

# HABS/HAER INVENTORY

D

U.S. Department of the Interior  
National Park Service  
Washington, DC 20240

# 233

1. SITE I.D. NO		5. ORIGINAL USE Test Building		7. CLASSIFICATION Military Research & Testing		9. RATING 3	
2. NAME(S) OF STRUCTURE Climatic Chambers Building Building 2		6. PRESENT USE Test Building				10. DATE 1955	
3. SITE ADDRESS (STREET & NO) Natick R&D Laboratories				8. UTM ZONE EASTING NORTHING		11. REGION Mid-Atl.	
4. CITY/VICINITY		COUNTY		SCALE 1:24 1:62.5		QUAD NAME	
12. OWNER/ADMIN ADDRESS U.S. Army DARCOM							

13. DESCRIPTION AND BACKGROUND HISTORY INCLUDING CONSTRUCTION DATE(S), PHYSICAL DIMENSIONS, MATERIALS, MAJOR ALTERATIONS, EXISTANT EQUIPMENT, AND INSTANT BUILDERS, ARCHITECTS, ENGINEERS, ETC.

Concrete foundation, reinforced concrete load-bearing walls. Test chambers steel plate construction. Rectangular building 232' x 190'. One story flat built-up roof. Double door, main entry north side. Industrial awning-type windows. Building has 2 climatic chambers. One arctic (east side), one tropic (west side). Steel frame & siding with wind tunnel, each with fan (cylindrical section, see photo). 400 horsepower with capacity to simulate 40 mph winds. Arctic test chamber can produce temperatures from -70°F to 70°F and the tropic test chamber can produce a temperature range of 0°F to 165°F. Humidity and radiation factors can also be controlled. Arthur E. Maghel, General Contractor.

*PL NATICK  
USOS NATICK  
SIST A*

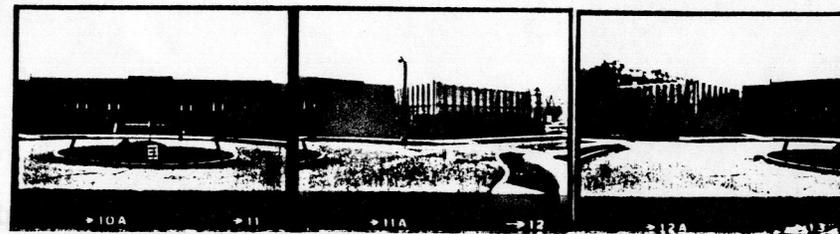
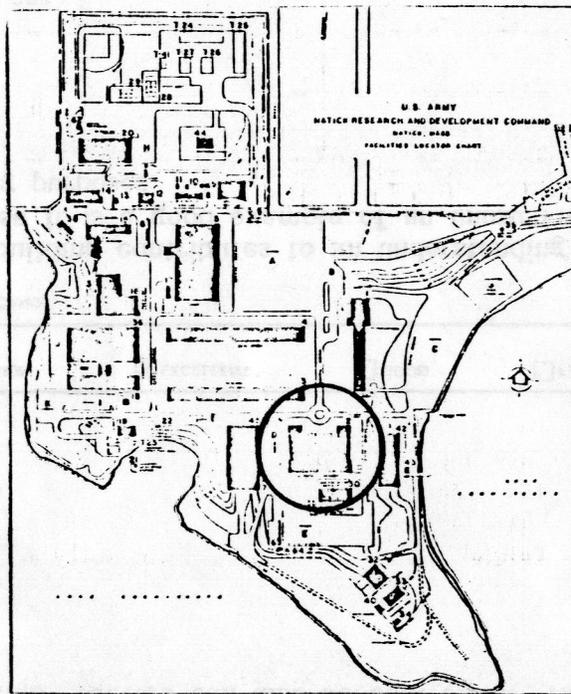
14. CONDITION  EXCELLENT  GOOD  FAIR  DETERIORATED  RUINS

15. DANGER OF DEMOLITION? (SPECIFY THREAT)  YES  NO  UNKNOWN

16. SIGNIFICANCE  
This building contributes to an understanding of the military function of Natick R&D Laboratories. It is a Category III property because it is a good example of an unusual engineering structure capable of simulating various environmental conditions for testing purposes.

NATICK

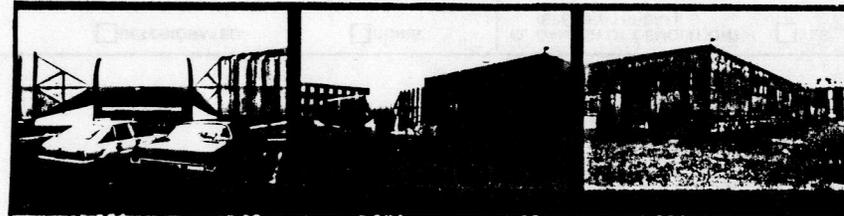
17. PHOTOS AND SKETCH MAP OF LOCATION



N ELEVATION  
1:11

NE CORNER  
1:12

NW CORNER  
1:13



W DETAIL  
1:28

SW CORNER  
1:29

SW CORNER  
1:30

18. LOCATED IN AN HISTORIC DISTRICT?  YES  NO  NAME

19. PUBLIC ACCESSIBILITY  YES, LIMITED  YES, UNLIMITED  NO  UNKNOWN

20. EXISTING SURVEYS  NR  NHL  HABS  HAER-1  HAER  NPS  STATE  COUNTY  LOCAL  OTHER

21. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER

Smalle, Daniel E. "The New QM Research and Development Center." Quartermaster Review, July-August 1952.

U.S. Army Natick Research and Development Laboratories. Analysis of Existing Facilities/Environmental Assessment Report. Natick, MA: USANL, November 1982.

U.S. Army Natick Research and Development Laboratories. Real Property Inventory. Facilities Engineering Office, Natick, MA, 1982.

22. INVENTORIED BY **David G. Buchanan and John P. Johnson** AFFILIATION **Building Technology Incorporated** DATE **April 1983**

NAT-17

# HABS/HAER INVENTORY

U.S. Department of the Interior  
National Park Service  
Washington, DC 20240

D 236

1. SITE I.D. NO		5. ORIGINAL USE Boiler House		7. CLASSIFICATION Military-Utility		9. RATING 4	
2. NAME(S) OF STRUCTURE Boiler House Building 19		6. PRESENT USE Boiler House				10. DATE 1953	
3. SITE ADDRESS (STREET & NO) Natick R&D Laboratories				8. UTM ZONE EASTING NORTHING		11. REGION Mid-Atl.	
4. CITY/VICINITY COUNTY STATE				SCALE 1:24 1:62.5 OTHER QUAD NAME			
12. OWNER/ADMIN ADDRESS U.S. Army DARCOM							

DESCRIPTION AND BACKGROUND HISTORY INCLUDING CONSTRUCTION DATE(S), PHYSICAL DIMENSIONS, MATERIALS, MAJOR ALTERATIONS, EXTANT EQUIPMENT, AND IMPORTANT BUILDERS, ARCHITECTS, ENGINEERS, ETC.

Concrete foundation, reinforced concrete load-bearing walls. Rectangular, 87'-2" x 40'-8" 2-1/2 stories with basement 85'-6" x 39'. Flat, built-up roof. 3 roof vents, industrial sash windows, double doors. Main facade faces north. Three 300 horsepower Erie City, water tube oil-fired boilers 100 p.s.i. Capable of 20,000 lbs. of steam per hour. Pumping plant in basement capable of pumping 10 million gallons of water a day. Ballinger Co, Philadelphia, PA, Architects/Engineers; George A. Fuller, Co., Boston, General Contractor.

PI - NAT  
~~U.S. Army~~  
SERVA

CONDITION  EXCELLENT  GOOD  FAIR  DETERIORATED  RUINS

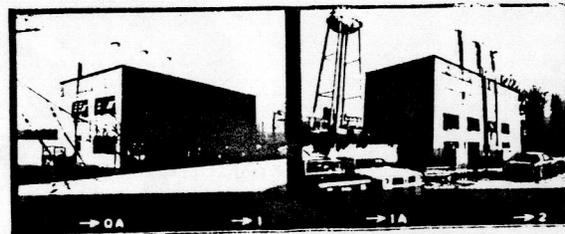
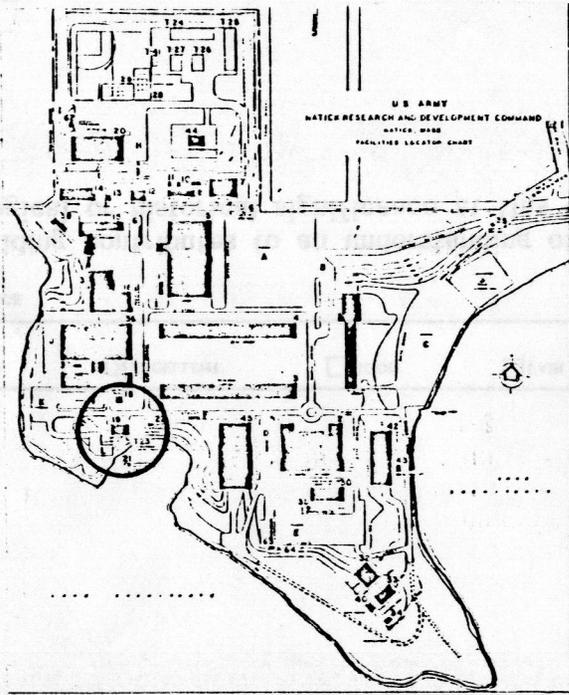
15. DANGER OF DEMOLITION? (SPECIFY THREAT)  YES  NO  UNKNOWN

16. SIGNIFICANCE

This building contributes to an understanding of activities at Natick R&D Laboratories but has no specific architectural, technological or historical significance at this time.

NAT.D

17. PHOTOS AND SKETCH MAP OF LOCATION



NE CORNER  
1:1

SW CORNER  
1:2

18. LOCATED IN AN HISTORIC DISTRICT?  YES  NO  NAME

19. PUBLIC ACCESSIBILITY  YES, LIMITED  YES, UNLIMITED  NO  UNKNOWN

20. EXISTING SURVEYS  NR  NHL  HABS  HAER-1  HAER  NPS  STATE  COUNTY  LOCAL  OTHER

21. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER

Smalle, Daniel E. "The New QM Research and Development Center." Quartermaster Review, July-August 1952.

U.S. Army Natick Research and Development Laboratories. Analysis of Existing Facilities/Environmental Assessment Report. Natick, MA: USANL, November 1982.

U.S. Army Natick Research and Development Laboratories. Real Property Inventory. Facilities Engineering Office, Natick, MA, 1982.

22. INVENTORIED BY: David G. Buchanan and John P. Johnson

AFFILIATION: Building Technology Incorporated

DATE: April 1983

NAT-10

Original yellow form: Eligibility file \_\_\_\_  
Copies: Inventory form \_\_\_\_  
Town file(w/corresp.) \_\_\_\_  
Macris \_\_\_\_  
NR director \_\_\_\_

NAT:ID

Community: Natick

**MHC OPINION: ELIGIBILITY FOR NATIONAL REGISTER**

Date Received: 1/24/97                      Date Due:                      Date Reviewed: 7/5/97

Type:           Individual                        x   District (Attach map indicating boundaries)

Name:        U.S. Army Natick Research, Development and Engineering Center

Inventory Form:   D  

Address:

Requested by: Us Army Corps of Engineers

Action:           Honor           ITC           Grant          x   R & C           Other:

Agency: US Army                      Staff in charge of Review: AJ

**INDIVIDUAL PROPERTIES**

- Eligible
- Eligible, also in district
- Eligible only in district
- Ineligible
- More information needed

**DISTRICTS**

- Eligible
- x   Ineligible
- More information needed

CRITERIA:                        A                        B                        C                        D

LEVEL:                         Local                         State                         National

**STATEMENT OF SIGNIFICANCE by AJ**

Not currently eligible because less than 50 years old. However the center possesses significance as the first center in the country that combined the study of human reaction to the environment with the study of military equipment under virtually all known climatic conditions. MHC staff recommend that the complex be reevaluated for National Register eligibility once all the buildings in the complex are fifty years old. MHC previously determined that Building 2 (Climatic Chamber building) was individually eligible for the NRHP due to engineering features that have since been recorded and since altered and removed. This building no longer retains exceptional individual eligibility, and should be reevaluated when it is 50 years old as part of this complex.

- Administration Building #1
- Climatic Chambers Building #2
- Research Building #3
- Development Building #4
- Technology Engineering Laboratory #5
- Laboratory Testing Building #7
- Hazardous Research Building #8
- Enlisted Men's Barracks #15
- Boiler Pump House #19

# Massachusetts Cultural Resource Information System

## Scanned Record Cover Page

<b>Inventory No:</b>	NAT.M
<b>Historic Name:</b>	Lake Cochituate Reservoir
<b>Common Name:</b>	
<b>Address:</b>	
<b>City/Town:</b>	Natick
<b>Village/Neighborhood:</b>	Natick
<b>Local No:</b>	1-1
<b>Year Constructed:</b>	
<b>Architect(s):</b>	
<b>Architectural Style(s):</b>	
<b>Use(s):</b>	Other Recreational; Other Water Related; Utilities Other
<b>Significance:</b>	Architecture; Community Planning; Engineering; Politics Government; Recreation
<b>Area(s):</b>	
<b>Designation(s):</b>	

Digital Photo  
Not Yet  
Available

The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (<http://mhc-macris.net/macrisdisclaimer.htm>)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site ([www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)) under the subject heading "MHC Forms."

Commonwealth of Massachusetts  
Massachusetts Historical Commission  
220 Morrissey Boulevard, Boston, Massachusetts 02125  
[www.sec.state.ma.us/mhc](http://www.sec.state.ma.us/mhc)

This file was accessed on:

Friday, November 22, 2013 at 1:27: PM

FORM A - AREA

MASSACHUSETTS HISTORICAL COMMISSION  
294 Washington Street, Boston, MA. 02108

Form numbers in this area	Area letter
1-1 1-4 1-9 1-2 1-5 1-3 1-8	1-1

Photo (3x3" or 3x5")  
Staple to left side of form

Photo number \_\_\_\_\_

Town Framingham, Natick, Wayland

Name of area (if any) \_\_\_\_\_

Lake Cochituate Reservoir

General date or period 1846-1903

Sketch map. Draw a general map of the area indicating properties within it. Number each property for which individual inventory forms have been completed. Label streets (including route numbers, if any) and indicate north. (Attach a separate sheet if space here is not sufficient)

See U.S.G.S. Maps

Recorded by Jane Carolan

Organization Louis Berger & Associates

Date January 1984

(Staple additional sheets here)

ARCHITECTURAL SIGNIFICANCE of area. (Describe physical setting, general character, and architecturally significant structures).

The only architectural element in this complex is the Cochituate Aqueduct head chamber, built 1846-1848. It is a handsome, rectangular structure of granite, with granite quoins and cornice. The original granite roof has been replaced by a metal one. The doors and windows are arched. The interior is in very poor condition now, as it has been heavily vandalized; the interior facing brick has been stripped from the north wall. The interior has a rectangular wall with 2 sets of stone stairs down to the gate and aqueduct. The chamber is in the handsome classical style of all the structures on the aqueduct and may well have set the precedent for subsequent architecture in the system, as it displays the quoins, arched doors, and rectangular shapes characteristic of most later structures.

HISTORICAL SIGNIFICANCE of area. (Explain development of area, what caused it, and how it affected community; be specific).

Lake Cochituate (originally known as Long Pond) was first considered as a water source as early as 1834. By 1845 the City of Boston, after years of consideration settled on Lake Cochituate as a source for the city. The lake is actually 3 lakes and also includes Dug, Dudley and Fisk ponds. This complex includes a granite gatehouse (1846), which is the head house for the Aqueduct. It is located on the east side of the upper lake. The present dam, built in 1890, replaced two earlier dams, the first built in 1846, the second 1859. The dam is on the west side of the upper lake. Further improvements to this water source made by the Metropolitan Water Board after taking control in 1898 include the Pegan Brook filter beds, built in 1895-1903 to filter the waste from Pegan Brook which runs through the town of Natick; and a circular dam, built in 1879, constructed during a time of low water, in Fisk Pond just south of Central Street, to keep the meadow flooded. Today the lake is a state park, the gatehouse is out of service and has been vandalized; the dam is intact, but not kept up. The circular dam is in ruins and the filter beds were destroyed in 1955 during the hurricane and filled in over the years. See also forms: Lake Cochituate, Gatehouse and Chamber, Lake Cochituate Dam, Pegan Brook Filter Beds, Circular Dam.

#### BIBLIOGRAPHY and/or REFERENCES

- Internal Report on the Sudbury River Works by Desmond Fitzgerald, Engineer, Subbury Department to F.P. Stearns, Chief Engineer, Metropolitan Water Board, 15 June 1898.
- Annual Report of Metropolitan Water & Sewerage Board 1902, 1904, 1905, 1907.
- Engineering News Record Vol. 31, 1894, 28 June, p. 532.
- Cochituate Water Board Report 185.
- Manual of American Water Works 1888, 1890.