry Mall to the main entrance, located in the east facade pedimented pavilion. Double entrance doors are set deep in the paneled wood jamb, above which is a transom whose muntins form multiple roman window motifs. Rusticated columns highlight the pedimented architrave, each column supporting an abbreviated entablature and pier. Below the pediment is a panel inscribed "AGRICULTURAL ENGINEERING." On the west facade there are two single doors and one pair of double doors, at basement level. A garage door appears on the south facade. The windows on the Agricultural Engineering building are double-hung sash, regularly spaced. Those at first story level have flat brick arches with pronounced keystones, and stone sills. A simple brick chimney rises at either end of the hipped red tile roof.

The Department of Agricultural Engineering has been in residence in the building since its completion in 1907.¹ The building was remodeled in 1968,² at which time modern lighting and resilient floor tiles were installed throughout, and a second floor room subdivided into offices. The plan consists of a central corridor running north-south, with a series of rooms opening onto it. The walls and ceilings have a plaster finish. A concrete staircase is located at the north end of the corridor, an elevator at the south end. The vestibule lies perpendicular to the corridor and has flooring, wainscoting, and a short flight of steps of gray marble. On the north wall is a small bronze plaque which reads "AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS FOUNDED IN THIS BUILDING DECEMBER 27, 1907." Above, the ceiling is enriched with dentils and an egg-and-dart molding. The Agricultural Engineering building has suffered minimal exterior and interior alteration, and retains a high degree of architectural integrity.

¹Gordon D. Orr, ed., "Perspectives of a University," (Madison, Wisconsin: University of Wisconsin, 1978), p. 65.

²Ibid.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input checked="" type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates	1907 ⁶	Builder/Architect	Arthur Peabody ⁶
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Statement of Significance (in one paragraph)

Period of significance: 1907–1935

The University of Wisconsin College of Agriculture was established in 1889,¹ and has earned an international reputation for excellence in many fields. The development of the College of Agriculture can be divided into two periods, the first associated with Dean William Arnon Henry, the second with Dean Harry Luman Russell. Henry was appointed first dean of the College of Agriculture in 1889.² His administration represents the pioneering era in the development of the college. During this era, research and extension were emphasized, and the college gained prominence in dairy science, agricultural physics, and horticultural physics, and horticulture. Research quickly became the basis of the university's contribution to agriculture, combining scientific investigations with practical applications in an effort to gain the confidence of the state's farmers. Extension served to disseminate the information gathered, through the Farmers' Institutes, highly popular two-day traveling workshops. Henry also initiated the Short Course in Agriculture (1886) and the Dairy Course (1890), each a twelve-week winter session, held during farming's slowest season to enable farmers to attend the university.³ Both courses were influential, attracting farm youth from all over the state, and were much imitated throughout the United States and abroad. The success of the courses demonstrated that in order to attract students, agricultural education needed to be practical, and geared toward the interests of farm youth. This experience led Dean Russell to reorganize the four-year Bachelor of Science course, which had suffered from a lack of students during Henry's tenure.⁴ Russell was appointed dean in 1907.⁴ Under his administration, the construction of buildings for the College of Agriculture diminished, while extension was enlarged, research diversified, and the teaching program grew steadily, with the addition of many new subjects and departments. New ground was broken in such fields as bacteriology, plant pathology, genetics, and the economic and social aspects of farming. Through Russell's efforts, the modern College of Agriculture was established.

Currently only one building associated with the College of Agriculture is listed on the National Register; the Agriculture Dean's Residence (1897). Nine others are in the process of being nominated; seven from Henry's administration; and two from Russell's. These buildings are Hiram Smith Hall (1892), King Hall (1894), the Dairy Barn (1897), the Horse Barn (1899), the Agriculture Heating Station (1901, also known as the Agricultural Bulletin building), Agriculture Hall (1903), the Agricultural Engineering building (1907), the Stock Pavilion (1908), and Agricultural Chemistry (1912, also known as Biochemistry).⁵

The Agricultural Engineering building has statewide significance in the field of engineering. The Department of Agricultural Engineering has dedicated itself to the development of engineering technology for agricultural use to serve the farmers of the state. Contributions made by Edward Richard Jones and Floyd Waldo Duffee, both nationally prominent University of Wisconsin agricultural engineers, are particularly noteworthy. The Agricultural Engineering building was also the site

9. Major Bibliographical References

Curti, Merle and Vernon Carstensen. The University of Wisconsin: The History 1848-1935, Madison, Wisconsin: University of Wisconsin Press, 1949.
 Grover, Wilbur H. Farm and College. Madison, Wisconsin: University of Wisconsin Press, 1952.

10. Geographical Data

Acreage of nominated property Less than one

Quadrangle name Madison West

Quadrangle scale 1:24000

UTM References

A	<u>1</u> <u>6</u>	<u>3</u> <u>0</u> <u>3</u> <u>7</u> <u>6</u> <u>0</u>	<u>4</u> <u>7</u> <u>7</u> <u>1</u> <u>7</u> <u>2</u> <u>0</u>	B	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>
	Zone	Easting	Northing		Zone	Easting	Northing
C	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	D	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>
E	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	F	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>
G	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>	H	<u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>	<u> </u> <u> </u> <u> </u> <u> </u>

Verbal boundary description and justification Part of the SW 1/4 of Section 15, Township 7N, Range 9E, City of Madison, Wisconsin. A parcel of land on Henry Mall, beginning at the southwest curb at the corner of Henry Mall and Linden Drive, then 195 Feet S, 90 Feet W, 195 Ft. N and 90 Ft. E. to Point of Origin.

List all states and counties for properties overlapping state or county boundaries

state	code	county	code

11. Form Prepared By

name/title E.L. Miller, Research Technician

organization Historic Preservation Div. SHSW date December 1984

street & number 816 State Street telephone (608) 262-2971

city or town Madison state Wisconsin 53706

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature *E.L. Miller*

title DIRECTOR OF HISTORIC PRESERVATION

date MAY 6, 1985

For NPS use only

I hereby certify that this property is included in the National Register

for Melores Bryan
 Keeper of the National Register

Entered in the
 National Register

date 6/27/85

Attest:

date

Chief of Registration

United States Department of the Interior
National Park ServiceNational Register of Historic Places
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Agricultural Engineering Item number 8

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of the founding of the American Society of Agricultural Engineers in 1907, and briefly housed the infant Department of Wildlife Management following its establishment in 1933 by Aldo Leopold. Designed by Arthur Peabody, then Supervising Architect of the University of Wisconsin, the Agricultural Engineering building is of local architectural significance.

Engineering

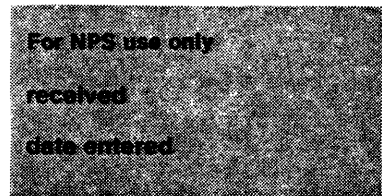
The Agricultural Engineering building was constructed for the Department of Agricultural Engineering in 1907.⁶ Founded in 1904, the department has acted as a service organization for farmers of the state, designing farm apparatus to serve new functions created, as new practices have been developed from ongoing research conducted by the College of Agriculture. Edward Richard Jones (1882-1937), a nationally prominent drainage engineer, carried out soil erosion investigations in the Agricultural Engineering building which led to many advances in drainage and erosion control.⁸ Born in Bangor, Wisconsin, Jones was educated at the University of Wisconsin, appointed Instructor of Agricultural Engineering in 1905, and served as chairman of the department from 1918 until his death.⁹ Floyd Waldo Duffee (1893-1982) succeeded Jones to the department chairmanship.¹⁰ Appointed Instructor of Agricultural Engineering in 1918, Duffee was born in Indiana and graduated from Ohio State University.¹¹ Duffee was a leader in rural electrification studies, in 1924 establishing the Ripon Experimental Electrical Line in cooperation with the Wisconsin Utilities Association, serving six farms.¹² In 1927 Duffee designed the first forage harvester, whose commercial variants quickly became indispensable to modern livestock farms.¹⁴ The following year Duffee and A.H. Wright of the Agronomy Department devised a hot-air seed corn dryer, subsequently used universally in seed corn producing areas.¹⁶ Under Duffee's direction, the Department of Agricultural Engineering developed cooled and ventilated storage buildings, large capacity trench silo designs of tilt-up and cast-in-place concrete, and in 1943, initiated the first state farm safety program in the United States.¹⁷

On December 27, 1907 the American Society of Agricultural Engineers (ASAE) held its first meeting, in the Agricultural Engineering building.¹⁸ Established "to promote the art and science of engineering as applied to agriculture," the ASAE has become the international focus for agricultural engineering technology.¹⁹ The ASAE has codified agricultural engineering technology as it has developed, and has helped establish standardization in the field.

In 1933 the Department of Wildlife Management (now Wildlife Ecology) was established at the University of Wisconsin by internationally renowned ecologist and philosopher Aldo Leopold (1866-1948),²⁰ and located in the agricultural engineering building during the first two years of its existence.²¹

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Architecture

The Agricultural Engineering building represents a good local example of the Georgian Revival Style, with its modillioned cornice, projecting pedimented entrance pavillion, and fanlight motif. Designed by Arthur Peabody, then Supervising Architect of the University of Wisconsin, it is one of the first structures on campus with a reinforced concrete frame. (21) Although minor alterations have been made to the west (rear) facade, the neo-classical character of the Agricultural Engineering building is unimpaired.

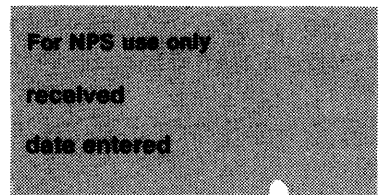
Arthur Peabody (1858-1942) was born in Eau Claire, Wisconsin and studied architecture and engineering at the University of Illinois, graduating in 1882. (22) During the 1880's Peabody was employed with various architectural firms in Chicago, opening his own office in that city in the early 1890's. In 1905 Peabody was appointed Supervising Architect of the University of Wisconsin, designing and/or overseeing the construction of some sixty buildings over the thirty years of his association with the university. Peabody was appointed Wisconsin's first State Architect in 1915; in that capacity he continued to direct much of the construction undertaken at the university until his retirement in the late 1930's. Peabody's name is identified with numerous state buildings, hospitals, schools, asylums, and penal and charitable institutions. (23)

Sited on the Beaux Arts planned Henry Mall, the Agricultural Engineering Building blends nicely with the Agricultural Journalism and Biochemistry buildings in terms of the common use of materials, scale and overall massing to create a dramatic enclave of educational buildings on the University campus.

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- 1 Merle Curti and Vernon Carstensen, The University of Wisconsin: The History 1848-1925, (Madison, Wisconsin: University of Wisconsin Press, 1949), II;376.
 - 2 Ibid.
 - 3 Ibid., II:375.
 - 4 Ibid., II:400.

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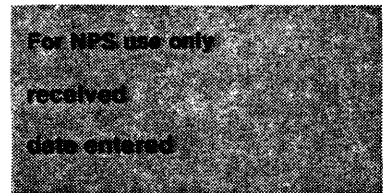
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- 5 Gordon D. Orr, ed., "Perspectives of a University," (Madison, Wisconsin: University of Wisconsin, 1978) , pp. 65-73.
- 6 Ibid., p.; 63.
- 7 Ibid., p. 104.
- 8 "Professor E.R. Jones Dies Suddenly at His Home," Capital Times (Madison, Wisconsin) 22 October 1937.
- 9 Ibid.
- 10 "Floyd Waldo Duffee," vertical file, Steenbock Library, College of Agriculture.

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¹¹Ibid.

¹²Ibid.

¹³Ibid.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Ibid.

¹⁷Ibid.

¹⁸Robert E. Stewart, Seven Decades That Changed America: A History of the American Society of Agricultural Engineers 1907-1977, (St. Joseph, Michigan: American Society of Agricultural Engineers, 1979), p. 2.

¹⁹Ibid., p. 3.

²⁰Concise Dictionary of American Biography, (New York: Scribner, 1980), p. 561.

²¹Gordon D. Orr, op.cit., p. 80.

²²Henry F. Withey and Elsie R. Withey, Biographical Dictionary of American Architects (Decased), P. 461.

²³Ibid.

²⁴Among the other Georgian Revival designs found on the UW campus includes: the Agricultural Journalism building; the Ag. Chemistry building; Agronomy Building; and the Old Forest Products Laboratory.

6. Representation in Existing Surveys

Title: Wisconsin Inventory of Historic Places	Determined eligible: no
Date: 1984	State level survey
Depository:	State Historical Society of Wisconsin
	816 State Street
	Madison, WI 53706

AGRICULTURAL ENGINEERING
460 HENRY MALL
UNIVERSITY OF WISCONSIN
MADISON, WISCONSIN
SCALE: ONE INCH = 100 FEET

