Capsule Summary PG:62-83

Building 203A – Swine Pens USDA Bureau of Engraving and Printing EIS Beltsville, Prince George's County, Maryland 1972

Building 203A was constructed in 1972 and used as swine pens on the Central Farm within the U.S. Department of Agriculture's (USDA) Agricultural Research Service's Beltsville Agricultural Research Center (BARC). It was built in an area used by the Bureau of Animal Industry (BAI). A chain link fence surrounds the area thus only the south and west sides of Building 203A were visible from the fenced enclosure; aerial photography supports the description. Building 203A is an irregular, single-story structure oriented on an east-west axis with a split, side-gabled metal post-supported roof that is covered in sheet metal. The structure has a central section that is approximately 35' long and 28' wide flanked by subordinate wings that are each approximately 50' long and 18' wide; each wing has six paddocks appended to its south side (Google 2019). Building 203A has concrete block end walls and wood-framed walls clad in vertical wood plank siding. It is similar in design to the adjacent Building 203B. The steel post spacing appears to support the existence of covered stalls the same width as the exterior paddocks and an internal corridor along the north side of the structure. Building 203A is in fair condition and did not appear to be an active resource at the time of this survey.

Building 203A is located on BARC's 2,980-acre Central Farm, the largest and oldest of all of BARC's farms. The USDA acquired the Central Farm in stages between 1910 and 1939; most of the buildings and landscape of the Central Farm were developed between 1911 and 1944. During the 1920s, the BAI's Animal Husbandry Division led the continued development of the site and was the largest section (i.e., in terms of both areas occupied and staff) at BARC. The division's research initially focused on the breeding of all domestic animals, except dairy (Robinson and Associates 1998). The BAI transferred other divisions to BARC during the late 1920s and early 1930s using New Deal funding sources at the Central and East Farms; the Swine Research unit was relocated from the Central Farm to the East Farm during the period between 1938 and 1942 (Robinson and Associates 1998). Over the years, the BAI's Animal Husbandry Division undertook critical poultry and swine research that improved the size and health of the farm animals; the BAI's researchers conducted important research at BARC that led to major improvements in eradicating and treating contagious diseases in farm animals, reducing parasite infestations, and improving nutrition.

In 1997, BARC determined eligible for individual listing in the National Register for Historic Places (NRHP) as the largest national research facility for the USDA and for its role as the most diversified agricultural research complex in the world. Building 203A is a contributing property within BARC under Criterion A at the national level for its historical association with agricultural experimentation.

# MARYLAND HISTORICAL TRUST DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes \_\_\_\_

no \_\_\_

Property Name: Building 203A: Swine Pens	Inventory Number: PG:62-83
Address: 10300 Baltimore Avenue Building 203A, Central Farm, Beltsville Agricultural Research Center	Historic district: X yes no
City: Beltsville Zip Code: 20705	County: Prince Georges
JSGS Quadrangle(s): Beltsville	
Property Owner: U.S.A U.S. Department of Agriculture (USDA)	Tax Account ID Number: 01-0070151
Tax Map Parcel Number(s): 0143 Tax Map Num	nber: 0019
Project: Bureau of Engraving and Printing EIS Agen	ncy: USACE-Baltimore District
Agency Prepared By: AECOM	
Preparer's Name: Kisa Hooks	Date Prepared: 7/15/2020
Documentation is presented in: MIHP Form, PG:62-14	
Preparer's Eligibility Recommendation: X Eligibility recommende	d Eligibility not recommended
Criteria: X A B C D Considerations: A	_BCDEFG
Complete if the property is a contributing or non-contributing resour	rce to a NR district/property:
Name of the District/Property: Beltsville Agricultural Research C	enter
Inventory Number: PG:62-14 Eligible: X y	yes Listed: yes
Site visit by MHT Staff yesX no Name:	Date:
Description of Property and Justification: (Please attach map and photo)  The U.S. Department of Agriculture's (USDA) Agricultural Research Service's (BARC) was one of the largest agricultural research facilities in the United State facility was established in Beltsville in 1910 and significantly expanded in the 1 research program began evolving from an internationally recognized research cowas re-designated as a regional center. BARC's period of significance ranges from regional center in 1984.  BUILDING LOCATION  BARC identifies the address of Building 203A as 10300 Baltimore Avenue, Building 203A approximately 1,637 feet north-northwest of the significance ranges from the significance t	(ARS) Beltsville Agricultural Research Center es (Figures 1 and 2). Owned by the USDA, the 930s and 1940s. In the 1960s, the USDA's enter to a decentralized model. In 1984, BARC om its inception in 1910 to its reclassification as a ilding 203A, Central Farm. Building 203A is
Description of Property and Justification: (Please attach map and photo)  The U.S. Department of Agriculture's (USDA) Agricultural Research Service's (BARC) was one of the largest agricultural research facilities in the United State facility was established in Beltsville in 1910 and significantly expanded in the 1 research program began evolving from an internationally recognized research cowas re-designated as a regional center. BARC's period of significance ranges from regional center in 1984.  BUILDING LOCATION  BARC identifies the address of Building 203A as 10300 Baltimore Avenue, But	(ARS) Beltsville Agricultural Research Center es (Figures 1 and 2). Owned by the USDA, the 930s and 1940s. In the 1960s, the USDA's enter to a decentralized model. In 1984, BARC om its inception in 1910 to its reclassification as a ilding 203A, Central Farm. Building 203A is
Description of Property and Justification: (Please attach map and photo)  The U.S. Department of Agriculture's (USDA) Agricultural Research Service's (BARC) was one of the largest agricultural research facilities in the United State facility was established in Beltsville in 1910 and significantly expanded in the 1 research program began evolving from an internationally recognized research of was re-designated as a regional center. BARC's period of significance ranges from regional center in 1984.  BUILDING LOCATION  BARC identifies the address of Building 203A as 10300 Baltimore Avenue, Building 203A as	(ARS) Beltsville Agricultural Research Center es (Figures 1 and 2). Owned by the USDA, the 930s and 1940s. In the 1960s, the USDA's enter to a decentralized model. In 1984, BARC om its inception in 1910 to its reclassification as a ilding 203A, Central Farm. Building 203A is of its eastern intersection with Powder Mill Road.
Description of Property and Justification: (Please attach map and photo)  The U.S. Department of Agriculture's (USDA) Agricultural Research Service's (BARC) was one of the largest agricultural research facilities in the United State facility was established in Beltsville in 1910 and significantly expanded in the 1 research program began evolving from an internationally recognized research of was re-designated as a regional center. BARC's period of significance ranges from regional center in 1984.  BUILDING LOCATION  BARC identifies the address of Building 203A as 10300 Baltimore Avenue, Building 203A as	(ARS) Beltsville Agricultural Research Center es (Figures 1 and 2). Owned by the USDA, the 930s and 1940s. In the 1960s, the USDA's enter to a decentralized model. In 1984, BARC om its inception in 1910 to its reclassification as a ilding 203A, Central Farm. Building 203A is of its eastern intersection with Powder Mill Road.
Description of Property and Justification: (Please attach map and photo)  The U.S. Department of Agriculture's (USDA) Agricultural Research Service's (BARC) was one of the largest agricultural research facilities in the United State facility was established in Beltsville in 1910 and significantly expanded in the 1 research program began evolving from an internationally recognized research of was re-designated as a regional center. BARC's period of significance ranges from regional center in 1984.  BUILDING LOCATION  BARC identifies the address of Building 203A as 10300 Baltimore Avenue, Building 203A as	(ARS) Beltsville Agricultural Research Center es (Figures 1 and 2). Owned by the USDA, the 930s and 1940s. In the 1960s, the USDA's enter to a decentralized model. In 1984, BARC om its inception in 1910 to its reclassification as a ilding 203A, Central Farm. Building 203A is

Date

Reviewer, National Register Program

#### BUILDING DESCRIPTION

Located in the USDA ARS BARC's Central Farm (Figures 3 through 6), Building 203A (Photo 1) was built as swine pens. A chain link fence surrounds the area thus only the south and west sides of Building 203A were visible from the fenced enclosure; aerial photography supports the description. Building 203A is an irregular, single-story structure oriented on an east-west axis with a split, side-gabled metal post-supported roof that is covered in sheet metal. The structure has a central section that is approximately 35' long and 28' wide flanked by subordinate wings that are each approximately 50' long and 18' wide; each wing has six paddocks appended to its south side (Google 2019). Building 203A has concrete block end walls and wood-framed walls clad in vertical wood plank siding. It is similar in design to the adjacent Building 203B. The steel post spacing appears to support the existence of covered stalls the same width as the exterior paddocks and an internal corridor along the north side of the structure.

Building 203A is in fair condition and did not appear to be an active resource at the time of this survey.

## HISTORY OF PROPERTY

#### Central Farm

Building 203A, constructed in 1972, is located on the 2,980-acre Central Farm. The largest and oldest of all of BARC's farms, the USDA acquired the Central Farm in stages between 1910 and 1939; most of the buildings and landscape of the Central Farm were developed between 1911 and 1944. The Central Farm is located at the center of BARC and is adjacent to BARC's Linkage Farm to the west, single-family homes along Odell Road to the north, facilities associated with the U.S. Department of Health and Human Services (DHHS) and U.S. Department of State (DOS) to the northeast, the Baltimore-Washington Parkway to the east, and the City of Greenbelt to the south. The Central Farm has approximately 12 clusters of buildings situated on approximately 336 acres (of the 2,980-acre total), as well as pastures, wetlands, and forested areas used for animal husbandry, production crops, animal and plant research, and wildlife management. The USDA's Bureau of Animal Industry (BAI) has historically been the Central Farm's main user (Robinson and Associates 1998).

The USDA acquired the first portion of the Central Farm in 1910 when it purchased 475 acres of the Hall Farm for the Farm Dairy and Animal Husbandry Divisions of the BAI to establish an experimental farm. To accommodate the experimental farm's many research tasks during BARC's early period (i.e., 1910-1933), the USDA constructed laboratories, farm buildings, pastures, and staff housing. In addition, the BAI added laboratories for its Pathology and Zoological Divisions.

In the 1920s, the Bureau of Plant Industry (BPI) began to operate at BARC on approximately 425 acres of leased land that was subsequently purchased with Public Works Administration (PWA) funds in the 1930s, expanding the Central Farm (Wiser and Rasmussen 1966; USDA c. 1937). In 1924, the Farm Dairy and Animal Husbandry Divisions separated into the Bureau of Dairy Industry (BDI) and the BAI. The BDI used 190 acres for continued experiments on dairy cattle breeding, forage crop, silage, and milk research, and the BAI kept 285 acres for its animal research. By 1925, the USDA owned 1,062 acres of the Central Farm and leased about 1,000 more acres (Wiser and Rasmussen 1966). By 1933, four land purchases totaling an additional 1,381 acres further increased the Central Farm's size (USDA c. 1937, Robinson and Associates 1998).

The majority of the Central Farm was acquired under New Deal policies and funding of the 1930s, when the USDA transformed BARC into a model experiment station. A series of land acquisitions during the 1930s grew BARC to more than 12,000 acres.

MARYLAND HISTORICAL TRUST REVIEW														
Eligibility recommended				Eli	gibility not recomm	iende	d							
Criteria	n:A	Α	_B	C	D	<b>Considerations:</b>		_A	B	C	D .	E	F	G
мнт с	Comments	:												
Reviewer, Office of Preservation Services										Date				
-	R	eview	er, Nat	tional Re	egister	Program	-			Date				

With this expansion, many of the Bureaus either established, enlarged, or constructed new research facilities on the Central Farm. These included the BAI's pathology, zoology, and insecticide divisions, the Bureau of Entomology and Plant Quarantine, the Bureau of Human Nutrition and Home Economics, the Bureau of Agricultural Engineering, the Bureau of Cultural and Industrial Chemistry, and the Food and Drug Administration (Robinson and Associates 1998).

The expansion of BARC required major infrastructure improvements that were undertaken with PWA funding and oversight, and Civilian Conservation Corps (CCC) assistance and labor. A CCC camp was established on the north end of the Central Farm in 1933; eventually, four CCC camps were established at BARC, although their exact locations are not known. The CCC workers cleared and drained land, built fences and roads, and constructed small sheds and structures. The overall design of the Central Farm in the 1930s was guided by a master plan that was the work of A.D. Taylor and Delos Smith; H.F. Seahorn of the Public Buildings Administration; Robert T. Walker, CCC landscape architect; and Hugh H. Bennet of the Soil Conservation Service (Robinson and Associates 1998). The Central Farm's character-defining landscape features include:

- Topographical and anthropogenically altered features, such as major paved roads, minor service and field roads, drainage systems, Beaver Dam Creek, and graded fields;
- Vegetation features, such as field and research crops, pastures, Beltsville Seasonal Ponds, Beltsville Bottomland Forest, and meadows;
- Circulation features, such as Dairy Farm, Powder Mill, Entomology, Research, BioControl, Poultry, and Beaver Dam Roads, as well as secondary and service roads;
- Five main clusters of development, including the 100 Area Cluster (BDI), 200 Area Cluster (BAI Poultry Research Division), 300 Area Cluster (BAI Parasitological Laboratory of the Zoological Division), 400 Area Cluster (Bureau of Entomology and Plant Quarantine [BEPQ] Entomology Research Division), and 1000 Area Cluster (Animal Disease Station); and
- Small-scale features, such as fencing, culverts, an amphitheater, and a cemetery (Robinson and Associates 1998).

# Bureau of Animal Industry

The USDA's BAI, the earliest of the USDA's research bureaus at BARC, came to the Central Farm in 1910 when its Dairy and Animal Husbandry Divisions established an experimental farm within BARC's initial 475 acres. When the USDA reorganized the Dairy Division into a separate BDI, the BAI retained 285 acres of the Central Farm for its Animal Husbandry Division. During the 1920s, the BAI's Animal Husbandry Division led the continued development of the site and was the largest section (i.e., in terms of both areas occupied and staff) at BARC. The division's research initially focused on the breeding of all domestic animals, except dairy (Robinson and Associates 1998).

By the early 1930s, the BAI's Animal Husbandry Division's needs far exceeded its facilities. To address these needs, the PWA allotted over \$1 million for a major construction program at BARC that included laboratories, an abattoir (slaughterhouse), and animal buildings. These facilities were constructed at BARC with the assistance of CCC workers, with funding and oversight provided by the PWA and the Civil Works Administration. A new Main Laboratory (i.e., Building 200), constructed under this program, was the showpiece of the new animal husbandry area.

As a result of the expansion, by the mid-1930s, the BAI's Animal Husbandry Division was the largest experimental farm in the country and the center of nation's research on animal husbandry (Robinson and Associates 1998). In addition to animal husbandry, the BAI transferred other divisions to BARC during the late 1920s and early 1930s using New Deal funding sources at the Central and East Farms. The BAI's Zoological Division moved its experimental headquarters to, and the BAI's Animal Disease Station was established at BARC's Central Farm in 1929 and expanded in 1935 (Robinson and Associates 1998).

MARY	LAND HIS	ΓORICAΙ	L TRUST	Γ REVI	ŒW							
Eligibility recommended				Eligibility not recommended								
Criteri	a:A	B	C	D	Considerations:	A	B	C	D	E	F	G
MHT Comments:  Reviewer, Office of Preservation Services				on Services			Date			-		
	Rev	iewer, Na	tional R	egister	Program			Date				

In 1953, the USDA undertook a major reorganization and decentralization of the USDA's agricultural research program that continued through the 1970s (Office of Technology Assessment [OTA] 1981). The decentralization had long-lasting consequences for BARC. The department's scientific bureaus, including the BAI, were discontinued and the department's research functions were centralized under the new Agricultural Research Administration (now the ARS) (OTA 1981). The USDA again reorganized in 1972 with administrative decentralization as its goal (OTA 1981). Through this process, operating responsibility was delegated to four regions, which were then subdivided into research area centers. BARC's scientists and facilities thus became a regional research facility, rather than a national one (OTA 1981). By 1980, the USDA's research program was highly decentralized, with research undertaken at 148 locations, including the much diminished 450-scientist facility at BARC (OTA 1981).

Over the years, the BAI's researchers conducted important research at BARC that has led to major improvements in eradicating and treating contagious diseases in farm animals, reducing parasite infestations, and improving nutrition. The BAI's Animal Husbandry Division undertook critical poultry and swine research that improved the size and health of the farm animals. The BAI's Zoology Division's parasite research brought innovative new approaches to treating infestations. The BAI's Animal Disease Station developed vaccines to prevent Bang's disease and developed sterilization methods for contaminated hides (Robinson and Associates 1998).

History of the Swine Pens, Building 203A

There were no original design drawings for Building 203A on file with the USDA Bureau of Agricultural Engineering, Division of Plans and Service. However, Buildings 203A (along with adjacent 203B) is depicted on original design drawings for Building 208G, the Swine Farrowing Facility, which are dated August 14, 1974 (USDA 1974). The Building List, Central Farm table of the BARC Master Plan update confirms the 1972 date of construction for Building and its 3,072 gross square footage but provides no other building-specific information (Young 1996). As indicated by its name, it has historically been used as swine pens.

Building 203A is in fair condition.

# NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

Building 203A was evaluated in 1997 to determine the building's individual significance or status as a contributing or non-contributing property at BARC, a 6,582-acre federal agricultural research facility. BARC was determined eligible in its entirety for listing in the National Register of Historic Places (NRHP) as the largest national research facility for the USDA and for its role as the most diversified agricultural research complex in the world. That evaluation determined Building 203A to be eligible for listing in the NRHP as a contributing property within BARC. This evaluation concurs that while Building 203A is not individually significant, it contributes to the overall significance of BARC. The history and development of the agricultural research facility also reflects New Deal policies and programs, and contains notable landscape architecture, Georgian Revival architecture, and experimental agricultural architecture. The criteria applied to evaluate properties for the NRHP are presented below.

Under Criterion A, Building 203A is a contributing property within BARC, which is significant at the national level for its association with events that have made significant contributions to the broad pattern of our history with agricultural experimentation. Many aspects of twentieth century living for the farmer and consumer were influenced by the scientific research conducted at BARC. BARC is a prominent example of the federal role in agricultural research, scientific agricultural research in general, and New Deal policies and programs, such as the 1930s agricultural policies and funding, the PWA, and the CCC, which

MARYI	AND HIST	ORICAI	L TRUST	Γ REVI	<b>IEW</b>							
Eligibility recommended				Eli	gibility not recommen							
Criteria	A	B	C	D	Considerations:	A	B	C	D	E	F	G
МНТ Со —	omments:	ver, Offic	ce of Pre	servatio	on Services			Date				
_	Program			Date								

all played important roles in shaping the experimental farm. BARC's scientists and researchers have made major contributions toward scientific knowledge that have resulted in incredible advances in crop production, plant and animal disease control, and pest control. Building 203A was specifically designed and operated as swine pens within the BAI's 200 Area Cluster - Animal Husbandry Research Division. BARC scientists and researchers made valuable scientific contributions, both in foundational and applicable science.

BARC and Building 203A have not been determined significant under Criterion B for its association with the lives of persons significant in our past.

Building 203A is not significant under Criterion C. The physical appearance of BARC was strongly influenced in the 1930s by the planning team of A.D. Taylor, landscape architect, and Delos Smith, architect. The majority of BARC's buildings share a Georgian Revival style and/or display the characteristics of experimental agricultural architecture. BARC's landscape includes major paved roads, minor service roads, field and research crops, pasture lands, seasonal ponds, forests, sustainable meadows, and other landscape features and buildings. Buildings 204A's generic construction has no significant architectural design displaying the characteristics of experimental agricultural architecture. Furthermore, it was built outside of the main building campaign for BARC that featured the work of A.D. Taylor and Delos Smith in the Georgian Revival style.

Neither BARC nor Building 203A specifically has been evaluated under Criterion D for its yielding, or likelihood to yield, information important in prehistory or history.

Building 203A retains its original location and setting within an agricultural research complex. Building 203A is specifically linked in its design and operation as swine pens and its ties to the BAI's 200 Area Cluster (Animal Husbandry Research Division) research buildings. The feeling of, and association with, an agricultural research center is intact. Building 203A maintains key elements of its original design including massing, fenestration, roofing pattern, cladding, and internal layouts. Building 203A retains its integrity of design, workmanship, and materials. Building 203A is in fair condition.

Building 203A does not reach the level of significance necessary for individual listing on the NRHP although it does contribute to the significance within BARC under Criteria A.

## REFERENCES

Bernard Johnson Young Inc. (BJY)

Beltsville Agricultural Research Center 1996 Master Plan Update, Master Plan Report. September. On file, Beltsville Agricultural Research Center, Information Repository, Document Accession Number: F-01-0001.

### Google Earth

2019 Aerial Photographs of BARC Central Farm, Beltsville, MD 20705. October 18. Available on Google Earth.

Office of Technology Assessment (OTA), U.S. Food and Agricultural Research Advisory Panel 1981 An Assessment of the United States Food and Agricultural Research System. Washington, D.C.: U.S. Government Printing Office.

https://books.google.com/books?id=0Muy9v0PQckC&lpg=PA29&dq=The%20Role%20and%20Development%20of%20Public%20Agricultural%20Research&pg=PA29#v=onepage&q&f=false (accessed June 2020).

MARY	LAND HIST	ORICAI	L TRUST	revi	EW							
Eligibil	ity recommer	nded		Eli	gibility not recomme	nded						
Criteria	a:A	В	C	D	Considerations:	A	B	C	D	E	F	G
MHT Comments:  Reviewer, Office		ce of Pres	servatio	on Services			Date					
Reviewer, National Register Program								Date				

Robinson and Associates

1998 Historic Site Survey, Beltsville Agricultural Research Center, Beltsville, Maryland. On file at the Maryland Historical Trust.

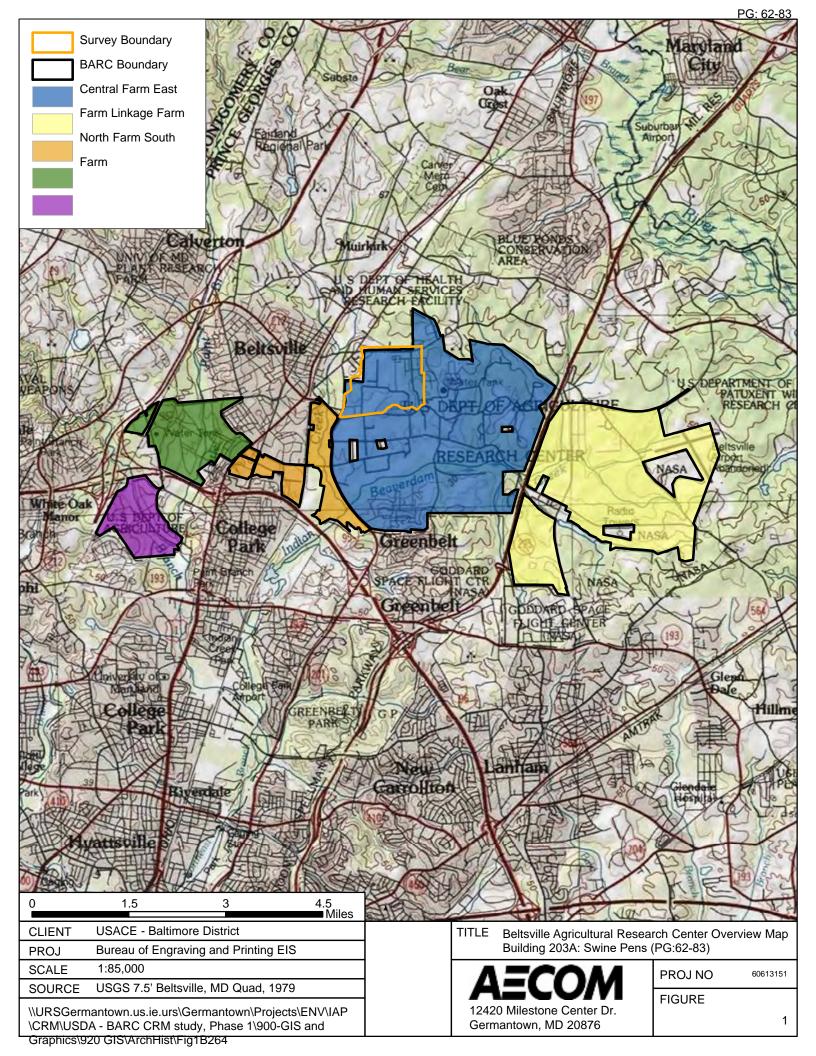
United States Department of Agriculture (USDA)

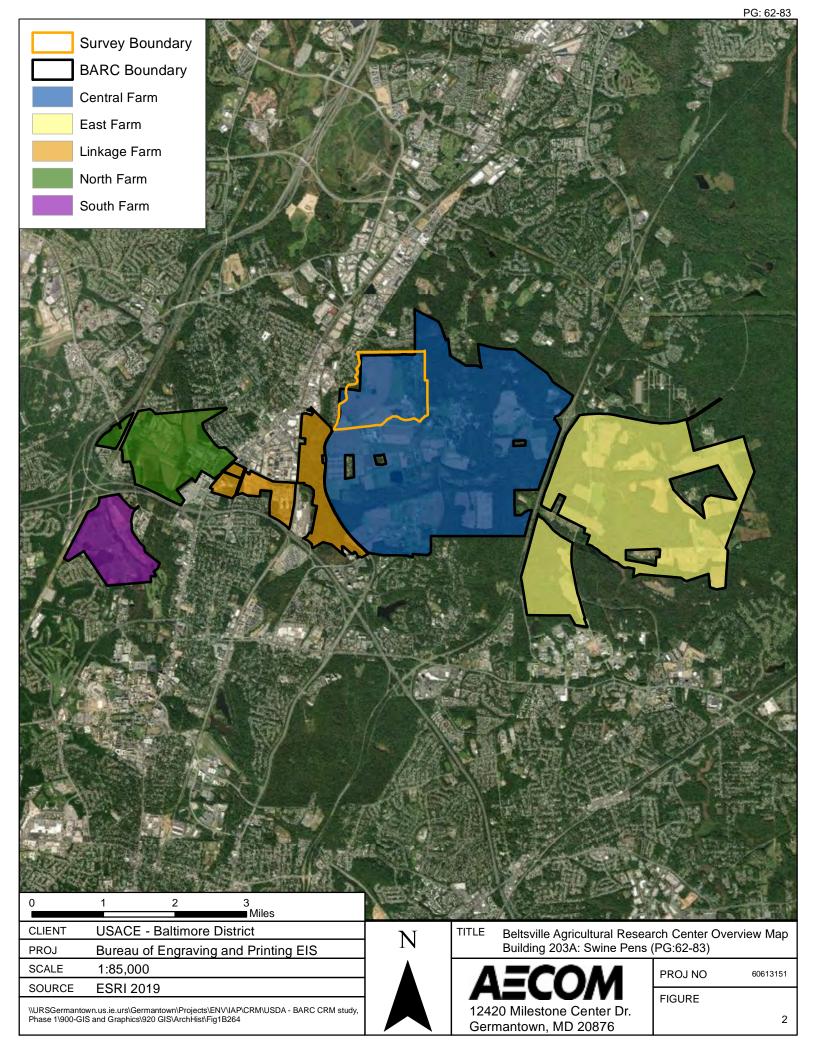
1974 ARC-East, Animal Husbandry Area. Site Plan and Utilities for New Sow Farrowing Unit, Bldg. #208G, National Agricultural Research Center, Beltsville, MD. Bureau of Agricultural Engineering, Division of Operations, ARC Engineering and Maintenance. On file, Architectural Drawings Collection, Facilities and Engineering Branch, Building 203, BARC.

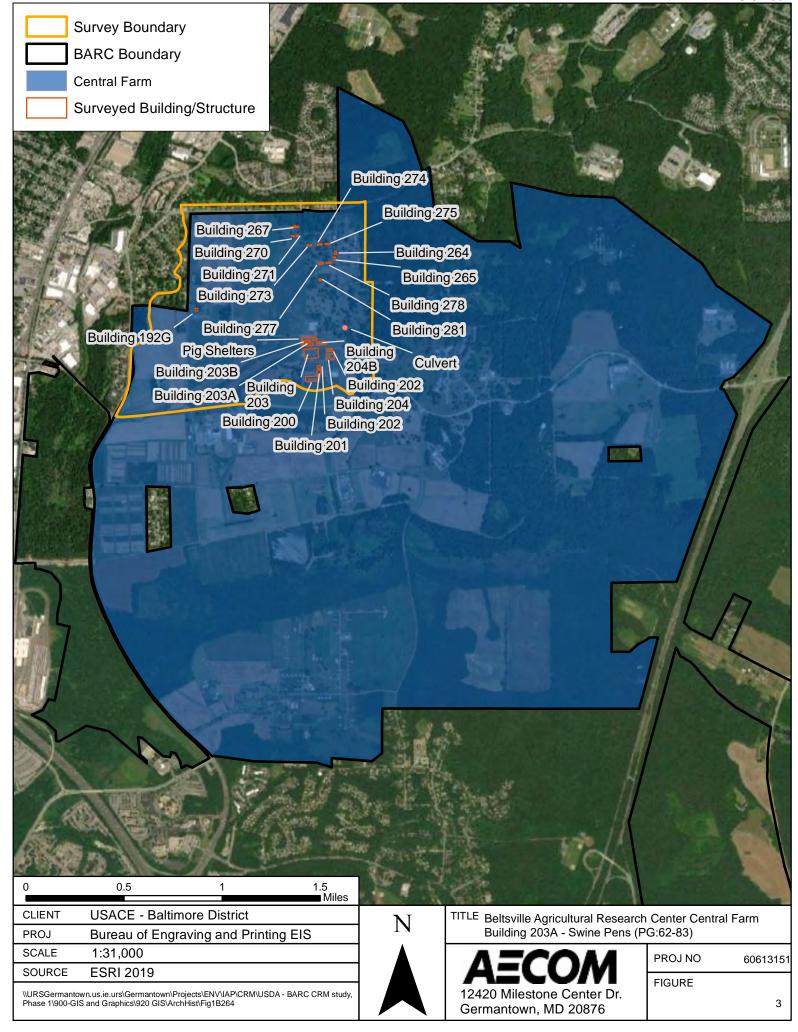
Wiser, Vivian and Wayne D. Rasmussen

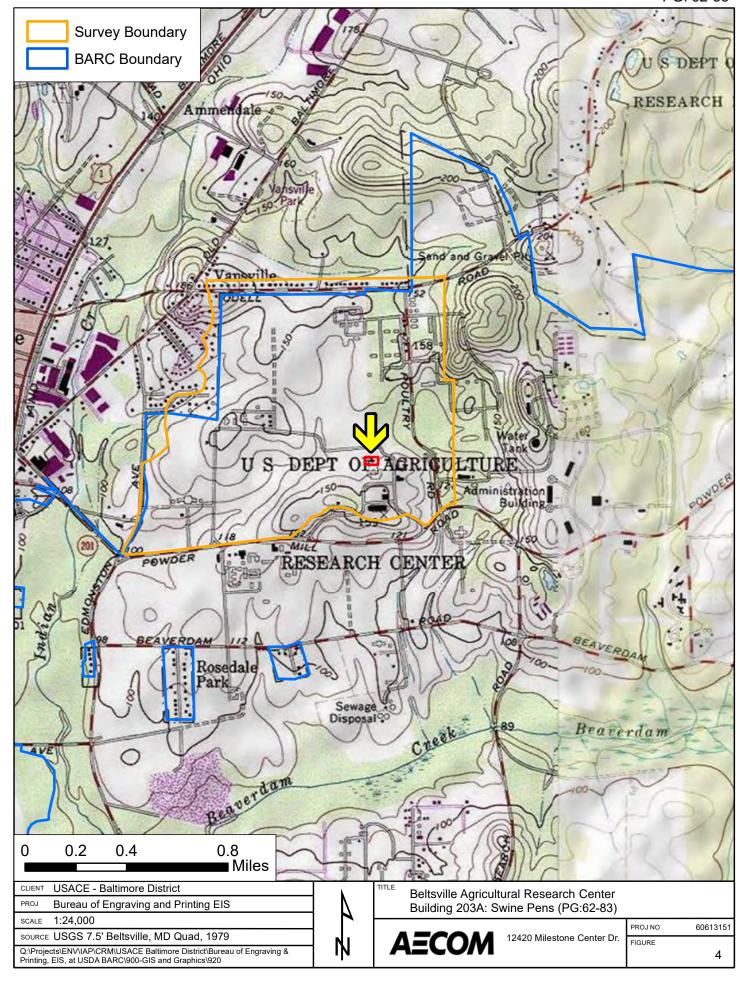
1966 "Background for Plenty: A National Center for Agricultural Research." Maryland Historical Magazine 61:4, December 1966.

MARY	LAND HIS	ΓORICA	L TRUS	Γ REVI	EW							
Eligibility recommended				Eligibility not recommended								
Criteria	a:A	B	C	D	Considerations:	A	B	C	D	E	F	G
MHT C	Comments:	wer, Offic	ce of Pre	servatio	on Services			Date				
-	Rev	iewer, Na	itional R	egister	Program			Date				









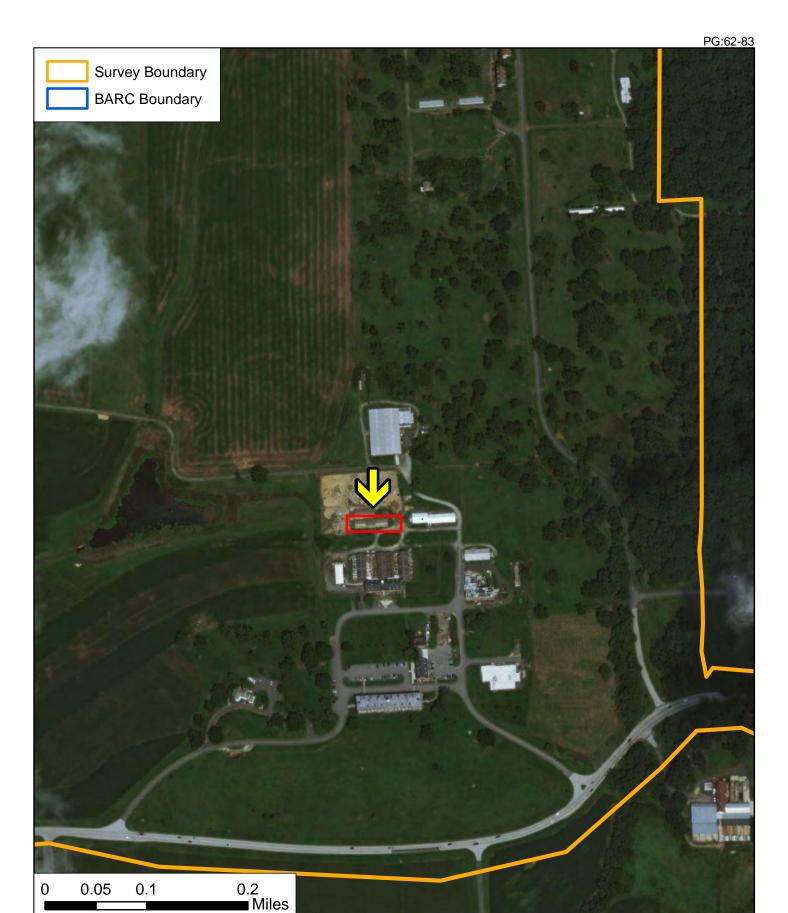


Q:\Projects\ENV\IAP\CRM\USACE Baltimore District\Bureau of Engraving & Printing, EIS, at USDA BARC\900-GIS and Graphics\920

**AECOM** 

FIGURE

5



CLIENT USACE - Baltimore District

OJ Bureau of Engraving and Printing EIS

SCALE 1:6,000

SOURCE ESRI DigitalGlobe Imagery

Q:\Projects\ENV\IAP\CRM\USACE Baltimore District\Bureau of Engraving & Printing, EIS, at USDA BARC\900-GIS and Graphics\920

N N Beltsville Agricultural Research Center Building 203A: Swine Pens (PG:62-83)



12420 Milestone Center Dr. Germantown, MD 20876

PROJ NO 60613151 FIGURE

(

Photograph Log PG:62-83

**USDA** 

**Bureau of Engraving and Printing EIS** 

**Building 203A: Swine Pens** 

10300 Baltimore Avenue, Central Farm

Prince George's County, MD

Photographer: Christina Sabol, Architectural Historian

June 6, 2020 MD SHPO

Archival Black and White Photographs and Digital Photographs for the Maryland Historical Trust.

1. PG:62-83\_2020-06-02\_001.tif, Building 203A, Animal Shelter, Central Farm, Oblique view of South Elevation, Looking Northwest



Photo 1 - Building 203A, Animal Shelter, Central Farm, Oblique view of South Elevation, Looking Northwest

CLIENT	USACE - Baltimore District
PROJ	Bureau of Engraving and Printing EIS
SCALE	-
SOURCE	AECOM
	·

Q:\Projects\EN\V\AP\CRM\USACE Baltimore District\
Bureau of Engraving & Printing, EIS, at USDA BARC\400-Technica\430 Reports\
432 Draft Deliverables\DOEs\Building 203A\Photos

TITLE Photographs
Building 203A: Swine Pens (PG:62-83)

<b>AECOM</b>
12420 Milestone Center Dr.
Germantown, MD 20876

ROJ NO	60485181
KOJ NO	6046316

FIGURE